COMPARING STUDENTS WHO DO AND DO NOT STUDY THE FINE ARTS: MENTAL HEALTH, STRESS AND TIME SPENT ON ACADEMIC WORK

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Abstract: Historic research has supported the claim that artists experience higher rates of mental illness than those who do not engage in the creative arts (Andreasen, 1987; Kyaga et al., 2011; Richards, Kinney, Lunde, Benet, & Merzel, 1988; Santosa et al., 2007; Sass, 2000). Recent research contradicts these sweeping assumptions, but still finds some support that artists have higher rates of mental illness and stress (Elias & Berg-cross, 2009; Greason, Glaser & Mroz, 2015; Young, Winner, & Cordes, 2013). College students' experiences of stress and mental illness are well documented throughout research (Archer & Lamnin, 1985; Beiter et al., 2015; Leppink et al., 2016; Murphy & Archer, 1996). Researchers do not understand the role that time spent on demanding majors, such as the fine arts, plays in stress and mental health of college students. This study attempted to fill the gaps in the research by investigating potential differences between college students studying the fine arts and those who do not with regard to overall mental health, stress, and time spent on academic work. A total of 66 students, 33 collegiate artists and 33 non artists, from a large, Midwestern university were surveyed on mental health, stress, and time spent on academic work. Two one-way ANOVAs were used to investigate potential differences in mental health as measured by the Outcome Questionnaire 45.2 and stress as measured by the Perceived Stress Scale. Neither model was significant and there were no significant differences between groups in overall mental health ($F(1,64) = 1.701$, $p = .197$) or stress ($F(1, 64) = 1.679$, $p = .200$). A one-way MANOVA analysis was used to assess time spent on academic work and the model was found to be significant ($F(4, 64) = 2.917$), $p = .021$). These findings suggest that although there were no statistically significant differences between artists and their non-artistic peers in mental health and stress, these groups did spend different amounts of time on academic work. Implications and limitations to the study are discussed.

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CHAPTER 1

INTRODUCTION

While much is known in the field of mental health about artists, collegiate student health, and levels of stress for university students, the intersection of these different topics has not been investigated. There is disagreement in previous research as to whether or not artists experience higher rates of mental illness than those not involved in the arts. While some researchers have supported that there are marked differences in the mental health of artists as compared to non-artists (Andreasen, 1987; Kyaga et al., 2011; Richards, Kinney, Lunde, Benet, & Merzel, 1988; Santosa et al., 2007; Sass, 2000), critics have asserted that this idea could be based on scientifically unsound research practices, data and stereotyping (Becker, 2001; Glazer, 2009; Schlesinger, 2009). Furthermore, more recent studies found that some differences in mental health exist between artists and that of the general population, but that these differences are more minor than previous literature on the topic suggested (Elias & Berg-Cross,2009; Greason, Glaser, & Mroz, 2015; Young, Winner, & Cordes, 2013).

Additionally, there is a large body of research surrounding college students and mental health. University students experience high levels of stress (Beiter et al., 2015; Brougham, Zail, Mendoza, & Miller, 2009; Leppink et al., 2016; Macan, Shahani, Dipboye, & Phillips, 1990; Misra & McKean, 2000). Students are also utilizing counseling services at a higher rate and for potentially life threatening illness or crises (Association for University and College Counseling

Center Directors, 2016; Center for Collegiate Metal Health, 2017). However, no studies to date have looked at the experiences of collegiate artists and compared them to their non-artistic peers.

A History of Artists' Mental Health

Literature has suggested that those in artistic occupations experience rates of mental illness more than their non-artistic working peers (Andreasen, 1987; Kyaga et al., 2011; Richards, Kinney, Lunde, Benet, & Merzel, 1988; Santosa et al., 2007; Sass, 2000). Some researchers have taken a critical view of the literature and presented flaws of the methods used by prior researchers (Becker, 2001; Glazer, 2009; Schlesinger, 2009; Spaniol, 2001). These flaws include using post mortem diagnoses of famous artists, interviewing and diagnosing current artists without assessment, and poor sampling methods. Furthermore, recent studies have found less support for the claim that artists are more prone to mental illness than the previous body of research would suggest (Elias & Berg-Cross, 2009; Greason et al., 2015; Young et al., 2013).

Some of the most cited and well-known research studies surrounding artists and mental health are from Ludwig and Jamieson. Jamieson's body of work on artists and mental illness focused on artists and bipolar disorder. One of her studies examined the obituaries of deceased European poets from the 1700's and asserted that the rate of mood disorders, institutional psychiatric stays, and suicides were roughly 20 times that of the normative population (Jamison, 1989). Ludwig used similar methods in his 1992 article, which is a seminal piece on the mental health of artists. He approached the question of what he deemed "creative madness," or the common assumption that artists have more mental health concerns than that of the general population, by evaluating obituaries of over 1000 people. He concluded that artists mentioned

mental health issues and therapy attendance more frequently than did those in professions other than the arts (Ludwig, 1992).

These methods highlight problems within the historical literature on artists and mental health. Much of this work was based on self-report and historical/post mortem diagnoses of prominent artists. Glazer (2009) and Schlesinger (2009) called into question Jamieson's work. Both authors separately point out that Jamieson's findings suggested that mental illness occurs at twenty times the normal rate in a sample of poets in the United Kingdom in the late 1700's, not in the population of modern day creative individuals (Glazer, 2009; Jamieson, 1993; Schlesinger, 2009). Glazer and Schlesinger encourage a critical look at this research methodology and the ethics of applying it to modern day populations (Glazer, 2009; Schlesinger, 2009).

When looking more critically at past studies, flawed methodologies and researcher assumptions based on stereotypes may contribute to our understanding of the "suffering artist" more than the actual data reveals. Some studies start with an explanation of Plato and Aristotle's ideas of divine madness and predisposition to ill balanced humor as historical roots for this problem (Kyaga, 2011; Ludwig 1992). Often these famous philosophers' writings are taken out of context or misinterpreted, which has contributed to an understanding of artists as being prone to mental illness (Becker, 2001).

More recent research has used newer and better-established research methods. Newer studies have utilized valid and reliable measures for various mental health symptomology and participants rather than historical data (Greason et al., 2015; Papworth et al., 2008; Vellante et al. 2011; Young et al., 2013). The findings of modern research still indicate differences in mental health and wellness for artists versus non-artists, but these differences are far less dramatic than

older research would suggest. For example, Vellante et al. (2011) studied temperament, overall health, and creative achievement in undergraduate art students in Italy. Students enrolled in courses for artistic persons had higher rates of dysregulation on a temperament score compared to their peers who were not (Vellante et al., 2011). Vellante et al. found that students who were studying the arts were more likely to be at risk for diagnoses in the bipolar spectrum than students who were not (2011). This is consistent with past research, but Vellante and colleagues' methods offer a more psychometrically objective approach than do researchers such as Ludwig, Jamieson, and Andreasen (Andreasen, 1987; Jamison, 1989; Ludwig 1992).

Another study looking at art students aligned with past research, but findings did not suggest higher rates of severe pathology and were supported in a more methodologically sound way. Young, Winner, and Cordes' 2013 study compared mental health and wellness in high school students who were involved in the arts to that of students who were involved in sports/physical activity. Participants who were between 15 and 16 years old were separated into two comparison groups. The researchers found that those who had artistic involvement had higher depressive scores on a general mental health measure than those not participating in the arts. This difference was not only significant, through logistic regression analyses the authors reported that with each unit increase in depression scales, it was more likely that the student would be involved in the arts. This difference was only true for students whose scores were above the median in a cognitive working memory test, which is consistent with research on mental health of gifted or highly intelligent youth and adults (Young et al., 2013). The researchers' findings could also suggest that there are different cognitive vulnerabilities that could account for both creative thinking and problem solving and increased depressive symptoms.

There are also differences found in mental and physical health within groups of artists. Elias and Berg-Cross (2009) found that student artists who endorsed producing art for personal and monetary gain smoked more and reported more neck pain, but they had fewer weight concerns, infections, and breathing problems than those who endorsed career models for self-actualization or more altruistic purposes. However, 30% of overall respondents reported struggling with depressive symptoms. The numbers of students who reported smoking, depression symptoms, and that they were taking prescribed medication, were all at almost twice the rate expected for the general US population. These findings support the more current research regarding high school students and indicate that more mental health resources may be needed by college arts students (Elias & Berg-Cross, 2009; Young et al., 2013). These findings also support historical research that there are significant differences between artists and their peers who are not involved in the arts.

Only one study to date has investigated collegiate artists in the United States and compared them to non-artistic students. In this study, conservatory students were compared with national data gathered from traditional universities. The only difference found between these two groups was that conservatory students reported higher levels of stress (Greason et al., 2015). Although there is little research to help us understand mental health of art students, the field of college students and mental health is well researched, and here I will discuss findings from several large studies.

Mental Health on College Campuses

The current state of mental health of students on college campuses in the United States is a rapidly changing one. Tragic acts of violence and student suicidality have placed a spotlight on

campus mental health. As a result, there is a recommendation for more integrated student health and mental health care (Douce & Keeling, 2014). This calls to attention some harsh facts: that the need for services has increased significantly over the past decade and funding/campus resources have been slow to catch up (Eiser, 2011). Struggling under the need for increased services, but often facing budget cuts, universities have begun to place limits on the mental health services available for students. Furthermore, the services that are received by students may not be meeting their needs, as only 22% of over 8,000 students who reported treatment for depression reported their services as meeting the threshold for "minimally adequate treatment" (Eisenberg & Chung, 2012).

The most current research and findings about the general mental health of college students as it relates to their access to university services is that there has been a steady increase in university counseling service usage. Students in one study reported feeling dissatisfied with the kinds of service they received (Association for University and College Counseling Center Directors [AUCCCD], 2016; Eiser 2011; Eisenberg & Chung, 2012). Recent data collected from a national association of university and college counseling centers shows that the top three presenting concerns for students are depression, anxiety, and relational problems (AUCCCD, 2016). These are not the only concerns of students on campuses. Hundreds of suicidal students sought services and hundreds more were hospitalized for psychiatric concerns (AUCCCD, 2016; Center for Collegiate Metal Health, 2017). College counseling centers have seen more severe pathology and have seen an increase in the severity of symptoms over the last few years (AUCCCD, 2016; Eiser, 2011).

The number of students seeking mental health services has been on a sharp incline since the mid 1990's, and the problems they are presenting with widely vary. A 13-year longitudinal study by Benton, Robertson, Tseng, Newton, & Benton (2003) reported the following findings:

> Overall, our results indicated that students who were seen in counseling services in more recent time periods frequently have more complex problems that include both the normal college student problems, such as difficulties in relationships and developmental issues, as well as the more severe problems, such as anxiety, depression, suicidal ideation, sexual assault, and personality disorders. Some of these increases were dramatic: The number of students seen each year with depression doubled over the time period, while the number of suicidal students tripled and the number of students seen after a sexual assault quadrupled. (p. 69-70)

From disordered eating to suicidality, the students' issues are many. In ten years (from 2001 to 2011) the percentage of severe psychological problems reported at college campuses increased from 16% to 44% (Eiser, 2011; National Survey of Counseling Center Directors, 2010). In the 2015 to 2016 academic year, over 550 students on college campuses attempted suicide and over 400 students were hospitalized for psychiatric concerns (AUCCD, 2016).

The Center for Collegiate Mental Health used data from more than 150,000 college students who sought mental health services during the 2015-2016 academic year. The Center surveys of 139 college and university counseling centers revealed several new trends that they tracked from 2010 to 2016. It was found that anxiety and depression continue to be the most common concerns of students, but social anxiety has continued to increase slightly over the past six years (Center for Collegiate Metal Health, 2017). This is consistent with data collected from

the Association for University and College Counseling Center Directors in their 2016 annual report. Another issue reported in the literature about college students and health is high levels of stress. The amount of stress that college students report has deleterious impacts on their mental and physical health as well as academic performance and retention.

College Students and Stress

Historically, the research has shown high levels of stress in college students (Archer & Lamnin, 1985; Beiter et al., 2015; Leppink et al., 2016; Murphy & Archer, 1996). There are different reasons as to why stress is high in college students. Leppink et al. summarized the different contributing factors nicely: "Although stress is present at every stage of life, the combined effects of academic rigor, shifts in social support, and changes in living situations may notably increase stress for college and university students… Although it may be considered 'normal' for college and university students to experience high levels of stress, the association between stress and health concerns, specifically mental health, is a pressing concern for both students and academic institutions" (Leppink et al., 2016, p. 931). Previous research supports these findings and stressors can be categorized into two different groups, academic stress (e.g., tests, grades, lack of time to complete tasks) and personal stress (e.g., intimate relationships, family, financial strain) (Archer & Lamnin, 1985).

Prior research has established that there are many different contributing factors to students' stress levels. Researchers have looked into which factors were most stressful for students (Beiter et al., 2015). Beiter et al. examined 19 different areas and found that the ten most significant stressors were: academic stress, pressure to succeed, post-graduate plans, financial stress, sleep, friendships, family dynamics, overall health, body image, and self-esteem

(2015). Other contributions for stress have been found to be stress related to student minority identities (Leppink et al., 2016).

Levels of stress can also impact emotional health and regulation. Emotionally closed off students reported having more stress than students who reported that they were emotionally close to others (King, Vidourek, Merianos, & Singh, 2014). Also discussed in this study is that 61% of the respondents reported having a high level of stress and 72% of participants reported a low frequency in using stress reduction strategies (King, Vidourek, Merianos, & Singh, 2014).

Although there are many ways of coping with high stress levels, one strategy for managing stress supported by research is the implementation of time management skills. Time management skills can be particularly helpful as a coping technique for students who are experiencing high levels of stress (Brown 1991; Macan, Shahani, Dipboye, & Phillips, 1990). Time management in the literature is defined as being a set of skills or behaviors that increase productivity while also alleviating stress (Misra & McKean, 2000). Studies have found significant negative correlations between time management skills and stress experiences (Macan, Shahani, Dipboye, & Phillips, 1990; Misra & McKean, 2000).

Time management may be particularly challenging for students who are studying the arts because their classroom and program commitments are can be more intensive than other fields. Oftentimes, courses in the arts are longer laboratory or studio style classes (Becker, Sommer, Bee, & Oxley, 1973). The amount of time spent in a laboratory or studio classroom oftentimes is not reflected by course hours earned (Brady, 1996). Additionally, many campus mental health resources are only open from 8 in the morning to 5 in the evening. If students are enrolled in classes that take place during this time, and that are traditionally longer than lecture courses, this

may impede their ability to access mental health resources. Research should be done to see if there are significant differences in the time commitments between students studying the arts and those who are not.

Purpose of the Study

Previous research has historically supported the claim that artists experience higher rates of mental illness than their peers who are not involved in the arts or artistic careers (Andreasen, 1987; Kyaga et al., 2011; Richards, Kinney, Lunde, Benet, & Merzel, 1988; Santosa et al., 2007; Sass, 2000). More recent research has argued that the historical base for these claims made use of faulty methodological practices and stereotyping (Becker, 2001; Glazer, 2009; Schlesinger, 2009). Current studies have found that while some differences do exist between artist mental health and that of the general population, the differences are less staggering than previous research suggested (Elias & Berg-Cross,2009; Greason et al., 2015; Young et al., 2013).

All this knowledge aside, no studies have yet compared public university collegiate art students and their peers not academically involved in the arts in regards to general mental health, stress, or time spent in the classroom or on academic work outside of the classroom and how these factors may contribute to their unique collegiate experience. University students experience high levels of stress (Beiter et al., 2015; Brougham, Zail, Mendoza, & Miller, 2009; Leppink et al., 2016; Macan, Shahani, Dipboye, & Phillips, 1990; Misra & McKean, 2000). Students are also utilizing counseling services at a higher rate and for potentially life threatening illness or crises (Association for University and College Counseling Center Directors, 2016; Center for Collegiate Metal Health, 2017). Research should investigate whether or not art students have

different experiences regarding overall mental health, stress, and academic involvement given that research suggests that their needs differ from those of the general population.

We know that researchers in psychology have been studying the unique stressors of athletes, particularly college athletes (Downs & Ashton, 2011). There is also current literature discussing unique barriers that student athletes face in seeking mental health services (Gulliver, Griffiths, & Christensen, 2012). Broughton and Neyer suggested that student athletes have access to their own mental health services, and this is the case at several universities (Broughton & Neyer, 2001). Student athletes are not the only unique student population to access specific mental health support. For example, across the country, a new trend involves universities providing in-house mental health professionals for veterinary medicine students and medical school students. This begs the question, are we as psychologists and psychologists in training ignoring the mental health needs of a potentially at risk population, student artists? Students in the arts may also benefit from these in-house services, as they are also in high stress and pressure fields. Examples from the literature confirming this typically address stress, perfectionism, and performance anxiety (Kenny, Davis, & Oates, 2004; Marchant-Haycox, & Wilson, 1992; Mor, Day, Flett, & Hewitt, 1995).

This research is in direct response to a gap in the literature as put forth by Greason, Glaser, and Mroz, whose study examined the differences between conservatory art students and students attending a public university (2015). The authors conclude their study by citing that conservatory students may differ too significantly from their public university comparison group and that a study should be conducted on a singular campus to account for any environmental differences (Greason et al., 2015). With student counseling centers experiencing an increase in

service utilization, this proposed study could shed light on the unique needs of a potentially marginalized campus community. Additionally, because there is incongruence between the historic literature and more current literature about the mental health of artists, this study has the potential to provide further clarification into artist mental health.

Current Study

The first objective of this study was to investigate whether differences exist in overall mental health between students studying the fine arts and those who are not. Past research has not reached a conclusive stance on this topic and this study aimed to continue to the literature surroundings artists and mental health.

Previous research has shown that college students experience high levels of stress. A study that compared students involved in the arts against their non-artistic peers found significantly higher levels of stress for those involved in the arts (Young et al., 2013). Therefore, the second objective of this study was to assess the levels of stress between students studying the fine arts and those who are not.

Research has shown that laboratory or studio classes are longer than traditional lecture classes. The length of these classes may not be related to the amount of course credit a student receives. No available research has addressed whether these time requirements, or additional time requirements related to coursework and study, differ between students studying fine arts and those who are not. The third objective of the study was to assess any differences between students studying the fine arts and who are not in the amount of time that they spend in class and on school work.

Research Questions

Q1 Do differences exist in overall mental health between students studying the fine arts and those who are not?

Hypothesis: There will be significant differences in overall mental health reported by students studying the fine arts and those who are not.

Q2 Do differences exist in stress levels between students studying the fine arts and those who are not?

Hypothesis: There will be significant differences in stress reported by students studying fine arts and those who are not.

Q3 Do differences exist in amount of time spent on course work (in or outside of class hours) between students studying the fine arts and those who are not?

Hypothesis: Students studying the arts will have significantly different levels of time committed to coursework.

CHAPTER II

METHODOLOGY

Participants

The study's total data consisted of 453 undergraduate students who were currently enrolled at Oklahoma State University. The age of participants ranged from 18 to 25, with respondents 26 years or older being ineligible for the study.

In terms of gender identity, the sample found that the majority of participants identified as female (62.3%, n=282) with the remainder identifying as male (36.2%, n=164), and genderqueer/nonbinary (1.3%, n=6). In regards to sexual orientation, a majority of the participants identified as heterosexual/straight (89.8%, n=407) with the remainder identifying as bisexual (3.3%, n=15), asexual (3.3%, n =15), gay (1.3%, N=6), lesbian (1.1%, n=6), and some participants indicating that their sexual orientation was not listed and wrote in their identity (e.g. pansexual, queer) (2%, n=9). The racial identity of the participants was mostly White/Caucasian (72.6%, n=329) with the remainder of the participants identifying as biracial (9.9%, n=45), Black/African American (6.4%, n=29), Native American (3.3%, n=15), Asian American (2.2%, n=10), and Native Hawaiian/Pacific Islander (.4%, n=2). Some participants selected that their racial identity was not listed and wrote in their identity (e.g. Middle Eastern, Hispanic, Mexican) and they made up 5.1% (n=23) of the sample. The participants were mostly non

Hispanic/Latina/o/x (84.8%, n=384), with Hispanic/Latina/o/x participants making up 8.6% (n=39) of the respondents.

Due to the small sample of students who were academically involved in the fine arts (n=33), a random number generator was used to select a sample of 33 students who were not involved in the arts from the larger participant sample. The 66 combined participants make up what will be hereafter referred to as the "study sample" to distinguish from the overall participant sample (Table 1.1). A smaller comparison group of 33 non-artists would be more statistically appropriate than a comparison group of more than 500 non-artistic participants. Limiting the comparison group decreases error and maintains the statistical assumptions of the ANOVA and MANOVA analyses used in the study. A limitation that will be described later is that the smaller sample size may affect power and type I error rate.

The demographics of this study sample are as follows. In terms of gender identity, the majority of participants identified as female (62.1%, n=41), with the remainder identifying as male (31.2%, n=21), and genderqueer/nonbinary (6.1%, n=4). In regards to sexual orientation, the majority of the study sample identify as heterosexual (75.8%, n=50) with the remainder of the sample identifying as gay (7.6%, n=5), bisexual (7.6%, n=5), lesbian (3%, n=2), asexual (1.5%, n=1), and some participants indicating that their sexual orientation was not listed and wrote in their identity (e.g. pansexual, queer) (4.5%, n=3). In regard to racial identity, the majority of the study sample identified as White/Caucasian (72.7%, n=48) with the rest of the sample identifying as biracial (10.6%, n=7), Black/African American (6.1%, n=4), Native American (3%, n=2), and Asian American (3%, n=2). Some participants selected that their racial identity was not listed and wrote in their identity (e.g. Middle Eastern, Hispanic, Mexican) and

they made up 4.5% (n=3) of the study sample. The majority of the study sample was non Hispanic/Latina/o/x (80.3%, n=53), with Hispanic/Latina/o/x participants making up 9.1% (n=6) making up the rest of the study sample.

The majors of the students involved in the fine arts are as follows: art majors (22.7%, n=15), design, housing, and merchandising majors (10.6%, n=7), music education majors (4.5%, n=3), music majors (3%, n=2) English: Creative Writing 1.5% (n=1), English: screen studies 1.5% (n=1), music: performance 1.5% (n=1), and theatre 1.5% (n=1). The majors of the students who were not studying the fine arts are as follows: mechanical engineering (7.6%, n=5), animal sciences (4.5%, n=3), elementary education (4.5%, n=3), communication sciences and disorders (3%, n=2), nutritional sciences (3%, n=2), psychology (3%, n=2), and recreation management and recreational therapy (3%, n=2). The following majors represent 24% (n=16) of the sample: agricultural economics; biology: wildlife; civil engineering; construction management; finance; general business; hotel and restaurant management; human development and family sciences; marketing; natural resources, ecology, and management; plant and soil sciences; secondary education; sociology; university studies; zoology; undeclared. It should be noted that the totals of student majors do not add up to 100% due to rounding to one decimal.

The majority of respondents of the study sample had no minor (74.2%, n=49). Art history, foreign language, marketing, and microbiology each represented 3% (n=2) of the sample. Dance, energy finance, general business administration, history, human sciences, mathematics, merchandising, music, and religious studies each represented 1.5% (n=1).

Table 1

Demographic Information of Participants from Study Sample (N=66)

Characteristic		n	%
Gender			
	Female	41	62.1
	Genderqueer/Nonbinary	4	6.1
	Male	21	31.2
Sexual Orientation			
	Bisexual	5	7.6
	Gay	5	7.6
	Heterosexual	50	75.8
	Lesbian	2	3
	Pansexual/Queer	3	4.5
Race			
	Asian American	2	3
	Biracial	7	10.6
	Black/African American	4	6.1
	Native American	2	3
	White/Caucasian	48	72.7
	Other/Not Listed	3	4.5
Ethnicity			
	Hispanic/Latina/o/x	6	9.1
	non Hispanic/Latina/o/x	53	80.3
Age			
	18	5	7.6
	19	17	25.8
	20	13	19.7
	21	11	16.7
	22	11	16.7
	23	5	7.6
	24	3	4.5
	25	1	1.5
Major	Agriculture Economics	1	1.5
	Animal Sciences	3	4.5
	Art	15	22.7

Civil Engineering	1	1.5
Communication Sciences	2	3
Construction Management	1	1.5
Design, Housing, and Merchandising	7	10.6
Elementary Education	3	4.5
English: Creative Writing	1	1.5
English: Screen Studies	1	1.5
Finance	1	1.5
General Business	1	1.5
Hotel and Restaurant Management	1	1.5
Human Development and Family Sciences	1	1.5
Marketing	1	1.5
Mechanical Engineering	5	7.6
Music Education	3	4.5
Music Performance	1	1.5
Natural Resource, Ecology, and Wildlife Management	1	1.5
Nutritional Sciences	2	3
Plant and Soil Sciences	1	1.5
Psychology	2	3
Recreation Management	2	3
Secondary Education	1	1.5
Sociology	1	1.5
Theatre	1	1.5
University Studies	1	1.5
Wildlife Biology	1	1.5
Zoology	1	1.5
Undeclared Major	1	1.5

Instruments

Demographics. Participants completed a demographic questionnaire which included questions about age, gender identity, sexual orientation, race, ethnicity, year in school, major and minor degree of study, and whether they accessed mental health counseling before attending college or since attending college. Participants were asked to estimate their time spent in class (i.e. how many hours a week, how many afterhours commitments) including in- and out-of-class time spent on coursework. See Appendix D for a complete list of the demographic questions.

Outcome Questionnaire 45.2. The Outcome Questionnaire 45.2 (OQ 45.2) was developed by Lambert to track client symptomology and progress of clients in therapy and sometimes after termination (Lambert et al., 1996). This 45 item measure can be separated into three subscales: Symptoms Distress, Interpersonal Relationships, and Social Role Performance. Each measures the level of distress or frequency of distressing symptoms, and the total score can be used as a global measure of client overall mental health. All questions prompt respondents to report how often a statement is true of themselves on a 0-4 Likert type scale.

The Outcome Questionnaire 45.2's validity and reliability are reportedly strong. In a study that analyzed its use in a college counseling center, the following Cronbach's alphas were found: Total score (α.=94), Symptom Distress (α.=.93), Interpersonal Relationships (α.=.78) and Social Role Performance, (α.=.70) (Boswell, White, Sims, Harrist, & Romans, 2013). Test-retest reliability in a university sample during the measure's creation were reported as being: Total Score (.84), Symptom Distress (.78), Interpersonal Relationships (.80) and Social Role Performance (.82), (Boswell et al., 2013; Lambert et al, 2006). The Cronbach's alpha for the PSS total score was .85 for the current study.

Perceived Stress Scale. The Perceived Stress Scale (PSS) was originally developed by Cohen and colleagues in 1983 as a 14 item self-report measure that is now a 10 item scale (Cohen, Kamarck, & Mermelstein, 1983; Cohen & Williamson, 1998). This 10-item measure is one of the most widely used measures for stress. After revisions, there are now two subscales of the PSS-10, with six items measuring perceived helplessness (e.g. I cannot change my current situation) and four items measuring perceived self-efficacy (e.g. I have the power to enact change in my life). Recently, researchers investigated the reliability and validity of the PSS-10 and found that it is highly reliable for assessing stress levels. The Cronbach's alpha reliability coefficient for the scale was .89 while the six-item perceived helplessness subscale had a Cronbach's alpha score of .85 and the perceived self-efficacy score was .82 (Roberti, Harrington, & Stroch, 2006). The Cronbach's alpha for the PSS total score was .89 for the current study.

Validity was also supported in this 2006 psychometric analysis of the PSS-10 as seen by its high levels of correlations with other measures that also assess stress in participants (Roberti, Harrington, & Storch, 2006). PSS-10 convergent validity was supported by correlation with State Trait-Anxiety Inventory (r=.73) and with a (r=.59) correlation with its anxiety factor subscale and a (r=.72) correlation with its depression factor subscale (Roberti, Harrington, & Storch, 2006). Due to their findings in 2006, the authors concluded that the PSS-10 "is a reliable and valid self-report measure of perceived stress within a nonclinical, multisite sample of U.S. college students" (Roberti, Harrington, & Storch, p. 143).

Procedure

Participants were recruited via Oklahoma State University College of Education, Health and Aviation SONA, recruitment e-mail sent to 5,000 randomly selected undergraduate students

which was obtained by the office of Institutional Research and Information Management at Oklahoma State University, and targeted recruitment strategies aimed at students involved in the fine arts. The recruitment emails contained basic information about the study, an estimate of how long it would take participants to complete the study, and contact information for the primary investigator.

In an attempt to reach more students who were involved in the arts, I sent recruitment emails to faculty who were teaching courses in the fine arts, made targeted social media posts in groups for students involved in the fine arts, and placed flyers in buildings around campus that contained a QR code that linked to the survey. The flyers, recruitment emails to faculty, and social media posts contained the same information as the recruitment email with special emphasis placed on the value of input from student artists.

Students who volunteered to participate in the study were directed via SONA, online link, or QR code to the questionnaire which was administered through Qualtrics. Participants read the informed consent document which concluded with the statement "If you choose to participate: Please, click NEXT. By clicking NEXT, you are indicating that you freely and voluntarily agree to participate in this study and you also acknowledge that you are at least 18 years of age. It is recommended that you print a copy of this consent page for your records before you begin the study by clicking below." After clicking the "next" button on their screen, participants then completed the demographic questionnaire, OQ 45.2, and PSS. At the conclusion of the research survey, participants were shown a debriefing statement that gave information about counseling resources on Oklahoma State University's campus, IRB information, and contact information for the primary researcher.

CHAPTER III

RESULTS

Statistical Design

To investigate the potential difference in overall mental health and in stress between students who do and do not study the fine arts, the researcher analyzed the data with a one-way univariate analysis of variance. This design is utilized when a researcher wants to test the null hypothesis that no significant difference exists between the means of at least two different groups. ANOVA is appropriate for the proposed research questions (Gravetter & Wallnau, 2013).

To examine potential differences between students studying the fine arts and those who are not in amount of time spent on course work (in or outside of class hours), the researcher used a multivariate analysis of variance (MANOVA). Because the measure of time spent engaged in course work consisted of five separate questions, a multivariate analysis of variance compared all respondents' answers to the five items at once. This in essence collapsed the five separate questions into one variable of time spent engaging in academic work. The MANOVA method minimizes type 1 error (Gravetter & Wallnau, 2013).

Statistical Assumptions and Preliminary Analyses

Data Screening. The data were manually screened to remove any participants who did not complete the study. Some missing data was corrected using guidelines set forth by the OQ

45.2 coding instructions and the PSS questionnaire. If fewer than four items had missing data, the participants' responses for that measure were averaged and the mean response replaced the missing data. None of the participants used in the study sample had more than two missing items for any one measure.

Data coding. The demographic and academic information was coded to translate open-ended responses and multiple responses into numeric variables. The five questions that inquired about time spent on academic work in and outside of class were combined via a MANOVA design to create one variable addressing time spent on academic work. The answers for these questions were screened in the study sample so that any non-numeric values were removed. The OQ 45.2 required items 1, 12, 13, 20, 21, 24, 31, 37, and 43 be reverse coded. This study utilized the OQ 45.2 total score which ranges from 0 to 180 with higher scores indicating more distress. A total score of 63 or more indicates a clinically significant level of symptomology. The PSS required items 4, 5, 7, and 8 be reverse coded. Scores on the PSS can range anywhere from 0-40 with scores from 0 to 13 being considered as a low level of stress, scores 14-26 considered as a moderate level of stress, and scores 27-40 considered as a high level of perceived stress.

Statistical assumptions. Before conducting the two, one-way ANOVA analyses on the study sample of 66 participants, statistical assumptions were assessed. For the first ANOVA, which examined potential differences in overall mental health as measured by the OQ 45.2 between students who do and do not study the fine arts, all assumptions were met. The data were found to be normal when tested for normality at a .05 level of significance using the Shapiro-Wilk's normality test. The data were found to have homogeneity of variance at the .05 level

using the Levene Statistic. The assumption of independence of the sample was met due to the study design.

For the second ANOVA, which examined potential differences in levels of perceived stress as measured by the PSS between students who do and do not study the fine arts, all assumptions were met. The data were found to be normal when tested for normality at a .05 level of significance using the Shapiro-Wilk's normality test. The data were found to have homogeneity of variance at the .05 level using the Levene Statistic. The assumption of independence of the sample was met due to the study design.

The third research question utilized a MANOVA statistical design. This question examined whether or not significant differences existed in the amount of time spent on academic activities between students who do and do not study the fine arts. This question utilized five separate questions that were collapsed into one variable through the MANOVA design. Due to the design of the research question, the assumption of having at least two dependent variables was met, the assumption of having at least one independent variable with two or more groups was met, and the observations were assumed to be independent. While the study sample was small, the assumption of adequate sample size was met, which suggests that the sample have at least two times the number of dependent variables in the test.

The assumption that there were no univariate or multivariate outliers was violated as the Mahalanobis distance was calculated and the largest value found in the data was 29, which was larger than the critical value (F=10.83) for one degree of freedom as indicated by a chi square critical value table. The assumption of multivariable normality was violated as the Shapiro-Wilk test found that the only normally distributed variable was the variable that asked about the

average number of hours per week spent in class. The assumption of a linear relationship between each pair of dependent variables for each group of the independent variable was violated as the scatter plot did not show a linear relationship. The assumption of homogeneity of variance and covariance matrices was violated as Box's test of equality of covariance matrices showed a significant level of $p<.001$. Lastly, the assumption that there was no multicolinearity was met as none of the Pearson correlations were too large ($r> .09$). Since the data for the third research question did not meet all of the assumptions, I utilized the corrected Pillai's Trace statistic instead of the Wilks' Lambda statistic for the MANOVA.

Findings

Mental Health. A one-way ANOVA was used to investigate the potential differences in overall mental health between students who did and did not study the fine arts. (Table 2) The model was not significant, suggesting that there was no significant difference between the two groups in their OQ 45.2 total scores ($F(1,64) = 1.701$, $p = .197$). The ANOVA had a small effect size ($\eta^2 = .15$) and a power analysis determined Power = .22.

Table 2
One-Way Analysis of Variance of OQ 45.2 Scores

Source	*df*	*SS*	*MS*	*F*	*p*
Between Groups	1	1129.227	1129.227	2	0.200
Within Groups	64	43047.758	672.621		
Total	65	44176.985			

Perceived Stress. A one-way ANOVA assessed the potential differences in overall perceived stress between students who did and did not study the fine arts (Table 3). The model was not significant, suggesting that there was no significant difference between the two groups in

their PSS scores (F (1, 64) = 1.679, p = .200). The ANOVA had a small effect size (η^2= .16) and a power analysis determined Power = .25.

Table 3
One-Way Analysis of Variance of PSS Scores

Source	*df*	*SS*	*MS*	*F*	*p*
Between Groups	1	94.561	94.561	2	0.197
Within Groups	64	3558.061	55.595		
Total	65	3652.621			

Time Spent on Academic Work. A MANOVA collapsed the five questions asking about time spent on academic work into one dependent variable and assessed to see whether or not there was a significant difference between those who did and did not study the fine arts (Table 4.1). There was a statistically significant difference between the two groups (F (4, 64) = 2.917), p = .021.

Table 4.1
Multivariate Test Results

Effect	*df*	Value	*F*	*p*
Pillai's Trace	5	0.216	2.917	0.021

Further analyses of these significant results showed that there was a statistically significant difference between students who did and did not study the fine arts with responses to the questions “On average, how many hours per week do you spend in class?” (F (4, 64) = 5.217, p = .026) and “On average, how many hours do you spend on academic related activities expected for your major outside of class?” (F (4, 64) = 9.337, p = .003) (Table 4.2). The differences between the two group means are displayed below (Table 4.3).

Table 4.2

Analysis of Variance of Between-Subjects Effects

Variable	*df*	*Type III SS*	*MS*	*F*	*p*
Enrolled hours	1	5.673	32.454	1.041	0.312
Hours spent in class	1	169.312	169.312	5.217	0.026
Hours spent in class after 5:00 pm	1	2.011	2.011	0.171	0.681
Hours spent on class work	1	73.379	73.379	0.536	0.467
Hours spent on other academic activities	1	159.363	159.363	9.337	0.003

Table 4.3

Display of Mean Responses Between Groups

Variable	*Mean*	
	Artists	Non-Artists
Enrolled hours	14.48	14.21
Hours spent in class	15.77	12.29
Hours spent in class after 5:00 pm	2.6	1.39
Hours spent on class work	12.63	10.66
Hours spent on other academic activities	4.49	1.45

CHAPTER IV

DISCUSSION

Previous research has supported the idea that artists experience higher rates of mental illness than those not involved in the arts (Andreasen, 1987; Kyaga et al., 2011; Richards, Kinney, Lunde, Benet, & Merzel, 1988; Santosa et al., 2007; Sass, 2000). Some researchers have asserted that this notion has been based on scientifically unsound research practices, data, and stereotyping (Becker, 2001; Glazer, 2009; Schlesinger, 2009). More recent studies have found that some differences in mental health exist between artists and that of the general population but that these differences are more minor than previous literature on the topic suggested (Elias & Berg-Cross,2009; Greason et al., 2015; Young et al., 2013).

Additionally, there is a large body of research surrounding college students and mental health. University students experience high levels of stress (Beiter et al., 2015; Brougham, Zail, Mendoza, & Miller, 2009; Leppink et al., 2016; Macan, Shahani, Dipboye, & Phillips, 1990; Misra & McKean, 2000). Students are utilizing counseling services at a higher rate and for potentially life threatening illness or crises than they have in years past (Association for University and College Counseling Center Directors, 2016; Center for Collegiate Metal Health, 2017).

However, no studies had yet compared public university collegiate art students and their peers not academically involved in the arts in regards to general mental health, stress, or time

spent on academic work and how these factors may contribute to their unique collegiate experience.

Hypotheses

The first hypothesis of the study was that there would be a statistically significant difference between students studying the fine arts and those who do not in overall mental health. This hypothesis was not supported and no statistically significant difference was found in OQ 45.2 scores.

The second hypothesis was that there would be a statistically significant difference between students studying the fine arts and those who do not in stress levels. This hypothesis was not supported and no statistically significant difference was found on the PSS.

The third hypothesis under investigation was that students studying the fine arts would spend more time on academic work than their peers who do not study the fine arts. This hypothesis was supported. Specifically, students who study the fine arts were found to spend significantly more time in class per week and more hours on academic related activities expected for their major outside of class.

Students Studying the Fine Arts and Overall Mental Health

The one-way ANOVA did not find any significant differences in total scores on the Outcomes Questionnaire 45.2 measure between students who studied the fine arts and those who did not. Subsequent ANOVA analyses found that there were no differences in the scores on the

OQ 45.2 subscales that assessed symptom distress, social role performance, and interpersonal relationships. These findings stand in contrast to the long standing research about artists and mental health which has suggested that artists tend to have worse mental health than others do (Andreasen, 1987; Kyaga et al., 2011; Richards, Kinney, Lunde, Benet, & Merzel, 1988; Santosa et al., 2007; Sass, 2000). This supports newer research showing smaller differences between artists and non artists with regard to mental health (Vellante et al, 2011; Young et al., 2013). While there were no statistically significant differences, the data found that students involved in the arts did have higher OQ 45.2 total scores. Students studying the fine arts reported an average score of 75.48 (*SD*=23.31) compared to students who did not study the fine arts average OQ 45.2 total score of 67.21 (*SD*=28.31).

Students Studying the Fine Arts and Stress

The one-way ANOVA did not find any significant differences on the Perceived Stress Scale measure between students who studied the fine arts and those who did not. This finding also stands in contrast to both long standing research about artists and mental health and research that focuses on the unique stressors that artists face. A recent study found that students studying the fine arts at a conservatory had higher stress levels than other university students in non-conservatory settings (Greason et al, 2015). Other studies have found notable differences in the levels of stress experienced by those involved in the arts and those who are not (Kenny, Davis, & Oates, 2004; Marchant-Haycox, & Wilson, 1992; Mor, Day, Flett, & Hewitt, 1995). While statistically significant differences were not found, students studying the fine arts did have a higher average score on the PSS. Students studying the fine arts reported an average PSS total

score of 20.45 (*SD*=5.9) compared to students who did not study the fine arts average score of 18.06 (*SD*= 8.73).

However, there is a significant recent body of literature that shows that across the board, college students experience stress. It is possible that all of the students in this study feel the effects of collegiate stress (Beiter et al., 2015; Brougham, Zail, Mendoza, & Miller, 2009; Leppink et al., 2016; Macan, Shahani, Dipboye, & Phillips, 1990; Misra & McKean, 2000). Previous research focused on stressors experienced by career artists rather than students involved in the arts (Kenny, Davis, & Oates, 2004; Marchant-Haycox &Wilson, 1992; Mor, Day, Flett, & Hewitt, 1995). This could imply that the stress that professionals experience is different than the kinds of stress that students experience.

Students Studying the Fine Arts and Time Spent on Academic Work

The MANOVA analysis revealed that there was a significant difference between students studying the fine arts and those who were not in the amount of time they spent on academic work. The post-hoc analyses showed that there were statistically significant differences in hours per week spent in class and hours spent on academic related activities expected for the major outside of class. This finding is supported by previous research showing that students involved in the fine arts often take laboratory style courses that last longer than lecture style courses (Becker, Sommer, Bee, & Oxley, 1973) and that this amount of time spent in class is not reflected in the amount of credit for the course (Brady, 1996). This is the first formal study to assess the amount of time that students in the arts spend on academic related course work as compared to their peers. Anecdotal evidence supports this finding: common activities for students involved in the fine arts include rehearsals, performances, studio hours, and other practice. Anecdotal evidence

might also indicate that students in other majors such as engineering spend a great deal of time on coursework outside of class, but this study is the first to demonstrate that art majors spend a statistically significant amount of time outside of class compared to others in non-art majors.

Implications

This study has contributed to the field of artists and mental health by not finding support for significant differences between artists and their non artistic peers in mental health or stress. Although some previous research could be discredited for lack of scientifically sound methods that were difficult to replicate and the use of historical data, even more recent studies with up to date methods still found some differences. In this study, no evidence supporting significant differences was found between artists and their non artistic peers in regard to these two variables, but this still tells us valuable information about collegiate artists.

No study to date had yet examined any potential differences in mental health or stress between students studying the fine arts and their peers who were not. The study closest in methodology to the current study found that students studying at a conservatory experienced higher levels of stress than students at a traditional university stetting (Greason et al., 2015). The authors called for future studies to investigate differences on the same college campuses.

This study also found differences in the amount of time that students spend on coursework. Students studying the fine arts overall spent more time on academics, in particular more time in class and more time involved in academic related activities than their non artistic peers. Moving forward, this could result in targeted implementation of mental health services for students in the fine arts such as flexible hours in the evenings or on weekends to better meet the needs of those involved in the fine arts since their time constraints differ from the general student

population. Since students who study the fine arts spend more time on academic work, an imbedded counselor position in fine arts buildings could help remove a potential barrier to care. Additionally, counseling centers could provide targeted time management seminars for those in the fine arts as research has supported that these techniques have a positive effect in lowering students' experiences of stress (Brown 1991; Macan, Shahani, Dipboye, & Phillips, 1990). While this study did not find that there were statistically significant differences in stress levels for artist and their non artistic peers, we know that professionals in artistic fields experience more stress than those not in the arts (Kenny, Davis, & Oates 2004; Marchant-Haycox &Wilson, 1992; Mor, Day, Flett, & Hewitt, 1995).

Many college campuses have developed special counseling services to address the needs of specific student populations. For example, some universities provide counseling services specifically targeted to medical students, veterinary medical students, and student athletes. The counselors and counseling psychologists who work in these areas have additional knowledge and insight into the stressors and mental health concerns that these students are likely to face. In addition to providing a targeted intervention to students in high stress fields, this practice also helps students access mental health services more easily in a time where university counseling centers are being accessed at a higher rate. A designated counselor available to those in the fine arts could be attuned to the differences that exist between artists and their non-artistic peers and help provide services to a population with potential unique scheduling needs.

Students' perceptions that they do not have time for counseling can be a barrier to campus mental health services (Eisenberg, Golberstein, & Gollust, 2007; Givens & Tjia, 2002). If students in the fine art believe that do not have time to participate in counseling services

because of their time commitments to their academic fields, this could keep them from seeking services, thus contributing to mental health disparities. Specialized services, such as extending hours into the evening or providing weekend services could help prevent this from happening. Expanding existing mental health services at university counseling centers to include a support group for students involved in the fine arts may also prove to be beneficial. A support group would provide students an opportunity to talk about the additional and unique stressor of time spent outside of courses on required coursework. Also, because there is stigma about artists and mental health, a group of student artists may be able to share more openly about their experiences in a group of other artists who may have experienced similar stereotyping or stigmatization.

University counseling center outreach efforts could also be increased to students in the fine arts. We know that their needs are different from the larger university population, and if universities tailor services to this population, they should also make students aware of these options. Outreach could include a recognition of the stereotypes surrounding those in the fine arts and presentation of newer data that suggest smaller differences in mental health between artists and non-artists than past research supported. This would be important so that students do not engage in negative self-stereotyping or negative self-stigmatization. These processes involve members of a community or populations believing what others say or expect of them. They may change their own behavior, which can lead to negative mental health outcomes (Meyer, 2003; Yanos et al., 2015). Additionally, fear of stigma can be a barrier to care and by broaching the topic of counseling in a safe and nonjudgmental way, counseling psychologists can help to encourage care seeking behaviors. Targeted outreach for students could also be coupled with trainings or in-service opportunities for fine arts faculty or university counseling center staff. It is

important for those working with student artists to understand both past literature and more current findings about artists and their mental health needs.

Lastly, mental health professionals should examine their own biases or stereotypes that they may have surrounding college students who are studying the fine arts. While there is some support for increased experiences of psychopathology for professionals involved in the arts (Andreasen, 1987; Kyaga et al., 2011; Richards, Kinney, Lunde, Benet, & Merzel, 1988; Santosa et al., 2007; Sass, 2000), there is also support for there being less pronounced differences than past research would have implied between artists and their non artistic peers (Greason et al., 2015; Vellante et al., 2011; Young et al., 2013). As critics of former research have pointed out (Becker, 2001; Glazer, 2009; Schlesinger, 2009; Spaniol, 200) there is a long history of artists and their mental health being misunderstood. Even today there is an annual professional conference titled "Creativity and Madness" hosted by the American Institute of Medical Education. The legitimacy of conferences such as this notwithstanding, their existence and their titling suggest that we as informed mental health professionals and researchers need to engage in advocacy through research to help end such stigmatizing views of artists.

Limitations

The most notable limitation of this study is the small number of participants who were student artists, which contributed to low statistical power. Data collection spanned from early February of 2018 to May of 2018 and during this time, over 500 undergraduate students participated in the survey. Unfortunately, there was a very small number of these participants who fit the study criteria for "studying the fine arts." Efforts were made to increase the

participants studying the fine arts, including targeted emails to fine arts faculty, postings on social media, and flyers in fine arts buildings on Oklahoma State University's campus and widely used public buildings.

Additionally, the study is limited in the kinds of art students who were surveyed. This study did not include students who were not majoring or minoring in the fine arts but who may have been heavily involved in some artistic medium. This study only examined students at a large research university in the Midwest. Although many of the findings from the study may be applicable to art students on college campuses, this study's findings may not be generalizable to artists in other settings.

The methodology of the study has limitations associated with self report measures. Self reported data is vulnerable to participants consciously or unconsciously distorting their responses. There are many reasons why a participant may distort their answers, including an effort to make their responses appear more desirable or to align their responses with what they think the researcher is looking for in their study. It is also possible that an element of self-selection took place with students who chose to participate in the study. Students who found themselves feeling more stressed or mentally unwell could have been more likely to respond. If students who were studying the fine arts, or other non-artistic students, found themselves very busy and had less time available, they could have dropped out of the study before completing the survey or chosen not to participate. Additionally, this study utilized convenience sampling which limits generalizability of the findings.

Future Directions

Future studies should take into mind the limitations that this study faced, as discussed earlier, and try to replicate to see if other university student artists perhaps have more vulnerabilities with regard to mental health and stress than their non artistic peers do. Future studies could consider incentivizing participation and increase recruitment for a larger sample size.

Because there is a large body of previous evidence showing marked differences in mental health between artists and their non artist peers, it is still important for the field to contribute as much new information as possible. Any future studies should increase the sample size to strengthen the power and validity of any conclusions.

Because past research has shown that artists experience higher rates of mental health concerns than non-artists, a study of artists who received counseling services could provide great insight into the outcomes of counseling for this population. Studies could compare outcomes of counseling for those who are and those who are not in the fine arts. Although studies have found support for artistic interventions in college populations for lowering anxiety (Sandmire, Gorham, Rankin & Grimm, 2012) and lowering social dysfunction (Pizarro, 2004), it is unknown if creative techniques in counseling would help student artists. It is possible that these effects carry over and are widely effective for all populations. However, it is unknown if artistic and creative therapy would add additional stressors onto students in the fine arts or if these interventions could prove to be more impactful. To date, it does not appear that any studies have looked at the effectiveness of creative or artistic based interventions for artists.

Another area for further research is the protective factors that may exist for students who are engaged in the fine arts. We do not know if students involved in the fine arts experience any mental health protective factors from their involvement in the fine arts or if there are other benefits to their involvement from a mental health standpoint.

There have not been any studies to date that have compared stress, mental health, or time spent on academic work between the different categories of student artists. It is possible that differences exist between artistic fields, if not between artists and the broader population. There have additionally been no studies that have compared professional artists or artists outside of university settings on these factors. Considering that most of the past research has focused on one kind of artistic individual at a time and compared them to a non artistic population, this could be a very promising direction for future research.

Conclusions

This study found no evidence that students studying the fine arts differ from their peers who did not study the fine arts in levels of stress or overall mental health. There were significant differences between the two groups in how much time they spent per week working on academic related work. The findings of this study provide important information about the different time commitments that students involved in the arts have as compared to their peers who are not involved in the fine arts. However, this study contrasts with historic literature on the topic of artists and mental health which has suggested that artists experience greater mental health issues and stress than the general population.

Future studies can provide insight into this group that has been misunderstood and potentially misrepresented by past research. Counseling psychologists are uniquely positioned to inform

college counseling center staff about the unique needs of students studying the fine arts. By attending to the unique time constraints of this population we can help provide tailored mental health services and outreach. Advocacy and future research can not only help to destigmatize mental health counseling for a community that been portrayed by past research as more at risk, but help to promote the wellness of the artists on our college campuses.

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APPENDIX A

EXTENDED REVIEW OF THE LITERATURE

Literature has suggested that those in artistic occupations experience rates of mental illness more than their non-artistic working peers (Andreasen, 1987; Kyaga et al., 2011; Richards, Kinney, Lunde, Benet, & Merzel, 1988; Santosa et al., 2007; Sass, 2000). Some researchers have taken a critical view of the literature and presented flaws of the methods used by prior researchers (Becker, 2001; Glazer, 2009; Schlesinger, 2009; Spaniol, 2001). Furthermore, recent studies have found less support for this claim than the previous body of research would suggest (Elias & Berg-Cross, 2009; Greason et al., 2015; Young et al., 2013). This literature review will present the findings of research supporting the claim that artists suffer from mental illnesses more frequently than their non-artistic counterparts, critiques of this literature, and more recent findings supporting and not supporting these previous claims.

In addition to the focus on artists, this review will also present recent findings regarding the mental health of college students, the needs campuses are facing, and the problems to providing the services needed.

Artists and Non-Artists: Increased Instances of Mental Illness

Some of the most cited and well-known research surrounding artists and mental health issues are from Arnold Ludwig and Kay Jamieson. In Jamieson's body of work surrounding artists and mental illness, she focused on artists and bipolar disorder. One of her studies examined the obituaries of deceased European poets from the 1700's and asserted that the rate of mood disorders, institutional psychiatric stays, and suicides were roughly 20 times that of the normative population (Jamison, 1989). Ludwig used similar methods in his 1992 article, which is

a seminal piece on artistic mental health, when he approached the question of creative madness by evaluating obituaries of over 1000 people and saw that artists mentioned mental health issues and therapy attendance more frequently than did those in professions other than the arts (Ludwig, 1992).

In 1994, Ludwig approached this topic in a seemingly sounder way when he compared 59 female writers attending a conference to 59 individuals in a comparison group. He found higher rates of drug abuse, panic attacks, disordered eating, and general anxiety within the group of female writers than he did for his control group. He also assessed family connection and patterns and found that family creativity and mother's history of mental illness were found to be predictive of the writer's overall creativity (Ludwig, 1994). While a computer-aided method of matching participants with those in a control group was used, the control group consisted of women in a homemaker's association, a medical auxiliary club, and a university women's club and there was no comparison of socioeconomic status or general intelligence measure (Ludwig, 1994). Ludwig does offer these observations as limitations but still boldly asserts that this is confirmation of the previous work in the field proposing that artists have higher rates of mental illness than do other occupation fields.

In Jamieson's book *Touched with Fire: Manic depressive illness and the artistic temperament* artists were interviewed about their experiences of affective illnesses within their own family and their personal experiences with depressive lows and manic highs (Jamieson, 1993). However, as critics are quick to point out, Jamieson did not attempt to find any kind of reason other than affective disorders via differential diagnosis and by relying only on self-report, Jamieson could have been hearing affirmations of mental illness expectations within the artistic

community that they have come to assert forward and that we as a community of mental health professionals have come to expect (Becker, 2001; Glazer, 2009).

These early methods of establishing a base argument that artists experience mental illness at higher rates than that of the public are accompanied in historical literature by retrospective diagnostic case studies. One example is a more recent research article about Salvador Dali in which the author diagnosed him with several cluster A and B personality disorders using historical data such as interviews with Dali, letters written by him, and interviews from his family and friends (Murphy, 2009). These kinds of case studies are often used and cited to justify the assumption that artists experience mental illness more frequently than their non-artistic peers.

Artists' family mental health

Jamieson (1993) and Ludwig (1994) both asked respondents about their family's mental health and suggested that the mental health problems experienced by artists might be explained by family history. Andreasen found that in a study of 30 writers, 30 control participants, and the first-degree relatives of both groups that the writers and their first-degree relatives had higher rates of mental illness than did the control group and their relatives (Andreasen, 1987). Similarly, a family study by Kyaga that examined 300,000 persons via longitudinal data collected in Sweden also found links between artists, their family members, and mental illness.

Kyaga and colleagues studied individuals who were in inpatient treatment for either schizophrenia, unipolar depression, or bipolar depression and assess the health family members, IQ, and occupation of choice. Findings suggest that persons who are related to those individuals with schizophrenia diagnoses were more likely to hold creative professions than those in the

comparison group, individuals with bipolar depression were over-represented in regards to creative career choice and their relatives were more likely to hold a creative profession than those in the comparison group (Kyaga et al., 2011). There were no patterns or statistical findings for those who had depressive diagnoses or those whose family members did and while these findings were presented as robust in their analyses, the authors proposed that these findings were related to alleles possessed by members of these families and relied heavily on a strictly 'nature' argument (Kyaga et al.,2011). The authors did not offer any other explanation for the findings.

Creativity in the mentally ill

Examining the possible link between artistic creativity and bipolar disorders in a more recent study, Santosa and her colleagues studied patients with bipolar disorders and major depressive disorder and compared them to what they considered to be creative controls and healthy controls, assessing all three groups on three different creative measures. They found that there was a significant difference in the Barron-Welsh Art Scale-Total (BWAS)–scores between Euthymic Bipolar subjects and their health controls. While this test has been established as valid through its use in previous studies, the nature of the test is important to mention as it has drawn criticism from outside research in the field of creativity. This test of creativity presents participants with different black and white images and asked them to say whether they find them visually appealing or not. The more asymmetrical patterns have been shown to be more liked by artists than by non-artists.

Thus, the authors assert that because of these differences in BWAS-Total score individuals with a bipolar diagnosis (who were euthymic at the time of the study) were artistically inclined than the healthy controls. that (Santosa et al., 2006). Among the largest flaw

in this study was the creative control group, who did not have currently have a diagnosis of major depressive or bipolar diagnoses but out of the 32 controls, 19 of them met criteria for a past psychiatric disorder and only 13 reported no history of mental disorder.

Additionally, the BWAS measure, while validated to assess creativity in a way that captures more than just cognitive flexibility, is still flawed. The authors call this to attention by citing previous research that calls out the measure's simple like/dislike dichotomous set up as not yet being established to account for dimensions of emotional responses. Meaning that the measure could accurately account for creative presence or it could simply be too full of emotional responses to accurately measure the concept (Santosa et al., 2006)

Other studies have found support for greater creativity levels being found in those with bipolar disorder. Richards work is often cited as being a benchmark for the investigatory field of mental health and creativity. In his first study, dated 1988, Richards and colleagues look looked at manic depression, cyclothymic first-degree relatives and compared them with 33 individuals with no personal family history of these affective disorders. Some did carry other diagnoses. Using the Lifetime Creativity scales, contrast analyses showed that individuals who had manic depression, cyclothymia, and their "normal" relatives received higher scores of creativity than did the controls that did not have these same diagnoses (Richards, et al., 1988). Researchers found no significant differences between the controls who had illnesses and those that did not, but did find suggestions of higher creativity among normally indexed relatives than those who were manic depressively diagnosed.

Criticisms of literature

Many studies have been done to support the claim that artists experience mental illnesses at higher rates than non-artistic populations (Andreasen, 1987; Kyaga et al., 2011; Richards, Kinney, Lunde, Benet, & Merzel, 1988; Santosa, 2007; Sass, 2000). Throughout the years, studies have shown time and time again that rates of disorders or diagnostic symptomology occur at high rates in artistic individuals than in their non-artistic comparison groups. When looking more critically at the studies, flawed methodologies and researcher assumptions based on stereotypes may attribute to our understanding of the "suffering artist" more than the actual data.

Several studies start with an explanation of Plato and Aristotle's ideas of divine madness and predisposition to ill balanced humor respectively as historical roots for this problem or even mentions of Socrates (Glazer, 2009; Kyaga, 2011; Ludwig 1992) often these famous philosophers are taken out of context or misinterpreted to understand artists as we know them with mental illness as we have now defined it. Becker in 2001 wrote a thought piece about the historical and cultural origins of the understanding of artists and mental illness and framed these famous philosophers in a new light. Becker brings to light the observation that:

> Importantly to Socrates, Plato, and other contemporaries, the divine disturbance that invited prophetic or poetic activity was clearly distinguished from clinical insanity. Unlike the latter, the imported madness of seers and poets was conceived as a virtue, a state of mind greatly desired…. Also, the Aristotelian assertion that extraordinary talent is characterized by a melancholic temperament does not mean, as it is frequent asserted, that Aristotle viewed insanity as the concomitant of creativity. Insanity, according to

> Aristotle's reformulation of the Hippocratian humoral theory, did not occur in all melancholic individuals. (p. 46)

Becker goes on to talk about the Romanic period in the late 18th and early 19th century and the glamorization of mental illness and suffering due to an increased capacity for art and intellect became, for lack of a better term, fashionable (Becker, 2001). These accomplished individuals often cited an idea of madness or suffering to their work, and Becker uses poets Byron, Poe, and Lamartine as examples of eminent artists who cited the Greek and Roman philosopher's assessment of creative madness as correct in explaining their own creative process.

This article suggests that this became cemented in the history of artists and became a "role expectation" that individuals may have subscribed to for years. He cites Jamison's 1993 book *Touched with Fire: Manic-depressive Illness and the Artistic Temperament* as an eminent example in the field of psychology where this error occurs. In this text, Jamison gathers the experiences of visual artists, musical composers, and creative writers to reflect on their moods and mood changes as well as addictive behaviors and uses these examples as a bridge to clinical mental illness (Jamison, 1993).

These methods highlight problems within the historical literature surrounding artists and mental health as much of it was based on self-report and historical/post mortem diagnoses of prominent artists. Jamieson's work is called in question by Glazer's 2009 article and Schlesinger's 2009 article. Both authors separately point out Jamieson findings suggested that mental illness occurs at twenty times the normal rate in the population not of modern day creative individuals, but in a sample of poets in the United Kingdom in the late 1700's (Glazer, 2009; Jamieson, 1993; Schlesinger, 2009). Glazer and Schlesinger encourage a critical look at

this research methodology and the ethics of applying it to modern day populations (Glazer, 2009; Schlesinger, 2009).

Further complicating past research that asserts the link between poor mental health and artistry is that connection between creativity and artistic creativity. As Glazer points out in their 2009 article there are several different theories working towards a better understanding. Some researchers call out links between the bizarre thought patterns experienced by individuals that has schizo-related disorders (Glazer, 2009).

Indeed, there are several prominent articles that support the link between creative thinking and schizotypal thought patterns: Claridge & Blakely, 2009; Papworth et al., 2008; O'Reilly, Dunbar, & Bentall, 2001; Sass, 2000. Eysenck even suggested that psychoticism personality dimensions are mostly likely directly related to creativity and that the link is found in divergent thought patterns (Eysenck, 1996).

Papworth also questions the metrics surrounding creativity. Using the Torrence Tests of Creative Thinking (TTCT) which was also used in Santosa's study, he found that art student scored high and that creativity and divert thinking are clearly closely linked (Papworth et al. 2008). There were also differences in what the authors deemed probabilistic reasoning in which students in the arts were more likely to fall to the heuristic of anchoring when selecting probabilities than students who were not in the arts, which is common among those with divergent or schizotypy thought patterns (Papworth et al., 2008). In this same vein, O'Reilly posits an argument for schizotypy and evolution. No associations between divergent thinking and schizotypy were found in his study, but researchers did find that creative arts students scored higher on each measure than did those in the humanities. Again, the TTCT was used to measure

creative thinking, but may also actually be measuring schizotypy as argued by Papworth et al. 2008.

Spaniol, also cites the mad genius arguments and misattributions to our current misunderstanding of artists and their mental health needs (Spaniol, 2001). In a qualitative study in which artists were interviewed at gallery showing, many cited mental illnesses but the healing qualities of creative art. Calling social wellness, psychological wellness, and formal constructs of functioning into question, Spaniol makes the case the art itself can have many of the same qualities of a psychotherapy session. Could it be that this expression is a person's natural striving for mental wellness? And that through this expression they are experiencing relief or empathy of some kind? If that's so, as the author suggests, then the data collected on artists for decades and could be skewed by this phenomenon (Spaniol, 2001).

Recent Studies of Students involved in the arts

More recent research has used newer and better-established research methods, utilizing valid and reliable measures for various mental health symptomology and participants rather than historical data. The findings of modern research still indicate differences in mental health and wellness for artists versus non-artists but these differences are far less dramatic than older research would suggest. For example, Vellante et al.'s work studied undergraduate art students in Italy with regards to their scores on a temperament evaluation, overall health, and level creative achievement. Creative persons scored higher on the creative achievement questionnaire and on cyclothymic, hyperthymic, and irritable aspects of a temperament evaluation (Vellante et al., 2011). There was an observed difference between those with greater involvement in the arts and those with creative achievement which separated out the two constructs in ways that previous

studies had not. Vellante et al. found that students who were more involved with the arts were more likely to be at risk for diagnoses in the bipolar spectrum (Vellante et al., 2011). This is consistent with past research but Vellante and colleagues' methods offer a more psychometrically objective approach than researchers such as Ludwig, Jamieson, and Andreasen

Again, a study looking at students aligned with past research but in a less dramatic and was more methodologically sound. in Young, Winner, and Cordes's 2013 study compared high school students who were involved in the arts to students who instead involved in sports of physical activity on measures of mental health and wellness. Participants who were between 15 and 16-year-old were separated into two groups and it was found that those who had artistic involvement had higher depressive scores on a general mental health measure than those not participating in the arts. This difference was not only significant, but the study found predictive power for depression scores and participation in the arts. This difference was only true for students whose scores were above the median in a cognitive working memory test and is consistent with research surrounding mental health concerns and gifted or highly intelligent youth and adults (Young et al., 2013). The researchers' findings could also suggest that there may be different cognitive vulnerabilities and could account for both creative thinking and problem solving and increased instances depressive symptoms.

Aside from this finding that found differences for those with higher cognitive ability, motivation for a career was also supported as a mediating factor for artists' mental and physical health. Using a population of older students and incorporating artistic motivations through different career models, Elias found differences in health between groups of artists that endorsed different career models (Elias & Berg-Cross, 2009). While students within the Commodity

Model (i.e. art for profit rather than self-actualization) did smoke more and report more neck pain, they had less weight concerns, fewer infections and breathing problems. However, 30% of overall respondents reported struggling with depressive symptoms. The number of students who reported smoking, depression symptoms, and that they were taking prescribed medication were all at almost twice the rate expected for the general US population, which supports the more current research done by Young, Winner, and Cordes regarding high school students and that more mental health resources may be needed by college arts students (Elias & Berg-Cross,2009; Young et al., 2013). This also supports historical research that there are significant differences between artists and their peers who are not involved in the arts.

Most recently in 2015 it was found that students in conservatories were only scoring higher on levels of stress when compared to students in a traditional college setting. Greason, Glaser, and Mroz examined 607 conservatory art students and compared them to 87,105 student respondents from a national college survey on health. Their study disputes much of the previous research that would suggest that the instances of poor mental and physical health in conservatories or schools that study and focus on the arts, should have a higher need. Their study calls for more research to be done, comparing art students on a traditional college campus with students who are not studying the arts (Greason et al., 2015).

Mental Health on College Campuses

The current state of mental health of students on college campuses in the United States is a rapidly changing one. Tragic acts of violence and student suicidality have placed a spotlight on campus mental health. As a result, there is a recommendation for more integrated student health and mental health care (Douce & Keeling, 2014). This calls to attention some harsh facts: that

the need for services has increased significantly over the past decade and funding/campus resources have been slow to catch up (Eiser, 2011). Struggling under the need for increased services but often facing budget cuts, universities have begun to place limits on the mental health services available for students. Furthermore, the services that are received by students may not be meeting their needs, as only 22% of over 8,000 students who reported treatment for depression reported their services as meeting the threshold for "minimally adequate treatment" (Eisenberg & Chung, 2012).

The most current research and findings about the general mental health of college students as it relates to their access to university services is that there has been a steady increase in university counseling service usage. Students in one study reported feeling dissatisfied with the kinds of service they received (Association for University and College Counseling Center Directors [AUCCCD], 2016; Eiser 2011; Eisenberg & Chung, 2012). Recent data collected from a national association of university and college counseling centers shows that the top three presenting concerns for students are depression, anxiety, and relational problems (AUCCCD, 2016). These are not the only concerns of students on campuses. Hundreds of suicidal students sought services and hundreds more were hospitalized for psychiatric concerns (AUCCD, 2016; Center for Collegiate Metal Health, 2017). College counseling centers have seen more severe pathology and have seen an increase in the severity of symptoms over the last few years (AUCCCD, 2016; Eiser, 2011).

The number of students seeking mental health services has been on a sharp incline since the mid 1990's, and the problems they are presenting with widely vary. A 13-year longitudinal study by Benton, Robertson, Tseng, Newton, & Benton (2003) reported the following findings:

> Overall, our results indicated that students who were seen in counseling services in more recent time periods frequently have more complex problems that include both the normal college student problems, such as difficulties in relationships and developmental issues, as well as the more severe problems, such as anxiety, depression, suicidal ideation, sexual assault, and personality disorders. Some of these increases were dramatic: The number of students seen each year with depression doubled over the time period, while the number of suicidal students tripled and the number of students seen after a sexual assault quadrupled. (p. 69-70)

From disordered eating to suicidality, the students' issues are many. In ten years (from 2001 to 2011) the percentage of severe psychological problems reported at college campuses increased from 16% to 44% (Eiser, 2011; National Survey of Counseling Center Directors, 2010). In the 2015 to 2016 academic year, over 550 students on college campuses attempted suicide and over 400 students were hospitalized for psychiatric concerns (AUCCD, 2016).

The Center for Collegiate Mental Health used data from more than 150,000 college students who sought mental health services during the 2015-2016 academic year. The Center surveys of 139 colleges and university counseling centers revealed several new trends that they tracked from 2010 to 2016. It was found that anxiety and depression continue to be the most common concerns of students, but social anxiety has continued to increase slightly over the past six years (Center for Collegiate Metal Health, 2017). This is consistent with data collected from the Association for University and College Counseling Center Directors in their 2016 annual report. Another issue reported in the literature about college students and health is high levels of

stress. The amount of stress that college students report has deleterious impacts on their mental and physical health as well as academic performance and retention.

Often universities look at mental health through the lens of student retention (i.e. is a student functioning enough to complete coursework and graduate from the university system) which could contradict the actual needs of students. Findings indicate that while students may be experiencing extreme stress and levels of duress, most students reported being able to 'over function' or focus so much so on emotional regulation that they were able to maintain their university obligations (Durand-Bush, McNeill, Harding & Dobransky, 2015). The potential lack of resources available to students coupled with stigmatized views of mental health prove to be dangerous combination that can leave students' feeling unsupported, unhealthy, and unwell.

Previous research has shown that almost half of college aged individuals surveyed experienced a clinical psychiatric disorder within the previous year (Blanco C, Okuda M, Wright C, et al, 2008). Should college age students choose to pursue higher education, the problems do not seem to resolve themselves or subside during the college experience. To the contrary, distress levels of students who participated in a longitudinal study never fell below their pre-registration distress levels (Bewick, Koutsopoulou, Miles, Slaa et al, 2010).

Additionally, the Center for Collegiate Mental Health report presented steady and contradictory evidence for the claim that pathology is increasing on college campuses and say that lifetime rates for previous mental health treatments have remained stale with no significant differences for the sixth year in a row reporting that: one in two clients had seen a mental health professional before, one in three had taken psychotropic medication only 10% had been hospitalized for mental health concerns (Center for Collegiate Mental Health 2017). This is a

contradiction with the findings proposed by the Association for University and College Counseling Center Directors which reported that 57% of the directors responded that they have seen an increase in the severity of mental health and related behavior concerns on their campuses. This data was collected differently than the CCMH's data which is of importance to note. The AUCCCD's data came from mental health staff data and not from diagnostic *Clinicians Index of Client Concerns* that the CCMH uses.

College Students and Stress

Historically, the research has supported that there are high levels of stress occurring for students on college campuses. There are different reasons as to and Leppink et al. summarized the different contributing factors nicely, "Although stress is resent at every stage of life, the combined effect of academic rigor, shifts in social support, and changes in living situations may notable increase stress for college and university students… it may be considered 'normal' for college and university students to experience high levels of stress, the association between stress and health concerns, specifically mental health, is a pressing concern for both students and academic institutions," (Leppink et al., 2016, p. 931).

Stress, while unavoidable at any stage of life, has been found to have strong negative impacts on the lives of university students. Recent research reported that students who experience high levels of stress are associated with poor academic achievement, poor physical health, and higher rates of psychiatric disorders, including impulsive disorders (Leppink et al., 2016). This is confirmed by the historical literature which has seen interactions between high levels of stress and increased prevalence of sleep disturbances, alcohol use, and physical health consequences like lack of exercise and increased weight gain (Leppink et al., 2016). While

university counseling resources and campus programming have become more aware of this in recent years overall rates of stress have increased (Wallace, 2007).

Prior research has established that there are many different contributing factors to students' stress levels. Researchers have looked into which factors were most stressful for students (Beiter et al., 2015). Beiter et al. examined 19 different areas and found that the ten most significant stressors were: academic stress, pressure to succeed, post-graduate plans, financial stress, sleep, friendships, family dynamics, overall health, body image, and self-esteem (2015). Other contributions for stress have been found to be stress related to student minority identities (Leppink et al., 2016).

Levels of stress can also impact emotional health and regulation. Emotionally closed off students reported having more stress than students who reported that they were emotionally close to others (King, Vidourek, Merianos, & Singh, 2014). Also discussed in this study is that 61% of the respondents reported having a high level of stress and 72% of participants reported a low frequency in using stress reduction strategies (King, Vidourek, Merianos, & Singh, 2014). Also discussed in this study is that 61% of the respondents to the study reported having a high level of stress and while literature would suggest using evidence based practices to reduce this stress, 72% of this study's participants reported a low frequency in using these stress reduction strategies (King, Vidourek, Merianos, & Singh, 2014).

Although there are many ways of coping with high stress levels, one strategy for managing stress supported by research is the implementation of time management skills. Time management skills can be particularly helpful as a coping technique for students who are experiencing high levels of stress (Brown 1991; Macan, Shahani, Dipboye, & Phillips, 1990).

Time management in the literature is defined as being a set of skills or behaviors that increase productivity while also alleviating stress (Misra & McKean, 2000). Studies have found significant negative correlations between time management skills and stress experiences (Macan, Shahani, Dipboye, & Phillips,1990; Misra & McKean, 2000).

Time management may be particularly challenging for students who are studying the arts because their classroom and program commitments are can be more intensive than other fields. Oftentimes, courses in the arts are longer laboratory or studio style classes (Becker, Sommer, Bee, & Oxley, 1973). The amount of time spent in a laboratory or studio classroom oftentimes is not reflected by course hours earned (Brady, 1996). Additionally, many campus mental health resources are only open from 8 in the morning to 5 in the evening. If students are enrolled in classes that take place during this time, and that are traditionally longer than lecture courses, this may impede their ability to access mental health resources. Research should be done to see if there are significant differences in the time commitments between students studying the arts and those who are not. As hopeful as this may be and while some of these strategies may work for some students, their impact may not be felt by all students. Misra and McKean found that while female students had higher levels of time management skills, this did not make their stress levels lower than their male peers (2000).

Other studies have supported the finding that female college students experience stress at higher levels than male students (Brougham, Zail, Mendoza, & Miller, 2009; Misra,& Castillo, 2004). This may be in part due to minority stress and experiences of aggression or lack of support on college campuses that many minority students feel. Minority stress is its own subset of research within stress research regarding college students and students may experience stress

differently if they belong to different groups. For example, one study found that African American students reported higher levels of stress than White students and African American students attending predominantly white institutions reported lower levels of social support, which research has supported as an insulating factor against high levels of stress (Negga, Applewhite, & Livingston, 2007). Within this is nested the concept of acculturation stress, or the stress of having to adapt to a new culture and environment. Many students at predominantly white institutions report instances of acculturation stress and it has been found to be an impacting factor in the lives of African, Asian, and Latin American students stress and collegiate experiences (Constantine, Okazaki, & Utsey, 2004).

APPENDIX B

Tables

Table 1. 1

Demographic Information of Participants from Study Sample (N=66)

Characteristic		n	%
Gender			
	Female	41	62.1
	Genderqueer/Nonbinary	4	6.1
	Male	21	31.2
Sexual Orientation			
	Bisexual	5	7.6
	Gay	5	7.6
	Heterosexual	50	75.8
	Lesbian	2	3
	Pansexual/Queer	3	4.5
Race			
	Asian American	2	3
	Biracial	7	10.6
	Black/African American	4	6.1
	Native American	2	3
	White/Caucasian	48	72.7
	Other/Not Listed	3	4.5
Ethnicity			
	Hispanic/Latina/o/x	6	9.1
	non Hispanic/Latina/o/x	53	80.3
Age			
	18	5	7.6
	19	17	25.8
	20	13	19.7
	21	11	16.7
	22	11	16.7
	23	5	7.6
	24	3	4.5

	25	1	1.5
Major	Agriculture Economics	1	1.5
	Animal Sciences	3	4.5
	Art	15	22.7
	Civil Engineering	1	1.5
	Communication Sciences	2	3
	Construction Management	1	1.5
	Design, Housing, and Merchandising	7	10.6
	Elementary Education	3	4.5
	English: Creative Writing	1	1.5
	English: Screen Studies	1	1.5
	Finance	1	1.5
	General Business	1	1.5
	Hotel and Restaurant Management	1	1.5
	Human Development and Family Sciences	1	1.5
	Marketing	1	1.5
	Mechanical Engineering	5	7.6
	Music Education	3	4.5
	Music Performance	1	1.5
	Natural Resource, Ecology, and Wildlife Management	1	1.5
	Nutritional Sciences	2	3
	Plant and Soil Sciences	1	1.5
	Psychology	2	3
	Recreation Management	2	3
	Secondary Education	1	1.5
	Sociology	1	1.5
	Theatre	1	1.5
	University Studies	1	1.5
	Wildlife Biology	1	1.5
	Zoology	1	1.5
	Undeclared Major	1	1.5

Table 2

One-Way Analysis of Variance of OQ 45.2 Scores

Source	*df*	*SS*	*MS*	*F*	*p*
Between Groups	1	1129.227	1129.227	2	0.200
Within Groups	64	43047.758	672.621		
Total	65	44176.985			

Table 3

One-Way Analysis of Variance of PSS Scores

Source	*df*	*SS*	*MS*	*F*	*p*
Between Groups	1	94.561	94.561	2	0.197
Within Groups	64	3558.061	55.595		
Total	65	3652.621			

Table 4.1

Multivariate Test Results

Effect	*df*	Value	*F*	*p*
Pillai's Trace	5	0.216	2.917	0.021

Table 4.2

Analysis of Variance of Between-Subjects Effects

Variable	*df*	*Type III SS*	*MS*	*F*	*p*
Enrolled hours	1	5.673	32.454	1.041	0.312
Hours spent in class	1	169.312	169.312	5.217	0.026
Hours spent in class after 5:00 pm	1	2.011	2.011	0.171	0.681
Hours spent on class work	1	73.379	73.379	0.536	0.467
Hours spent on other academic activities	1	159.363	159.363	9.337	0.003

Table 4.3

Display of Mean Responses Between Groups

Variable	*Mean*	
	Artists	Non-Artists
Enrolled hours	14.48	14.21
Hours spent in class	15.77	12.29
Hours spent in class after 5:00 pm	2.6	1.39
Hours spent on class work	12.63	10.66
Hours spent on other academic activities	4.49	1.45

APPENDIX C

Informed Consent Agreement

You are being invited to participate in a research study examining the experiences of stress and overall mental health in college students from different academic programs. This study is being conducted by Fallyn M. Lee, M.A. under the direction of Julie Koch, Ph.D., from the School of Community Health, Counseling, and Counseling Psychology at Oklahoma State University. Ms. Lee is currently a graduate student in the Counseling Psychology Ph.D. program at Oklahoma State University, and data gathered in this study will be used in her doctoral dissertation. The study will provide information that may ultimately be used to advocate for increased access to mental health services and contribute to an existing body of literature about health and stress in college students.

Procedures will be taken to protect confidentiality. Due to the personal nature of some of the questions and to encourage honest responses, you will not be asked to provide your name. Computer IP addresses will not be collected, and any demographic information (such as your age, ethnicity, or level of education) will be presented in summary form when findings are reported. Please note that Qualtrics has specific privacy policies of its own. You should be aware that this web service may be able to link your responses to your ID in ways that are not bound by this consent form and the data confidentiality procedures used in this study, and if you have concerns you should consult these services directly. Qualtrics' privacy statement is provided at: http://qualtrics.com/privacy-statement.

The data will be password-protected, and only the researcher and individuals responsible for research oversight will have access to the records. Data collected in the study will be destroyed after 5 years.

There are no risks involved in participating in the study in excess of those you would experience in everyday life.

Your consent to participate is granted by indicating that you are over 18 years old, and by acknowledging that you have been fully informed about the procedures listed here, and you are aware of what you will be asked to do and the benefits and risks of participation. If you have any questions or concerns about this study you may contact the researcher. If you would like a copy of the results of this study, please contact the researcher and arrangements will be made.

Researcher: Fallyn M. Lee, M.A.
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Oklahoma State University
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Advisor: Julie Koch, Ph.D.
School of Community Health, Counseling, and Counseling Psychology
Oklahoma State University
434 Willard Hall
Stillwater, OK 74078
Email: Julie.Koch@okstate.edu

If you have questions about your rights as a research volunteer, you may contact the Oklahoma State University Institutional Review Board (IRB) Chair.

IRB Chair: Hugh Crethar, Ph.D.
223 Scott Hall
Oklahoma State University
Stillwater, OK 74078,
Phone: (405) 744-3377
Email: irb@okstate.edu

Thank you for your time and participation. If you would like to participate in this study, please select the link provided below:

APPENDIX D

Survey and Measures

Participant Demographics

Age:

18□, 19□, 20□, 21□, 22□, 23□, 24□, 25□, 26+□

Gender Identity

Female □, Male □, Transgender □, Genderqueer/Nonbinary □, Identity not listed _____□

Sexual Orientation

Heterosexual □, Gay □, Lesbian □, Bisexual □, Asexual □, Identity not listed_____□

Race

American Indian/Alaska Native □, Asian American □, Black/African American □, Native Hawaiian/Pacific Islander □, White □, Biracial/Multiracial/Mixed □

Ethnicity

Hispanic Latina/o/x □, Not Hispanic/Latina/o/x □

Academic Status

Freshman □, Sophomore □, Junior □, Senior □, Graduate Student □

Academic Major

_____ □, Undecided □

Academic Minor

_____ □, Undecided □

Counseling Services Usage

Have you attended mental health counseling at any point before enrolling college?

Yes □, No □

Have you attending mental health counseling since being enrolled in college?

Yes □, No □

Have you attended OSU University Counseling Services since being enrolled in college?

Yes □, No □

Did you participate in individual counseling?

Yes □, No □

Did you participate in group counseling?

Yes □, No □

Have you ever taken medication for mental health concerns?

Yes □, No □

Brief Overview of Weekly Schedule

Please answer the following questions as they pertain to your current academic semester

How many hours are you enrolled in this semester?

On average, how many hours per week do you spend *in class*? (Note: could be different than hours enrolled)

On average, how many hours per week do you spend *in class* after 5:00 p.m.?

On average, how many hours per week do you spend on class projects and outside work?

On average, how many hours do you spend on academic related activities expected for your major outside of class? (i.e. involvement in professional organizations, involvement in professional related activities, involvement in department programming or projects)

APPENDIX E

Debriefing Statement

Thank you for your participation in this study. In this study, the researcher studied possible differences between different college majors and minors and their overall levels of stress and mental wellness. If you would like a copy of the final results of this study or have any further questions, please contact the researcher.
If the questions in this study were in any way distressing or if you are considering seeking mental health counseling, please contract University Counseling Services at 405-744-5458 Monday through Friday from 8:00 am to 5:00 pm or you may contact the Counseling and Counseling Psychology Clinic at (405) 744-6980 Monday through Friday from 8:00 am to 5:00 pm.

For emergency support, you may call their crisis line at 405-744-6523

Researcher: Fallyn M. Lee, M.A.
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Advisor: Julie Koch, PhD, School Head
School of Community Health, Counseling and Counseling Psychology
Oklahoma State University
434 Willard Hall
Stillwater, OK 74078
Email: Julie.koch@okstate.edu

If you have questions about your rights as a research volunteer, you may contact the Oklahoma State University Institutional Review Board (IRB) Chair.

IRB Chair: Hugh C. Crethar, Ph.D.
Oklahoma State University
434 Willard Hall
Stillwater, OK 74078,
Email: irb@okstate.edu

Thank you for your participation

VITA

Fallyn Marie Lee

Candidate for the Degree of

Doctor of Philosophy

Dissertation: COMPARING STUDENTS WHO DO AND DO NOT STUDY THE FINE ARTS: MENTAL HEALTH, STRESS AND TIME SPENT ON ACDEMIC WORK

Major Field: Educational Psychology: Specialization in Counseling Psychology

Biographical:

Education:

Completed the requirements for the Doctor of Philosophy in Educational Psychology: Specialization in Counseling Psychology at Oklahoma State University, Stillwater, Oklahoma in July, 2019.

Completed the requirements for the Master of Arts in your major Ball State University, Muncie, Indiana in 2015.

Completed the requirements for the Bachelor of Science in your Psychology at Truman State University, Kirksville, Missouri in 2013.