

Spring 2017

The Relationship Between Self-Perceived Gender Typicality, Self-Esteem and Psychological Distress In College Students

Godswill O. Chuku

Fort Hays State University, godswillchuku@gmail.com

Follow this and additional works at: <https://scholars.fhsu.edu/theses>



Part of the [Psychology Commons](#)

Recommended Citation

Chuku, Godswill O., "The Relationship Between Self-Perceived Gender Typicality, Self-Esteem and Psychological Distress In College Students" (2017). *Master's Theses*. 3.
<https://scholars.fhsu.edu/theses/3>

This Thesis is brought to you for free and open access by the Graduate School at FHSU Scholars Repository. It has been accepted for inclusion in Master's Theses by an authorized administrator of FHSU Scholars Repository.

THE RELATIONSHIP BETWEEN SELF-PERCEIVED GENDER TYPICALITY,
SELF-ESTEEM AND PSYCHOLOGICAL DISTRESS
IN COLLEGE STUDENTS

being

A Thesis Presented to the Graduate Faculty
of the Fort Hays State University in
Partial Fulfillment of the Requirements for
the Degree of Master of Science

by

Godswill O. Chuku

B.S., University of Ghana

Date_____

Approved_____

Major Professor

Approved_____

Chair, Graduate Council

ABSTRACT

The role of gender identity in the gender differences observed in psychological distress has been established in research with researchers acknowledging the importance of a multidimensional conceptualization of gender identity. Gender typicality is one aspect of gender identity that has been identified to be related to psychosocial adjustment such as self-esteem in adolescents. Self-perceived gender typicality describes how typical people feel they are in relation to their own gender group. By asking college students to fill out an online survey on gender typicality, self-esteem and psychological distress, the present study explored the relationship between self-perceived gender typicality and psychological distress as well as the role of self-esteem in this relationship. Participants (N = 299) were administered a measure of self-perceived gender typicality (Adult Gender Typicality Scale), self-esteem (Rosenberg's Self-Esteem Scale) and psychological distress (Depression Anxiety Stress Scale-Short Form). It was predicted that self-perceived gender typicality will have a negative relationship with psychological distress and a positive relationship with self-esteem. Additionally, it was predicted that self-esteem will mediate the relationship between self-perceived gender typicality and psychological distress. Results indicated that gender does not influence self-perceived gender typicality, self-esteem and psychological distress. Results showed that psychological distress is inversely correlated with self-perceived gender typicality and self-esteem. In addition, self-esteem was positively correlated with self-perceived gender typicality. Moreover, results indicated that the relationship between self-perceived gender typicality and psychological distress was fully mediated by self-esteem. Implications of

the findings of the present study for gender identity in adults and the gender differences in psychological distress are discussed including the prospects for future research.

ACKNOWLEDGMENTS

This thesis was made possible through the help, advice and support of many individuals. A very special thanks to Dr. Leo Herrman, my advisor, who had the expertise to guide me through many demanding situations. Thanks also to the members of my graduate committee, Dr. April Park, Dr. Kenton Olliff, Kenneth Windholz and Gina Smith for reviewing my thesis and making recommendations along the way.

Also, a special thanks to my family and friends for always being there for me. You will never know how much I appreciate your love and support!

TABLE OF CONTENTS

	Page
ABSTRACT.....	i
ACKNOWLEDGMENTS	iii
TABLE OF CONTENTS.....	iv
LIST OF TABLES	v
LIST OF FIGURES	vi
LIST OF APPENDIXES.....	vii
INTRODUCTION	1
Psychological Distress	2
Gender Difference in Psychological Distress	5
Social Factors in Psychological Distress	7
Gender Identity	9
Traditional Approach to Gender Identity	11
Multidimensional Approach to Gender Identity	15
HYPOTHESES	20
METHOD	21
Participants.....	21
Measures	21
<i>Demographic Questionnaire</i>	21
<i>Adult Gender Typicality Scale (AGT)</i>	21
<i>Rosenberg Self-Esteem Scale (RSES)</i>	23

<i>Depression Anxiety Stress Scale-Short Form (DASS-21)</i>	23
PROCEDURE.....	25
RESULTS	26
DISCUSSION.....	30
Limitations and Future Studies	33
REFERENCES	35
APPENDIXES	44

LIST OF TABLES

Table		Page
1	Analysis of independent samples t-tests on variables between both genders	26
2	Correlations between variables in overall sample	26

LIST OF FIGURES

Figure		Page
1	Mediational analysis for the three variables	28

LIST OF APPENDIXES

Appendix	Page
A Informed Consent Form.....	44
B Demographic Questionnaire	48
C Adult Gender Typicality Scale.....	50
D Rosenberg Self-Esteem Scale	52
E Depression Anxiety Stress Scale-Short Form.....	53
F Debriefing Statement	55
G IRB Approval Letter	56

INTRODUCTION

The mental health of college students has been an area of increasing concern in society with the difficulties associated with depression, anxiety and stress being a global health burden (World Health Organization, 2003). Every year, millions of Americans and foreign students enroll in tertiary institutions in the United States in pursuit of postsecondary degrees. It is estimated that almost half of young people aged 18 to 24 years in the U.S. are enrolled in college on either a part-time or full-time basis, with about 65% of American high school graduates attending post-secondary education every year (Blanco et al., 2008; Hunt & Eisenberg, 2010).

According to Blanco et al. (2008), young adulthood offers numerous opportunities for growth and is usually characterized by rapid intellectual and social development. However, it produces stress that can precipitate the onset of a psychiatric disorder, with college-aged individuals being commonly exposed to circumstances that place them at risk for such problems. In an assessment of the prevalence of psychiatric disorders in college students, Blanco et al. (2008) found that about half of the college-aged individuals in the study had at least one psychiatric disorder in the previous year. College students, like other young adults need to cope with the psychological and psychosocial changes that are connected to the development of an autonomous personal life, in addition to coping with the academic and social demands of post-secondary education.

However, college students are generally perceived as a privileged population despite their vulnerability to the suffering and disability of mental illness (Hunt & Eisenberg, 2010). Recent research has indicated that young adult college students experience increased levels of depression, anxiety and stress (Mahmoud, Staten, Hall, &

Lennie, 2012). In a survey of 26 colleges and universities in the U.S., Hunt and Eisenberg (2010) found that about 27% of college students tested positive for depression and/or anxiety disorders, while Eisenberg, Gollust, Golberstein and Hefner (2007) mention a study on college counseling centers where more than 85% of the directors at the centers reported an increase in severe psychological problems among students. Bayram and Bilgel (2008) examined the prevalence of depression, anxiety and stress among a group of Turkish university students. The mean scores of depression, anxiety and stress for the entire sample of students in the study were at mild levels. Additionally, the mean stress scores of the male students were normal while the mean anxiety and stress scores of female students were significantly higher. It is still unclear if the current trend is a true representation of the increase in prevalence of mental illness in college students, or just a mere increase in the willingness of college students to seek help for mental health symptoms (Hunt & Eisenberg, 2010).

Psychological Distress

Psychological distress is a negative state of mental health that affects individuals, both directly and indirectly, over their lifetimes through connections with other adverse mental and physical health conditions (Canadian Institute for Health Information, 2012). Julien, Guay, Seneca and Poitras (2009) add that subjective psychological distress consists of an individual's evaluation of feelings of anxiety, depression, irritability and paranoid ideations. Subjective psychological distress can be conceptualized as a momentary state (short-term fluctuations) or as an enduring trait (Julien, et al., 2009). The authors indicate that it would be difficult to imagine that an ideal society will be formed of individuals who feel anxious, depressed and/or irritable, and who have

paranoid ideations, thereby making psychological distress a serious mental health problem for both the individual and the society at large. The Royal College of Psychiatry affirms that psychological morbidity in undergraduate students represents a neglected public health problem and holds major implications for campus health services and mental health policy-making (Bayram & Bilgel, 2008).

According to the National Institute of Mental Health, “stress can be defined as the brain’s response to any demand” (National Institute of Mental Health [NIMH], 2015). Stress is a strong predictor of a wide range of psychopathology, in addition to its role in the cause and perpetuation of psychopathological disorders (Harkness, Hayden & Lopez-Duran, 2015). Stress can contribute to health problems, and may also influence cognitive processes due to its association with elevated cortisol levels.

Anxiety is a fundamental construct in psychology that is central in the conceptualization of psychopathology, motivation and personality, as well as the most widely experienced of all negative emotions (Ahmed & Alansari, 2004). The authors opined that the anxiety level of an individual is the end product of both biological and psychosocial factors and the interaction between them. In their study of gender differences in anxiety in ten Arab universities, they found a significant difference in anxiety mean scores of female and male students, with the female college students scoring higher than their male counterparts in seven out of the ten universities assessed. In their epidemiological studies, McLean, Asnaani, Litz and Hofmann (2011) found that anxiety disorders were more dominant in women compared to men. In addition, they found a significant difference between the genders in patterns of comorbidity and the dysfunction associated with having an anxiety disorder. Women with an anxiety disorder

were significantly more likely to be diagnosed with major depressive disorder and bulimia nervosa over their lifetimes compared to men. Women were also less likely to be diagnosed with a substance abuse disorder, attention deficit-hyperactivity disorder or intermittent explosive disorder. Using the number of doctors' visits over the past year and the number of days missed from work over the past 30 days to measure the burden associated with anxiety disorders, McLean et al. (2011) found that anxious women were more likely to seek medical care than anxious men. However, both anxious men and women were equally likely to visit a professional for emotional and/or substance abuse issues over the past year, and missed a similar number of days from work. Given the significant gender effects observed in the patterns of comorbidity and burden of illness, McLean and his colleagues concluded that anxiety disorders represent a significant source of disability for women.

Depression is a medical illness with both psychological and physical symptoms that interfere with an individual's daily life and normal functioning. Familial relationships, hormone levels, childhood trauma and stress during adulthood are some of the factors that can increase the risk of depression in an individual. In a review of the literature on depression in college students, Buchanan (2012) presents data that suggest that depressive disorders may be the most prevalent psychological conditions experienced by college students. The review found that 1 in 6 students reported a previous depression diagnosis within his/her lifetime, while 1 in 3 of those with a history of depression within a lifetime reported being diagnosed in the previous school year. The study found that depression impairs an individual's functioning and is related to eight different chronic medical conditions that render depressed persons less able to perform their daily roles.

Buchanan noted that depression carries an enormous financial burden, costing U. S. employers about \$44 billion a year as opposed to only \$13 billion in nondepressed persons. The relationship among depression, anxiety and stress has been established in research (Amponsah, 2010; Bayram & Bilgel, 2008; Rawson, Bloomer & Kendall, 1994; Taylor, Lichstein, Durrence, Reidel & Bush, 2005; Yasin & Dzulkipli, 2011). Generally, high levels of stress are associated with high levels of depression and anxiety, while low levels of stress are associated with low levels of depression and anxiety. Among college students, the overlapping effects of the symptoms of stress, depression and anxiety lead to wide-ranging problems that can impact academic performance and achievement (Yasin & Dzulkipli, 2011). The strong relationship among depression, anxiety and stress emphasizes the need to assess these three measures of psychological distress together in research.

Gender Differences in Psychological Distress

Contrasting results have emerged from numerous studies on the gender differences in depression, anxiety and stress in college populations and other populations. Few studies have reported a comparable prevalence in psychological distress of college students in both genders (Blanco et al, 2008; Eisenberg et al., 2007; Elpern & Karp, 1984). Rawson, Bloomer and Kendall (2001) found significant correlations among stress, anxiety, depression and physical illness. In the study of undergraduate students, Rawson and his colleagues found a gender difference in the number of illnesses reported, with female students reporting more physical illnesses than male students. Though the researchers did not find a gender difference in stress and anxiety, they stressed the interrelationship among stress, anxiety and depression.

Interestingly, most studies have reported gender differences in psychological distress with a higher prevalence in women than men (Ahmed & Alansari, 2004; Almeida & Kessler, 1998; Amponsah, 2010; Chung, Bemak & Kagawa-Singer, 1998; Eisenberg, Gollust, Golberstein & Hefner, 2007; Mirowsky & Ross, 1995; Nurullah, 2010; Ritsner, Ponizovsky, Nechamki & Modai, 2001; Tovt-Korshynska, Dew, Chohey, Spivak & Lemko, 2001). Eisenberg et al. (2007) found in a study of a group of students in a large midwestern public university that females were twice as likely to screen positive for anxiety and more likely to screen positive for major depression, though the likelihood to screen for depression in both genders was equal. The study used anxiety and depression instruments that are validated against clinical diagnoses and incorporated multiple strategies to adjust for nonresponse bias. The findings were similar to other studies that reported a higher level of anxiety in females. For instance, Ahmed and Alansari (2004) reported higher anxiety scores for females than males in their study of undergraduate students from ten Arab countries, while Amponsah (2010) concluded that gender was the most significant predictor of stress experiences in non-United Kingdom students, with females experiencing more stress than males. These recurring gender differences in psychological distress among college students are consistent with the results from a data analysis by the Canadian National Population Health Survey (NPHS) that suggested that females report more psychological distress than males (Nurullah, 2010). According to Astbury (2006), gender does not only explain the differences between male and female experiences and susceptibility to specific risks to mental health, it is related to the differential power of men and women to respond and cope with mental health risks (Nurullah, 2010).

Social factors in Psychological Distress

Given the persistent gender differences in psychological distress between men and women, researchers and theorists have tried to offer explanations for these findings. Researchers have focused on either the differences in the social roles of men and women or on the differences in the cognitive perceptions of men and women.

McDonough and Walters (2001) state that the differential exposure and differential vulnerability hypotheses are prominent in the examination of the susceptibility to stress of each gender as a basis for the gender differences in health outcomes. The authors explain that the differential exposure hypothesis implies that the higher levels of demands and obligations in the social roles of women are responsible for the gender differences in health outcomes, while the differential vulnerability hypothesis points to women's greater reactivity or responsiveness to life events and ongoing strains that are experienced in equal measure by men. In their examination of the two hypotheses, the authors found that differential exposure accounted for only some of the gender disparity in psychological distress, with differential vulnerability becoming less important in explaining the disparity. Moreover, McDonough and Walters (2001) found that stress from social interactions exerted a stronger effect on gender disparity than all other sources of stress. These results were supported by Nurullah's (2010) findings that life stressors such as social and environmental stress influence the gender disparity in psychological distress. Though the study does not explain how social life stress causes higher psychological distress in females, it emphasizes the need to consider the social roles of women and the social stressors to which women are exposed in the examination of gender disparity.

Nolen-Hoeksema (2001) discussed victimization, chronic stress and gender

intensification in adolescence as the three stressful life events that are related to the social roles and status of women in the society, and asserted that women's lack of social power makes them more vulnerable to specific major traumas including sexual abuse.

According to Nolen-Hoeksema, women are more likely to be victims of sexual assault than men. Furthermore, there are increased depression rates in individuals with a history of sexual assault. She cites her previous review that estimated that almost half of the gender difference in adult depression could be accounted for by the higher incidence of assault on girls relative to boys. She argued that sexual assault significantly increases the risk for first or new onsets of depression. In addition to the victimization of women, Nolen-Hoeksema asserts that women face more chronic burdens in both work and home environments compared to men. Generally, women make less money, are more likely to live in poverty, and are more likely to be sexually harassed at work than men. These social inequalities discussed in many studies provide insight into the origins of the gender disparity in psychological distress and how the social roles of men and women in the society have maintained those disparities.

Social status hypothesis has also been offered as an explanation for gender disparity in psychological distress. This hypothesis implicates the social discrimination against women and suggests that this social discrimination makes it difficult for women to achieve mastery by direct action and self-assertion (Weissman & Klerman, 1985). In line with this hypothesis is the learned helplessness hypothesis, which blames the stereotypical images of men and women for the gender disparity in psychological distress. Weissman and Klerman (1985) state that the socially-conditioned stereotypical images of men and women produce a cognitive set in women that hinders their self-

assertion and independence, with societal expectations reinforcing them. Besides, this imbalance in the instrumentality of both genders in the social environment causes numerous difficulties for women and may lead to depression. Social factors account for more than half of all symptoms of psychological distress and are important in explaining the gender disparity in psychological distress (Mirowsky & Ross, 2003). Gender role socialization has been used to provide explanations on how different genders are trained to conform to the social roles of each gender. According to Zosuls, Miller, Ruble, Martin and Fabes (2011), gender role can be characterized as the socially defined, outward manifestations of gender. Gender role socialization begins as parents prepare for their child's arrival (Zosuls et al., 2011), with the social pressure to conform to gender roles increasing as children move through puberty (Nolen-Hoeksema, 2001). Nolen-Hoeksema adds that male children are socialized for their future roles in society by training them in behaviors that impact their environment, while female children, on the other hand, are socialized for their future roles in society by training them to perceive themselves as having little or no control over their environment. In her research, Nolen-Hoeksema found that parents restricted the behaviors of girls, and had higher expectations for their competencies and achievement than for their male counterparts.

Gender Identity

Researchers have explored gender cognition in an effort to explain the internalizations of gender roles. Perry and Pauletti (2011) discussed the three constructs (gender typing, gender stereotypes and gender identity) that have been prominent in theory and research on gender. Gender typing involves how gender differentiated an attribute is as measured by empirical observations or ratings. Gender stereotypes

comprise people's beliefs about how the sexes differ (descriptive stereotypes) or should differ (prescriptive stereotypes). Gender identity on the other hand encompasses representations of one's self in relation to gender categories. Researchers such as Greenwald et al. (2002) and Tobin et al. (2010) suggest that gender identity and gender stereotypes produce a combined effect on gender differentiation. The combined effects of gender identity and gender stereotypes (personal identity-plus-stereotypes patterns or "general cognitive signatures") are viewed as the causal cognitive systems that influence an individual's effort to develop and regulate the self (Perry & Pauletti, 2011). Higher levels of gender identity are expected to encourage individuals to emulate the stereotypes that they endorse.

Theorists and researchers have conceptualized gender identity in several different ways. According to Larsen and Seidman (1986), individuals develop a network of associations that surround their conceptions of 'maleness' and 'femaleness', and this sex-linked cognitive structure may be used to process diverse kinds of information in a biased manner. According to the cognitive developmental perspective, an individual's knowledge of his/her own gender identity is the driving force behind the preference for and identification with the same sex (Archer & Lloyd, 2002. p. 82). Tobin et al. (2010) posit that gender identity refers to the quality and strength of the cognitive connection that a person makes between the self and the gender category. Wood and Eagly (2015) state that gender identity reflects people's understanding of themselves in terms of cultural definitions of male and female. The authors described the two traditions in research on gender identity (the classic personality or trait approach and the gender self categorization approach) that captures the different domains of masculine and feminine

gender roles. They reiterated the importance of both approaches in gender role research.

Traditional Approach to Gender Identity

The classic personality approach referred to gender-stereotypical personality traits of individuals and encouraged the shift to a two-dimensional view on gender, while the gender self-categorization referred to people's sense of belonging to the social category of men and women and stressed the importance of social identification in gender (Wood & Eagly, 2015). However, Wood and Eagly (2015) noted a bias in research towards the classic personality approach against the gender self-categorization approach. Keener (2015) suggests that both approaches possess the same significance in our understanding of gender, though one may be more appropriate than the other depending on the goals of the research. She indicated that gender expression might be a more appropriate term for the gender-typed traits that are assessed by the classic personality approach. Wood and Eagly (2015) held that gender identities referring to the stereotypical personality traits are important in linking the social structure's division of labor with individual behavior and social interaction. People who endorse gender stereotypic traits as self-descriptive are assumed to incorporate them into their self-concepts and to guide their behavior in terms of this self-knowledge. A good example of the usage of the classic personality approach in gender identity research is Bem's (1974) Bem Sex Role Inventory (BSRI), and Bem's (1981) "gender schema theory" which developed from it. Lindsey (1997) defines a schema as the cognitive structure that helps individuals to organize their understanding of the world. Bem (1981) suggests that the phenomenon of sex-typing is derived from gender-based schematic processing in addition to a generalized readiness to process information on the basis of sex-linked associations that constitute the gender schema.

Sex-typed individuals are seen as differing from other individuals in terms of whether or not their self-concepts and behaviors are organized on the basis of gender, and not in terms of how much masculinity or femininity they possess. According to the BSRI, masculinity equals the mean self-rating for all endorsed masculine traits while femininity equals the mean self-rating for all endorsed femininity traits (Bem, 1974). A significant improvement in the BSRI is the introduction of the androgyny score (the difference between an individual's masculinity and femininity normalized with respect to his/her masculinity and femininity scores). This emphasizes the notion that psychological well-being is promoted by a perception of self as both masculine and feminine (androgynous) (Bem, 1981).

Spence, Helmreich and Stapp's (1974) Personal Attributes Questionnaire (PAQ) is also a prominent example of the application of the classic personality approach. It measures the sex role orientation of an adult male or female based on the personality traits that were judged to be ideally characteristic of men and women, but were thought to be more typical of a specific gender (Reyder, 2014). The measure produces four classes of sex role orientation: (a) masculine (high in masculine traits) (b) feminine (high in feminine traits) (c) androgynous (high in both masculine and feminine traits) and (d) undifferentiated (low in both masculine and feminine traits).

Perry and Pauletti (2011) outlined several issues with the strategy adopted by researchers using the classic personality approach of applying self-perceptions of instrumental and expressive traits as assessments of masculine and feminine identity. The authors posit that gender identity affects the adoption of gender-typed attributes making it difficult to test the theories without distinguishing the two constructs conceptually and

empirically. The degree to which an individual is gender typical also varies from one domain to another suggesting that inferring an individual's overall gender identity from their self-perceptions of gender typing in any single domain may be misleading. This strategy captures only one aspect of gender identity (self-perception of conformity to gender stereotypes) and fails to predict other gender phenomena that should be predictable from gender identity. Despite the criticisms of the assessment of gender identity using classic personality-trait approaches, these methods are useful in assessing gender beyond the gender binary, and they seem to constitute a useful available option at this time (Keener, 2015).

The gender self-categorization approach to gender identity presumes that there is a collective identity that individuals adopt when they explicitly define themselves as a member of one gender group or the other (Wood & Eagly, 2015). Here, gender group identification is defined as the descriptive (reflecting typical women and men) or prescriptive (reflecting gender ideals) categorization of oneself as female or male, including the importance of this categorization for one's self-concept. Assessments using the gender self-categorization approach to gender identity tend to ask questions about the degree to which one identifies as a man or a woman (Keener, 2015). Wood and Eagly (2015) mention that some gender self-categorization measures rely on how typical respondents perceive that they are included in their gender group or how important the group is to their self-concept, while others assess how important it is for the respondents to be similar to the gender ideal. The authors believed that self-categorization measures of gender identity should predict group-related behaviors, and that gender self-

categorization within a particular context should predict behaviors only within that context.

The different domains that the two traditional approaches to gender identity (personality-trait and self-categorization) assess, and their shared importance in our understanding of gender identity emphasizes the need to develop an approach or model that enhances their usage. While acknowledging the importance of existing conceptualizations of gender identity, Carver, Yunger and Perry (2003) state that different facets of gender identity serve different psychological functions and affect adjustment in different ways. Carver and her colleagues regard gender identity as a multidimensional construct that refers to the collections of thoughts and feelings that one has about one's gender category and one's membership in it. Researchers have favored the multidimensional approach to gender identity in recent years in one way or the other (e.g. Carver et al. 2003; Egan & Perry, 2001; Keener, 2015; Reyder, 2014; Toomey, Ryan, Diaz, Card, & Russell, 2010; Wood & Eagly, 2015; Yunger, Carver, & Perry, 2004). Wood and Eagly (2015) suggest the principle of compatibility from Azjen (2012) and Eagly and Chaiken (1993) as an important tool for predicting behaviors from gender identity measures, implying that the chances of finding meaningful effects are increased by assessing the aspects of gender identity that are most relevant to the behavioral domain being investigated. The authors also presume that classic measures of gender identity in terms of communal and agentic personality traits typically predict the specific domains of communal and agentic responses while the self-categorization measures are more likely to predict responses implicating gender groups.

Multidimensional Approach to Gender Identity

Egan and Perry (2001) recommend a multidimensional approach to the conceptualization of gender identity based on the following five constructs: (a) membership knowledge (one's awareness of being male or female); (b) gender typicality (one's self-perceptions of similarity to same-sex individuals); (c) gender contentedness (satisfaction with one's gender assignment); (d) felt pressure to conform to gender stereotypes (pressure from parents, peers, etc. to conform to gender stereotypes); (e) intergroup bias (one's belief that one's gender is superior to the other). In their study of children in the fourth through eighth grades of a state university grade school, Egan & Perry (2001) showed that correlations among these five constructs of gender identity were either modest or nonsignificant. Associations among the domain-specific measures of sex typing (e.g. agentic traits, male-typed activities, female-typed activities, communal traits, etc.) were generally modest to moderate, and mostly nonsignificant. The researchers found that boys and girls differed significantly on four constructs of gender identity. Boys scored higher on gender typicality, gender contentedness, and felt pressure to conform to gender stereotypes, whereas girls scored higher on intergroup bias. Additionally, the four constructs of gender identity were related to psychosocial adjustment but were not strongly related to one another. The researchers presume that their results confirmed the utility of the multidimensional approach to gender identity.

The constructs of gender identity proposed by Egan and Perry (2001) have been discussed and validated by a few studies. Carver, et al. (2003) attempted to substantiate the validity of the multidimensional constructs by demonstrating that theoretically meaningful links exist between the measures of the constructs and multiple indexes of

psychosocial functioning in preadolescent children. Carver and her colleagues noted some limitations to drawing inferences from the relationship between the gender identity constructs and only two indexes of psychosocial adjustment (self-esteem and peer acceptance) as used by Egan and Perry (2001); self-esteem assessment was limiting because shared method variance may have contributed to the association between them given that both measures were self-reported. Carver et al. (2003) suggest that peer acceptance was also limiting because children may be liked or disliked by peers for many different reasons. They purported to gather evidence that the various gender identity constructs relate concurrently to a more informative set of criterion adjustment variables than suggested by Egan and Perry. They included five dimensions of social behavior and adaptation, namely: internalizing problems, victimization by peers, externalizing problems, agentic traits and communal traits. The researchers also included two self-reports of internal distress (global self-worth and self-perceived peer social competence) in order to compare the peer-reported internalizing problems measure. In support of Egan and Perry's (2001) findings on the relation between gender and their constructs of gender identity, Carver et al. (2003) found that boys scored higher than girls on all constructs (gender typicality, gender contentedness and felt pressure) except intergroup bias. Additionally, Carver and her colleagues found that boys scored higher than girls on all the adjustment indexes (internalizing problems, externalizing problems and agentic traits) except on communal traits.

Toomey, Ryan, Diaz, Card and Russell (2010) suggest that a multidimensional approach incorporates both the degree to which an individual feels nonconforming and the pressure from others to conform to gendered norms. In their study, they wanted to

understand how gender typicality and the pressure to conform to gendered norms were affected by school experiences such as victimization by peers. Egan and Perry (2001) define gender typicality as the extent to which an individual perceives him- or herself to be similar to or different from others of the same gender. Toomey et al. (2010) extended the scope of their study to include the impact of this effect on psychosocial adjustment indicators in young adulthood. Using data from a Family Acceptance Project's survey that included 245 lesbian, gay, bisexual and transgender (LGBT) young adults between the ages of 21 and 25 years, they found that victimization due to perceived or actual LGBT status fully mediates the association between adolescent gender nonconformity and young adult psychological adjustment (life satisfaction and depression). More importantly, the study showed that the mean levels of victimization experienced due to LGBT status were significantly different for boys and girls, with boys experiencing greater amounts of victimization at school. The results support Egan and Perry's (2001) suggestion that the impact of gender typicality on mental health may be moderated by felt pressure, with gender typicality bearing a stronger relation to adjustment for children with high felt pressure than for children with less pressure for gender conformity.

In a 2-year longitudinal study of children in the third through seventh grades of a state university laboratory school, Yunger et al., (2004) investigated the impacts of gender typicality, gender contentedness, and felt pressure on adjustment (global self-worth, internalizing problems, externalizing problems, social preference) in preadolescence. Some of their results are summarized below.

The researchers found that gender typicality had an effect on self-esteem and externalizing problems over time but no effect on either internalizing problems or

acceptance by peers. They also found that the interaction between gender typicality and felt pressure for gender conformity produced significant effects on internalizing problems. Low gender typicality promoted internalizing problems when children felt strong pressure to conform to gender norms (Yunger et al., 2004). These patterns are similar to the findings of Egan and Perry (2001) and Toomey et al. (2010).

Next, they found that gender contentedness was related to self-esteem and peer acceptance, but not to internalizing and externalizing problems. Children who expressed dissatisfaction with their gender in the first year of the study declined in self-esteem and peer acceptance over the ensuing year (Yunger et al., 2004). Analysis of the interaction between gender contentedness and felt pressure for gender conformity on adjustment outcomes showed no significant impact for either global self-worth or internalizing problems.

Finally, analysis on felt pressure for gender conformity revealed that felt pressure did not predict changes in either self-esteem or externalizing problems. However, children who felt strong pressure for gender conformity in the first year showed increased internalizing problems and became less accepted by peers over the following year (Yunger et al., 2004). Additionally, the effects of felt pressure on internalizing problems were evaluated at different levels of gender typicality, and the results showed that felt pressure made an increasing contribution to internalizing problems as gender typicality decreased. Yunger et al. (2004) concluded that feeling gender typical has a positive influence on children's well-being, but refuted Bem's (1981) claims that individuals with stronger gender typicality should have impaired psychological well-being as they are presumed to have stronger pressure for gender conformity. Yunger and her colleagues

argued that the positive influence that gender typicality has on psychological well-being does not imply that it is in the best interest of the children to be same-sex typed.

HYPOTHESES

Research has demonstrated a significant positive relationship between gender typicality and psychosocial adjustment in adolescence (Carver et al., 2003; Egan & Perry, 2001; Yunger et al., 2004), and in adults (Tate, Bettergarcia, & Brent, 2015); but there is limited research on the relationship between gender typicality and psychological distress, or on how the relationship between gender typicality and psychosocial adjustment (self-esteem) predicts psychological distress in adults.

Self-perceived gender typicality relates to how typical a person feels in comparison to his or her own gender group. The present study investigates the relationship between self-perceived gender typicality and three measures of psychological distress—depression, anxiety and stress. Additionally, the role of self-esteem in this relationship is explored.

Hypothesis 1. Gender does not influence self-perceived gender typicality, psychological distress or self-esteem.

Hypothesis 2. Psychological distress will be negatively correlated with self-esteem.

Hypothesis 3. Self-perceived gender typicality will be negatively correlated with psychological distress.

Hypothesis 4. Self-perceived gender typicality will be positively correlated with self-esteem.

Hypothesis 5. Self-esteem mediates the relationship between self-perceived gender typicality and psychological distress.

METHOD

Participants

Participants for this study were 299 college students (234 women, 65 men) enrolled in psychology courses at a small midwestern university. The distribution of ages ranged from 18-59 years, with about 90% of the participants being between the ages of 18 and 39 years old. Classification of participants by race/ethnicity indicated that 74.7% were White/Caucasian, 8% were Black/African-American, 7.3% were Hispanic/Latin-American and 10% were from other races/ethnicities or more than one race/ethnicity. The demographics of the participants match the demographics of a small midwestern university. Participants who were approved by their instructor received course credit or extra credit for participating. IRB approval was received prior to collecting data for this study (see Appendix G).

Measures

All participants were administered an online survey consisting of these instruments: Demographic Questionnaire, Adult Gender Typicality Scale (AGT), Rosenberg Self-Esteem Scale (RSES), Depression Anxiety Stress Scale short form (DASS-21).

Demographics Questionnaire. The demographic questionnaire contained questions about the participant's gender, age category, level of education, and ethnicity (See Appendix B).

Adult Gender Typicality Scale (AGT). Gender typicality was measured using the Adult Gender Typicality Scale (AGT). The Adult Gender Typicality Scale (AGT) is a 6-item measure adapted from Egan and Perry's (2001) measure of self-perceived gender

typicality (Tate, et al., 2015; See Appendix C). It is part of a larger measure of gender identity that also includes measures of gender satisfaction, satisfaction with gender roles, and perceived pressure to conform to gender roles (Patterson, 2012). Questions on the Gender Typicality Scale assess feelings that one is a typical example of one's gender category and that one's skills or interests are similar to those of same-sex others. A sample item for women on the AGT is "I feel just like women my age or I feel that the things I am good at are similar to what most women are good at". A sample item for men is "I feel just like men my age or I feel that the things I am good at are similar to what most men are good at". Participants responded to each question on a 1 (strongly disagree) to 7 (strongly agree) Likert scale. Higher scores indicate more typicality for all items on the AGT, and the questionnaire takes about 2-3 minutes to complete.

The Cronbach's alpha coefficients in children was .78 while the stability coefficients over a 6-month period was .64 (Egan & Perry, 2001). Yunger et al. (2004) reported Cronbach's alpha coefficients of .68 in the first year and .82 in the preceding year in their longitudinal study of children in fourth to eighth grades. This scale has produced similar reliability coefficients in diverse populations. For example, Corby, Hodges, and Perry (2007) in their study of black, white and Hispanic preadolescents reported similar Cronbach's alpha coefficients (.73, .85 and .78 respectively). In a sample of Chinese Elementary School children, Yu, Xie, and Shek (2012) found similar reliability coefficients ($\alpha = .61$), though they were lower than those reported in the previous studies. In adults, internal consistency coefficients between .86 and .88 have been reported across all gender categories (Tate et al., 2015).

Rosenberg Self-Esteem Scale (RSES). Self-esteem was measured using the Rosenberg Self-Esteem Scale (see Appendix D). The RSES is a 10-item scale that assesses global self-worth by measuring both positive and negative feelings about the self. The scale contains five positively worded items (e.g. I feel that I have a number of good qualities) and five negatively worded ones (e.g. I feel I do not have much to be proud of). The scale is believed to be uni-dimensional, and all items on the scale are answered using a 4-point Likert scale format ranging from strongly agree to strongly disagree. A self-esteem score is calculated after reversing the positively worded items with higher scores indicating greater self-esteem and it takes about 2-3 minutes to complete.

Depression Anxiety Stress Scale- Short Form (DASS-21). Psychological distress was measured using the Depression Anxiety Stress Scale short form (DASS-21). DASS-21 is a 21-item self-report questionnaire (Lovibond & Lovibond, 1995; see Appendix E). It consists of three 7-item self-report scales that measure depression, anxiety and stress, including a 4-point severity scale, which measures the extent to which each state has been experienced over the past week (Henry & Crawford, 2005). Each item on the questionnaire comprises a statement and four short response options to reflect severity and is scored from 0 (Did not apply to me at all) to 3 (Applied to me very much, or most of the time). Total scores on the DASS are calculated by summing the scores for each subscale. Higher scores on the DASS indicate higher psychological distress (higher depression, anxiety and stress) and the questionnaire takes between 5-10 minutes to complete.

Psychometric validation of the DASS has produced positive results for the measure in the literature. In the original sample, reliability coefficients were .93 for the total scale, and .88, .82 and .90 for the depression, anxiety and stress subscales respectively. Yusoff (2013) reports overall Cronbach's alpha coefficients of .82 in a sample of medical degree applicants, while Tran, Tran and Fisher (2013) report high overall internal consistency (Cronbach's alpha = .88) and alpha values between .70 and .77 on the subscales.

Oei, Sawang, Goh, and Mukhtar (2013) assert that the DASS-21 is a well-established and psychometrically sound instrument for measuring depression, anxiety and stress in the Western world with good reliability and validity. Bayram and Bilgel (2008) add that it is useful in both clinical and community samples.

PROCEDURE

Participants completed an anonymous online survey using Survey Monkey. This survey included a demographic questionnaire, a gender typicality measure, a self-esteem measure, and a depression, anxiety and stress (psychological distress) measure.

Participants first read through and agreed with the consent form (see Appendix A) before completing the surveys. Those who decided not to participate had the ability to exit the survey at any time. At the completion of the survey, participants were directed to a debriefing statement (see Appendix F) which provided information about the study and contact information for the Kelly Center and the Psychology Department Ethics Committee.

RESULTS

An independent samples t-test was conducted to compare male and female participant' self-perceived gender typicality, psychological distress and self-esteem scores. An alpha level of .05 was used for all statistical tests to test for significance. Homogeneity of variances for self-perceived gender typicality scores for male and female participants was not violated as assessed by Levene's test of equality of variances, $F(2, 297) = .92, p = .338$. There was not a significant difference in self-perceived gender typicality scores for male ($M=25.58, SD=6.83$) and female ($M=26.42, SD=7.24$) participants; $t(297) = -.84, p = .401$. These results suggest that gender does not influence self-perceived gender typicality.

Homogeneity of variances for psychological distress scores for male and female participants was not violated as assessed by Levene's test of equality of variances, $F(2, 297) = .14, p = .709$. There was not a significant difference in psychological distress scores for male ($M=15.51, SD=11.85$) and female ($M=15.02, SD=10.72$) participants; $t(297) = .32, p = .747$. These results suggest that gender does not influence psychological distress.

Homogeneity of variances for self-esteem scores for male and female participants was not violated as assessed by Levene's test of equality of variances, $F(2, 297) = 3.09, p = .080$. There was not a significant difference in self-esteem scores for male ($M=29.71, SD=5.12$) and female ($M=29.47, SD=5.76$) participants; $t(297) = .31, p = .756$. These results suggest that gender does not influence self-esteem. A summary of the analysis is presented in Table 1.

Measure	Male (SD)	Female (SD)	<i>t</i>	df
AGT	25.58(6.83)	26.42(7.24)	-.84	297
RSES	29.71(5.12)	29.47(5.76)	.31	297
DASS-21	15.51(11.85)	15.02(10.72)	.32	297

Table 1. Analysis of independent samples t-tests on variables between both genders.

* $p < .05$

A Pearson's product-moment correlation was used to determine if there were correlations between participants' scores on psychological distress, self-perceived gender typicality and self-esteem. There was a negative correlation between participants' scores on psychological distress and their self-esteem scores, $r(299) = -.55, p < .001$.

Additionally, there was a negative correlation between participants' scores on psychological distress and their scores on self-perceived gender typicality, $r(299) = -.26, p < .001$. However, there was a positive correlation between participants' self-esteem scores and their scores on self-perceived gender typicality, $r(299) = .43, p < .001$. A summary of the analysis is presented in Table 2.

Measure	1	2	3	M	SD
1. AGT		43*	-.26*	26.24	7.15
2. RSES	43*	-	-.52*	29.52	5.62
3. DASS-21	-.26*	-.52*	-	15.13	10.96

Table 2. Correlations between variables in overall sample. * $p < .001$

Regression analysis was used to investigate the hypothesis that self-esteem mediates the relationship between self-perceived gender typicality and psychological distress. The mediational hypothesis was supported by the results. Self-perceived gender

typicality significantly predicted psychological distress, $b = -.26$, $t(297) = -4.67$, $p < .001$ and explained a significant proportion of the variance in psychological distress, $R^2 = .07$, $F(1, 297) = 21.84$, $p < .001$, 95% CI [-.57, -.23]. Self-perceived gender typicality also significantly predicted self-esteem, $b = .43$, $t(297) = 8.22$, $p < .001$ and explained a significant proportion of the variance in self-esteem, $R^2 = .19$, $F(1, 297) = 67.52$, $p < .001$, 95% CI [.26, .42]. Additionally, self-esteem significantly predicted psychological distress, $b = -.52$, $t(297) = -10.41$, $p < .001$ and explained a significant proportion of the variance in psychological distress, $R^2 = .27$, $F(1, 297) = 108.43$, $p < .001$, 95% CI [-1.20, -.82].

To test for mediation, self-perceived gender typicality and self-esteem were entered as predictor variables, and psychological distress as the outcome variable. The overall equation was significant, $R^2 = .27$, $F(2, 296) = 54.55$, $p < .001$. The relationship between self-esteem and psychological distress remained significant while controlling for self-perceived gender typicality, $b = -.50$, $t(296) = -9.02$, $p < .001$. Most importantly, the relationship between self-perceived gender typicality and psychological distress was not significant in this analysis, $b = -.05$, $t(296) = -.87$, $p = .384$. These results suggest that self-esteem fully mediates the relationship between self-perceived gender typicality and psychological distress. A summary of the mediational analysis is presented in Figure 1.

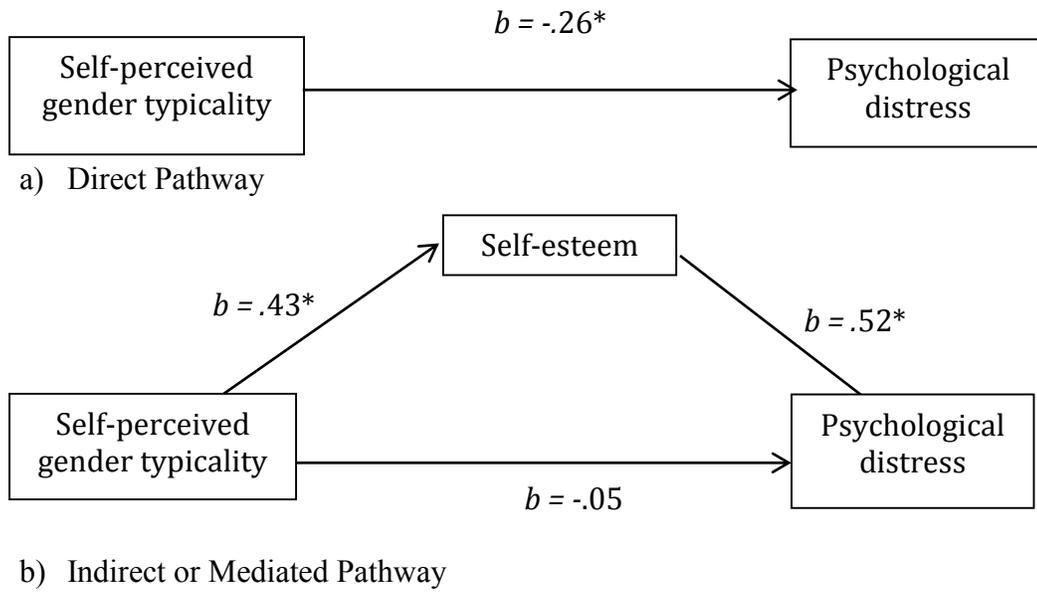


Figure 1. Mediation analysis for the three variables. * $p < .001$

DISCUSSION

The purpose of the current study was to examine the relationship between self-perceived gender typicality and psychological distress in college students. As discussed before, gender identity predicts psychosocial adjustment in both children and adults. Specifically, the present study identified the role of self-esteem in the relationship between self-perceived gender typicality and psychological distress. The study also looked at the difference between males and females when it comes to self-perceived gender typicality, psychological distress and self-esteem. The results of this study add to the growing number of studies involving these variables.

Past research around gender differences in self-perceived gender typicality and psychosocial adjustment (psychological distress and self-esteem) have been divided in their findings. Studies on children and adolescents have found significant gender differences in self-perceived gender typicality (Egan & Perry, 2001; Patterson, 2012; Younger et al., 2004), psychological distress (Nurullah, 2010; Perle, 2008; Perry & Pauletti, 2011), and self-esteem (Cook, 2015; Younger et al., 2004). The present study did not find a significant difference between men's and women's self-perceived gender typicality, self-esteem or psychological distress. It is important to note that past studies on gender typicality and self-esteem have focused on children and adolescents. Some researchers such as Younger et al. (2004) and Carver et al. (2003) have indicated that older children report greater gender typicality and self-esteem, with both constructs increasing with increase in age. Yu and Xie (2010) found that there were no significant gender differences in gender typicality and self-esteem in middle childhood in a Chinese sample. In the study of adolescents, Smith and Leaper (2006) found that the gender difference

between boys and girls on gender typicality was nonsignificant. Carver et al. (2003) posit that the multiple gender-typed attributes that contribute to child's sense of gender typicality, as well as the cognitive developmental stage in the middle of childhood allow flexibility in how a sense of gender typicality can be achieved. Importantly, each child may adopt a different route to achieve gender typicality in adulthood. These findings reiterate the reduced importance of gender in gender typicality and psychosocial adjustment in adults while encouraging a need to consider the multidimensionality of gender identity in gender research.

It was hypothesized that participants' self-perceived gender typicality would be negatively related to their psychological distress. The results of this hypothesis were statistically significant. Self-perceived gender typicality and psychological distress were shown to be negatively correlated, indicating that higher self-perceived gender typicality is related to less psychological distress and vice versa.

It was hypothesized that participants' self-perceived gender typicality would be positively related to their self-esteem. The results of this hypothesis were statistically significant. Self-perceived gender typicality and self-esteem were shown to be positively correlated, indicating that higher self-perceived gender typicality is related to higher self-esteem and vice versa.

It was hypothesized that participants' self-esteem would be negatively related to their psychological distress. The results of this hypothesis were statistically significant. Self-esteem and psychological distress were shown to be negatively correlated, indicating that higher self-esteem is related to less psychological distress and vice versa.

It was hypothesized that self-esteem mediates the relationship between self-

perceived gender typicality and psychological distress. The results of this hypothesis were significant. Self-perceived gender typicality was a significant predictor of psychological distress, with its predicting power becoming non-significant with the introduction of self-esteem into the regression. Self-esteem fully mediates the relationship between self-perceived gender typicality and psychological distress.

This study expected that low self-perceived gender typicality will be related to negative psychosocial adjustment (stress, depression and anxiety), while high self-perceived gender typicality will be related to positive psychosocial adjustment (self-esteem). This relationship between self-perceived gender typicality, self-esteem and psychological distress is consistent with previous research (Carver et al., 2003; Cook, 2015; Egan & Perry, 2001; Perle, 2008; Tate et al., 2015). The findings of this study indicate that gender typicality has strong implications for psychosocial adjustment in adulthood. Carver et al. (2003) suggest that perceiving one's self to be a typical member of one's gender group is important to one's psychological well-being. The interaction between the constructs of gender identity as defined by Egan and Perry (2001) may explain the mediating effect of self-esteem on the relationship between self-perceived gender typicality and psychological distress. Self-esteem has been consistently identified as a protective factor against psychological distress (Eisenbarth, 2012; Dumont & Provost, 1999). Cook (2015) proposes that the link between gender typicality and adjustment is a contextual process that is dependent on many environmental characteristics. Tobin et al. (2010) assert that gender typicality represents a summary judgement reached by integrating several kinds of information with individuals feeling gender typical for diverse reasons.

Limitations and Future Studies.

Several limitations of the current study have been identified and will be discussed below. A major limitation of this study is the sole reliance on self-report measures. The validity of the results depends on the accuracy and honesty of research participants in reporting, including their own self-awareness of the constructs that were being measured. Additionally, shared method variance may have contributed to the associations between self-perceived gender typicality, psychological distress and self-esteem. However, online self-report measures provided the researcher with the opportunity to collect a broad range of data from many respondents.

Another limitation of the current study is the limited diversity in the demographics of the participants. Participants were all drawn from psychology courses at a small Midwestern university. The sample was predominantly White/Caucasian and female. The limited diversity of the sample restricts the generalizability of the results.

The current study focused on gender typicality (perceived similarity to the same-gender collective) which is only one dimension of Egan and Perry's (2001) multidimensional approach to gender identity. Given the interactive and contextual nature of the different dimensions of gender identity, future researchers might want to include other dimensions of gender identity in exploring the indicators of psychosocial adjustment. Keener (2015) suggest that "new measures including quantitative and qualitative as well as a combination of both are needed to better assess gender identity and gender expression in a way that more accurately reflects the complicated nature of gender".

The results of the current study provide more data and information for our

understanding of the role of self-perceived gender typicality on psychosocial adjustment. It reiterates the importance of adopting a multidimensional approach to gender identity in the exploration of the gender-related psychosocial adjustment in adults. Ultimately, the current study adds to the literature on the gender differences in psychological distress in college students and adults in general.

REFERENCES

- Ahmed M., A. & Alansari, B. (2004). Gender Differences in Anxiety among Undergraduates from Ten Arab Countries. *Social Behavior and Personality: An International Journal*, 32(7), 649-655. [doi: 10.2224/sbp.2004.32.7.649](https://doi.org/10.2224/sbp.2004.32.7.649)
- Ajzen, I. (2012). Values, attitudes, and behavior. In S. Salzborn, E. Davidov & J. Reinecke, *Methods, theories, and empirical applications in the social sciences* (1st ed., pp. 33-38). Wiesbaden: VS Verlag für Sozialwissenschaften. Retrieved from http://link.springer.com/chapter/10.1007%2F978-3-531-18898-0_5
- Almeida, D. & Kessler, R. (1998). Everyday stressors and gender differences in daily distress. *Journal of Personality and Social Psychology*, 75(3), 670-680. [doi: 10.1037//0022-3514.75.3.670](https://doi.org/10.1037//0022-3514.75.3.670)
- Amponsah, M. (2010). Non-UK university students stress levels and their coping strategies. *Educational Research*, 1(4), 088-098. Retrieved from <http://www.interestjournals.org/ER>
- Archer, J. & Lloyd, B. (2002). *Sex and gender*. Cambridge, UK: Cambridge University Press.
- Bayram, N. & Bilgel, N. (2008). The prevalence and socio-demographic correlations of depression, anxiety and stress among a group of university students. *Social Psychiatry and Psychiatric Epidemiology*, 43(8), 667-672. [doi: 10.1007/s00127-008-0345-x](https://doi.org/10.1007/s00127-008-0345-x)
- Bem, S. (1974). The measurement of psychological androgyny. *Journal of Consulting and Clinical Psychology*, 42(2), 155-162. [doi: 10.1037/h0036215](https://doi.org/10.1037/h0036215)

- Bem, S. (1981). Gender schema theory: A cognitive account of sex typing. *Psychological Review*, 88(4), 354-364. [doi: 10.1037/0033-295x.88.4.354](https://doi.org/10.1037/0033-295x.88.4.354)
- Blanco, C., Okuda, M., Wright, C., Hasin, D., Grant, B., Liu, S., & Olfson, M. (2008). Mental health of college students and their non-college-attending peers. *Arch Gen Psychiatry*, 65(12), 1429. [doi: 10.1001/archpsyc.65.12.1429](https://doi.org/10.1001/archpsyc.65.12.1429)
- Blascovich, J. & Tomaka, J. (1991). Measures of Self-Esteem. *Measures of Personality and Social Psychological Attitudes*, 115-160. [doi: 10.1016/b978-0-12-590241-0.50008-3](https://doi.org/10.1016/b978-0-12-590241-0.50008-3)
- Buchanan, J. (2012). Prevention of depression in the college student population: A review of the literature. *Archives of Psychiatric Nursing*, 26(1), 21-42. [doi:10.1016/j.apnu.2011.03.003](https://doi.org/10.1016/j.apnu.2011.03.003).
- Canadian Institute for Health Information, (2012). *The Role of Social Support in Reducing Psychological Distress* (p. 1). Federal Identity Program.
- Carver, P., Yunger, J., & Perry, D. (2003). Gender Identity and Adjustment in Middle Childhood. *Sex Roles*, 49(3/4), 95-109. [doi: 10.1023/a:1024423012063](https://doi.org/10.1023/a:1024423012063)
- Chung, R., Bemak, F., & Kagawa-Singer, M. (1998). Gender differences in psychological distress among Southeast Asian refugees. *Journal of Nervous and Mental Disease*, 186(2), 112-119.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences*. Hillsdale, N.J.: L. Erlbaum Associates.
- Cook, R. (2015). *Preadolescents' gender typicality: An exploration of multidimensionality* (Doctoral dissertation, Arizona State University).

- Corby, B., Hodges, E., & Perry, D. (2007). Gender identity and adjustment in black, Hispanic, and white preadolescents. *Developmental Psychology, 43*(1), 261-266. [doi: 10.1037/0012-1649.43.1.261](https://doi.org/10.1037/0012-1649.43.1.261).
- Dumont, M., & Provost, M. (1999). Resilience in adolescents: Protective role of social support, coping strategies, self-esteem, and social activities on experience of stress and depression. *Journal of Youth and Adolescence, 28*(3), 343-363. [doi: 10.1023/a:1021637011732](https://doi.org/10.1023/a:1021637011732).
- Eagly, A. & Chaiken, S. (1993). *The psychology of attitudes*. Fort Worth, TX: Harcourt Brace Jovanovich College Publishers.
- Egan, S. & Perry, D. (2001). Gender identity: A multidimensional analysis with implications for psychosocial adjustment. *Developmental Psychology, 37*(4), 451-463. [doi: 10.1037//0012-1649.37.4.451](https://doi.org/10.1037//0012-1649.37.4.451).
- Eisenbarth, C. (2012). Does self-esteem moderate the relations among perceived stress, coping, and depression? *College Student Journal, 46*(1), 149-157.
- Eisenberg, D., Gollust, S., Golberstein, E., & Hefner, J. (2007). Prevalence and correlates of depression, anxiety, and suicidality among university students. *American Journal of Orthopsychiatry, 77*(4), 534-542. [doi 10.1037/0002-9432.77.4.534](https://doi.org/10.1037/0002-9432.77.4.534)
- Elpern, S. & Karp, S. (1984). Sex-role orientation and depressive symptomatology. *Sex Roles, 10*(11-12), 987-992. [doi: 10.1007/bf00288519](https://doi.org/10.1007/bf00288519).
- Gale, L. (2015). *Anxiety and depression assessment: Using the depression anxiety stress scales* (1st ed.). Glendale, CA: Cinahl Information Systems. Retrieved from https://www.ebscohost.com/assets-sample-content/Anxiety_and_Depression_Assessment_SWPS.pdf

- Granello, D. & Wheaton, J. (2004). Online data collection: Strategies for research. *Journal of Counseling & Development*, 82(4), 387-393. [doi: 10.1002/j.1556-6678.2004.tb00325.x](https://doi.org/10.1002/j.1556-6678.2004.tb00325.x)
- Greenwald, A., Banaji, M., Rudman, L., Farnham, S., Nosek, B., & Mellott, D. (2002). A unified theory of implicit attitudes, stereotypes, self-esteem, and self-concept. *Psychological Review*, 109(1), 3-25. [doi: 10.1037//0033-295x.109.1.3](https://doi.org/10.1037//0033-295x.109.1.3)
- Harkness, K., Hayden, E., & Lopez-Duran, N. (2015). Stress sensitivity and stress sensitization in psychopathology: An introduction to the special section. *Journal of Abnormal Psychology*, 124(1), 1-3. [doi: 10.1037/abn0000041](https://doi.org/10.1037/abn0000041)
- Henry, J. & Crawford, J. (2005). The short-form version of the Depression Anxiety Stress Scales (DASS-21): Construct validity and normative data in a large non-clinical sample. *British Journal of Clinical Psychology*, 44(2), 227-239. [doi: 10.1348/014466505x29657](https://doi.org/10.1348/014466505x29657)
- Hunt, J. & Eisenberg, D. (2010). Mental health problems and help-seeking behavior among college students. *Journal of Adolescent Health*, 46(1), 3-10. [doi: 10.1016/j.jadohealth.2009.08.008](https://doi.org/10.1016/j.jadohealth.2009.08.008)
- Julien, E., Guay, F., Seneca, C., & Poitras, S. (2009). Subjective psychological distress among young adults: The role of global and contextual levels of self-determined motivation. *Hellenic Journal of Psychology*, 6, 145-168.
- Keener, E. (2015). The complexity of gender: It is all that and more.... in sum, it is complicated. *Sex Roles*, 73(11-12), 481-489. [doi: 10.1007/s11199-015-0542-5](https://doi.org/10.1007/s11199-015-0542-5).

- Larsen, R. & Seidman, E. (1986). Gender schema theory and sex role inventories: Some conceptual and psychometric considerations. *Journal of Personality and Social Psychology*, 50(1), 205-211. [doi: 10.1037//0022-3514.50.1.205](https://doi.org/10.1037//0022-3514.50.1.205).
- Lindsey, L. (2011). *Gender roles*. Upper Saddle River, N.J.: Pearson Prentice Hall.
- Lovibond, S.H. & Lovibond, P.F. (1995). *Manual for the Depression Anxiety Stress Scales*. (2nd. Ed.) Sydney: Psychology Foundation.
- Mahmoud, J., Staten, R., Hall, L., & Lennie, T. (2012). The relationship among young adult college students' depression, anxiety, stress, demographics, life satisfaction, and coping styles. *Issues in Mental Health Nursing*, 33(3), 149-156. [doi: 10.3109/01612840.2011.632708](https://doi.org/10.3109/01612840.2011.632708).
- McDonough, P. & Walters, V. (2001). Gender and health: reassessing patterns and explanations. *Social Science & Medicine*, 52(4), 547-559. [doi: 10.1016/s0277-9536\(00\)00159-3](https://doi.org/10.1016/s0277-9536(00)00159-3).
- McLean, C., Asnaani, A., Litz, B., & Hofmann, S. (2011). Gender differences in anxiety disorders: Prevalence, course of illness, comorbidity and burden of illness. *Journal of Psychiatric Research*, 45(8), 1027-1035. [doi: 10.1016/j.jpsychires.2011.03.006](https://doi.org/10.1016/j.jpsychires.2011.03.006).
- Mirowsky, J. & Ross, C. (1995). Sex differences in distress: Real or artifact? *American Sociological Review*, 60(3), 449. [doi: 10.2307/2096424](https://doi.org/10.2307/2096424).
- Nolen-Hoeksema, S. (2001). Gender differences in depression. *Current Directions in Psychological Science*, 10(5), 173-176. [doi: 10.1111/1467-8721.00142](https://doi.org/10.1111/1467-8721.00142).

- Nurullah, A. (2010). Gender differences in distress: The mediating influence of life stressors and psychological resources. *Asian Social Science*, 6(5). doi: [10.5539/ass.v6n5p27](https://doi.org/10.5539/ass.v6n5p27).
- Oei, T., Sawang, S., Goh, Y., & Mukhtar, F. (2013). Using the Depression Anxiety Stress Scale 21 (DASS-21) across cultures. *International Journal of Psychology*, 48(6), 1018-1029. doi: [10.1080/00207594.2012.755535](https://doi.org/10.1080/00207594.2012.755535).
- Patterson, M. (2012). Self-perceived gender typicality, gender-typed attributes, and gender stereotype endorsement in elementary-school-aged children. *Sex Roles*, 67(7-8), 422-434. doi: [10.1007/s11199-012-0184-9](https://doi.org/10.1007/s11199-012-0184-9).
- Perle, J. (2008). *Another look at gender identity in preadolescence* (Doctoral dissertation, Florida Atlantic University Boca Raton, Florida).
- Perry, D. & Pauletti, R. (2011). Gender and adolescent development. *Journal of Research on Adolescence*, 21(1), 61-74. doi: [10.1111/j.1532-7795.2010.00715.x](https://doi.org/10.1111/j.1532-7795.2010.00715.x)
- Rawson, H., Bloomer, K., & Kendall, A. (1994). Stress, anxiety, depression, and physical illness in college students. *The Journal of Genetic Psychology*, 155(3), 321-330. doi: [10.1080/00221325.1994.9914782](https://doi.org/10.1080/00221325.1994.9914782)
- Reyder, M. (2014). Gender identity, ethnic identity, and self-esteem in Latino adolescent males. *Unpublished Master's Thesis, California Polytechnic State University, San Luis Obispo, CA*. doi: [10.15368/theses.2014.10](https://doi.org/10.15368/theses.2014.10)
- Ritsner, M., Ponizovsky, A., Nechamkin, Y., & Modai, I. (2001). Gender differences in psychosocial risk factors for psychological distress among immigrants. *Comprehensive Psychiatry*, 42(2), 151-160. doi: [10.1053/comp.2001.19750](https://doi.org/10.1053/comp.2001.19750)

- Rosenberg, M. (1965). *Society and the adolescent self-image*. Princeton, N.J.: Princeton University Press.
- Smith, T. E., & Leaper, C. (2006). Self-perceived gender typicality and the peer context during adolescence. *Journal of Research on Adolescence*, *16*(1), 91-104.
- Spence, J., Helmreich, R., & Stapp, J. (1974). The Personal Attributes Questionnaire: A measure of sex role stereotypes and masculinity-femininity. *Catalog of Selected Documents in Psychology*, *4*, 43-44.
- Tabachnick, B. & Fidell, L. (2007). *Using multivariate statistics*. Boston: Pearson/Allyn & Bacon.
- Tate, C., Bettergarcia, J., & Brent, L. (2015). Re-assessing the role of gender-related cognitions for self-esteem: The importance of gender typicality for cisgender adults. *Sex Roles*, *72*(5-6), 221-236. [doi: 10.1007/s11199-015-0458-0](https://doi.org/10.1007/s11199-015-0458-0)
- Taylor, D., Lichstein, K., Durrence, H., Reidel, B., & Bush, A. (2005). Epidemiology of insomnia, depression, and anxiety. *SLEEP*, *28*(11), 1457-1464.
- Tobin, D., Menon, M., Menon, M., Spatta, B., Hodges, E., & Perry, D. (2010). The intrapsychics of gender: A model of self-socialization. *Psychological Review*, *117*(2), 601-622. [doi: 10.1037/a0018936](https://doi.org/10.1037/a0018936)
- Toomey, R., Ryan, C., Diaz, R., Card, N., & Russell, S. (2010). Gender-nonconforming lesbian, gay, bisexual, and transgender youth: School victimization and young adult psychosocial adjustment. *Developmental Psychology*, *46*(6), 1580-1589. [doi: 10.1037/a0020705](https://doi.org/10.1037/a0020705)

- Tovt-Korshynska, M., Dew, M., Chohey, I., Spivak, M., & Lemko, I. (2001). Gender differences in psychological distress in adults with asthma. *Journal of Psychosomatic Research*, 51(5), 629-637. [doi: 10.1016/s0022-3999\(01\)00254-9](https://doi.org/10.1016/s0022-3999(01)00254-9)
- Tran, T., Tran, T., & Fisher, J. (2013). Validation of the Depression Anxiety Stress Scales (DASS-21) as a screening instrument for depression and anxiety in a rural community-based cohort of northern Vietnamese women. *BMC Psychiatry*, 13(1). [doi: 10.1186/1471-244x-13-24](https://doi.org/10.1186/1471-244x-13-24)
- Van Selm, M. & Jankowski, N. (2006). Conducting online surveys. *Quality and quantity*, 40(3), 435-456. [doi: 10.1007/s11135-005-8081-8](https://doi.org/10.1007/s11135-005-8081-8)
- Weissman, M. & Klerman, G. (1985). Gender and depression. *Trends in Neurosciences*, 8, 416-420. [doi: 10.1016/0166-2236\(85\)90145-6](https://doi.org/10.1016/0166-2236(85)90145-6)
- Wood, W. & Eagly, A. (2015). Two Traditions of Research on Gender Identity. *Sex Roles*, 73(11-12), 461-473. [doi: 10.1007/s11199-015-0480-2](https://doi.org/10.1007/s11199-015-0480-2)
- World Health Organization, (2003). *Investing in Mental Health. WHO, Department of Mental Health and Substance Dependence. Noncommunicable Diseases and Mental Health*, Geneva.
- Yasin, A. & Dzulkifli, M. (2011). Differences in depression, anxiety and stress between low-and high-achieving students. *Journal of Sustainability Science and Management*, 6(1), 169-178.
- Yu, L., Xie, D., & Shek, D. (2012). Factor structure of a multidimensional gender identity scale in a sample of chinese elementary school children. *The Scientific World Journal*, 2012, 1-10. [doi: 10.1100/2012/595813](https://doi.org/10.1100/2012/595813)

Yunger, J., Carver, P., & Perry, D. (2004). Does gender identity influence children's psychological well-being? *Developmental Psychology*, 40(4), 572-582. [doi: 10.1037/0012-1649.40.4.572](https://doi.org/10.1037/0012-1649.40.4.572)

Yusoff, M. (2013). Psychometric properties of the Depression Anxiety Stress Scale in a sample of medical degree applicants. *International Medical Journal*, 20(3), 295-300.

Zosuls, K., Miller, C., Ruble, D., Martin, C., & Fabes, R. (2011). Gender development research in sex roles: Historical trends and future directions. *Sex Roles*, 64(11-12), 826-842. [doi: 10.1007/s11199-010-9902-3](https://doi.org/10.1007/s11199-010-9902-3)

Appendix A

Informed Consent Form

CONSENT TO PARTICIPATE IN RESEARCH

Department of Psychology, Fort Hays State University

***Study title:* The Relationship between Self-Perceived Gender Typicality, Self-Esteem and Psychological Distress in College Students**

Name of Researcher: Godswill Chuku

Contact Information: gochuku@mail.fhsu.edu

Name of Faculty Supervisor & Contact Information, if student research:

Dr. Leo Herrman Email: lherrman@fhsu.edu Phone: 785-628-4195

You are being asked to participate in a research study. It is your choice whether or not to participate.

Your decision whether or not to participate will have no effect on your academic standing in this course, the Department of Psychology, or Fort Hays State University.

What is the purpose of this study?

The project is part of a graduate student's thesis. The purpose of the study is to examine the relationship between self-perceived gender typicality and psychological distress. Past research has shown that there are connections between gender typicality and psychosocial adjustment indicators such as self-esteem.

What does this study involve?

If you agree to participate, you will be asked to complete four surveys: a demographic questionnaire, a gender typicality measure, a self-esteem measure and a psychological distress measure. When finished with the surveys, they will be collected separately from

your identifying information. There will be no connection between identifying information and any results that are collected, ensuring your anonymity.

If you decide to participate in this research study, after you understand what will happen to you, you are confirming your willingness to voluntarily participate in this study and that you are 18 years old or over. The length of time of your participation in this study will be about 15 minutes. Approximately 150 participants will be in this study.

Are there any benefits from participating in this study?

There will be no benefits to you should you decide to participate in this study. Your participation will help us learn more about the relationship between gender typicality and psychosocial adjustment in adults.

Will you be paid or receive anything to participate in this study?

No, you will not receive any monetary compensation for doing this study. However, you may receive research credit or extra credit if your class instructor allows it. You will not receive any compensation if the results of this research are used towards the development of a commercially available product.

What about the costs of this study?

There are no costs for participating in this study other than the time you will spend completing the surveys.

What are the risks involved with being enrolled in this study?

It is unlikely that participation in this study will result in harm to participants. Sometimes talking about these subjects can cause people to be upset. You do not have to answer questions that you do not wish to, and you may stop participating at any time. If you feel

distressed or become upset by participating, please contact the Kelly Center at Fort Hays State University, 600 Park Street, Hays, KS 67601 call 785-628-4401 or contact High Plains Mental Health Center at 785-628-2871 or 1-800-432-0333.

How will your privacy be protected?

Efforts will be made to protect the identities of the participants and the confidentiality of the research data used in this study. At no point will you be asked to provide your name, and only summary of results of data collected will be reported. Data will be saved only until the study ends and will be destroyed at that time. Access to all data will be limited to the researcher listed above.

The information collected for this study will be used only for the purposes of conducting this study. This information will be used as part of Graduate thesis, as well as potentially for publication or presentation. Data will only be presented in aggregate or group form in any publication or presentation.

Other important items you should know:

- **Withdrawal from the study:** You may choose to stop your participation in this study at any time. Your decision to stop your participation will have no effect on your academic standing within this course, the Department of Psychology or Fort Hays State University.
- **Funding:** There is no outside funding for this research project.

Whom should you call with questions about this study?

Questions about this study may be directed to the Ethics Chairperson in Psychology, Dr. Trey Hill at 785-628-4404, wthill@fhsu.edu or the thesis advisor in charge of this study, Dr. Leo Herrman at 785-628-4195, lherrman@fhsu.edu

If you have questions, concerns, or suggestions about human research at FHSU, you may call the Office of Scholarship and Sponsored Projects at FHSU (785) 628-4349 during normal business hours.

CONSENT

I have read the above information about The Relationship between Self-Perceived Gender Typicality, Self-Esteem and Psychological Distress in College Students and have been given an opportunity to ask questions. By signing this consent form, I agree to participate in this study and I have retained a copy of this signed consent document for my own records. I understand that I can change my mind and withdraw my consent at any time. By signing this consent form, I understand that I am not giving up any legal rights. I am 18 years or older.

Appendix B

Demographic Questionnaire

Are you male or female?

Male

Female

What is your age?

18-20

21-29

30-39

40-49

50-59

60 or older

What is the highest level of school you have completed or the highest degree you have received?

Less than high school degree

High school degree or equivalent (e.g. GED)

Some college but no degree

Associate degree

Bachelor degree

Graduate degree

Are you White, Black or African-American, American Indian or Alaskan Native, Asian, Native Hawaiian or other Pacific islander, or some other race?

White

- Black or African-American
- American Indian or Alaskan Native
- Asian
- Native Hawaiian or other Pacific Islander
- From multiple races
- Some other race (please specify) _____

Appendix C

Adult Gender Typicality Scale

Gender Typicality (Women)

Instructions: Women have a range of feelings about how typical they are in comparison to other women. Please read each statement and indicate your agreement with it.

Remember, there are no right or wrong answers, so please answer honestly.

1. I feel just like women my age.
2. I feel I fit in with other women.
3. I think I am a good example of other women.
4. I feel that what I like to do in my spare time is similar to what most women like to do in their spare time.
5. I feel that the things I am good at are similar to what most women are good at
6. I feel that my personality is similar to most women's personalities.

Gender Typicality (Men)

Instructions: Men have a range of feelings about how typical they are in comparison to other men. Please read each statement and indicate your agreement with it. Remember, there are no right or wrong answers, so please answer honestly.

1. I feel just like men my age.
2. I feel I fit in with other men.
3. I think I am a good example of other men.
4. I feel that what I like to do in my spare time is similar to what most men like to do in their spare time.

5. I feel that the things I am good at are similar to what most men are good at.
6. I feel that my personality is similar to most men's personalities.

Appendix D

Rosenberg Self-Esteem Scale

Instructions

Below is a list of statements dealing with your general feelings about yourself. Please indicate how strongly you agree or disagree with each statement.

1. On the whole, I am satisfied with myself.
2. At times, I think I am no good at all.
3. I feel that I have a number of good qualities.
4. I am able to do things as well as most other people.
5. I feel I do not have much to be proud of.
6. I certainly feel useless at times.
7. I feel that I'm a person of worth, at least on an equal plane with others.
8. I wish I could have more respect for myself.
9. All in all, I am inclined to feel that I am a failure.
10. I take a positive attitude toward myself.

Appendix E

Depression Anxiety Stress Scale- Short Form

Instructions

Please read each statement and circle a number 0, 1, 2 or 3, which indicates how much the statement applied to you *over the past week*. There are no right or wrong answers. Do not spend too much time on any statement.

The rating scale is as follows:

0 Did not apply to me at all

1 Applied to me to some degree, or some of the time

2 Applied to me to a considerable degree, or a good part of time

3 Applied to me very much, or most of the time

1. I found it hard to wind down
2. I was aware of dryness of my mouth
3. I couldn't seem to experience any positive feeling at all
4. I experienced breathing difficulty (eg, excessively rapid breathing, breathlessness in the absence of physical exertion)
5. I found it difficult to work up the initiative to do things
6. I tended to over-react to situations
7. I experienced trembling (eg, in the hands)
8. I felt that I was using a lot of nervous energy
9. I was worried about situations in which I might panic and make a fool of myself
10. I felt that I had nothing to look forward to
11. I found myself getting agitated

12. I found it difficult to relax
13. I felt down-hearted and blue
14. I was intolerant of anything that kept me from getting on with what I was doing
15. I felt I was close to panic
16. I was unable to become enthusiastic about anything
17. I felt I wasn't worth much as a person
18. I felt that I was rather touchy
19. I was aware of the action of my heart in the absence of physical exertion (eg, sense of heart rate increase, heart missing a beat)
20. I felt scared without any good reason
21. I felt that life was meaningless

Appendix F

Debriefing Statement

Purpose of this study was to examine the relationship between self-perceived gender typicality, self-esteem and psychological distress. It is predicted that low self-perceived gender typicality will be connected to psychological distress (depression and anxiety) while high self-perceived gender typicality will be connected to high self-esteem.

If after participating in this study, you are feeling distressed from any questions on the survey, the following resource can offer you professional support and counseling.

Kelly Center (free of charge to students)
Picken Hall Basement, Room 111
785-628-4401

High Plains Mental Health Center
208 East 7th Street
Hays, KS 67601
785-628-2871 or 1-800-432-0333

If you have any questions about this study or your rights as a participant in this study, please contact:

Dr. Leo Herrman
Thesis Advisor
lherrman@fhsu.edu
785-628-4195

Dr. Trey Hill
Chair, Ethics Committee
wthill@fhsu.edu
785-628-4404

Appendix G

IRB Approval Letter



**FORT HAYS STATE
UNIVERSITY**

Forward thinking. World ready.

OFFICE OF SCHOLARSHIP AND SPONSORED PROJECTS

DATE: November 10, 2016

TO: Godswill Chuku, MS

FROM: Fort Hays State University IRB

STUDY TITLE: [088410-1] The Relationship between Self-Perceived Gender Typicality, Self-Esteem and Psychological Distress in College Students

IRB REFERENCE #: 17-044

SUBMISSION TYPE: New Project

ACTION: DETERMINATION OF EXEMPT STATUS

DECISION DATE: November 10, 2016

REVIEW CATEGORY: Exemption category # 2

Thank you for your submission of New Project materials for this research study. The departmental human subjects research committee and/or the Fort Hays State University IRB/IRB Administrator has determined that this project is EXEMPT FROM IRB REVIEW according to federal regulations.

Please note that any changes to this study may result in a change in exempt status. Any changes must be submitted to the IRB for review prior to implementation. In the event of a change, please follow the Instructions for Revisions at <http://www.fhsu.edu/academic/gradschl/irb/>.

The IRB administrator should be notified of adverse events or circumstances that meet the definition of unanticipated problems involving risks to subjects. See <http://www.hhs.gov/ohrp/policy/AdvEvtntGuid.htm>.

We will put a copy of this correspondence on file in our office. Exempt studies are not subject to continuing review.

If you have any questions, please contact Leslie Paige at lp Paige@fhsu.edu or 785-628-4349. Please include your study title and reference number in all correspondence with this office.