

July 2019

## Ethnic Identity as a Protective Factor in Early Adolescent Youth Depression: An Investigation of Differences by Race and Gender

Leah Bonilla

University of South Florida, leahbonilla@mail.usf.edu

Follow this and additional works at: <https://digitalcommons.usf.edu/etd>



Part of the [Psychology Commons](#)

---

### Scholar Commons Citation

Bonilla, Leah, "Ethnic Identity as a Protective Factor in Early Adolescent Youth Depression: An Investigation of Differences by Race and Gender" (2019). *USF Tampa Graduate Theses and Dissertations*. <https://digitalcommons.usf.edu/etd/7733>

This Dissertation is brought to you for free and open access by the USF Graduate Theses and Dissertations at Digital Commons @ University of South Florida. It has been accepted for inclusion in USF Tampa Graduate Theses and Dissertations by an authorized administrator of Digital Commons @ University of South Florida. For more information, please contact [digitalcommons@usf.edu](mailto:digitalcommons@usf.edu).

Ethnic Identity as a Protective Factor in Early Adolescent Youth Depression:

An Investigation of Differences by Race and Gender

by

Leah Bonilla

Dissertation submitted in partial fulfillment  
of the requirements for the degree of  
Doctor of Philosophy in School Psychology  
Department of Educational and Psychological Studies  
College of Education  
University of South Florida

Co-Major Professor: Linda Raffaele-Mendez Ph.D.  
Co-Major Professor: Deirdre Cobb-Roberts Ph.D.  
Janise Parker Ph.D.  
John Ferron Ph.D.

Date of Approval  
June 12, 2019

Keywords: Race, Gender, Ethnic Identity, Depression, Intersectionality

Copyright © 2019, Leah Bonilla

## **Dedication**

I would like to dedicate my dissertation to my family Gina, Benito, Kenia and close friends who were able to see what I could not and encouragement me all the way through.

## **Acknowledgements**

I would like to acknowledge all of my committee members because without their continuous support this would not be possible. I would like to thank both Dr. Raffaele-Mendez and Dr. Deirdre Cobb-Roberts for working close together with each other in making sure this project was well written and cohesive. I would like to acknowledge my committee member Dr. Parker for supporting me from the beginning of my project and seeing it through to the end. I would also like to acknowledge Dr. Ferron for his consistent support and patience while refining my methodology. Lastly, I would like to acknowledge everyone at USF who has supported me through out this process for I am greatly appreciative.

## Table of Contents

List of Tables	iv
Abstract	v
Chapter One: Introduction	1
Statement of the Problem	1
Theoretical Framework	4
Definition of Key Terms	5
Ethnic Identity	5
Race	5
Depression	5
Gender	5
Rationale for the Current study	6
Significance of the Current Study	7
Research Questions	9
Chapter Two: Literature Review	10
Identity Development During Adolescence	10
Puberty and Mental Health	13
Depression and Adolescents	14
Demographic Factors Associated with Adolescent Depression	15
Race and Depression	16
Gender and Depression	17
Interactions among Demographic Variables and Depression	19
Ethnic Identity as a Protective Factor	20
Theoretical Frameworks for the Current Study	22
Theory of Intersectionality	23
Intersectionality and School Psychology	26
Social Identity Theory	26
Social Identity Theory and School Psychology	27
Resiliency Theory	28
Resiliency Theory and School Psychology	28
Ethnic Identity and Positive Youth Adjustment	29
Ethnic Identity	29
Components of Ethnic Identity	30

Measuring Ethnic Identity	30
Ethnic Identity and Youth Outcomes	32
Ethnic Identity and Youth Depression	33
Conclusion	35
Chapter Three: Methods	37
MADICS	37
Participants	39
Student Demographic Features	39
Measures	39
Demographic Information	39
Depression	47
Ethnic Identity	40
Procedures	40
Data Screening	41
Proposed Analyses	41
Descriptive Analyses	41
Correlation Analyses	41
Regression Analyses	42
Moderator Tests	43
Chapter Four: Results	46
Accuracy of Data Entry	46
Preliminary Analyses	47
Measure Reliability	47
Descriptive Analyses	47
Correlational Analyses	48
Regression Analyses	49
Assumptions	49
Research Question 1	49
Research Question 2	50
Research Question 3	51
Moderation Tests	52
Summary	52
Chapter Five: Discussion	54
Relationships between Race, Gender, Ethnic Identity and Depression	54
Group Differences	56
Ethnic Identity as a Moderator	58
Race, Gender, and Intersectionality	59
Contributions to the Literature	61
Implications for School Psychologists and Mental Health Professionals	63
Limitations	67
Summary	68
Future Directions	71

References	74
Appendix A: Ethnic Identity	93
Appendix B: Depression	95
Appendix C: Demographics	98
Appendix D: Item Correlations	99
Appendix E: Assumptions Analysis	100
Appendix F: IRB Approval	102

### **List of Tables**

Table 1:	Demographics Variables for MADICS (Wave 3)	48
Table 2:	Descriptive Statistics for Key Variables	48
Table 3:	Correlations between Predictor and Outcome Variables	49
Table 4:	Unstandardized and Standardized Regression Coefficients for Predicting Depression from Race and Gender	50
Table 5:	Predicting Depression Using Multiple Predictors and Interaction Terms	51
Table 6:	Predicting Depression Using Multiple Predictors and Interaction Terms (Including Ethnic Identity)	52



## **Abstract**

Adolescent mental illness is a major concern in the United States. The adolescent stage is a critical developmental period of physical and mental changes, thus it is important to understand protective factors associated with positive wellbeing. The current study aimed to explore: (a) the associations among race, gender, ethnic identity, and depressive symptoms among eighth grade adolescents, (b) to what extent are there differences in degree of depressive symptoms among youth based on race and gender, and (c) to what extent a strong sense of ethnic identity serves as a protective factor against the development of depression among youth with different demographic characteristics. Data were collected from participants in the Maryland Adolescent In Context Study (MADICS) when they were in the 8<sup>th</sup> grade. Findings indicated that race and gender were not significantly associated with depression. Among the current sample identifying as a Black participant was not significantly predictive of symptoms of depression compared to students who identified as White. Girls and boys did not significantly experience depression symptoms differently based on items endorsed on the survey. Additionally, statistical significant interaction effects between race and gender with relation to symptoms of depression were not detected. Finally, youth in the sample who reported higher ethnic identity score reported less depression. Implications for school psychologist will be discussed.

## **Chapter One:**

### **Introduction**

#### **Statement of the Problem**

Approximately 33% of children and adolescents in the U.S. are affected by a mental health problem, and 1 in 10 will experience a serious emotional disturbance during their lifetime (Brauner & Stephens, 2006; Merikangas et al., 2010). Mental illness is detrimental to youth because it is associated with school dropout, alcohol and substance abuse, and overall poor outcomes (Hankin & Abramson, 2002; Hooper, Mier-Chairez, Mugoya, & Arellano, 2016). Olfson, Druss, and Marcus (2015) reported that between 1992 and 2012, there was an increase from 9.2% to 13.3% in mental health outpatient services provided to youth between the ages of 6 and 17 ( $N = 53,622$ ). Mental health services were defined as visits pertaining to a diagnosed mental health disorder and the use of psychotherapy or psychotropic medication. These findings suggest consistent increases in the percentage of youth at risk for developing mental health problems.

According to Merikangas et al. (2010), 12% of adolescents met criteria for one or more DSM-IV (Diagnostic and Statistical Manual of Mental Disorders—Fourth Edition) diagnoses in a 12-month period. Mood disorders such as major depression and dysthymia were the second most common disorders reported among youth ages 8 to 15. The most common disorder reported was Attention-Deficit/Hyperactivity Disorder (ADHD). Twenge, Cooper, Joiner, Duffy, and Binau (2019) reported that between 2005 and 2017 there was an increase from 8.7% to 13.2% in

major depressive episodes experienced by youth ages 12 to 17 ( $N = 21,913$ ) based on data taken from the National Survey on Drug Use and Health.

A major depressive episode consists of a particular period of time when an individual experiences a slew of chronic ongoing symptoms including but not limited to sadness, loss of interests in once pleasurable activities, tiredness, lack of energy, feelings of hopelessness, and thoughts of suicide. Youth depression is associated with school failure, social withdrawal, alcohol and substance abuse, and suicide, which was the second leading cause of death among teenagers, ages 12 to 17 in 2010 (Chang, Stuckler, Yip, & Gunnell 2013; Hasin, Goodwin, Stinson, & Grant, 2005; World Health Organization, 2016).

As youth continue to experience mental health problems like depression, it becomes necessary for school psychologists to understand the multiple factors that impact development of mental health problems among youth ages 12 – 18. Important factors to consider are demographic variables such as race and gender. The interactions among these variables are also important to consider. Prior empirical studies that have explored the relationships between these variables and depression have indicated disparities between and within demographic groups (Pratt & Brody, 2014; Weinberger et al., 2018). However, most of this research is limited and/or mixed as it pertains to racial group differences.

For example, Pratt and Brody (2014) reported that between 2009 and 2012, 7.4% of youth aged 12 to 17 reported moderate to severe symptoms of depression based on data analyzed from the National Health and Nutrition Examination Survey. Black and Latino youth over the age of 12 reported higher rates of moderate depression symptoms compared to White youth. Black youth also reported higher rates of severe symptoms of depression compared to White youth (Pratt & Brody, 2014). More recently, Weinberger et al. (2018) explored trends of

depression in a sample of participants ages 12 to 50 from 2005 to 2015 ( $N = 607,520$ ). Findings indicated statistically significant increases in depression among females in the sample, non-white Hispanic participants, and among participants ages 12 to 17. However, no significant differences by race were detected.

Studies have consistently reported gender differences in depression and have indicated that girls report depressive symptoms at significantly higher rates compared to boys; this is well established in the literature (Cooper, Brown, Metzger, Clinton, & Guthrie 2013; Dooley, Fitzgerald, & Giollabhui 2015; Hankin et al., 1998; Weissman & Klerman's 1977). However, studies that have investigated the association between demographic variables and depression have rarely analyzed the interactions among demographic variables using an intersectional approach (Patil, Porche, Shippen, Dallenbach, & Fortuna, 2017). Analyzing interactions between race and gender can provide information about subgroups beyond a single demographic dimension that could be more at risk compared to other subgroups (Jackson, Williams, & VanderWeele, 2016; Krieger, 2012; Garnett, 2014).

As an example, Seaton, Caldwell, Sellers, and Jackson (2010) explored the moderation effects of multiple demographic variables (age, gender, ethnicity) on the association between perceived discrimination and psychological wellbeing (depression, life satisfaction, and self-esteem) among a sample of 1,170 Black youth from diverse ethnic backgrounds aged 13 to 17 years. Among participants, 360 were Caribbean and 810 were African-American. Participants were grouped into categories such as early (ages 13-14), middle (age 15-16), and late (age 17). Results showed that 17-year-old Black females (Caribbean and African American) who experienced high levels of perceived discrimination also reported more depressive symptoms compared to 17-year-old African-American males with high levels of perceived discrimination.

These findings suggest that using an intersectional approach can provide additional evidence of subgroups of youth that may be more at risk for experiencing poor psychological outcomes.

### **Theoretical Framework**

The current study drew from three main theoretical perspectives. The first is intersectionality theory. Intersectionality theorists posit the consideration of multiple identities and the relationships between multiple identities as a single unit of analysis when investigating an individual's personal experiences (Collins, 1999; McCall, 2005). Intersectionality theory is a contribution from feminist theory. An intersectional approach argues that social identities are one in the same and as such, an individual's experiences should be studied through the integration of multiple identities as a unit of study instead of identities in isolation (Collins, 1999; McCall, 2005). The term intersectionality was coined by Crenshaw (1991) who argues that women of color are marginalized in society because of their location as women and as an individual of color. The rationale is that studying one dimension of an individual's social identity disregards other identities that make up the whole individual self-concept and human experience. Utilizing an intersectional approach provides rationale for investigating subgroups of youth at risk for reporting depressive symptoms (Patil et al., 2017; Seaton et al., 2010).

The current study also drew from social identity theory, which suggests that having a positive emotional connection to a social identity by way of social group has implications for higher self-esteem and psychological wellbeing (Hughes, Kiecolt, Keith, & Demo, 2015; Hughes, Witherspoon, Rivas-Drake, & West-Bey, 2009; Tajfel & Turner, 1986)

Lastly, the current study adopted a resiliency framework which refers to the extent to which individuals use positive internal and external factors to cope with stress and avoid the risk of future stressful situations (Masten, Cutuli, Herbers, & Reed, 2009; Notelmeyer, 2014).

## **Definition of Key Terms**

**Ethnic identity.** Ethnic identity refers to the extent to which an individual has a personal connection to a particular ethnic group. Phinney's (1996) seminal work indicates that an individual is considered to have an ethnic identity when he or she incorporates cultural attitudes, values, languages, and beliefs, which represent a particular ethnic group into his or her self-concept. Ethnic identity also refers to the extent to which one's cultural belief and values impact behavior choices and psychological experiences (Rivas-Drake et al., 2014).

**Race.** Race is a social construct used to categorize groups of people based on skin color and other physical characteristics (Smedley & Smedley, 2005). Race is used interchangeably with the term ethnicity, but ethnicity refers to the cultural and traditional values that distinguish a group of people (Smedley & Smedley, 2005). The current study used the terms interchangeably based on recommendations from Umaña-Taylor et al. (2014) who posit that youth from diverse backgrounds do not distinguish between their race and ethnicity when identifying and describing personal and cultural experiences.

**Depression.** Depression is mood disorder that is described as a chronic time period when a person is feeling sad, hopeless, and loses interests in once pleasurable activities (Diagnostic and Statistical Manual of Mental Disorders—Fifth Edition; American Psychiatric Association, 2013).

**Gender.** Gender is distinct from the biological construct of sex, which refers to physical body parts. Instead, gender refers to the extent to which an individual identifies as masculine or feminine. These notions can be based on one's rejection of normative expectations or ideals of what it means to be a woman or man in society.

## **Rationale for the Current Study**

As adolescence continues to be a critical developmental period where youth are at risk for developing depression, there are implications for researchers in school psychology to understand protective factors that are associated with psychological wellbeing during this time. According to Erikson (1968), youth are developing a sense of self through identity exploration and commitment during adolescence. French, Seidman, Allen, and Aber (2006) reported the salience of ethnic identity development during two critical transitions in adolescence in their longitudinal study ( $N = 420$ ) of youth from ethnically diverse backgrounds. Transitions from elementary school to middle school and from middle school to high school were considered time points when ethnic identity is particularly salient among youth (French et al., 2006). This suggests that ethnic identity is a significant factor to consider when investigating variables that impact psychological outcomes among adolescent populations.

Literature suggests that positive ethnic identity beliefs are associated with self-esteem, academic achievement, and overall good psychological health among youth from ethnically diverse backgrounds (Rivas-Drake et al., 2014; Worrell, 2007; Yasui, Dorham, & Dishion, 2004). For example, in a study that examined the relationship between ethnic identity and depressive symptoms among a sample of ethnically diverse youth ( $N = 341$ ), Tummara-Narra (2015) reported that ethnic identity was negatively associated with symptoms of depression. Participants with higher levels of ethnic identity reported fewer depressive symptoms. Less is known regarding its role as a protective factor among certain subgroups of youth from racially diverse backgrounds at risk for depression. The current study explored ethnic identity as a protective factor among youth at risk for reporting symptoms of depression.

## **Significance of the Current Study**

The current study extends the literature in terms of understanding the impact of simultaneous demographic factors on depressive symptoms among eighth grade youth. The current study was a cross sectional secondary data analysis of the longitudinal data set called the Maryland Adolescent in Context Study (MADICS). The main effects between race and gender were explored, as well as the possibility that one's perception of ethnic identity affects the strength of the relationships between demographic variables and depressive symptoms. The current study analyzed a single time point (wave 3) from the MADICS, which explored social factors associated with psychological outcomes and behaviors across adolescent development. Dr. Jacquelynne Eccles and Dr. Arnold Sam were the principle investigators for the MADICS, and 8 waves of data were collected from multiple informants (adolescents, mothers, fathers, and one older sibling).

The MADICS has been cited as being responsible for seminal articles that have significantly contributed to adolescent development discourse within the last 25 years (Smetana, 2017). It is a one of the first longitudinal data sets that explored social determinants of behavior among a unique group of youth from racially and economically diverse backgrounds over a salient period of development. The sample of Black youth is drawn from Prince George's County Maryland, which is also particularly unique because it represents various environments and neighborhoods. Prince George's County is considered a predominantly Black middle-class community and Black middle class youth are underrepresented in studies investigating normative development (Smetana, 2011; Smetana, 2017) making this data ideal for understanding the impact of demographic factors and ethnic identity on symptoms of depression.



It should be noted that although attitudes of the participants sampled in the MADICS could possibly differ from current societal norms, these data are still the best to use for the current study for the following reasons: First, Prince George's County is ideal for testing the effects of race, gender, and ethnic identity during a key development process among an extremely diverse population of Black youth representing various social classes (Rapa, Diemer, & Bañales, 2018). Secondly the MADICS samples an economically diverse population including Black youth who are a marginalized population in society and belonging to a marginalized population may affect mental health outcomes and attitudes (Rapa, Diemer, & Bañales, 2018; Johnson, 2018). Thirdly, the variables of interests are rarely studied in nationally representative surveys that sample Black youth (Johnson, 2018).

In addition to the uniqueness of the MADICS as it pertains to the current study, these data continue to be used in studies investigating social contextual factors that are associated with academic attitudes, behavior, and psychological functioning among adolescents. Tang, McLoyd, and Hallman (2016) used the MADICS to investigate the association between racial identity and academic attitudes among 11<sup>th</sup> grade participants. Findings indicated that participants with higher racial centrality were more likely to report positive school attitudes and higher level of school competence. Racial centrality refers to the extent to which one's ethnic and racial group values represent the sole identity of an individual's self. Ludden and Eccles (2007) used the MADICS predict 11<sup>th</sup> grade substance use patterns by examining participant 8<sup>th</sup> grade behavior profiles. Findings indicated that participants with riskier behavior profiles in the 8<sup>th</sup> grade were more likely to engage in a high volume of substance abuse in the 11<sup>th</sup> grade.

Findings from the current study intend to give school psychologists insight on the different factors associated with youth depression for different subgroups of students.

Information gleaned from the current study may inform prevention methods and models that can support multiple subgroups of youth at risk for expressing symptoms of depression. Research that examines demographic factors (e.g., race, gender) with psychological factors (e.g., ethnic identity) together is beneficial because different contextual and factors influences associated with depression symptoms can be revealed. Also, examining these factors can help to further explain the disparities among understudied subgroups of ethnically diverse youth. This study focused on exploring associations among youth from ethnically diverse backgrounds in the eighth grade.

The current study was also interested in the role ethnic of identity has as a protective factor against the risk of expressing depressive symptoms among at-risk groups of adolescents. Accordingly, the current study determined the influence of multiple demographic variables on depressive symptoms among a population of eighth grade students. In addition, the current study examined ethnic identity as a possible moderator of the relationship between demographic variables of interest (race and gender) and depression. Thus, formally proposed are the following research questions.

### **Research Questions**

- 1.) What are the associations among race, gender, ethnic identity, and depressive symptoms among 8<sup>th</sup> grade adolescents?
- 2.) To what extent are there differences in degree of depressive symptoms among youth based on race and gender?
- 3.) To what extent does a strong sense of ethnic identity serve as a protective factor against the development of depression among youth with different demographic characteristics?

## **Chapter Two:**

### **Literature Review**

The following literature review describes empirical research and theoretical models that further explain the relationship between race, gender, ethnic identity and depression among adolescents. The first section describes adolescence as a critical developmental period. This period of development consists of several psychological and biological changes such as social identity formation, increased risk for developing mental health problems such as, depression and puberty. In the following sections, demographic factors (race and gender) associated with youth depression and the theoretical frameworks utilized in the current study are discussed. Next, an overview of ethnic identity development is provided. The overview includes how ethnic identity is defined, measured, and how it influences youth outcomes as a protective factor. Lastly, gaps in the present literature, and aims of the current study are discussed.

#### **Identity Development During Adolescence**

Adolescence is a period of development when youth begin to separate from their parents and form independent identities (Klimstra, 2013; Pop, Negru-Subtirica, Crocetti, Opre, & Meeus, 2015). Identity development is considered the 5th stage of personality development according to Erikson's (1968) stages of development. It is a period when an individual is confronted with a psychological crisis known as an identity versus confusion. Erikson's theory of personality development is credited with being the first to consider the formulation of identity among individuals. An individual's identity begins to develop, typically between the ages of 12 and 25

(Erikson, 1968) and consists of adolescents choosing what type of person they want to be within the context of their respective social environments. The current study examined a sample of eighth grade youth because identity development is particularly salient at this age. Adolescents are constantly exploring new identities and committing to those identity roles that closely represent or resemble their sense of self (Marcia, 1980). It is an extremely important task because adolescents are simultaneously undergoing puberty, which can be stressful to a young person. As a result, developing a positive identity or sense of self that one can be happy with is ideal for positive youth adjustment (Crocetti, Rubini, and Meesus 2008; Hudley & Irving, 2012).

Identity literature has flourished since Erikson developed his original framework. Most of the research in this area utilizes Marcia's theoretical model of identity statuses to investigate identity development among individuals (Crocetti, Rubini, & Meeus, 2008; Marcia, 1993; Meesus, Schoot, Keijsers, & Branje 2012). Marcia (1993) proposes that individuals progress through a two-part developmental process encompassing identity exploration and commitment. Marcia asserts that the developmental pathway to identity consists of four statuses (i.e., foreclosure, diffusion, moratorium, and achievement) which represent where an individual is in the process of committing to an identity. An individual is considered identity-diffused when they do not wish to commit to any identity. These individuals are also not actively exploring potential identities. In contrast, an individual who is considered foreclosed has committed to an identity and has no intentions in exploring possible alternative identities. Foreclosed individuals attribute their identity commitment to their exposure to cultural context and what they have internalized from parents. An individual with a moratorium identity status is considered to be in identity crises, which means that if one has made a commitment to an identity it may change, as this is a stage where alternative commitments are actively being considered. Lastly, an individual is

considered to have an achieved identity status when there is a clear commitment to an identity that remains stable. It is through this process that an individual reaches identity achievement.

Marcia's framework was tested in a five-wave longitudinal study with two cohorts of adolescents. The first cohort consisted of 923 adolescents ages 12 to 16. The second cohort consisted of 390 adolescents ages 16 to 20. Both cohorts consisted of predominately female participants. Findings from this suggest that identity statuses are trajectories that change overtime. For example, identity achievement was lower among the younger cohort compared to the older cohort indicating that it is possible that the younger adolescents may have been exploring identities that they can later commit to in order to reach achievement status.

Both Erikson and Marcia's contributions to understanding identity development have key implications for understanding youth development. Erikson's work provides a model for isolating a period of development in which identity development is particularly salient while Marcia's framework highlights the developmental pathways that are taken to achieve and resolve identity commitments. Erikson and Marcia assert that identity development is a multidimensional construct because it is a process that integrates multiple identities that influence the way humans interact with their environment. Literature in this area has explored the extent to which dimensions of identity contribute to positive youth adjustment (Davis, 2005; Hudley & Irving, 2012). Crocetti, Rubini, and Meesus (2008) found that a stronger commitment to one's identity was positive associated with emotional stability and negatively associated with symptoms of depression. The sample consisted of 1,952 Dutch and non-Dutch adolescents ages 10 to 19. Although Erikson's and Marcia's frameworks have been widely cited to explain personal identity development and its influence on human behavior, these theories fail to explain the process of distinct forms of identity development such as ethnic identity.

Ethnic identity is particularly salient among adolescents and is associated with positive youth adjustment (Mroczkowski & Sánchez, 2015; Pop, Negru-Subtirica, Crocetti, Opre, & Meeus, 2016). As previously stated, in addition to youth forming and committing to a personal identity, adolescents are also experiencechanges in their bodies and possibly with their mental health statuses.

### **Puberty and Mental Health**

Youth experience considerable changes during adolescence such as going through puberty and making social adjustments at home and school. Puberty is considered a developmental period in which youth undergo biological and physical changes as they transition from childhood into adulthood (Beauchaine & Hinshaw, 2013). Adolescents are faced with multiple developmental challenges such as to coping with physical changes in their bodies, resolving identity issues, and developing skills that increase autonomy. Studies have shown that experiencing puberty early is associated with a range of mental health problems such as depression, anxiety, and aggression compared to youth who experience puberty later in their developmental trajectory (Copland et al., 2014; Lynne, Graber, Nichols, Brooks-Gunn, & Botvin, 2007; McCormick, Mckone, & Mendle, 2015). Despite the onset of puberty adolescence tends to be a time of considerable change when mental health concerns can arise for some youth (Beauchaine & Hinshaw, 2013).

Olfson et al. (2015) investigated trends of outpatient mental health services use among youth ages 6 to 17 ( $N = 53, 622$ ) by analyzing three sets of Medical Expenditure Panel Surveys. The first sets of surveys analyzed were from 1996-1998, the second were from 2003 to 2005, and the last sets were from 2010-2012. Mental health services were defined as outpatient visits pertaining to a diagnosed mental health disorder and the use of psychotherapy or psychotropic

medication. Results indicated an increase in outpatient services provided to youth increased from 1992 (9.2%) to 2012 (13.3%) . In addition, significant increases in the use of psychotropic medications with children and adolescents were observed. Olfson et al. (2015) noted there is an increase in the amount of youth who require mental health treatment..

### **Depression and Adolescents**

Among the mental health concerns identified, depression rises considerably during adolescence (Buchaine & Hinshaw 2013; Merikangas et al., 2010; Olfson et al., 2015).

Depression is a mood disorder where a person chronically feels sad, hopeless, and loses interests in once pleasurable activities (Diagnostic and Statistical Manual of Mental Disorders—Fifth Edition; American Psychiatric Association, 2013). Depression is diagnosed by endorsing five or more symptoms in the DSM-5 during a two-week period with one of the symptoms being, 1) loss of interests or pleasure, or 2) depressed mood.

Adolescence is a critical developmental period when the onset of major depressive disorder typically occurs for most individual affected by the illness (Beauchaine & Hinshaw 2013). According to Merikangas et al. (2010), 12% of adolescents experience a mental illness in their lifetime, with mood disorders being the second the most common disorder behind ADHD among youth ages 8 to 15. Between 2009 and 2012, Pratt and Brody (2014) reported that 7.4% of youth ages 12-17 had moderate to severe symptoms of depression based on data from the National Health and Nutrition Examination Survey. More recently Mojtabai, Olfson, and Han, (2016) analyzed the National Survey on Drug Use and Health Data from 2005 to 2014 to examine the lifetime and 12-month prevalence of major depressive episodes among (  $N = 172,495$ ) adolescents ages 12 to 17 and ( $N = 178,755$ ) young adults ages 18 to 25. Results indicated a statistically significant increase in major depressive episodes from 2005 ( 8%) to

2014 (11% ). The increase was significantly larger for participants ages 12 to 20 compared to the entire sample.

Depression significantly impacts youth outcomes. Depressed adolescents are more likely to drop out of school, earn poorer grades, and have attendance problems compared to non-depressed adolescents (Hankin & Abramson, 2002). Depressed adolescents are also more likely to abuse drugs and alcohol compared to non-depressed adolescents (Hankin & Abramson, 2002; Hooper, Mier-Chairez, Mugoya, & Arellano, 2016). Lastly depressed adolescents are more likely to commit and/or attempt suicide compared to non-depressed adolescents. Thus, the current study examined eighth grade youth due to the increase risk for mental health concerns appearing at this stage compared to any another developmental period.

### **Demographic Factors Associated with Adolescent Depression**

Research to date has shown particular groups of youth report more depression than other groups of youth. For example, Black youth may be more likely to experience depression than White youth, although the research here is inconclusive (Breland-Noble, Burriss, & Poole 2010; Pratt & Brody 2014). Avenevoli, Swendsen, He, Burstein, and Merikangas (2015) analyzed data from the National Comorbidity Survey-Adolescent Supplement (NCS-A) to investigate comorbidity and demographic variables correlated with major depressive disorder (MDD) among ( $N = 10,123$ ) youth ages 13 to 18. The sample was culturally diverse (Black  $N = 1,953$ , White  $N = 5,634$ , Hispanic  $N = 1,914$ , and Other  $N = 622$ ). There were 5,170 females included in the sample and 4,953 males. Avenevoli and colleagues (2015) also reported the 12-month prevalence of major depressive disorder (MDD) among the sample, as well as levels of impairment and treatment. Levels of impairment were determined based on feelings experienced during times of distress. Severe MDD was defined as having “extremely” strong bad feelings during times of



distress whereas mild/moderate MDD was defined as having “a lot” of strong feelings during times of distress.

Results indicated that the prevalence rates of MDD increased during adolescence with girls showing higher percentages of MDD compared to boys between the ages of 11 and 15. Additionally, 11% of youth in the sample experienced MDD in their lifetime, and 7.5% had a diagnosis of MDD at some point within a 12-month period. Moreover, three percent of youth experienced severe MDD in their lifetime compared to 8% of youth who experienced moderate MDD. Comorbidity results indicated that among participants in the sample, anxiety disorders and behavioral disorders such as Oppositional Defiant Disorder and Conduct Disorder were most associated with MDD. There were no significant differences between racial groups with regard to the prevalence of MDD.

These results highlight that adolescence is a critical period where we can expect mental health disorders, particularly depression to manifest for girls. These results are also contrary to studies that report racial group differences in the expression of depression among adolescents (Pratt & Brody 2014; Center for Behavioral Health Statistics and Quality, 2015). The following sections highlight current literature describing associations between race/ethnicity, gender, and depression among youth from various ethnic backgrounds.

**Race and depression.** Over the past several decades, empirical research investigating relationships between race and depression among adolescent samples has been mixed. In 2013, the National Survey of Drug Use and Health reported percentages of youth by ethnic/racial group who experienced a major depressive episode in the last 12 months. Participants aged 12 to 17 were included in the study. White (56%) and Hispanic (23.9%) adolescents reported the highest percentages of major depressive episodes compared to Black (11.2%) and Asian (4.8%) youth in

the sample (National Survey on Drug Use and Health, 2013). In 2015, the Center for Behavioral Health Statistics summarized percentages of youth by ethnic/racial group who reported a mental health diagnosis. Participants were between the ages of zero and 17. White (59.9%) and Hispanic (31.3%) adolescents reported the highest percentages of major depressive episodes compared to Black (16.1%) and Asian (4.8%) youth in the sample ( $N = 1,298,578$ ). In contrast, Pratt and Brody (2014) reported that Black and Hispanic youth had higher rates of mild and moderate depressive symptoms compared to White youth ages youth ages 12 to 17 based on data from the National Health and Nutrition Examination Survey. Overall, literature describing the association between race/ethnicity and depression among adolescents appears more consistent for Hispanic and White youth but remains mixed as it pertains to Black youth.

**Gender and depression.** Weissman and Klerman's (1977) seminal article highlighted gender differences in depression among white women and indicated that twice as many women from clinical and community samples reported depression compared to white men. Similarly, several studies that have investigated the relationship between gender and depression among youth have found that girls reported more symptoms of depression than boys (Cooper et al., 2013; Dooley et al., 2015; Hankin et al., 1998). However, research studies investigating gender differences in depression among youth from culturally diverse backgrounds have been somewhat inconsistent.

For example, Dooley et al. (2015) conducted a cross-sectional study to investigate psychosocial risk and protective factors associated with depression among 6,030 Irish adolescents ages 12 to 16. In the study 51.3% of the sample was female whereas 48.7% of the sample was male. Moreover 55% percent of the sample was between the ages of 12 and 15. Several risk and protective factors were investigated in the study and fell within 3 domains. The

first domain included socio-demographic variables such as parent level of education, who did participants live with, level of support from an adult, and negative experiences (e.g., bullying, racism, and bereavement). The second domain included psychosocial variables such as optimism, resilience, life satisfaction, self-esteem, peer connectedness, and positive relationships. The third domain included risk-taking variables such as substance abuse and alcohol consumption. .

Data from the My World Survey-Second Level (MWS-SL) was analyzed and indicated that female participants in the sample were more likely to experience mild to severe levels of depression compared to males in the sample. Results also indicated that factors such as lower levels of support from parents and negative experiences were associated with significantly higher levels of depression. Additionally, participants who reported higher levels of optimism, resilience, life satisfaction, and self-esteem were more likely to report lower levels of depressive symptoms. A strength of this study is that it included a large sample of adolescents. However, the sample was only made up of Irish participants, which suggest that the findings may be different for other ethnic groups from different countries.

Bautista et al. (2012), investigated the prevalence of depressive symptoms among Mexican adolescents ages 12 to 17 ( $N = 22,962$ ) in a cross-sectional study. Socio-demographic variables (e.g., age, marital status, level of education, income, and living community) and personal variables (substance abuse, alcohol consumption, and sexual abuse) associated with depression were examined. Bautista et al. (2012) reported that two in every 10 individuals were between the ages of 12 and 17. The authors did not report percentages of males and females in the sample. Data were taken from a subsample that participated in the 2008 National Survey on Addictions. Results indicated that among participants aged 12 to 17 there were no statistical

significant gender differences in the prevalence of depressive symptoms compared to participants 18 and older. This study suggests that among the adolescents, gender differences may be less detectable among Mexican youth. A limitation of this study is that little information about the gender population was reported which indicated caution interpreting these results.

Cooper et al. (2013) used a cross sectional analyses to investigating the associations between perceived racial discrimination and depressive symptoms among ( $N=1,942$ ) African-American adolescents ages 12 to 18. The authors reported that 59% of the sample was female. The Center for Epidemiologic Studies Depression scale was used to assess symptoms of depression. Results indicated that girls in the sample reported significantly higher level of depression compared to boys in the sample. Cooper and colleagues (2013) were limited in their study because they had far more female participants, which may have skewed the data.

**Interactions Among Demographic Variables and Depression.** Few studies have examined multiple demographic factors such as race and gender with depression simultaneously and those in the current literature rarely report findings from all demographic variables examined. For example, Dooley et al. (2015) examined gender and parent level of education as demographic variables in their study with Irish adolescents. These authors highlighted that Irish adolescent girls reported depression at higher rates than boys, however only one study provided no information regarding parent level of education in the analysis among the sample. Dooley and colleagues (2015) findings are consistent with Cooper et al. (2013), who studied a sample of African-American adolescents and also found that girls experience higher levels of depression compared to boys.

These studies are contrary to Bautista et al. (2012) who investigated the relationship between socio-demographic variables and depression among a sample of Mexican youth and

adults. In Bautista et al.'s (2012) study there was no statistically significant differences between genders related to levels of depression symptoms among the youth. Bautista et al. (2012) also concluded that level of educational attainment was a predictor of depression in that adults with lower levels of education reported more symptoms of depression compared to adults with higher levels of education.

By examining race and gender together, information can be gleaned about subgroups of students (e.g., White male youth, Black female youth) that are rarely studied in the current literature (Weinberg et al., 2018). A reason why the literature regarding which groups are more likely to experience depression has been mixed is because multiple social demographic variables have been rarely studied simultaneously in the literature. Investigating these variables along with others contextual factors can provide a clearer understanding of their effects on depression among adolescent populations

### **Ethnic Identity as a Protective Factor**

The extant literature suggests that ethnic identity serves as a protective factor for youth against negative effects of discrimination, bicultural stress, and depressive symptoms (Ai, Nicdao, Appel, & Lee, 2015; Tummala-Narra, & Claudius, 2013). Tummala-Narra and Claudius (2013) examined ethnic identity as a protective factor of the relationship between perceived discrimination at school and symptoms of depression among immigrant origin adolescents ( $N = 95$ ). Immigrant origin adolescents were defined as youth who were born inside and outside of the US who have immigrant origins. The sample consisted of 51 males and 44 females ages 13 to 19 born inside ( $n = 46$ ) and outside ( $n = 49$ ) of the U.S. The sample was also ethnically diverse (Black  $n = 37$ , Latino/a  $n = 29$ , Asian  $n = 22$ , Multiracial  $n = 7$ ). The majority of the foreign-born participants were from Latin American ( $n = 31$ ) followed by Asia ( $n = 11$ ) and Africa ( $n =$

7). The average age of participants was 15 years old. Data were also collected on participants' parent level of education.

Perceived discrimination was measured using adult and peer discrimination scales developed by the authors. Depressive symptoms were measured using the Center for Epidemiological Studies Depression scale and ethnic identity was measured using the MEIM. Results indicated statistically significant relationships between discrimination (adult and peer) and symptoms of depression. Results also indicated statistically significant interaction effects for ethnic identity levels with regard to the relationship between adult discrimination and symptoms of depression. The effect of adult discrimination on depressive symptoms was higher for students with lower ethnic identity. More discrimination from adults was associated with higher levels of depression for youth with lower levels of ethnic identity. Findings suggest that boys reported lower levels of depression compared to girls, and that ethnic identity was significantly associated with symptoms of depression. Overall, youth who reported higher levels of ethnic identity (i.e., youth who possessed stronger connections to their ethnic group) reported significantly lower levels of depression symptoms.

Strengths of this study include ethnic diversity in the sample and understanding perspectives of discrimination from a relatively understudied population. However, the number of participants was relatively small. A weakness of this study is that information about parent level of education was collected but the authors did not incorporate this data into the analyses. The impact of family education with regard to the variables studied may have provided more information about the relationships as additional risk or protective factors associated with depressive symptoms among youth.

In another study, Lim et al. (2016) examined the relationship between ethnic identity, depressive symptoms, and quality of life among ( $N = 166$ ) overweight or obese (OV/OB) adolescents ages 8 to 17. The mean age of participants was 12 years old. The sample was 49.4% White, 32.5% Black, 9.6% Latino, 7.2 % Biracial, and 1.2% were Asian. The sample was also 60% female. Additional demographic information on parental marital status and family income were collected. Depressive symptoms were measured using the Children's Depression Inventory short form (CDI). Ethnic identity was measured using the affirmation and belonging subscales from the MEIM. Quality of life was measured using the Pediatric Quality of Life Inventory.

Results indicated that among ethnic minority participants, ethnic identity moderated the association between depressive symptoms and quality of life. Among the participants from minority groups, youth who reported higher levels of ethnic belonging also reported lower levels of depressive symptoms and better quality of life scores compared to minority youth who reported lower levels of ethnic identity. Strengths of this study were that the sample was culturally diverse and that authors measures quality of life along with symptoms of depression. Some limitations of the study were that authors did not analyze group differences among the sample and failed to provide analyses regarding the SES variables that were included in the study. This information would be helpful in drawing conclusions regarding subgroups that may be impacted by the effects of ethnic identity on symptoms of depression

### **Theoretical Frameworks for the Current Study**

Three main theoretical frameworks guide the current study. The first is the intersectionality theoretical framework, which explains the differences among groups with relation to depression. The current study will also use social identity and resiliency theories to

explain the meaningfulness of ethnic identity as a protective factor for depression among youth in the study.

**Theory of intersectionality.** Intersectionality is a theoretical framework that acknowledges the impact effects of multiple social identity ties and how different identity categories contribute to marginalization and disparities among individuals (Collins, 1999; McCall, 2005). Intersectionality assumes that an individual should be understood through multiple social identities because he or /she may have experiences of marginalization through more than one social category (Collins, 1999; McCall, 2005). For example, an individual should not be understood as female or male because that individual may be also influenced by other aspects of themselves and have varying experiences that extend gender like racial background or SES. For example, a female's experiences as a female is essentially filtered through her experience from her other social identities such as her racial background (e.g. Black) and social economic status (e.g. low income). Therefore, the unit of investigation in researching this individual's experiences should be investigated through her experiences as a Black female from a lower income neighborhood not just as female.

The term intersectionality was coined by Crenshaw (1991) who argues that women of color are marginalized in society because of their location as women and as an individual of color. In Crenshaw's (1989) discussion of the Black female experience, privilege transcends racial lines as she presents arguments that aligned with an intersectionality perspective. Intersectionality in this case refers to the double discrimination faced by Black women due to their race and gender identities. Crenshaw (1989) describes this concept as the "combined effects of practices which discriminate on the basis of race and on the basis of sex" (p. 11). Based on her evaluation of court decisions involving Black female plaintiffs, she concludes that Black women



experience discrimination that is distinct from what White women or Black men generally endure. Thus, making their experience unique and often times difficult to understand because this particular group can undertake oppression from multiple sources. Crenshaw points out that the court's lack of incorporating an intersectionality stance on claims made by black women that involve sex discrimination leaves this group in a position where their experiences are not recognized.

Crenshaw (1989) imparts a critical message that sheds light to the notion of difference. She makes the distinction between what it means to be a woman, from what it means be a black woman in our society. Our historical context only recognizes discrimination through the distinct forms of race and sex with sex discrimination being tied to experiences of White women according to the history of feminist theory. Her tone reflects an insightful critical review of different forms oppression has for black women. Her message is from a black feminist and exposes how contemporary feminism failed to support the experiences of women of color in its efforts to reform antidiscrimination practices. Through her investigation of structural, political, and representational intersectionality she argues that women of color are practically marginalized when it comes to how society is structured, the laws that coincide with said structure, and the group representation in the popular culture (Crenshaw, 1991). Her message is quite clear; women of color have no power, no influence, and are not recognized as a group whose experiences with inequality are tied to race and sex at the same time.

Based on her evaluation of intersectionality Black women in society are automatically disadvantaged because of their sex and race and little is done to protect the rights of this group given their very unique experiences as women. The current study used an intersectionality framework to acknowledge the complexity of lived experiences of Black youth and mental

health, as well as to explain the relationships between demographic variables and depressive symptoms among youth who may be more likely to report symptoms of depression.

Disparities in depression exist across race and gender, however, these variables are often studied separately in the depression literature (Jackson, Williams, & VanderWeele, 2016). More information can be gleaned by examining the influences and interactions that multiple social identities have with one another. Patil et al. (2017) conducted the first systematic review investigating studies that used an intersectionality theoretical framework to examine risk and protective factors for depression in youth from culturally diverse backgrounds in the United States. Seaton et al. (2010) was the only study out of the twenty-five studies included in the review that used an intersectionality framework and integrated demographic variables such as race and gender identities into their analyses of depression among Black youth.

Seaton and colleagues (2010) explored the moderation effects of multiple demographic variables (age, gender, and ethnicity) on the association between perceived discrimination and psychological well being (depression, life satisfaction, and self-esteem) among a sample of ( $N = 1,170$ ) Black youth from diverse ethnic backgrounds (Caribbean  $N = 360$ ; African American  $N = 810$ ) ages 13 to 17. Findings indicated statistically significant interaction effects across age, gender, and ethnicity. Older Black females (Caribbean and African American) who experienced high levels of perceived discrimination also reported more depressive symptoms when compared to older African American males with high levels of perceived discrimination. These findings suggest that using an intersectional approach can provide additional evidence of subgroups that may be more at risk for experiencing poor psychological outcomes. The current study seeks to contribute to the literature by using this perspective to understand the relationship of

demographic variables such as race, gender, and SES with symptoms of depression among a larger and younger sample of Black adolescents.

**Intersectionality and school psychology.** A review of the following school psychology journals: *Journal of School Psychology*, *Psychology in the Schools*, and *School Psychology Review*, suggest that scholars recognize the implications race, sex, and ability status have on the current disproportionality issues in the public schools regarding suspensions and exclusionary discipline practices of Black males in the United States (Bottiani, Bradshaw, & Gregory, 2018; Skiba, Horner, Chung, Rausch, May, & Tobin, 2011). Exclusionary discipline practices have also been documented including the intersections of SES, sexual identity, and sexual orientation (Bottiani, Bradshaw, & Gregory, 2018). In 2014, the Department of Education's Office of Civil Rights reported that across the nation, more than 33% of Black male adolescents who receive special education services are getting suspended at least once per year. These data suggest that for Black youth, those intersections of race, gender, and special education status significantly impact the likelihood of getting suspended. The current study used intersectionality to explain the rationale behind integrating the analysis of multiple dimensions of identity (race and gender) with depression. The current study was unique because there are no studies in peer-reviewed school psychology journals that actively use this approach to understand symptoms of depression among 8<sup>th</sup> grade youth.

**Social identity theory.** Social identity refers to an individual's feelings of belonging and connectedness to a particular social group (Ashmore, Deaux, & McLaughlin-Volpe 2004; Tajfel & Turner, 1986). An individual is considered to have a social identity if he or she incorporates beliefs and values aligning with a particular social group into daily life decision-making. Tajfel & Turner (1986) posit that having a positive emotional connection to a social identity by way of

social group, has implications for higher self-esteem and psychological wellbeing (Hughes, Kiecolt, Keith, & Demo, 2015; Hughes, Witherspoon, Rivas-Drake, & West-Bey, 2009) more so compared to those who lack this connection to a social group. Social identity theory has been utilized in studies that investigate the relationship between ethnic identity and psychological outcomes among youth from culturally diverse backgrounds (Tajfel & Turner, 1979; Toomey & Umana Taylor, 2012).

**Social identity theory and school psychology.** A review of the following school psychology journals: *Journal of School Psychology*, *Psychology in the Schools*, and *School Psychology Review*, indicated that Tajfel & Turner's (1986) social identity theory was referenced as framework in studies understanding cyberbullying and bullying and as a group process within the school context (Gini, 2006; Mason, 2008; Poteat, Rivers, & Vecho, 2015; Swearer, & Hymel, 2015). Gini (2006) explored in-group and out-group attitudes related to peer aggression among ( $N = 455$ ) Italian adolescents with a mean age of 12 years old. Group attitudes were measured based on which group participants identified with when their in-group was a bullied or victimized. Findings indicated that participants demonstrated statistically significant in-group bias indicating the salience of group identity and its relation to personal beliefs and attitudes. In addition, Poteat and colleagues (2015) studied sexual prejudice among ( $N = 437$ ) White high school students. Poteat et al. (2015) reported that youth who engage in homophobic aggression and express heightened sexual prejudice are more likely to engage with peers displaying the same behaviors who also express heighten sexual prejudice compared to youth who express weak sexual prejudice.

These studies were written according to the assumption that bullies create a social network which includes it's own set social norms that reinforce bully behaviors among

individuals in the group. This framework is being used in the current study because the author wanted to consider social group effects that may be associated with the participant's feelings of depression based on the gender or race group in which they subscribe.

**Resiliency theory.** Resiliency theory refers to the extent to which individuals use positive internal and external factors to cope with stress and avoid the risk of future stressful situations (Masten, Cutuli, Herbers, & Reed, 2009; Notelmeyer, 2014). The process of using the positive factors to cope and or overcome adversity is called resilience. In the current study, ethnic identity is hypothesized to act as a protective factor that may buffer against the negative effects associated with being from a marginalized demographic group (e.g., poor Black female). Thus, participants who are from marginalized groups but feel highly about their ethnic identity may be less sensitive to the adverse effects associated with being from a marginalized group.

There are also mixed findings regarding the role of ethnic identity as a protective factor for poor mental health among African-American youth. Thus, consideration of protective factors that may affect the relationship between race, gender, and depression is warranted. The current study anticipates the following moderation effects: 1) The relationship between race and gender with depression will be significantly stronger among participants who endorse higher levels of ethnic identity compared to participants who report lower levels of ethnic identity. 2) Participants who endorse higher levels of ethnic identity but are from at risk groups will have lower symptoms of depression compared to participants who endorse lower levels of ethnic identity.

**Resiliency theory and school psychology.** A review of the following school psychology journals: *Journal of School Psychology*, *Psychology in the Schools*, and *School Psychology Review*, indicated that resilience as a construct has been widely studied in the school psychology literature and resiliency theory has been used as a theoretical framework by several school

psychology researchers (McGrath & Noble, 2003; Naglieri, & LeBuffe, 2006; Shekhtmeyster, Sharkey, & You, 2011). Resilience is commonly operationalized as academic coping and/or problem solving. It is primarily applied under the assumption that teaching resilience promotes academic engagement and well being among children and adolescents (Amemiya, & Wang, 2018; Moore & Woodcock, 2017). Additionally resilience is applied to school psychology research investigating protective factors associated student outcomes (Moore & Woodcock, 2017; Morrison, Brown, D'Incau, O'Farrell, & Furlong, 2006). Moore and Woodcock (2017) examined resilience factors as protective factor against psychological distress among a sample ( $N = 105$ ) primary and high school students ages 10 to 14 in New South Wales, Australia. Results indicated that youth with higher levels of resilience experienced significantly less depression compared to youth who endorsed lower levels of resilience.

### **Ethnic Identity and Positive Youth Adjustment**

**Ethnic identity.** Ethnic identity refers to the extent to which an individual establishes a connection and or feels a sense of belonging to a particular ethnic group (Ellis, Rowley, Nellum, & Smith, 2015; Hudley & Irving, 2012). Ethnic identity is also considered a social identity that integrates cultural beliefs and values into an individual's sense of self. Individuals who are considered culturally diverse develop an identity that reflects one's cultural and or ethnic group membership. This means that an individual who has an ethnic identity has adopted the beliefs, values, and practices associated with their respective ethnic group into the way he or she thinks about the world and one's self.

Ethnic identity is often associated with racial identity in the current literature, and the two terms are often used interchangeably (Cokley, 2007). Researchers who study ethnic identity and racial identity have made clear distinctions between both terms with regard to how these terms

are operationalized and measured (Helms & Cook 1999; Worrell & Gardener-Kitt, 2006; Phinney, 1996). However, there is not a consensus in the field, as other researchers believe that both racial and ethnic identity should be studied and understood empirically and theoretically as one construct (Miller-Cotto & Byrnes, 2016; Schwartz, Luyckx, & Crocetti, 2015; Umaña-Taylor et al., 2014; Yip, Seaton, & Sellers, 2010). The current study used the terms ethnic identity and racial identity interchangeably based on recommendations from Umaña-Taylor et al. (2014). Umaña-Taylor and colleagues (2014) reported that minority adolescent populations merge both race and ethnic identity together when describing their experiences and beliefs pertaining to individual ethnic group membership.

**Components of ethnic identity.** The current study is guided by Phinney's seminal work for understanding ethnic identity development. Phinney's model is well established in the literature and was informed by Marcia and Erikson's theories of identity development (Phinney, 1992). According to Phinney, ethnic identity begins to develop during early adolescence and occurs in three stages (Roberts, Phinney, Masse, Chen, Roberts, & Romero, 1999). The first stage consists of an individual taking an interest in his or her ethnic identity after being triggered by an event. Prior to being triggered an individual has not yet explored their ethnic identity. The second stage is called moratorium. During this phase an individual actively explores his or her ethnic identity through information gathering. The third stage is referred to as achieved. Achieved status means that an individual has committed to an ethnic identity. Phinney (1989) claims that among Black youth in particular ethnic identity development is salient developmental milestone that occurs during adolescents.

**Measuring ethnic identity.** Ethnic identity is most notably measured according to Phinney's theoretical framework for understanding ethnic identity development (Hudley &

Irving, 2012). Phinney suggests there are three different stages of ethnic identity development. In a study with 91 adolescents from different cultural backgrounds, Phinney found that participants' ethnic identity beliefs aligned with one of his three stages of ethnic identity development (Phinney, 1989). These findings provided empirical support for Phinney's stages as well as a foundation for the development of the Multigroup Ethnic Identity Measure (MEIM). The MEIM is a 14-item measure developed by Phinney in 1992. The measure includes 3 subscales: affirmation and belonging (5-items), ethnic identity achievement (7-items), and ethnic behaviors (2-items). The affirmation and belonging subscales measure an individual's sense of belonging to a particular ethnic group and beliefs about ethnic group membership. The items measuring ethnic identity achievement refer to the degree of commitment an individual has to an ethnic identity. Lastly, the ethnic behaviors subscale measures the extent to which an individual practices behaviors consistent with ethnic group membership.

Empirical support for the MEIM structure and construct validity was found by Roberts et al. (1999) who conducted a cross sectional study with middle school students from culturally diverse backgrounds ( $N = 5,423$ ). Results indicated that the MEIM is a valid and reliable measure of ethnic identity during adolescents. Several studies investigating ethnic identity among adolescent populations have used the MEIM or have created measures of ethnic identity based on Phinney's model for understanding ethnic identity (Chavous et al., 2003; Oyeserman, Harrison, & Bybee, 2000; Wong et al., 2003). The current study used original measures of ethnic identity developed by the authors of the MADICS based on Phinney's model for understanding ethnic identity affirmation and belonging.



**Ethnic identity and youth outcomes.** Ethnic identity has been associated with a range of outcomes such as psychosocial functioning, academics, and health (Rivas-Drake et al., 2014; Worrell, 2007; Yasui, Dorham, & Dishion, 2004). For example, among youth from diverse backgrounds, a strong positive ethnic identity is associated with higher grades and self-efficacy compared to youth who endorse a weaker ethnic identity (Altschul, Oyserman, & Bybee, 2006; Byrd & Chavous, 2009; Chavous et al., 2003; Oyserman, Harrison, & Bybee, 2001; Sandoval, Gutkin, & Naumann, 1997; Umana-Taylor & Updegraff, 2007; Zaff, Blount, Philips, & Cohen, 2002). Researchers suggest that an achieved positive ethnic identity is associated with self-esteem, academic efficacy, and negatively associated with depressive symptoms (Bonilla, 2017; Costigan, Koryzma, Hua, & Chance, 2010; Smith & Sylvia, 2011). Achieving a positive ethnic identity has also been shown to act as a protective factor against exposure to life stressors and negative experiences associated with discrimination against one's ethnic group (Galliher, Jones, & Dahl, 2011; Rivas- Drake et al., 2014; Worrell, 2007).

There have been several investigations of White racial identity/Whiteness among White adolescents, however many racial ethnic studies focus on participants of color (Knowles, & Peng, 2005). Research suggests that among White adolescents, having a positive connection to one's ethnic identity is of less importance compared to adolescents of color, but there is an overall positive trend among adolescents regarding being from a White racial background (Grossman & Charmaraman, 2009; Phinney, & Alipuria, 1990). According to Seaton, Quintana, Verkuyten, and Gee (2017) more research is needed to understand ethnic identity development among White adolescents and its relationship with different environmental contexts. The current study focused on the experiences of the Black participants in the study and used White participants as a reference group.

**Ethnic identity and youth depression.** Tummala-Narra (2015) examined the relationship between ethnic identity and depressive symptoms among a diverse group of adolescents at an urban high school using a cross sectional research design ( $N = 341$ ). Tummala-Narra (2015) also examined the relationship between demographic factors (ethnicity, socioeconomic status, and gender) and perceived social support with depressive symptoms. Participants included in the study were immigrant ( $N = 141$ ) and U.S born ( $N = 200$ ) 9<sup>th</sup> and 10<sup>th</sup> grade students. The mean age of participants was 14 years old. The sample was 47.5% Asian, 29.3% Latino, and 23.2% were Afro-Caribbean. African-American students were excluded because there was limited number of participants in the larger sample from which the data is taken from.

Ethnic identity was measured using the MEIM. Perceived social support was measured using items from the Polling for Justice Survey. Demographic variables were self-reported by participants using a background form indicating options for age, ethnicity, socioeconomic status (free or reduced lunch), and gender. The Center for Epidemiological Studies Depression Scale for Children was used to measure symptoms of depression. Findings indicated that ethnic identity was negatively associated with depressive symptoms among all participants. Participants with higher ethnic identities reported fewer depressive symptoms compared to participants who reported lower ethnic identities. All demographic variables except for gender were not statistically significantly associated with depressive symptoms. Girls reported more depressive symptoms than boys. Results from this study suggests that among students from culturally diverse backgrounds, having a strong ethnic identity is negatively associated with depressive symptoms and that adolescent girls may be more likely to experience symptoms of depression compared to boys.

Findings from this study are not generalizable across ethnic groups because Black students were excluded from the study sample due to a limited number of participants in this group. The study also only examines high school students and based on the findings future research is needed with younger populations as these significant relationships may also be detected among middle school aged students. Causation among these variables cannot be determined based on the research design. The current study assessed the relationship between ethnic identity and depressive symptoms among a larger sample of Black youth in middle school. In another study, Gonzales-Backen, Bamaca-Colbert, and Allen (2016) investigated dimensions of ethnic identity (exploration, affirmation, and resolution) over a 3.5-year period among early and middle adolescent Mexican girls in Phoenix Arizona. Data were collected in three waves. The relationship between dimensions of ethnic identity and depressive symptoms were examined at wave 3 and socioeconomic status was examined as a moderator.

Among the early adolescent cohort, participants began in seventh grade and were 12 years old during wave 1, 14 years old during wave 2, and 15 years old during wave 3. Among the middle adolescent cohort, participants began in the 10<sup>th</sup> grade and were 15 years old during wave 1, 17 years old during wave 2, and 18 years old during wave 3. The authors reported that ( $N = 175$ ) adolescents participated in the study. The Ethnic Identity scale measured exploration, resolution, and affirmation at wave 1 and 2. The Center for Epidemiological Studies Depression scale measured symptoms of depression at wave 3. SES was measured using the highest level of education of the participants' mother. Findings indicated that middle adolescents reported statistically significant higher levels of affirmation, exploration, and resolution across waves compared to early adolescents and dimensions of ethnic identity increased among both cohorts.

Findings also revealed that at wave 3 early adolescents who had more growth in their

ethnic identity affirmation reported fewer symptoms of depression compared to those who made less growth. Moderation effects were not detected for any of dimensions of ethnic identity between both cohorts. This study measured the trajectory of ethnic identity over time and used baseline levels to predict later depressive symptoms, which limits the interpretation of this relationship overtime. The sample population limits generalizability to males and culturally diverse groups of students. The lack of moderation effects supports the inclusivity regarding the extent to which SES contributes to the relationship between dimensions of ethnic identity and mental health outcomes, which suggest additional research is needed with perhaps different measures of SES.

## **Conclusion**

The current study investigated the associations between race, gender, and depressive symptoms among an ethnically diverse sample of middle school adolescents. The current study also investigated ethnic identity as protective factor or moderator of the associations between demographic variables and symptoms of depression. First, there are mixed findings regarding the degree to which depressive symptoms affect certain racial groups, particularly African American adolescents. Second, few studies incorporate an intersectional approach to research methods regarding youth depression. Third, less is known regarding the role of ethnic identity as a protective factor among subgroups of African-American youth. Lastly, youth from ethnically diverse backgrounds are also understudied in the depression and mental health literature and there is more to learn regarding the associations among race and gender, ethnic identity, and depressive symptoms among these youth. In an effort to fill the aforementioned gaps previously stated, the current study will examine the following research questions:

1.) What are the associations among race, gender, ethnic identity, and depressive symptoms among 8<sup>th</sup> grade adolescents?

2.) To what extent are there differences in degree of depressive symptoms among youth based on race and gender?

RQ1 Hypothesis 1: There will be significant differences between the associations of race, and gender with symptoms of depression.

3.) To what extent does a strong sense of ethnic identity serve as a protective factor against the development of depression among youth with different demographic characteristics

RQ2 Hypothesis 1: Ethnic identity is expected to moderate the associations of race, and gender with symptoms of depression.

The current study contributes to research in this field by providing information regarding the association between race, gender, and symptoms of depression among a relatively understudied population.

## **Chapter Three:**

### **Methods**

The current study was a secondary analysis of data taken from Maryland Adolescent Development in Context Study (MADICS Eccles, 1997). The MADICS is a longitudinal study that explored social factors associated with psychological outcomes and behaviors across adolescent development. Dr. Jacquelynne Eccles and Dr. Arnold Sam were the principal investigators for the MADICS, and 8 waves of data were collected from multiple informants (adolescents, mothers, fathers, and one older sibling). Data collection started in the fall of 1991 when adolescents entered middle school and ended in 2001 after participants graduated high school. The present study will analyze data from a single time point (wave 3, fall 1991). This time point has been used in previous studies with adolescents and their primary caregivers to assess the impact of early socialization on identity (Rollins, 2009). This wave was also chosen to evaluate the impact of ethnic identity on mental health outcomes during a critical period when identity development and onset of mood disorders is salient. The current study first examined the associations between race, gender, and depression. Then, if ethnic identity moderated these associations. This chapter describes the MADICS data set, participants, measures, procedures, setting, and data analyses within the current study.

### **MADICS**

The Maryland Adolescent in Context Study is a longitudinal study that explores the social contextual factors (family, peers, school, neighborhood) the influence youth behavior and

contributes to positive youth development. The MADICS contains 8 waves of data collection. The first four waves of data were collected from multiple informants. Data collection for wave 1 began in the fall of 1991 when the youth were in the 8<sup>th</sup> grade and wave 4 began in 1995 when youth were in the 12<sup>th</sup> grade. Data collection for wave 5 took place one year after the youth left high school and wave 6 data were collected three years after participants left high school. The measures at each wave match the developmental context of the participants. For example, after wave four the measures are more aligned with life after high school such as measures related employment and marriage.

The MADICS is unique in that informants were not limited to parents and the child and methods for data collection included face-to-face and telephone interviews in addition to self-administered surveys. Secondary caregivers as well as older siblings participated in the study. The current study focused on the perceptions of the student and additional informants such as parents were not included. Additionally researchers argue that the most accurate information about mental health comes from the identified patient (Riley, 2004, Ooi, 2017).

The MADICS is the first longitudinal study in the U.S. to follow African American adolescent developmental patterns and trajectories (“Overview of MADICS”, 2015; Smetana, 2017). The MADICS draws from a sample of participants in Prince George’s County Maryland. This county was selected because it contains several different environments such as rural, urban, and suburban. This county also has different socio-economic status groups represented as well as high number of African American middle-class families, which is a group that is typically underrepresented in literature (Smetana, 2017).

The author drew from the MADICS because the measures align with the developmental period of adolescents where identity is expressed. Wave 3 also contains mental health measures

beyond depression such as test anxiety and anger, which are also pertinent to positive development and adjustment for youth in schools. The MADICS also has a robust sample of Black participants, which is useful for the theoretical frameworks that guided the current study. In addition to the richness of the data set the outcome measures selected for the current study appear to psychometrically sound (see measures section).

## **Participants**

**Student demographic features.** The researcher in the current study will analyze data collected during wave 3 when the participants were in the eighth grade in 1993. Data were collected from 23 public middle schools. At wave 3, the MADICS sample included 1,065 adolescents who self-identified as Black ( $n = 618$ ; 58 %), White ( $n = 331$ ; 31 %), or as a member of another minority group ( $n = 105$ ; 10 %). The sample contained more male ( $n = 336$ ; 54.4 %) than female participants ( $n = 282$ ; 45.6 %). There was great variability in the SES levels as indicated by family income. The full range of family income was \$5,000 to \$100,000. Student population demographic information can be found in Table 1.

## **Measures**

**Demographic information.** Demographic information was taken from participants during face-to-face interviews. Participants had the opportunity to write their race group on the survey. Participants reported several categories such as Asian, Oriental, Black, African American, Latino, Hispanic, Native American American, White, Carribean, Irish, etc. The current study was interested in the Black and White students in the sample. The race groups in the current were determined based on respondents who identified as African America or Caucasian. The study was limited to these two groups because the literature suggests the most inconsistence findings between these groups regarding youth depression. Also the majority of the survey responses



came from these two groups. Participants had the option to choose between male or female for gender.

**Depression.** Depression was measured using items from the Children's Depression Inventory (CDI; Kovacs, 1992). The original scale contains 27 items. The current study used 14 items on a 3-point Likert scale (e.g., 1-once in a while, 2-many times, 3-all the time). The researchers did not give a rationale for only using 14 items. The properties of the CDI are well established in prior research with Alaskan native youth in grades 6<sup>th</sup> through 12<sup>th</sup> and had a strong internal consistency reliability of .82 (Scott, Clapp, Mileviciute, & Mousseau, 2016). Support for validity comes from research that has used this scale to measure depression with middle school students (Lim et al. 2016). Internal consistency for the current study was .86.

**Ethnic identity.** Ethnic identity affirmation was assessed in the current study. Ethnic identity affirmation assesses how positive the adolescent feels about their racial group. Affirmation is measured with a mean score created from four items. Examples include "People of my race/ethnicity have a culturally rich heritage" and "I have meaningful traditions because of my race/ethnicity." Responses are scaled from 1 to 5, with higher scores reflecting more positive regard for their racial group. A reliability of .68 was reported with an 8<sup>th</sup> grade population of Black youth (Wong, Eccles, & Sameroff, 2003). Support for validity comes from research that has used this scale to measure ethnic identity with middle school students (Eccles, Wong, & Peck, 2006). Internal consistency for the current study was .72

## **Procedures**

The current study will utilize archival data. The following section describes the data collection process used in the creation of that dataset. Data were collected in 8 waves. Letters were sent home to 1,700 seventh grade families from select middle schools in Prince George's

County, Maryland. Parent consent was given to participate in the study. The current study will utilize information from wave 3 when the participants are in the 8<sup>th</sup> grade. Participants were interviewed face-to-face for 50 minutes and also completed a survey that took approximately 30 minutes. A \$20 incentive was given to participants at each wave.

**Data screening.** In the current study, only data from wave 3 were analyzed. Given that the current study used data from a national dataset, listwise deletion was used in which students with missing data were excluded from analyses.

### **Proposed Analyses**

**Descriptive analyses.** All descriptive analyses were conducted using the IBM Statistical Package for the Social Sciences (SPSS). Descriptive analyses were conducted for the current study in order to determine mean, standard deviation, and normality (skewness and kurtosis) for each variable, and correlations among the variables of interest (e.g., gender, race, ethnic identity, and depression). Cronbach's alphas were calculated to determine reliability of measures, and permit examination of the extent to which the reliability estimates in the current sample are consistent with previous research. Descriptive statistics are displayed in Table 2.

**Correlational analyses.** Research Questions 1, 2, and 3: To determine the relationships between race, gender, ethnic identity, and depression, correlation coefficients were calculated. This was done for the whole sample and then separately for depression, race, ethnic identity and gender. Correlation coefficients range from -1 to +1 and provide information about the strength and direction of the relationship between two variables. An alpha level of .05 was used to determine statistical significance.

**Regression analyses.** Research Question 1: What are the associations among race, gender, and depressive symptoms among 8<sup>th</sup> grade adolescents? To determine if race and gender, were predictive of depression, separate regression analyses will be conducted for each demographic variable (e.g., race, gender). In each regression analysis, a different demographic variable will be entered as the predictor variable and depression will be entered as the outcome. Beta weights, also termed standardized regression coefficients, show the predicted change in the dependent variable given a one-unit standard deviation change in the independent variable. The size of beta weights reflects the relative importance of the predictor. An alpha level of .05 was used to determine statistical significance of beta weights. Prospective regression equations are listed below:

- Prospective regression equation for Research Question 1
- Depression = Race
- Depression = Gender

Research Question 2: To what extent are there differences in degree of depressive symptoms among youth based on race and gender? To determine if different racial groups (Black, White) and gender groups (male, female) experience depression differently in the sample, additional regression analyses will be conducted using depression as the criterion variable. In each regression analysis, the predictor variables will be each demographic variable (race, gender,), one combined variable dummy coded as gender, Female), one variable dummy coded for race groups (Black), and the interactions between each of the dummy coded variable for race and gender. As suggested by Aiken and West (1991), predictor variables will be centered by subtracting the group mean from each individual's score on that particular variable to address potential multicollinearity between the predictors, and the interaction terms. An alpha

level of .05 will be used to identify statistically significant interaction terms. In the event that a significant interaction term is found, follow-up procedures will be conducted to determine the exact nature of the relationship. Specifically, significant interactions will be examined by calculating and then plotting separate regression lines of demographic variables on depression outcomes for boys and girls (if indicated) and different race groups (if indicated) and for different SES groups (if indicated). Prospective regression equations are listed below:

Prospective regression equations for Research Question 2

Depression = Female, Black, Female x Black,

**Moderator tests.** Research Question 3: To what extent does a strong sense of ethnic identity serve as a protective factor against the development of depression among youth with different demographic characteristics. To determine if ethnic identity functioned as a moderator in the relationship between demographic variables (Black, Female) and depression among participants, an additional regression analysis that included interaction terms was conducted. To test for moderation, a regression analysis was conducted using depression as the dependent variable and demographic variables (Black, Female), ethnic identity, and the interaction of demographic variables (Black, Female) and ethnic identity as the predictors. As above, predictor variables will be centered and an alpha level of .05 will be used to identify statistically significant beta weights. Below are the prospective regression equations, including potential moderators, which have parentheses around them:

Prospective regression equations for Research Question 3

Depression = Ethnic Identity, Black, Female, Ethnic Identity x Black, , Ethnic Identity x Female,  
Black x Female

In the event that a significant interaction term is obtained, follow-up procedures were conducted to determine the exact nature of the relationship. Specifically, significant interactions were determined by calculating simple regression line of value ( $\geq$  one standard deviation above the mean, at the mean, and  $\leq$  one standard deviation below the mean). The results for the value will be plotted for the indicated depression outcome and the slopes for the values will be compared.

## **Chapter Four:**

### **Results**

This chapter presents results of statistical analyses conducted to answer the three research questions within this study. Data screening procedures were carried out first, followed by preliminary analyses. Next, correlations among variables were conducted to examine the relations between race, gender, ethnic identity, and depression. Results from separate regression analyses using race and gender as predictors are presented for each outcome variable (i.e., ethnic identity and depression). Also results evaluating group level differences (male, female, African American, and White) with regard to the relationship between race, gender, ethnic identity, and depression are discussed. Lastly separate regression analyses were conducted to determine whether ethnic identity serves as a moderator between demographic variables (i.e., race, gender) and depression.

#### **Accuracy of Data Entry**

Data from student surveys were acquired from the Henry A. Murray Research Archive at Harvard University website. Data were then uploaded into SPSS. First, data screening procedures were conducted to determine if any data were entered incorrectly. Second, frequency statistics were conducted to determine if there were any outliers in the data. Box plots were analyzed to determine significant outliers. The current study did not detect any significant outliers in the to sample (N = 1,065) sample. The number of responses per for variable included

791 who reported race, 1023 that reported gender, 1001 that reported ethnic identity and 1015 that reported depression were analyzed.

### **Preliminary Analyses**

Preliminary analyses were conducted to determine: (a) Cronbach alphas for scale composite scores, (b) descriptive statistics (i.e., means, standard deviations, and normality) for each variable, and c) correlations among the variables of interest (i.e., race, gender, ethnic identity, and depression). Results from these analyses will be discussed more in depth later in this section.

**Measure reliability.** Internal consistencies were determined for all measures used in current study, including ethnic identity and depression. The alpha values were considered satisfactory for both scales. The alpha value for the ethnic identity scale was .72 and alpha value for the depression scale was .86. Descriptive Statistics and Item-Total correlation for all scales can be found in Appendix D.

**Descriptive analyses.** Descriptive statistics for demographic variables and variables of interest in the current study (race, gender, ethnic identity, depression) were conducted, with results summarized in Tables 1 and 2. Approximately half of the participants in the sample were male. In addition, 50% of the participants in the sample were Black and 25.7% of the sample was identified as White. Skewness and kurtosis values were calculated to assess normality of the variables. All key variables were approximately normally distributed (skew and kurtosis between -2 and +2).

Table 1: *Demographics Variables for MADICS (Wave 3)*

Variables	N	%
Gender		
Boys	564	53
Girls	501	47
Race		
Black	533	50
White	274	25.7

Table 2: *Descriptive Statistics for Key Variables*

Variables	N	Mean (SD)	Min	Max	Skewness	Kurtosis
Ethnic Identity	1001	10.52 (.96)	4	20	.10	-.36
Depression	1015	18.41(4.81)	14	52	1.40	1.61

**Correlational analyses.** Pearson product moment correlations were conducted among all key variables in the study (see Table 3). Demographic variables had statistically significant but relatively weak correlations with outcome variables. Among the demographic variables, Black was negatively correlated with ethnic identity ( $r = -.22, p < .01$ ) and gender was positively correlated with ethnic identity ( $r = .08, p < .05$ ). Among the outcome variables, ethnic identity was positively correlated with depression ( $r = .09, p < .01$ ). These results suggest that there was a significant positive correlation between participants’ attitudes about ethnic identity and the presence of depressive symptoms in the sample. This correlation suggests that ethnic identity is an impactful construct that is ultimately related to youth’s emotional well-being.



Table 3: Correlations between Predictor and Outcome Variables

Variables	1	2	3	4
1. Black	1			
2. Gender	-.03	1		
3. Depression	.00	-.02	1	
4. Ethnic Identity	-.22*	.08*	.09*	1

Note. \*\*  $p < .01$ . \* $p < .05$ .  $N$  ranges from 772 for the correlation between ethnic identity and Black to 1,015 between depression and gender.

### Regression Analyses

**Assumptions.** Following the correlation analysis linear regressions were conducted to answer the research questions of the current study. Prior to the regression analysis violations to the normality, homoscedasticity, and linear relationship assumptions were determined using residual analyses of charts and scatterplots; none of these assumptions were violated.

Multicollinearity was also not present among the variables as evidenced by visual analysis of scatter plots.

**Research question 1.** Multiple linear regressions were conducted to determine the associations among race, gender, and depression. The results of the regression model were not statistically significant for Black participants  $R^2 = .00$ ,  $F(1, 791) = .00$ ,  $p = .94$  (see Table 4). The results of the regression model were also not statistically significant for gender  $R^2 = .00$ ,  $F(1, 1013) = .55$ ,  $p = .45$ . These results suggest race or gender did not have a significant effect on depression symptoms. Among the current sample, identifying as a Black participant was not significantly predictive of symptoms of depression compared to students who identified as White. In addition, identifying as a male participant was not significantly predictive of symptoms

of depression compared to students who identified as female. These results suggest there was not a significant relationship between being from a particular gender or race group and symptoms of depression among youth in the sample.

Table 4: *Unstandardized and Standardized Regression Coefficients for Predicting Depression from Race and Gender*

Predictor Variable	Outcome Variable	B	SE	Standardized Beta	<i>p</i>	<i>R</i> <sup>2</sup>
Black	Depression	.02	.33	.10	.94	.00
Gender	Depression	-.22	.30	-.02	.45	.00

*Note.* \*  $p < .01$ . *N* ranges from 792 for the regression between Black and Depression to 1,014 between depression and gender.

**Research question 2.** A linear regression with interaction terms was conducted to determine whether race and gender predicts depression similarly for both boys and girls, and across race groups (Black, White). The predictor variables were all entered at the same time and in the same step in the regression analyses. The regression included several predictor variables including one combined variable dummy coded as gender to represent male and female participants, one dummy coded variable to represent Black participants, and the interaction between the dummy coded gender variable and race variable (Black). White students in the sample were considered the reference group so these students were not entered as predictors. The results of the regression model testing interaction effects were statistically significant for depression indicating that a relationship between the interaction term of race with gender and depression,  $R^2 = .00$ ,  $F(3, 789) = 4.85$ ,  $p < .002$ ) (see Table 5). The slopes indicated that no predictors reached significance. These results suggest that among the current sample girls and boys did not significantly experience depression symptoms differently based on items endorsed

on the survey. These results also suggest that among the current sample, Black and White participants did not significantly experience depression symptoms differently based on items endorsed on the survey.

Table 5: *Predicting Depression Using Multiple Predictors and Interaction Terms*

Predictor Variable	B	SE	Standardized Beta	<i>p</i>	<i>R</i> <sup>2</sup>
Gender	-.66	.38	-.07	.08	.01
Black	.55	.45	.05	.23	
Gender x Black	-1.17	.66	-.09	.07	

*Note.* *N* = 792.

**Research question 3.** A linear regression with interactions was conducted to determine whether ethnic identity moderated the relationship of race and gender with depression. In the regression, the predictor variables were all entered at the same time and in the same step. The regression included several predictor variables including, ethnic identity, one combined variable dummy coded as gender to represent male and female participants and one dummy coded variable to represent the race group. The interaction between the dummy coded gender variable and ethnic identity and the interaction between the dummy coded race and ethnic identity variables, were also entered as predictors. The interaction between the dummy coded race and dummy coded gender variable was also entered as a predictor. The results of the regression model testing interaction effects were statistically significant  $R^2 = .02$ ,  $F(6, 752) = 3.46$ ,  $p < .05$ ) (see Table 6). The slopes indicated a significant positive relationship between ethnic identity and depression (beta = .13,  $t = 2.29$ ,  $p < .05$ ). Youth in the sample who reported higher ethnic

identity score reported also reported more depression compared to youth with weaker ethnic identity endorsements.

Table 6: *Predicting Depression Using Multiple Predictors and Interaction Terms (Including Ethnic Identity)*

Predictor Variable	B	SE	Standardized Beta	<i>p</i>	<i>R</i> <sup>2</sup>
Gender	-.06	1.08	-.00	.95	.02
Black	1.95	1.05	.20	.06	
EI	.16	.07	.13	.02*	
Gender x Black	-1.24	.70	-.10	.07	
EI x Black	-1.21	.09	-1.30	.21	
Gender x EI	-.06	.09	-.08	.49	

*Note. Note. \* *p* < .05. EI = Ethnic Identity, *N* = 758*

**Moderation tests.** Due to the lack of variance explained by the demographic variables, moderator tests were not conducted.

### Summary

This study examined the relationships between race, gender, ethnic identity, and depression among adolescents in the eighth grade. The current study had three aims: 1) the associations among race, gender, ethnic identity, and depressive symptoms among 8<sup>th</sup> grade adolescents, 2) to what extent are there differences in degree of depressive symptoms among youth based on race, gender, and 3) to what extent a strong sense of ethnic identity serves as a protective factor against the development of depression among youth with different demographic characteristics.

The current study did not find statistically significant positive associations between Black participants and depression. This finding suggests Black participants in the sample reported symptoms of depression similarly to White participants. The current study also did not detect differences based on race or gender with relation to depression. The current study found a significantly positive relationship between ethnic identity and depression. Youth in the sample who endorsed higher ethnic identity scores also reported more symptoms of depression. The current study did not detect any moderation effects attributable to ethnic identity.

## **Chapter Five:**

### **Discussion**

The current study examined the extent to which race and gender were associated with elevated symptoms of depression among youth in the eighth grade. The study also addressed the issue of whether perceptions of ethnic identity moderated these associations. Research from national survey data suggests that each year this country can expect a rise in the percentage of adolescents who will experience a major depressive episode (Twenge et al., 2019). These episodes affect all aspects of life, including school, especially for adolescents. Youth who experience depression often have problems maintaining social interpersonal relationships in addition to difficulty concentrating which may have a negative impact on academic achievement or result in dropping out altogether, both of which are detrimental to development. The purpose of this study was to explore the relationships between race, gender, ethnic identity, and depression among adolescents in the eighth grade. Data were analyzed from Black and White eighth grade students, who reported on their ethnic identity as well as symptoms of depression. This chapter discusses findings, limitations, implications of the current study, and areas for future research.

#### **Relationships between Race, Gender and Depression**

The first aim of this study was to examine whether race and gender predicted depression. Although it was hypothesized that race would have a positive relationship with depression (with

Black adolescents showing higher rates of depression than White adolescents), results showed that race was not a statistically significant predictor of depression among the youth in this sample. This finding was unexpected because previous research has documented significant associations between race and depression, indicating that minority youth experience more symptoms of depression during adolescence compared to White youth (Adkins, Wang, Dupre, van den Oord, & Elder, 2009; Ramos, Jaccard, & Guilamo-Ramos, 2003; Pratt & Brody, 2014). One reason for this finding could be that there may be variability in age groups regarding the extent to which race is predictive of depression. For example, Pratt and Brody (2014), examined depression in a sample with a wider variety of age ranges (i.e., 12-17). The current study examined a sample with limited age range (i.e., all students were in eighth grade and ranged in age from 11 to 14). As such, it may be possible that an association between race and depression may be more detectable among older adolescents than among younger adolescents (Brown, Meadows, & Elder, 2007; Gore & Aseltine, 2003).

There is also a possibility that school racial climate may have affected the results of the current study. The current sample of students indicates that there may have been a high number of Black students in the schools that were surveyed. It could be that Black youth are less likely to experience poor mental health outcomes in environments where they are the majority. Perhaps the social composition of the schools surveyed may have had an effect on participant responses to depression and therefore, less likely to have higher symptoms of depression in a school where they are the majority. School composition refers to characteristics of a school that pertain to racial backgrounds of students in addition to SES status (Ackert, 2018). School composition can also refer to the demographics of the parents including level of education and employment status (Ackert, 2018). Researchers report that school composition factors such as racial majority status

is associated with educational outcomes and psychological well being for Black and Latino youth (Ackert, 2018; Crosnoe, 2009; Klugman & Lee, 2019). The racial school composition of the schools from which these data were drawn could also explain the lack of significant between race and depression in the sample. There could be some positive psychological effects that stem from being in a school environment where the majority of the students are Black.

Furthermore, it also was hypothesized that gender would have a positive relationship with depression such that female participants would endorse significantly higher levels of depression. This hypothesis also was not supported. Again, this finding was unexpected because previous research has documented significant associations between gender and depression in adolescence (Cooper et al., 2013; Dooley et al., 2015; Hankin et al., 1998; Weinberger et al., 2018). Researcher have consistently reported that female youth report significantly more symptoms of depression compare to male youth. A reason for this inconsistency in results could be that previous research has sampled a variety of racial/ethnic groups when investigating the association between gender and depression (Dooley et al., 2015; Weinberger et al., 2018) whereas the current study was limited to only Black and White participants. Another reason for the inconsistency in results could be that the previous research has investigated the association between gender and depression among predominately White samples (Dooley et al., 2015; Weissman & Klerman's, 1977). The current study used a sample of predominately Black adolescents. Perhaps if the current sample was more racial diverse gender may have stood out as a salient predictor of depression

**Group differences.** The second aim of the study was to examine the extent to which there were group differences in the association between race, gender, and depression. Because a significant relationship was not found between race and symptoms of depression, it was expected



that there would any group differences in the sample with regard to the interaction between race and gender. The current study used White male students as the reference group. Previous research has documented mixed findings regarding the endorsement of depression among Black youth compared to other racial groups (Center for Behavioral Health Statistics, 2015; Roberts, Roberts, & Chen, 1997). Research also suggests that females report more depression compared to males (Weissman and Klerman, 1977; National Survey on Drug Use and Health, 2013). As such, it was expected that Black females would have the highest rates of depression. These results are in contrast to reported differences detected between among racial/ethnic groups regarding the relationship between race and depression (National Survey on Drug Use and Health, 2013). These results also contrast with previous literature, which acknowledges that dimensions of depression differ between Black and White racial groups (Steele et al., 2006).

A reason for the discrepancy in there results could be that the Children's Depression Inventory (CDI) may not have been the best assessment tool to measure depression among Black participants even though it is one of the most widely known tools used in depression research with children and adolescents.

The current study used a measure that was solely focused on indicators of depression. Vaughn-Coaxum, Mair, and Weisz (2016) investigated the extent to which the indicators of depression on the CDI measured up equivocally across different racial/ethnic groups (Black, White, Hispanic, and Asian;  $N = 2,335$ ). Finding revealed that from the original 27-item CDI, 77% of the depression indicators did not measure depression equally across the racial groups. These finding suggests that this self-report measure is not able to measure depression indicators equally across racial/ethnic groups and there is a chance that when the measure is used, incorrect information involving the psychopathology among minority groups can be obtained. The current

study used this measure, which may not have been the best because of the population. This measure may not have been adjusted for operationalizing depression among participants belonging to a minority group.

### **Ethnic Identity as a Moderator**

The third aim of the study was to test if ethnic identity endorsement were high, then reports of depression would be low regardless of race or gender. In the current sample, the lack of significant variance contributing to depression from the demographic variables did not warrant an investigation of moderation of ethnic identity between demographic variables and depression. However, it should be noted that when ethnic identity was added to the model, a significant positive relationship between ethnic identity and depression was detected indicating that youth who reported positive ethnic affirmation also reported more depressive symptoms compared to youth whose ethnic identity affirmation was weaker.

This findings contrast previous literature. For example, to Gonzalez-Backen and colleagues (2016) investigated the relationship between ethnic identity and depressive symptoms among a diverse group of 9<sup>th</sup> and 10<sup>th</sup> grade adolescents at an urban high school using a cross sectional research design ( $N = 341$ ). Results indicated that participants who endorsed ethnic identity experienced less depression. The current study used a sample of 8<sup>th</sup> grade Black and White youth. The difference in result could be the different in age group as self-reports from younger adolescents is reports on ethnic identity and less consistent compared to older adolescents. Gonzalez-Backen and Colleagues (2016) also sampled a diverse population of students where as the current study only sampled Black and White students in which endorsements of higher ethnic identity may be less detectable.

This study contributes to the debate regarding the extent to which ethnic identity has a positive or negative impact on youth development (Gushue & Whitson, 2006; Rivas- Drake et al., 2014; Worrell, 2007). Findings in this area have been mixed and understudied. Despite some evidence that having a strong sense of ethnic identity is associated with positive youth adjustment and achievement, researchers have also documented incidences when ethnic identity was negatively associated with achievement outcomes among early adolescents, less is known regarding mental health outcome variables such as depression among this population (Gushue & Whitson, 2006; Rivas- Drake et al., 2014; Worrell, 2007). Among the current sample, ethnic identity was actually a risk factor for indicators of depression based on items on the CDI. Black participants in the study seemed to have positive feelings about their ethnic identity. Feelings of pride pertaining to one's cultural heritage and traditions unfortunately were associated with negative psychological experiences such as indicators of depression.

These data were collected in the early 90s. During that time, youth may have felt proud of being Black, but seeing the rise in police brutality, mass incarceration, and deindustrialization of cities that left many Black people unemployed may have a negative psychological impact resulting in more depression among Black youth in the sample

### **Race, Gender, and Intersectionality**

The current study used an intersectional approach to investigate the associations between race, gender, and depression among 8<sup>th</sup> grade youth of color. It was hypothesized that Black female participants would report more depression compared to non-black male participants. This hypothesis is based on the assumption that one's position in society as a Black female is considered a risk factor for discrimination and oppression, both of which are associated with poor emotional health and physical health outcomes (Baldwin-Clark, Ofahengaue Vakalahi, &

Anderson, 2016; Martin, Boadi, Fernandes, Watt, & Robinson-Wood, 2013). It was unexpected that the current study did not detect statistically significant interaction effects based on race or gender to confirm the application of an intersectional approach to understanding how depression is experienced among Black youth.

These findings contrast with Baldwin and colleagues (2016) who applied intersectionality to detected significant age interactions among older African Americans with regard to how participants experienced depression. A reason for the current study's results could be that a younger population was sampled whereas Baldwin and colleagues' (2016) sample was over the age of 50. Age could account for these varying results because an older population may have additional life circumstances such as having to worry about employment and financial obligations that are associated with one's feelings of depression.

Another reason for these results could be the way race and gender was operationalized. Participants were asked to self-report their race and gender based on categories in which they felt they belonged. Perhaps if the current study would have assessed the experiences associated with being from a particular race and gender, information regarding differences in experiences as a certain race or gender may have surfaced. Perhaps if these variables reflected beliefs and behaviors related to specific gender and racial identities as opposed to category associations, more information may have been detected. Else-Quest and Hyde (2016) reported specific elements that should be incorporated into a study analysis using an intersectional approach. One essential element in intersectional research is to understand the experiences of being from multiple social identities. The current study did not assess for relevant factors that are associated with being from a particular gender or race group. Another key element includes analyses of how power and inequality contribute to specific variables of interest. The current study primarily used

interaction effects to determine the extent to which identifying with multiple groups has on symptoms of depression which may not have been enough to determine the extent to which being from multiple social group has on feelings of depression (Warner & Shields, 2013).

### **Contributions to the Literature**

The findings from the current study contribute to the literature in several ways. The main goal of this study was to add to the current literature based as it relates to the understanding of depression among African American youth. Currently there are inconsistencies regarding the extent to which African American experience compared to other racial groups. Some researchers suggests that African American youth experience more depression compared to other racial groups, while other researchers argue that African American youth experience less depression compared to other racial groups despite being exposed neighborhood violence, poverty, and racial discrimination. The current study did not detect a significant relationship between being African-American and experiencing greater levels of depression compared to other groups. However, it does provide evidence, which suggests that depression among adolescents is evenly distributed among race groups and gender. The constant discrepancy regarding these associations could be an indicator that researchers should perhaps move away from detecting mental health issues across race groups and focus attention on within group differences. This shift could be helpful in considering a more in-depth evaluation among a particular racial group. Understanding individual differences regarding how marginalized communities express symptoms of depression may be helpful in gaining a clearer picture regarding experiences among this group. Studies may have to consider including a qualitative component that could help bridge the gap and further explain inconsistencies in the current literature.

This study found that stronger feelings of ethnic affirmation significantly positively related to high symptoms of depression in a relatively understudied population. Large samples of Black middle school students are rarely studied in the depression literature as it relates to ethnic identity as a salient contributor (Rivas-Drake et al., 2014). This gap in the literature is addressed in this study because the current study sampled a large youth population that was predominantly Black, which significantly contributes to the literature regarding developmental constructs that impact this particular population. The current study also provides evidence that individuals' perceptions about their ethnic group are associated with feelings of depression. This information can be useful for future adolescent mental health researchers interested in identifying positive and potentially negative psychological factors associated with youth depression.

The current study also examined the application of intersectionality theory to the investigation of depression symptoms among adolescents during a critical period of youth development. Using this framework to understand mental health problems among adolescent populations has not been documented in peer reviewed school psychology journals to date. Nonetheless, the school psychology literature reflects the importance of considering the intersection of multiple identities (i.e., race, gender, social economic status, disability status) as they relate to disproportionality in special education and exclusionary discipline practices (i.e., office discipline referrals, in-school suspensions, out-of-school suspensions, and expulsions) but has yet to discuss these intersections as they relates to social emotional outcomes among youth. . For example, researchers have found that Black males with and without disabilities are more likely experience exclusionary discipline compared to White males (Bowman-Perrott et al., 2013; Sullivan & Bal, 2013; Sullivan, Van Norman, & Klingbeil, 2014). Similarly, Black males who are eligible for free and/or reduced lunch are more likely to have been identified with more

then one area of disability (Losen & Gillespie, 2012; Noltemeyer & McLoughlin, 2012; Skiba, Shure, & Williams, 2012; Sullivan & Bal, 2013).

More recently Crenshaw, Ocen, and Nanda (2015) reported that Black girls are disproportionately represented in school-based discipline and are more likely than other students to be suspended or expelled for subjective behavior infractions. These findings suggest that experiences may be greatly impacted for individuals with a location at the intersection of being a Black male or Black female. The current study attempted to fill a gap in school psychology literature that considers multiple identities using an intersectionality theory to understand adolescent experiences with symptoms of depression.

### **Implications for School Psychologists and Mental Health Professionals**

Findings from the current study have implications for educational and mental health professionals who work with adolescents. The current study did not support the hypotheses regarding the relationship between demographic variables and depression. Nonetheless, information regarding the significance of ethnic identity should not be ignored.. First and foremost it is the critical that mental health professional receive comprehensive training regarding cultural competence and providing services to youth from minority backgrounds. It is the responsibility of training programs especially in the education and psychology departments to provide the information and training needed to work with minority populations. In a recent study investigating multicultural course requirements for school psychology programs, Gross and Malone (2017) reported that 76% of programs offered at least one course that discussed multicultural topics. University training programs should extend coursework opportunities to consider the political, economic, and social influences associated with the academic, behavioral,

and social emotional wellbeing of youth. This information would be very beneficial and provide further understanding of youth within different systems in society.

It is the responsibility of school psychology training programs in particular that investigation of cultural influences on youth outcomes and development is encouraged, as there are major gaps to fill in this area. Worrell (2014) exposed how huge this gap is in the school psychology literature by analyzing the number of studies published around a specific topic. Based on five journals: the *Journal of Applied School Psychology*, the *Journal of School Psychology*, *Psychology in the Schools*, *School Psychology Quarterly*, and *School Psychology Review*, 262 studies examined cultural constructs (culture, multiculturalism, cultural ecological theory, and stereotype threat) compared to the 1,224 studies that covered common school psychology concerns (behavior modification, consultation, and response to intervention) (Worrell, 2014).

Practitioners seeking guidance in how to help youth understand ethnic identity may want to consider the following programs and practices: using programs such as Project Butterfly, taking interest in student racial identity by asking students to share information about their culture, assigning reading material with characters from different cultural backgrounds (Hill, Mance, Anderson, & Smith, 2012). In addition, Sisters of Nia is an evidence-based curriculum that promotes resilience in adolescent girls by using racial socialization techniques to foster positive ethnic identity development (Belgrave et al., 2004; Belgrave, Cherry, Butler, & Townsend, 2008). Curriculums focused on ethnic identity development can help open a conversation about all different types of feeling associated with being from one particular race group and endorsing strong values.

It should also be noted that the majority of staff members in the school system are White and may not be sensitive or even aware to these issues, therefore school psychologists could play a role in educating other school staff about the importance of fostering positive ethnic identity



development and collaborate with administrators to ensure that the school the racial climate is welcoming for youth of diverse backgrounds.

The current study also has implications for school psychologists to consider intersectionality in future research and practice. Using an intersectional approach to practice can help a school psychologist recognize those students whose intersecting identities can put them at risk for marginalization in their educational experience. Also, school psychologists who research marginalized groups should consider the intersecting identities that contribute to students' experiences in schools.

Although the current study did not find significant interaction effects between race and gender in relation to symptoms of depression does not mean that school psychologists should not consider the impact of multiple identities on student social emotional behavior in school. When considering academic, behavioral, and social emotional problems among children and adolescents, it is best practice to consider the whole individual and the social contexts that directly influence that individual (Bronfenbrenner, 1979). Herman, Merrell, Reinke, and Tucker (2004) recommend that school psychologists interested in understanding youth depression need to consider theoretical models which suggests there are sociostructural systems (i.e., sociodemographic characteristics, neighborhoods, public policies, media) that influence individual behavior. This recommendation is important to consider because intersecting identities live within systems that are designed to maintain a specific power structure through discrimination and oppression of individuals in society with little to no power. School psychologists should work toward understanding their own intersecting identities as they relate to privilege and oppression. Self reflection as it relates to individual identities and our own biases

can help mental health professionals become more empathetic and culturally competent when working with diverse youth and their families.

It is important for school psychologists to understand that adolescence is a critical period of youth development that encompasses the expression of physical and emotional changes within the individual. Among these changes are the integration of multiple social identities that influence behavior. By focusing only on one identity, a practitioner may miss the extent to which another identity is maintain or contributing to an individual's problem. For example, a Black female displaying symptoms of depression may be a result of the individual's experiences as a female. However, failing to consider the possibility that being from a particular race group also comes with a set of experiences that may contribute to symptoms of depression limits conceptualization and full understanding other factors that influence an individual's mood. In order to further understand the integration of several identities, mental health professionals should be sure to establish an environment/rapport with youth to make youth feel comfortable bringing up these issues. Some may dismiss it because they're not comfortable talking about it, but it's important for school psychologists to be able to have these open conversations with youth.

Overall school psychologists are in a perfect position to share information regarding the prevalence of mental health concerns among adolescent populations. They can provide coping skills to youth who are affected by depression. School psychologist are also in a perfect position to advocate, facilitate, and implement school-based mental health prevention and intervention efforts for youth at different levels of need. School psychologists have a unique skill set that allows them to facilitate service delivery within a multilevel or tiered model that emphasizes

prevention and intervention around social-emotional behavioral functioning for all students (Christner, Mennuti, & Whitaker, 2009).

### **Limitations**

There were several limitations to the current study that affect the generalizability of the findings. First, data analyses in this study were limited to examination of cross-sectional data, which prohibits the interpretation of causation. Second, the racial groups in the study are limited to White and Black, which limit generalizability of findings to other groups. Third, there is a possibility that because the data set is over 20 years old, those who are in eighth grade currently may have a different response to the variables based on changes in society from when data were collected. Failing to extend the intersectional analyses to include additional identities such as religion, sexual, and socioeconomic status also limits the scope of the current investigation.

Although the use of an older data set is a limitation, the current study can contribute to future research that can use the current study as a comparison. It should be noted that the social context of the United States differed significantly from today. The attitudes and beliefs of participants could have been influenced by what was going on in the world at the time (i.e., Rwandan Civil War 1990-1994, Rodney King riots, War on Drugs/Police Brutality). For example, researchers claim the 1990s was a period of increased “ethnic nationalism” (Smetana, 2017) indicating that attitudes and beliefs about ethnic identity could have been very prevalent among the sample. Currently, youth do not differentiate between race and ethnic identity, which may impact attitudes about its role in an individual’s life (Rivas-Drake et al., 2014; Umaña-Taylor et al., 2015). This suggests that youth in today’s society may have different beliefs about race and ethnic identity and it might not be as important since among adolescence there isn’t a clear distinction between the two constructs.

The current study was also limited in the fact that minimal information regarding the demographic make-up of the sample was provided. It was noted that the socioeconomic status ranges were 50,000 to 100,000 as reported by parents in a face-to-face interview during the first wave of the study. However, youth did not report on this information in the wave three survey, nor were parent responses provided for analyses. Past research suggests that socioeconomic status is positively associated with depression among adolescent samples (Najman et al., 2010; Zho, Fan, and Yin (2018). Among a sample of 1,060 Chinese adolescents, Zho, Fan, and Yin (2018) reported that youth with parents with more education and higher incomes were more likely to report depressive symptoms at a much lower rate than youth who belong to families with less income and parental education. Perhaps information about levels of income and or parent education may have affected the findings of the current study. Also, only two race groups were included in the analyses even though there were many different racial groups that participated in the MADICS. Maybe one of these groups during that time may have experienced more depression compared to the groups analyzed in the current study.

The lack of previous mentioned information also limits the extent to which intersectionality can be applied to the current study. For example, race and gender were the only demographic identities explored which only limits to the understanding of experiences associated at the intersection of race and gender. Extending the analyses of multiple identities such as socioeconomic status may have provided a clearer picture of the unique youth in the sample.

## **Summary**

The current study examined the association between race, gender, ethnic identity and depression among adolescents in the eighth grade. This study was a cross sectional secondary analysis of data taken from the longitudinal Maryland Adolescent in Context Study, which

explored social factors associated with psychological outcomes and behaviors across adolescent development. This study had three main aims. First, this study explored the extent to which race and gender were associated with depression. This study did not find statistically significant relationships between demographic variables and depression. These findings contradict current literature documenting positive associations between race, gender, and depression among Black adolescents.

Second, the current study examined the extent to which there were group differences in the association between race, gender, and depression. In the current sample, group differences were not detected. The way depression was operationalized may have attributed to these results. The current measure used for depression had a three-point Likert scale; more options in the scale may have given a clearer picture of participant experiences with depression. Another reason that may have accounted for these results could be that Black youth express depression differently from other race groups, and the assessment tool used in the current study may not have accounted for this difference. Measurement invariance refers to the extent to which a construct is being measured equally across groups (Borsboom, 2006). For example, the factor structure of the CDI was investigated by Kovacs (2004) to test whether the measurement of the construct of depression is equivalent across different racial/ethnic groups. Finding indicated there were no significant differences. However, in a recent meta-analysis conducted by Huang and Dong (2014) it was reported there is currently a lack of evidence to indicate that the factor structures of the CDI are equal across racial/ethnic groups. This suggests there may measurement issues when using the CDI among different racial/ethnic group which may warrant caution when interpreting scores (Lu, Lindsey, Irsheid, & Nebbitt, 2017; Vaughn-Coaxum, Mair, & Weisz, 2016).

The third major aim of the current study was to explore ethnic identity as a protective factor for youth in the sample. It was hypothesized that Black females with stronger ethnic identity levels would be protected against risk of endorsing high levels of depressive symptoms. In the current sample, ethnic identity did not statistically contribute to the variance explained in the outcome of depression when added to the regression model. For example, the R squared value without ethnic identity was .01, and when ethnic identity was included it changed to .02 indicating a very small change in variation. Because of this, a formal test of moderation comparing R squared values was not conducted. The lack of significant relationship between identifying with a particular race or gender group and symptoms of depression in the sample also indicated a small possibility that the ethnic identity would not have strengthened this relationship significantly.

It is important to note that when ethnic identity was added to the regression model to test its' impact on the variables of interest, it was positively associated with depression. This means that although ethnic identity did not change the strength or direction of the relationship between independent variables (race, gender, and the interaction between race and gender) with depression, youth with stronger ethnic identity endorsed more symptoms of depression compared to youth who reported weaker ethnic identity. Participants in the current sample who endorsed stronger feelings about their heritage in terms of traditions and the support from their ethnic communities experienced more symptoms of depression compared to participants that were less connected to their ethnic identity. This indicates the psychological impact of social identity factors on Black and White Youth.

## **Future Directions**

It is important for future research to continue investigating the association between contextual variables and depression because research in this area is limited as it pertains to culturally diverse samples. Although these associations are not present here it is important to consider additional social determinants associated with youth depression. For example, Najaman and colleagues (2015) concluded in a longitudinal study that exposure to family poverty was associated with anxiety and depression at ages 14 and 21 among a sample of 2,609 participants. Additionally, Zho, Fan, and Yin (2018) reported results from a Chinese adolescent sample, which indicated statistically significant associations between SES (family income and parent level of education) and symptoms of depression. There is overwhelming evidence that suggests youth from lower socioeconomic backgrounds and youth who identify as gay, lesbian, or bisexual are more likely to experience depression (Edidin, Ganim, Hunter, & Karnik, 2012; Fredriksen-Goldsen, Kim, Barkan, Muraco, & Hoy-Ellis, 2013). However, there is a lack of information investigating the intersection among these identities with race and gender (Marshal et al., 2011).

Sexual minority youth (i.e., youth who are lesbian, gay, bisexual. etc.) are considered an extremely vulnerable population in the United States because they are more likely to experience negative mental health outcomes like depression compared to non-sexual minority youth (Burton, Marshal, & Chisolm, 2014; Burton, Marshal, Chisolm, Sucato, Friedman, 2013). Marshal et al. (2011) reported that sexual minority youth are at greater risk for engaging in suicidal behaviors (ideation and attempts) compared to heterosexual youth in a meta-analysis investigating suicidality and depression among these populations. According to these

researchers, adolescence represents a critical period for the manifestation of mental health problems among youth from lower economic backgrounds or from a sexual minority community

There is a lack of consistency in the empirical literature that supports the relationship between race, gender, and depression among Black youth compared to other racial groups (Bautista et al., 2012; Cooper et al., 2013; National Survey on Drug Use and Health, 2013; Pratt and Brody (2014). Given the inconsistencies in the literature, future research studies should focus on solidifying methods of assessing depression among Black youth. Researchers should consider how Black youth discuss and express symptoms of depression. Individuals from different cultural groups and subgroups do not conceptualize depression the same way and identify symptoms differently as well (Chio, 2002; Crockett et al, 2005). For this reason, discussions with Black youth centered around how depression manifests is needed to understand factors that impact self-reports of depression among this group. Perspective studies should consider incorporating qualitative methods with quantitative methods. Qualitative methodology may provide information that could clarify discrepancies in the quantitative studies this in this area.

Future research should continue to investigate the relationships and group differences regarding race and gender with depression among adolescents. The current study attempted to fill this gap by analyzing effects of depression among a sample of eighth grade students, however more research investigating within group differences rather than between group differences is needed. Exploring within group differences can provide information pertaining to the most at-risk communities within certain race groups that between race group analyses may not be able to consistently detect. In that regard, it is critical that future researchers investigating marginalized groups in this field consider using an intersectional approach to recruitment, study methodology,



and analyses to further examine the experiences of youth at risk for mental health issues (Ghabrial, & Ross, 2018; Lewis, & Grzanka, 2016). It is even more imperative that the school psychology literature considers and applies intersectionality as a framework for understanding risks and protective factors associated with mental health problems among youth. Investigations are needed that systematically use intersectionality as a framework because social identities and their impact on mental health are particularly unique during the teen years as evidenced by the current study. Prospective studies should focus its efforts on implementing and evaluating interventions centered on building coping skills for youth with social identities that may put them at greater risk for mental health problems.

## References

- Adkins, D. E., Wang, V., Dupre, M. E., Van den Oord, E. J., & Elder Jr, G. H. (2009). Structure and stress: Trajectories of depressive symptoms across adolescence and young adulthood. *Social forces*, 88(1), 31-60.
- Ai, A. a., Nicdao, E. G., Appel, H. B., & Jik Lee, D. H. (2015). Ethnic identity and major depression in Asian American subgroups nationwide: Differential findings in relation to subcultural contexts. *Journal Of Clinical Psychology*, 71(12), 1225-1244. Doi: 10.1002/jclp.22214
- Aiken, L. S., & West, S. G. (1991). Multiple regression: Testing and interpreting interactions. Newbury Park: Sage.
- Altschul, I., Oyserman, D., & Bybee, D. (2006). Racial-ethnic identity in mid-adolescence: Content and change as predictors of academic achievement. *Child Development*, 77(5), 1155-1169.
- Amemiya, J., & Wang, M. T. (2018). African American adolescents' gender and perceived school climate moderate how academic coping relates to achievement. *Journal of school psychology*, 69, 127-142.
- American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders (DSM–5). 5th ed. Arlington, VA. 2013.

- Aronson, J. (2002). Stereotype threat: Contending and coping with unnerving expectations. *Improving academic achievement: Impact of Psychological Factors on Education*, 279-301.
- Ashmore, R. D., Deaux, K., & McLaughlin-Volpe, T. (2004). An organizing framework for collective identity: Articulation and significance of multidimensionality. *Psychological Bulletin*, 130(1), 80.
- Avenevoli, S., Swendsen, J., He, J. P., Burstein, M., & Merikangas, K. R. (2015). Major depression in the National Comorbidity Survey–Adolescent Supplement: Prevalence, correlates, and treatment. *Journal of the American Academy of Child & Adolescent Psychiatry*, 54(1), 37-44.
- Baldwin-Clark, T., Ofahengaue Vakalahi, H. F., & Anderson, B. (2016). What about African American older women and depressive symptoms? *Educational Gerontology*, 42(5), 310-320.
- Beauchaine, T. P., & Hinshaw, S.P. (2013). *Child and Adolescent Psychopathology*. Hoboken, N.J. John Wiley & Sons.
- Belgrave, F. Z., Cherry, V. R., Butler, D. S., & Townsend, T. G. (2008). *Sisters of Nia: A cultural enrichment intervention to empower African American girls*. Champaign, IL: Research Press.
- Belgrave, F., Reed, M., Plybon, L., Butler, D., Allison, K., & Davis, T. (2004). An evaluation of Sisters of Nia: A cultural program for African American females. *Journal of Black Psychology*, 30, 329–323.
- Bautista, F. C., Velázquez, V. J., Icaza, M. E., Moreno López, M., Gutiérrez López, M. L., & Robles, O.N. (2012). Socio-demographic and personal factors related to depressive

- symptomatology in the Mexican population aged 12 to 65. *Revista Brasileira de Psiquiatria*, 34, 395–404. <http://dx.doi.org/10.1016/j.rbp.2012.03.004>
- Bonilla, L. (2018). *Associations between Ethnic Identity, Academic Efficacy, Achievement Goals and School Belonging among Early Adolescents* (Master's Thesis). Retrieved from University of South Florida.
- Borsboom, D. (2006). When does measurement invariance matter? *Medical Care*, 44(11, Suppl. 3), S176–S181. doi:10.1097/01.mlr.0000245143.08679.cc
- Breland-Noble, A. M., Burriss, A., & Poole, H. K. (2010). Engaging depressed African American adolescents in treatment: Lessons from the AAKOMA PROJECT. *Journal of Clinical Psychology*, 66(8), 868-879.
- Bronfenbrenner, U. (1979). Contexts of child rearing: problems and prospects. *American Psychologist*, 34, 844-850
- Brown, J. S., Meadows, S. O., & Elder Jr, G. H. (2007). Race-ethnic inequality and psychological distress: Depressive symptoms from adolescence to young adulthood. *Developmental psychology*, 43(6), 1295.
- Burton, C. M., Marshal, M. P., Chisolm, D. J., Sucato, G. S., & Friedman, M. S. (2013). Sexual minority-related victimization as a mediator of mental health disparities in sexual minority youth: A longitudinal analysis. *Journal of youth and adolescence*, 42(3), 394-402.
- Burton, C. M., Marshal, M. P., & Chisolm, D. J. (2014). School absenteeism and mental health among sexual minority youth and heterosexual youth. *Journal of school psychology*, 52(1), 37-47.

- Byrd, C. M., & Chavous, T. M. (2009). Racial identity and academic achievement in the neighborhood context: A multilevel analysis. *Journal of Youth and Adolescence*, 38(4), 544-559.
- Center for Behavioral Health Statistics and Quality. (2015). Behavioral health trends in the United States: Results from the 2014 National Survey on Drug Use and Health (HHS Publication No. SMA 15-4927, NSDUH Series H-50). Retrieved from <http://www.samhsa.gov/data/>.
- Chang, S. S., Stuckler, D., Yip, P., & Gunnell, D. (2013). Impact of 2008 global economic crisis on suicide: Time trend study in 54 countries. *British Medical Journal*, (7925), 13
- Chavous, T. M., Bernat, D. H., Schmeelk-Cone, K., Caldwell, C. H., Kohn-Wood, L., & Zimmerman, M. A. (2003). Racial identity and academic attainment among African American adolescents. *Child Development*, 74(4), 1076-1090.
- Cokley, K. (2007). Critical issues in the measurement of ethnic and racial identity: A referendum on the state of the field. *Journal of Counseling Psychology*, 54, 224–234.  
Doi:10.1037/0022-0167.54.3.224
- Collins, P. H. (1999). Moving beyond gender: Intersectionality and scientific knowledge. In M. F. Ferree (Ed.), *Revisioning gender* (pp. 261–284). Thousand Oaks, CA: Sage
- Cooper, S. M., Brown, C., Metzger, I., Clinton, Y., & Guthrie, B. (2013). Racial discrimination and African American adolescents' adjustment: Gender variation in family and community social support, promotive, and protective factors. *Journal of Child and Family Studies*, 22(1), 15-29.
- Costigan, C. L., Koryzma, C. M., Hua, J. M., & Chance, L. J. (2010). Ethnic identity, achievement, and psychological adjustment: Examining risk and resilience among youth

- from immigrant Chinese families in Canada. *Cultural Diversity and Ethnic Minority Psychology, 16*(2), 264.
- Craighead, W. E., Smucker, M. R., Craighead, L. W., & Ilardi, S. S. (1998). Factor analysis of the Children's Depression Inventory in a community sample. *Psychological Assessment, 10*(2), 156.
- Crenshaw, K., Ocen, P., & Nanda, J. (2015). Black girls matter: Pushed out, overpoliced, and underprotected. New York, NY: African American Policy Forum, Center for Intersectionality and Social Policy Studies. Retrieved from [https://www.atlanticphilanthropies.org/app/uploads/2015/09/BlackGirlsMatter\\_Report.pdf](https://www.atlanticphilanthropies.org/app/uploads/2015/09/BlackGirlsMatter_Report.pdf)
- Crocetti, E., Rubini, M., & Meeus, W. (2008). Capturing the dynamics of identity formation in various ethnic groups: Development and validation of a three-dimensional model. *Journal of Adolescence, 31*(2), 207-222.
- Crosnoe, R. (2009). Low-income students and the socioeconomic composition of public high schools. *American Sociological Review, 74*(5), 709-730.
- Dooley, B., Fitzgerald, A., & Giollabhui, N. M. (2015). The risk and protective factors associated with depression and anxiety in a national sample of Irish adolescents. *Irish Journal of Psychological Medicine, 32*(1), 93-105.
- Eccles, J. (2015). *Overview of MADICS*. Retrieved from <http://garp.education.uci.edu/madics.html>
- Eccles, J. S., Wong, C. A., & Peck, S. C. (2006). Ethnicity as a social context for the development of African-American adolescents. *Journal of School Psychology, 44*(5), 407-426.

- Edidin, J. P., Ganim, Z., Hunter, S. J., & Karnik, N. S. (2012). The mental and physical health of homeless youth: A literature review. *Child Psychiatry & Human Development, 43*(3), 354-375.
- Ellis, J. M., Rowley, L. L., Nellum, C. J., & Smith, C. D. (2015). From alienation to efficacy: An examination of racial Identity and racial academic stereotypes among Black male adolescents. *Urban Education, 53*(7), 899-928.
- Else-Quest, N. M., & Hyde, J. S. (2016). Intersectionality in quantitative psychological research: I. Theoretical and epistemological issues. *Psychology of Women Quarterly, 40*(2), 155-170.
- Erikson, E.H. (1968) *Youth, Identity and Crisis*. Norton, New York.
- Fordham, S. (1988). Racelessness as a factor in Black students' school success: Pragmatic strategy or pyrrhic victory? *Harvard Educational Review, 58*(1), 54-85.
- French, S. E., Seidman, E., Allen, L., & Aber, J. L. (2006). The development of ethnic identity during adolescence. *Developmental Psychology, 42*(1), 1.
- Galliher, R. V., Jones, M. D., & Dahl, A. (2011). Concurrent and longitudinal effects of ethnic identity and experiences of discrimination on psychosocial adjustment of Navajo adolescents. *Developmental Psychology, 47*(2), 509.
- Garnett, B. R., Masyn, K. E., Austin, S. B., Miller, M., Williams, D. R., & Viswanath, K. (2014). The intersectionality of discrimination attributes and bullying among youth: An applied latent class analysis. *Journal of Youth and Adolescence, 43*(8), 1225–1239.  
<http://dx.doi.org/10.1007/s10964-013-0073-8>.

- Ghabrial, M. A., & Ross, L. E. (2018). Representation and erasure of bisexual people of color: A content analysis of quantitative bisexual mental health research. *Psychology of Sexual Orientation and Gender Diversity, 5*(2), 132.
- Gini, G. (2006). Bullying as a social process: The role of group membership in students' perception of inter-group aggression at school. *Journal of school psychology, 44*(1), 51-65.
- Gonzales-Backen, M. A., Bámaca-Colbert, M. Y., & Allen, K. (2016). Ethnic identity trajectories among Mexican-origin girls during early and middle adolescence: Predicting future psychosocial adjustment. *Developmental Psychology, 52*(5), 790.
- Gore, S., & Aseltine Jr, R. H. (2003). Race and ethnic differences in depressed mood following the transition from high school. *Journal of health and social behavior, 370-389*.
- Gross, T. J., & Malone, C. M. (2018). Examination of Multicultural Coursework Across School Psychology Training Programs. *Contemporary School Psychology, 1-11*.
- Grossman, J. M., & Charmaraman, L. (2009). Race, context, and privilege: White adolescents' explanations of racial-ethnic centrality. *Journal of Youth and Adolescence, 38*(2), 139-152.
- Hankin, B. L., & Abramson, L. Y. (2002). Measuring cognitive vulnerability to depression in adolescence: Reliability, validity, and gender differences. *Journal of Clinical Child and Adolescent Psychology, 31*(4), 491-504.
- Hankin, B. L., Abramson, L. Y., Moffitt, T. E., Silva, P. A., McGee, R., & Angell, K. E. (1998). Development of depression from preadolescence to young adulthood: Emerging gender differences in a 10-year longitudinal study. *Journal of Abnormal Psychology, 107*, 128 – 140. <http://dx.doi.org/10.1037/0021-843X.107.1.128>



- Hasin, D. S., Goodwin, R. D., Stinson, F. S., & Grant, B. F. (2005). Epidemiology of major depressive disorder: Results from the National Epidemiologic Survey on Alcoholism and Related Conditions. *Archives of General Psychiatry*, *62*(10), 1097-1106.
- Helms, J. E., & Cook, D. A. (1999). Using race and culture in counseling and psychotherapy: Theory and process. *Adolescence*, (135)
- Herman, K. C., Merrell, K. W., Reinke, W. M., & Tucker, C. M. (2004). The role of school psychology in preventing depression. *Psychology in the Schools*, *41*(7), 763-775.
- Hentges, R. F., & Wang, M. (2018). Gender differences in the developmental cascade from harsh parenting to educational attainment: An evolutionary perspective. *Child Development*, (2), 397. doi:10.1111/cdev.12719
- Hooper, M. L., Mier-Chairez, J., Mugoya, C. T. G., & Arellano, B. (2016). Depressive symptoms, assessment, and treatment in Latino/a adolescents: A brief review. *Current Psychiatry Reviews*, *12*(2), 150-162.
- Huang, C., & Dong, N. (2014). Dimensionality of the Children's Depression Inventory: Meta-analysis of pattern matrices. *Journal Of Child And Family Studies*, *23*, 1182–1192. doi:10.1007/s10826-013-9779-1
- Hudley, C., & Irving, M. (2012). Ethnic and racial identity in childhood and adolescence. In K. R. Harris, S. Graham, T. Urdan, & S. Graham (Eds.), *APA educational psychology handbook: Vol. 2. Individual differences and cultural and contextual factors* (pp. 267–292). Washington, DC: American Psychological Association.
- Hughes, M., Kiecolt, K. J., Keith, V. M., & Demo, D. H. (2015). Racial identity and well-being among African Americans. *Social Psychology Quarterly*, 0190272514554043.

- Hughes, D., Witherspoon, D., Rivas-Drake, D., & West-Bey, N. (2009). Received ethnic–racial socialization messages and youths’ academic and behavioral outcomes: Examining the mediating role of ethnic identity and self-esteem. *Cultural Diversity and Ethnic Minority Psychology, 15*(2), 112.
- Jackson, J. W., Williams, D. R., & VanderWeele, T. J. (2016). Disparities at the intersection of marginalized groups. *Social Psychiatry and Psychiatric Epidemiology, 51*(10), 1349–1359. <http://dx.doi.org/10.1007/s00127-016-1276-6>.
- Klimstra, T. (2013). Adolescent personality development and identity formation. *Child Development Perspectives, 7*(2), 80-84.
- Knowles, E. D., & Peng, K. (2005). White selves: Conceptualizing and measuring a dominant-group identity. *Journal of Personality and Social Psychology, 89*, 223–241.  
doi:10.1037/0022-3514.89.2.223
- Klugman, J., & Lee, J. C. (2019). Social closure, school socioeconomic composition, and inequality in college enrollments. *Social science research, 80*, 156-185.
- Kovacs, M. (1992). *The Children’s Depression Inventory*. New York, NY: Multi-Health Systems
- Kovacs, M. (2004). *Children’s Depression Inventory (CDI)*. Toronto, Canada: Multi-Health Systems.
- Krieger, N. (2012). Methods for the scientific study of discrimination and health: An ecosocial approach. *American Journal of Public Health, 102*(5), 936–945. <http://dx.doi.org/10.2105/AJPH.2011.300544>.
- Lewis, J. A., & Grzanka, P. R. (2016). Applying intersectionality theory to research on perceived racism. In A. N. Alvarez, C. T. H. Liang, & H. A. Neville (Eds.), *The cost of racism for*

- people of color: Contextualizing experiences of discrimination* (pp. 31–54). Washington, DC: American Psychological Association. <http://dx.doi.org/10.1037/14852-003>
- Lim, C. S., Gowey, M. A., Silverstein, J., Dumont-Driscoll, M., & Janicke, D. M. (2015). Depressive symptoms, ethnic identity, and health-related quality of life in obese youth. *Journal of Pediatric Psychology, 41*(4), 441-452.
- Lu, W., Lindsey, M. A., Irsheid, S., & Nebbitt, V. E. (2017). Psychometric properties of the CES-D among black adolescents in public housing. *Journal of the Society for Social Work and Research, 8*(4), 595-619.
- Lynne, S. D., Graber, J. A., Nichols, T. R., Brooks-Gunn, J., & Botvin, G. J. (2007). Original article: Links between pubertal timing, peer influences, and externalizing behaviors among urban students followed through middle school. *Journal Of Adolescent Health, 40*181.e7-181.e13. doi:10.1016/j.jadohealth.2006.09.008
- Marcia, J. E. (1993). The ego identity status approach to ego identity. In *Ego identity* (pp. 3-21). Springer, New York, NY.
- Martin, A., Boadi, N., Fernandes, C., Watt, S., & Robinson-Wood, T. (2013). Applying resistance theory to depression in Black women. *Journal of Systemic Therapies, 32*, 1–13.
- Mason, K. L. (2008). Cyberbullying: A preliminary assessment for school personnel. *Psychology in the Schools, 45*(4), 323-348.
- Marshal, M. P., Dietz, L. J., Friedman, M. S., Stall, R., Smith, H. A., McGinley, J., ... & Brent, D. A. (2011). Suicidality and depression disparities between sexual minority and heterosexual youth: A meta-analytic review. *Journal of adolescent health, 49*(2), 115-123.
- Masten, A. S., Cutuli, J. J., Herbers, J. E., & Reed, M. G. (2009). 12 Resilience in

- Development. *The Oxford Handbook of Positive Psychology*, 117.
- McCall, L. (2005). The complexity of intersectionality. *Signs: Journal of Women in Culture and Society*, 30(3), 1771-1800.
- McCormick, K., McKone, K. M., & Mendle, J. (2015). Puberty and Mental Health.
- McGrath, H., & Noble, T. (2003). *Bounce back! A classroom resilience program: Teacher's handbook*. Frenchs Forest: Pearson Longman.
- Merikangas, K. R., He, J. P., Brody, D., Fisher, P. W., Bourdon, K., & Koretz, D. S. (2010). Prevalence and treatment of mental disorders among US children in the 2001–2004 NHANES. *Pediatrics*, 125(1), 75-81.
- Merikangas, K. R., He, J. P., Burstein, M., Swanson, S. A., Avenevoli, S., Cui, L., ... & Swendsen, J. (2010). Lifetime prevalence of mental disorders in US adolescents: results from the National Comorbidity Survey Replication–Adolescent Supplement (NCS-A). *Journal of the American Academy of Child & Adolescent Psychiatry*, 49(10), 980-989.
- Meeus, W., van de Schoot, R., Keijsers, L., & Branje, S. (2012). Identity statuses as developmental trajectories: A five-wave longitudinal study in early-to-middle and middle-to-late adolescents. *Journal of Youth and Adolescence*, 41(8), 1008-1021.
- Mojtabai, R., Olfson, M., & Han, B. (2016). National trends in the prevalence and treatment of depression in adolescents and young adults. *Pediatrics*, 138(6), <http://dx.doi.org/10.1542/peds.2016-1878>.

- Morrison, G. M., Brown, M., D'Incau, B., O'Farrell, S. L., & Furlong, M. J. (2006). Understanding resilience in educational trajectories: Implications for protective possibilities. *Psychology in the Schools, 43*(1), 19-31.
- Naglieri, J., & LeBuffe, P. (2006). Measuring resilience in children. In S. Goldstein & R. Brooks (Eds.), *Handbook of resilience in children* (pp. 107–123). New York: Springer
- Najman, J. M., Hayatbakhsh, M. R., Clavarino, A., Bor, W., O'callaghan, M. J., & Williams, G. M. (2010). Family poverty over the early life course and recurrent adolescent and young adult anxiety and depression: A longitudinal study. *American Journal of Public Health, 100*(9), 1719-1723.
- Neblett, E. W., Sosoo, E. E., Willis, H. A., Bernard, D. L., Bae, J., & Billingsley, J. T. (2016). Chapter two-racism, racial resilience, and African American youth development: Person-centered analysis as a tool to promote equity and justice. *Advances in Child Development and Behavior, 51*, 43-79.
- Mickelson, R. A. (1990). The attitude-achievement paradox among Black adolescents. *Sociology of Education, 44*-61.
- Noltemeyer, A. (2014). Best practices in fostering student resilience. *Best Practices in School Psychology, 225*-238.
- Olfson, M., Druss, B. G., & Marcus, S. C. (2015). Trends in mental health care among children and adolescents. *New England Journal of Medicine, 372*(21), 2029-2038.
- Ooi, Y. P., Glenn, A. L., Ang, R. P., Vanzetti, S., Falcone, T., Gaab, J., & Fung, D. S. (2017). Agreement between parent-and self-reports of psychopathic traits and externalizing behaviors in a clinical sample. *Child Psychiatry & Human Development, 48*(1), 151-165

- Oyserman, D., Harrison, K., & Bybee, D. (2001). Can racial identity be promotive of academic efficacy? *International Journal of Behavioral Development*, 25(4), 379–385.  
doi:10.1080/0165 0250042000401.
- Patil, P., Porche, M. V., Shippen, N., Dallenbach, N., & Fortuna, L. R. (2017). Which girls, which boys? The intersectional risk for depression by race and ethnicity, and gender in the US. *Clinical psychology review*. doi:10.1016/j.cpr.2017.12.003
- Phinney, J. S. (1996). When we talk about American ethnic groups, what do we mean?. *American Psychologist*, 51(9), 918.
- Phinney, J. S., & Alipuria, L. L. (1990). Ethnic identity in college students from four ethnic groups. *Journal of Adolescence*, 13, 171–183. doi:10.1016/0140-1971(90)90006-S.
- Phinney, J. S., & Chavira, V. (1992). Ethnic identity and self-esteem: An exploratory longitudinal study. *Journal of Adolescence*, 15(3), 271-281.
- Pratt, L. A., & Brody, D. J. (2014). Depression in the US household population, 2009-2012.
- Pop, E. I., Negru-Subtirica, O., Crocetti, E., Opre, A., & Meeus, W. (2016). On the interplay between academic achievement and educational identity: A longitudinal study. *Journal of Adolescence*, 47, 135-144.
- Poteat, V. P., Rivers, I., & Vecho, O. (2015). The role of peers in predicting students' homophobic behavior: effects of peer aggression, prejudice, and sexual orientation identity importance. *School Psychology Review*, 44(4), 391-406.
- Ramos, B., Jaccard, J., & Guilamo-Ramos, V. (2003). Dual ethnicity and depressive symptoms: Implications of being Black and Latino in the United States. *Hispanic Journal of Behavioral Sciences*, 25(2), 147–173.

- Rapa, L. J., Diemer, M. A., & Bañales, J. (2018). Critical action as a pathway to social mobility among marginalized youth. *Developmental psychology*, 54(1), 127.
- Riley, A. W. (2004). Evidence that school-age children can self-report on their health. *Ambulatory Pediatrics*, 4(4), 371-376.
- Rivas-Drake, D., Seaton, E. K., Markstrom, C., Quintana, S., Syed, M., Lee, R. M., & ... Yip, T. (2014). Ethnic and racial identity in adolescence: Implications for psychosocial, academic, and health outcomes. *Child Development*, (1), 40.
- Roberts, R. E., Phinney, J. S., Masse, L. C., Chen, Y. R., Roberts, C. R., & Romero, A. (1999). The structure of ethnic identity of young adolescents from diverse ethnocultural groups. *The Journal of Early Adolescence*, 19(3), 301–322. doi:10.1177/ 0272431699019003001.
- Roberts, R.E., Roberts, C.R., & Chen, R. (1997). Ethnocultural differences in prevalence of adolescent depression. *American Journal of Community Psychology*, 25, 95–110
- Rollins, A. (2009). *Racially socializing biracial youth: A cultural ecological study of maternal influences on racial identity* (Doctoral dissertation) Retrieved from The University of North Carolina at Greensboro.
- Sandoval, S. R., Gutkin, T. B., & Naumann, W. C. (1997). Racial identity attitudes and school performance among African American high school students: An exploratory study. *Research in the Schools*, 4(2), 1-8.
- Schwartz, S. J., Luyckx, K., & Crocetti, E. (2015). What have we learned since Schwartz (2001)?: A reappraisal of the field of identity development. *The Oxford Handbook of Identity Development*, 539-561
- Scott, W. D., Clapp, J., Mileviciute, I., & Mousseau, A. (2016). Children’s depression inventory: A unidimensional factor structure for American Indian and Alaskan native

- youth. *Psychological Assessment*, 28(1), 81.
- Seaton, E. K., Quintana, S., Verkuyten, M., & Gee, G. C. (2017). Peers, policies, and place: The relation between context and ethnic/racial identity. *Child development*, 88(3), 683-692.
- Seaton, E. K., Caldwell, C. H., Sellers, R. M., & Jackson, J. S. (2010). An intersectional approach for understanding perceived discrimination and psychological well-being among African American and Caribbean Black Youth. *Developmental Psychology*, 46(5), 1372–1379.
- Shekhtmeyster, Z., Sharkey, J., & You, S. (2011). The influence of multiple ecological assets on substance use patterns of diverse adolescents. *School Psychology Review*, 40(3), 386-405.
- Skiba, R. J., Horner, R. H., Chung, C. G., Rausch, M. K., May, S. L., & Tobin, T. (2011). Race is not neutral: A national investigation of African American and Latino disproportionality in school discipline. *School Psychology Review*, 40, 85–107.
- Skiba, R. J., Michael, R. S., Nardo, A. C., & Peterson, R. L. (2002). The color of discipline: Sources of racial and gender disproportionality in school punishment. *Urban Review*, 34(4), 317–342.
- Smedley, A., & Smedley, B. D. (2005). Race as biology is fiction, racism as a social problem is real: Anthropological and historical perspectives on the social construction of race. *American Psychologist*, 60(1), 16.
- Smetana, J. G. (2017). Commentary on “Moving through adolescence: Developmental trajectories of African American and European American Youth”. *Monographs of the Society for Research in Child Development*, 82(4), 167-177.
- Smetana, J. G. (2011b). Parenting beliefs, parenting, and parent-adolescent communication in African American families. In N. E. Hill, T. Mann, & H. Fitzgerald (Eds.), *African*



- American children's mental health: Development and context* (Vol. 1, pp. 173–197). New York, NY: Praeger Press
- Smith, T. B., & Sylva, L. (2011). Ethnic identity and personal well-being of people of color: A meta-analysis. *Journal of Counseling Psychology, 58*, 42-46.
- Steele, R. G., Little, T. D., Ilardi, S. S., Forehand, R., Brody, G. H., & Hunter, H. L. (2006). A confirmatory comparison of the factor structure of the Children's Depression Inventory between European American and African American youth. *Journal of Child and Family Studies, 15*(6), 773-788.
- Steinberg, L., Dornbusch, S. M., & Brown, B. B. (1992). Ethnic differences in adolescent achievement: An ecological perspective. *American Psychologist, 47*(6), 723.
- Swearer, S., & Hymel, S. (2015). Bullying and discrimination in schools: Exploring variations across student subgroups. *School Psychology Review, 44*(4), 504-509.
- Tajfel, H., & Turner, J. (1979). An integrative theory of intergroup conflict. In S. Worchel & W. G. Austin (Eds.), *Psychology of intergroup relations*. Brookes Cole: Monterey, CA.
- Tajfel, H., & Turner, J. C. 1986. The social identity theory of intergroup behavior. In S. Worchel & W. G. Austin (Eds.), *Psychology of intergroup relations*, 2nd ed.: 7-24. Chicago: Nelson-Hall.
- Tang, S., McLoyd, V. C., & Hallman, S. K. (2016). Racial socialization, racial identity, and academic attitudes among African American adolescents: Examining the moderating influence of parent–adolescent communication. *Journal of Youth and Adolescence, 45*(6), 1141-1155.

- Tummala-Narra, P., & Claudius, M. (2013). Perceived discrimination and depressive symptoms among immigrant-origin adolescents. *Cultural Diversity and Ethnic Minority Psychology, 19*(3), 257.
- Tummala-Narra, P. (2015). Ethnic identity, perceived support, and depressive symptoms among racial minority immigrant-origin adolescents. *American Journal of Orthopsychiatry, 85*(1), 23.
- Twenge, J. M., Cooper, A. B., Joiner, T. E., Duffy, M. E., & Binau, S. G. (2019). Age, period, and cohort trends in mood disorder indicators and suicide-related outcomes in a nationally representative dataset, 2005–2017. *Journal of Abnormal Psychology.*
- Umaña-Taylor, A. J., Quintana, S. M., Lee, R. M., Cross, W. E., Rivas-Drake, D., Schwartz, S. J., ... & Seaton, E. (2014). Ethnic and racial identity during adolescence and into young adulthood: An integrated conceptualization. *Child Development, 85*(1), 21-39.
- Umaña-Taylor, A. J., & Updegraff, K. A. (2007). Latino adolescents' mental health: Exploring the interrelations among discrimination, ethnic identity, cultural orientation, self-esteem, and depressive symptoms. *Journal of Adolescence, 30*(4), 549-567.
- U.S. Department of Education, Office of Civil Rights. (2014). Civil rights data collection (CRDC), 2009 to 2010 [Data set]. Retrieved from <http://ocrdata.ed.gov/>
- Vaughn-Coaxum, R. A., Mair, P., & Weisz, J. R. (2016). Racial/Ethnic differences in youth depression indicators: An item response theory analysis of symptoms reported by white, black, Asian, and Latino youths. *Clinical Psychological Science, 4*(2), 239-253.
- Warner, L. R., & Shields, S. A. (2013). The intersections of sexuality, gender, and race: Identity research at the crossroads. *Sex Roles, 68*, 803–810. doi:10.1007/s11199-013-0281-4

- Weinberger, A. H., Gbedemah, M., Martinez, A. M., Nash, D., Galea, S., & Goodwin, R. D. (2018). Trends in depression prevalence in the USA from 2005 to 2015: Widening disparities in vulnerable groups. *Psychological Medicine, 48*(8), 1308-1315.
- Weissman, M. M., & Klerman, G. L. (1977). Sex differences and the epidemiology of depression. *Archives of General Psychiatry, 34*(1), 98-111.
- Weller, B. E., Blanford, K. L., & Butler, A. M. (2018). Estimated Prevalence of Psychiatric Comorbidities in US Adolescents With Depression by Race/Ethnicity, 2011–2012. *Journal of Adolescent Health, 62*(6), 716-721.
- Wong, C. A., Eccles, J. S., & Sameroff, A. (2003). The influence of ethnic discrimination and ethnic identification on African American adolescents' school and socioemotional adjustment. *Journal of Personality, 71*(6), 1197-1232.
- Worrell, F. C. (2007). Ethnic identity, academic achievement, and global self-concept in four groups of academically talented adolescents. *Gifted Child Quarterly, 51*(1), 23-38.
- Worrell, F. C., & Gardner-Kitt, D. L. (2006). The relationship between racial and ethnic identity in Black adolescents: The cross racial identity scale and the multigroup ethnic identity measure. *Identity, 6*(4), 293-315.
- Yasui, M., Dorham, C. L., & Dishion, T. J. (2004). Ethnic identity and psychological adjustment: A validity analysis for European and African American adolescents. *Journal of Adolescent Research, 19*, 807-825.
- Yip, T., Seaton, E. K., & Sellers, R. M. (2006). African American racial identity across the lifespan: Identity status, identity content, and depressive symptoms. *Child Development, 77*, 1504–1517. doi:10.1111/j. 1467-8624.2006.00950.x
- Zaff, J. F., Blount, R. L., Phillips, L., & Cohen, L. (2002). The role of ethnic identity and self-

construal in coping among African American and Caucasian American seventh graders:  
An exploratory analysis of within-group variance. *Adolescence*, 37(148), 751.

Zhou, Q., Fan, L., & Yin, Z. (2018). Association between family socioeconomic status and depressive symptoms among Chinese adolescents: Evidence from a national household survey. *Psychiatry research*, 259, 81-8

**Appendix A: Ethnic Identity (Eccles & Sam, 1991)**

5 Point Likert Scale (*1 = not at all true of me, 2 = a little true of me, 3 = somewhat true of me, 4 = very true of me, 5 = extremely true of me*)

**Youth's Feelings of Connection to Ethnic Heritage (Private Regard)**

	<b>Not At All True of Me</b>	<b>A Little True of Me</b>	<b>Somewhat True of Me</b>	<b>Very True of Me</b>	<b>Extremely True of Me</b>
1. I have a close community of friends because of my race/ethnicity.	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
2. People of my race/ethnicity have a culturally rich heritage.	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>

---

3. I have meaningful	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
----------------------	----------	----------	----------	----------	----------

traditions because of my  
race/ethnicity.

4. People of my race are	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
--------------------------	----------	----------	----------	----------	----------

very supportive of each  
other.

---

4 Point Likert Scale (*1 = not at all, 2 = a little, 3 = somewhat, 4 = very*)

**Appendix B: Depression Symptoms (Kovacks, 1992)**

3 Point Likert Scale

*Please pick out the sentences that describe feelings and ideas you have had in the past two weeks.*

	<b>1</b>	<b>2</b>	<b>3</b>
<b>I feel sad...</b>	Once in a while	Many times	All the time
<b>I feel like...</b>	Nothing will ever work out for me	I am not sure if things will work out for me.	Things will work out for me O.K.
	I hate myself	I do not like myself	I like myself

	Nobody really loves me	I am not sure in anybody loves me	I am sure that somebody loves me
<b>I do...</b>	Most things ok	Many things wrong	Everything wrong
<b>I am worthless...</b>	All the time	Many times	Once in a while
<b>Things bother me...</b>			
<b>I think that...</b>	All bad things are my fault	Many bad things are my fault	Bad things are not usually my fault
<b>I feel like crying...</b>	Every day	Many days	Once in a while
<b>I think...</b>	I look O.K.	There are some bad things about my looks	I look ugly
	I can never be good as other kids	I can be good as others kids if I want to	I am just as good as other kids



**I have trouble  
sleeping...**

Every night

Many nights

All the time

**I feel alone...**

Almost never

Many times

All the time

**I feel...**

I have plenty of  
friends

I have some  
friends but wish  
I had more

I do not have any  
friends

---

## **Appendix C: Demographics (Eccles & Sam, 1991)**

*What race are you?*

1. Asian or Oriental
2. Black or African American
3. Latino or Hispanic
4. Native American or American Indian
5. White of European decent
6. Mixed (what races?) \_\_\_\_\_
7. Something else (specify) \_\_\_\_\_

**Appendix D: Descriptive Statistics and item-Total Correlation for Ethnic Identity**

<b>Item</b>	<b>M</b>	<b>SD</b>	<b>Corrected Item- Total Correlation</b>
1. I have a close community of friends because of my race/ethnicity.	<b>2.26</b>	<b>1.20</b>	<b>.43</b>
2. People of my race/ethnicity have a culturally rich heritage.	<b>2.68</b>	<b>1.26</b>	<b>.58</b>
3. I have meaningful traditions because of my race/ethnicity.	<b>2.58</b>	<b>1.22</b>	<b>.63</b>
4. People of my race are very supportive of each other.	<b>3.00</b>	<b>1.20</b>	<b>.43</b>

**Cronbach alpha = .72**

**Appendix E: Descriptive Statistics and item-Total Correlation for Depression**

Item	M	SD	Corrected – Item Total Correlation
<b>1. (Past 2 wks) I feel sad.</b>	1.26	.50	-.21
<b>2. (Past 2 wks) I feel like (work out)</b>	2.49	.68	.09
<b>3. (Past 2 wks) I do things ok.</b>	1.12.	4.31	-.29
<b>4. (Past 2 wks) I am worthless</b>	2.86	.42	.23
<b>5. (Past 2 wks ) I feel like myself.</b>	2.72	.56	.11
<b>6. (Past 2 wks) I think (Looks)</b>	1.36	.58	.58
<b>7. (Past 2 wks) I have trouble sleeping</b>	2.62	.61	.18
<b>8. (Past 2 wks) I feel alone</b>	1.35	.58	-.26
<b>9. (Past 2wks) I think (friends)</b>	1.28	.51	-.11

<b>10. (Past 2 wks ) I think (good as others)</b>	.53	.66	.16
<b>11. (Past 2 wks) I feel like (others love me)</b>	2.76	.56	.24

## Appendix F: IRB Approval



RESEARCH INTEGRITY AND COMPLIANCE  
Institutional Review Boards, FWA No. 00001669  
12901 Bruce B. Downs Blvd., MDC035 • Tampa, FL 33612-4799  
(813) 974-5638 • FAX (813) 974-7091

11/2/2018

Leah Bonilla  
Educational and Psychological Studies  
4126 Cambridge Woods Drive  
Tampa, FL 33613

**RE: Not Human Subjects Research Determination**

**IRB#: Pro00036544**

**Title: Ethnic Identity as a Protective Factor in Early Adolescent Youth Depression:  
An Investigation of Differences by Race, Gender, and Socioeconomic Status**

Dear L. Bonilla:

The Institutional Review Board (IRB) has reviewed your application. This study qualifies as Not Human Subjects Research (NHSR) as per USF HRPP Policy because it involves analysis of preexisting de-identified data. As such, USF IRB approval and oversight are not required.

While not requiring USF IRB approval and oversight, your study activities should be conducted in a manner that is consistent with the ethical principles of your profession. If the scope of your project changes in the future, please contact the IRB for further guidance.

If you will be obtaining consent to conduct a program evaluation, quality improvement project, or needs assessment, please remove any references to "research" and do not include the assigned Protocol Number or USF IRB contact information.

If your study activities involve collection or use of health information, please note that there may be requirements under the HIPAA Privacy Rule that apply. For further information, please contact a HIPAA Program administrator at (813) 974-5638.

Sincerely,

A handwritten signature in black ink, appearing to read "Kristen Salomon", written over a horizontal line.

Kristen Salomon, Ph.D., Chairperson  
USF Institutional Review Board