

EMOTION REGULATION MEDIATES ASSOCIATIONS BETWEEN PARENTING
PRACTICES AND ETHNIC MINORITY COLLEGE STUDENTS' PROSOCIAL
BEHAVIORS

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by

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Thesis entitled

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a candidate for the degree of Master of Science
and hereby certify that, in their opinion, it is worthy of acceptance.

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DEDICATION

I dedicate my thesis first to my wife, Hannah. Thank you for always supporting me and encouraging me through my many years of school, and especially as I have worked to finish my thesis. I will always be grateful for the many times you were there for me when I needed help to keep going. I truly could not have done this without you.

I also dedicate my thesis to my two children who have given up a lot of time with me so that I could work on homework and this thesis. Your hugs and smiles always made me feel like I could do more.

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Abstract

The current study examined associations between Black and Latinx college students' mothers' and fathers' parenting practices, students' emotion regulation, and students' prosocial behaviors. College students (N = 567 participants; 64% Latinx; 83% female) responded to a survey with measures regarding parental nurturance and psychological control, emotion reappraisal and expressive suppression, and types of prosocial behavior. Parenting practices were linked to young adults' prosocial behavior via emotion regulation. Associations between these variables differed for mothers and fathers. In terms of indirect effects, maternal nurturance was indirectly associated with young adults' prosocial behaviors via emotion reappraisal. None of the processes examined were moderated by young adults' ethnicity or gender. Discussion focuses on how the findings support theory and extend research on studying the role of parenting practices, emotion regulation, and prosocial behavior within ethnic minority young adults.

Chapter 1: Introduction

Prosocial behaviors, or actions intended to benefit others, have been linked to many positive aspects of young adults' development, including reduced substance use, improved psychological well-being, and academic achievement (Carlo, 2014). Because of their numerous benefits for individuals, families, and communities, it is important to study how prosocial behaviors develop, and which processes may be involved. There is a large amount of research concerning prosocial development and much of it has focused on the contribution of parents, particularly mothers, although more recently scholars have also attempted to address the role of fathers (Carlo, 2014). Most research suggests that mothers do have a greater influence on their children's prosocial behavior than fathers, but less research exists examining the different contributions of both parents (Eisenberg et al., 2015). Therefore, it is important to consider how aspects of both mothers' and fathers' parenting may promote or hinder prosocial development in young adults.

Beyond parenting itself, scholars have also repeatedly emphasized the need to study the mediating processes related to prosocial behavior (Eisenberg et al., 2015; Eisenberg et al., 2006). One such mediator includes emotion regulation, a form of self-regulation in which one tries to regulate the magnitude or duration of the emotion they are experiencing (Gross, 2013). Emotion regulation is found to mediate relations between aspects of family relationships and prosocial behavior (Padilla-Walker & Christensen, 2010; Padilla-Walker et al., 2010), theorized to occur because positive relationships with family members help facilitate sympathy in children (Eisenberg, 2000). However, most of the work done on emotion regulation examines it as a mediator between relationship quality and prosocial behavior, and not specific parenting practices (Padilla-Walker & Christensen, 2010; Padilla-Walker et al., 2010). Furthermore, it

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would be important to examine emotion regulation as a possible mediator between aspects of parenting and prosocial behavior in young adults as an age group. Young adulthood, often referred to as emerging adulthood, is a unique period of development for those between the ages of 18-25 in which identity exploration is a key feature, especially regarding viewpoints, relationships, and career (Arnett, 2000). Emerging adulthood is viewed as a transitional period in which many young people do not yet see themselves as adults because they have not yet met certain criteria they consider for achieving adulthood (e.g., self-reliance, forming mature relationships, the ability to provide and care for a family) (Arnett, 2000; Nelson and Barry, 2005; Nelson et al., 2007). Most research on prosocial behavior tends to focus on older children and adolescents and less on young adults, especially within the context of the parent-child relationship. Because of the changing nature of the parent-child relationship during emerging adulthood, examining the contributions of parenting practices may be particularly useful in understanding the processes involved in young adults' emotion regulation and prosocial development.

In addition, within the research that examines prosocial behavior, there is limited work focusing specifically on ethnic minority young adults and their parents. Some work has focused on U.S. Latino/a (referred to hereafter as Latinx to include people of all Latin heritage) college students (e.g., Davis et al., 2018; Streit et al., 2020), but little has involved Black¹ college students (for exceptions see Maiya et al., 2021; White-Johnson, 2012; 2015). Because a large amount of past research on ethnic minority young adults has come from a deficit-approach, it is also important to address the strengths and positive aspects of their development (Cabrera et al., 2012). Thus, the purpose of this study is to examine whether differences exist between ethnic minority (Black and Latinx) parents in how their parenting practices are linked to their college

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students' prosocial behaviors. A goal of the study is also to examine the role of emotion regulation as a mediating mechanism in these links.

Literature Review

Theoretical Foundations of Parenting

One approach scholars typically adopt when studying parenting is a dimensional perspective, primarily made up of two broad dimensions: warmth (responsiveness) and control (demandingness) (Baumrind, 1967,1971; Maccoby & Martin, 1983; Schaefer, 1965). Higher levels of warmth are conceptualized as being supportive, nurturing, and responsive to a child's needs (Darling & Steinberg, 1993; Pinquart, 2017). Meanwhile, parental control is characterized as being firm, regulatory, and demanding compliance (Barber et al., 2005; Pinquart, 2017a, Pinquart, 2017b). It is also important to note that researchers have different operationalizations and measures of these dimensions (Stewart & Bond, 2002), but as warmth and control are generally agreed upon as two broad dimensions in the parenting literature (Kuppens & Ceulemans, 2018) they will be referenced in the current study.

Research involving warm, involved, and accepting parenting typically finds positive associations with young adults' developmental outcomes, including for ethnic minority young adults (Bámaca-Colbert et al., 2018; Cabrera & Bradley, 2012; Lowe & Dotterer, 2013; Stanik et al., 2013). Similar to warmth, parental nurturance (i.e., "warmth and acceptance from parents"; Finley et al., 2008, p.64) also indicates positive relations with young adults' psychological well-being (Schwartz et al., 2009; Finley & Schwartz, 2010). Research that focuses on parental nurturance in ethnic minority families is limited, and the work that has been done, particularly for Black families, has mixed results (Doyle et al., 2015, Veneziano, 2000). For example, Doyle and colleagues (2015) examined the relationship between Black parents' nurturance and their

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college-aged young adults' psychological well-being (e.g., independence, responsiveness, self-esteem). Maternal, but not paternal nurturance was significantly linked to young adults' psychological well-being, with higher levels of maternal nurturance being positively associated with greater young adults' well-being. Another study with U.S. Latinx families found maternal nurturance had positive links with college-students' self-esteem and lower levels of depression (Chapman, 2012). Therefore, the current study seeks to shed more light on how ethnic minority parents' nurturance (i.e., warmth) may be related to their young adults' outcomes.

Because parenting scholars have found that parental control has a complex role in young adults' outcomes, some researchers have divided it into two forms: behavioral and psychological control, to better understand its role in parenting (Barber, 1996; Steinberg, 1990). Behavioral control is described as occurring when parents attempt to control or manage a child's behaviors, while psychological control is said to occur when parents attempt to control or manipulate a child's psychological and emotional development (e.g., love withdrawal, possessiveness, guilt induction) (Bean et al., 2009). Behavioral control is generally linked to positive outcomes for children and adolescents and has recently been highlighted as beneficial for young adults within the context of high-quality parent-child relationships (Bean et al., 2009; Byrnes et al., 2011; Lindell et al., 2017). Meanwhile, psychological control has repeatedly been associated with more negative outcomes for young adults (e.g., higher levels of externalizing and internalizing behaviors) (Cui et al., 2014; Lindell et al., 2017; Piquart, 2017a, 2017b). Psychological control is theorized as having this negative influence because young adults with these parents see them as hindering their autonomy and forcing them to conform to their authority (Kincaid et al., 2011; Kline et al., 2016). High levels of psychological control with young adults may be especially problematic because it comes in direct conflict with emerging adults' goals for identity and self-

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reliance during this period of life (Desjardins & Leadbeater, 2017; Shigeto et al., 2019; Lindell et al., 2017; Luyckx et al., 2007). In support of these conceptualizations, research with European American and European Canadian emerging adults has indicated that parents' psychological control is negatively associated with their developmental outcomes (e.g., perceived academic abilities, identity commitment, vocational identity, adult status) (Desjardins & Leadbeater, 2017; Lindell et al., 2017; Luyckx et al., 2007).

For ethnic minority young adults, most research suggests that psychological control has negative implications for young adults' well-being and adjustment (Kincaid et al., 2011; Mandara & Pikes, 2008, Kline et al., 2016, Shigeto et al., 2019). Some work has suggested that mixed findings for Latinx families might indicate that psychological control is not always interpreted as harmful by Black and Latinx young adults (Halgunseth et al., 2006; Reynolds et al., 2017), but in general, research on Black and Latinx parents and young adults indicate the harmful effects of psychological control. In addition, across both Latinx and Black families, mothers' psychological control appears linked most often to young adults' outcomes (Kincaid, et al., 2011; Kline et al., 2016; Shigeto et al., 2019) however, there is some evidence of fathers' psychological control being linked to young adults' outcomes as well (Kline et al., 2016; Shigeto et al., 2019). There are limitations to some of this research to consider such as most research only involving Black mothers or only involving Black daughters and not sons (Kincaid et al., 2011; Mandara & Pikes, 2008; Shigeto et al., 2019). Overall, this parenting research suggests that there is value in examining both mothers' and fathers' parenting practices on young adults' developmental outcomes.

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Cultural Theories of Parenting

As this study will focus on ethnic minority young adults and their parents, it is important to avoid a deficit-approach and instead utilize a perspective that recognizes individual differences in ethnic minority families as well as the constructs and processes relevant to their positive development. Over the last few decades, developmental scholars have been aligned with this effort by pointing out the importance of parenting, and by looking at strength-based approaches (see Garcia Coll et al, 1996 as one example). One relevant model by Carlo and de Guzman (2009) integrates social ecology theories and stress theories and is applied directly to the prosocial development of Latinx young adults. The model proposes that Latinx young adults' prosocial behaviors are a product of the social ecology that they develop within, impacted by factors such as the receiving community context, school context, life events, and family, peer, and child characteristics. Then the young adults' various cognitive skills, as well as their perceptions of acculturative stress, act as mediators between these contextual factors and the young adults' prosocial behaviors. The current study draws from this model of Latinx prosocial development by focusing on parents' psychological control and nurturance, young adults' emotion regulation, and their prosocial behaviors.

Also relevant to the current study is the Phenomenological Variant of Ecological Systems Theory (PVEST) (Spencer, 1995; 2006; Spencer et al., 1997), which extends Bronfenbrenner's ecological systems theory (Bronfenbrenner, 1977; Bronfenbrenner & Morris, 2006) and incorporates a phenomenological approach (i.e., understanding the individuals' perspective and experiences) and identify development (Cunningham et al., 2023). PVEST theory is a life course developmental theory which suggests net vulnerability (i.e., structural, and cultural risks or protective factors) and net stress (i.e., challenges or supports) affect development. Individuals

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interpret their net vulnerabilities and net stress and react to them by using either adaptive or maladaptive coping strategies. As these coping strategies are repeated, they contribute to the formation of the individual's emergent identity, which in turn affects the individual's life stage outcomes (Spencer et al., 1997; 2006; Cunningham et al., 2023). PVEST theory provides a framework that highlights culture and context, and acknowledges that risks, protective factors, and individual processes contribute to development. Research that has used the PVEST model has contributed towards understanding socialization in Black families (Rious et al, 2019), cultural invalidations and racial identity (Durkee et al., 2022) and coping with ethnic-racial discrimination (McDermott et al., 2022). PVEST theory is applicable to the current study as parenting practices may be seen as a form of net vulnerabilities or net stress, emotion regulation may be a form of college students' coping strategies, and prosocial behaviors may be outcomes as a result of college students' coping strategies and emergent identity. Taken together, Carlo and de Guzman's (2009) and Spencer's (1995, 2006) models are relevant to parenting and ethnic-racial development and will help provide a framework to understand links between ethnic minority parenting and young adults' emotional regulation and prosocial behaviors.

Latinx Parenting

As suggested above, similarities in associations between some parenting practices and young adults' outcomes do exist across cultures, yet it is important to examine parenting within specific cultural contexts as well. Research involving Latinx parenting has included scholarship that focuses on Latinx parenting styles (see Umaña-Taylor & Updegraff, 2013 for a review). Generally, this research indicates that typologies of parenting styles usually examined with European American parents do not map well onto Latinx parents, and do not fully capture the variability found in Latinx parents (Domenech Rodríguez et al., 2009; White et al., 2013). One

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aspect of Latinx parenting often mentioned as differentiating European American and Latinx parents is that Latinx parents tend to use higher levels of control compared to other parental groups (e.g., Halgunseth et al., 2006), although some research suggests that Latinx young adults may view this as an indication of caring (Crockett et al., 2007). Rather than focus on the common typologies of parenting styles, other researchers have used person-centered approaches to allow for unique patterns of Latinx parenting to emerge (Bámaca-Colbert, et al., 2018; White et al., 2013). This work has found other profiles of Latinx parents such as one where high acceptance and demandingness is combined with high harshness to create a profile called no-nonsense parenting (Carlo et al., 2018; White et al., 2013). This research suggests that profiles of Latinx parents can be extended beyond the most common parenting styles typically utilized.

Other important cultural considerations involving Latinx parents include the key role of cultural values, ethnic identity, and gender (Perez-Brena et al., 2015; Umaña-Taylor & Updegraff, 2013). For example, values that emphasize obligations to the family and respecting elders are highly regarded in Latinx families (Halgunseth et al., 2006; Perez-Brena et al., 2015) and research finds that these values are socialized by their parents (Knight et al., 2011; Knight et al., 2016). Scholars have also studied the process of how parents foster ethnic identity in their children, with ethnic identity being linked to positive adjustment for Latinx young adults (Quintana & Scull, 2009; Umaña-Taylor & Updegraff, 2013). In addition to these factors, gender also has an important role in Latinx families which impacts parents' roles and how they socialize their children (Knight et al., 2011; Raffaelli & Ontai, 2004; Umaña-Taylor & Updegraff, 2013). For example, research indicates that at the general level, Latinx mothers tend to be more involved with their children and are emotionally supportive while fathers are viewed more as an authority figure and provide instrumental support to their children (Crockett et al., 2007; Umaña-

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Taylor & Updegraff, 2013). However, a growing amount of research specific to Latinx fathers does suggest that fathers may actually be more involved with their children and have unique effects on young adults' positive development than historically believed (Cabrera & Bradley, 2012; Knight et al., 2017; Streit et al., 2020). Overall, this research suggests that Latinx parents may contribute in different ways to their young adult's development and that it is important for the current study to examine both Latinx mothers and fathers.

Black Parenting

Also important to consider are the unique aspects that Black parents may contribute toward their child's development. Consistent with literature on other parents, research on Black parents finds associations between parental warmth and less depressive symptoms and risky behaviors (Stanik et al., 2013). In addition, as with Latinx parenting, research generally suggests that typical conceptualizations of parenting and the impact of parenting styles may not apply to Black parents when context is considered (Hart et al., 2019; Rious et al., 2019). For example, past research on parenting styles found that Black parents were classified as authoritarian (high in control, low in warmth), a parenting style typically associated with negative outcomes for White European American children (McAdoo & Younge, 2009). However, this pattern did not seem to hold for Black young adults, which adds to the claim that perhaps the parenting practices Black parents use which are typically seen as negative, may hold different meanings for Black young adults (Jackson-Newsom et al., 2008; Leerkes et al., 2014; Perry et al., 2017; Reynolds et al., 2017; Rious et al., 2019). For example, in a study by Perry and colleagues (2017), punitive and minimizing emotion socialization practices were seen less negatively than by European American young adults. Instead, Black young adults reported feeling more loved than European American young adults when mothers used these types of practices (Perry et al., 2017). Scholars

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hypothesize that within the context of neighborhood disadvantage and discrimination, children may actually view these practices as protective or caring (Brody & Flor, 1998). Some scholars have even coined a unique type of Black low-income parenting known as no nonsense parenting, in which there are higher levels of control and warmth, as well as higher levels of physical discipline (Brody & Flor, 1998). This form of parenting, especially the harshness involved, may be seen as negative in some ethnic groups but within some Black families, young adults may instead see this as concern and involvement on the parent's part, especially in the context of dangerous conditions (Brody & Flor, 1998). Thus, it's important to consider the variability that exists across Black parents.

In addition to warmth, control, and parenting style, scholars have also identified other unique aspects to Black parents including highly valuing obedience and respect for parents' and elders' authority, limit-setting for children, and a focus on ethnic/racial socialization (Dunbar et al., 2016; McLoyd et al., 2019; Grills et al., 2016). As a result of the values mentioned above, research suggests that Black parents give their young adults less opportunities for decision-making and young adults often give in to their parents' during disagreements more often compared to European American young adults (McLoyd et al., 2019). In regard to racial socialization, research indicates that Black parents prepare their children for discrimination and bias from early ages and do so through in many forms such as cultural socialization, preparation for bias, promotion of mistrust, and egalitarianism (Dunbar et al., 2016; McLoyd et al., 2019). Although differences exist in the effects of these forms, overall racial/ethnic socialization seems to have a positive impact on Black young adults, mitigating the negative effects of discrimination while also enhancing other positive outcomes (e.g., increased ethnic/racial identity, decreased internalizing and externalizing problems. (Elmore & Gaylord-Harden, 2013; Grills et al., 2016;

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Neblett et al., 2012). With this research in mind, it is important to examine both Black mothers and fathers' parenting practices and how they might be linked to their young adult's emotional regulation and prosocial behavior.

Parenting and Prosocial Behavior

When considering the role of parents in their children's prosocial development, parental warmth is theorized to promote prosocial behavior for several reasons, including that open and responsive parent-child relationships create an atmosphere where messages about prosocial behavior can be transmitted from the parent to the child (Carlo, 2014). A warm parent-child relationship also helps facilitate a home environment where prosocial behaviors are more likely to be enacted between family members (Grusec & Goodnow, 1994; Hoffman, 2000). However, parental control is thought to have a more complicated relationship with prosocial behaviors, as high levels of control might impair young adults' prosocial development, while more moderate levels might help foster prosocial behaviors (Carlo, 2014; Eisenberg et al., 2015).

Research on parenting and young adults' prosocial behavior is generally supportive of these conceptualizations. For example, some scholars have found that parents' warmth is positively associated with adolescents' prosocial behaviors (e.g., Carlo et al., 2011; Padilla-Walker et al., 2016). In addition, some work by Padilla-Walker and colleagues (2016; 2018) suggests that parents' warmth might influence young adults' prosocial behavior in different ways, such as in whom young adults are prosocial towards. For example, in one study maternal warmth was associated with adolescents' prosocial behaviors toward family members, and paternal warmth was associated with adolescents' prosocial behaviors toward friends (Padilla-Walker et al., 2016). Findings such as these suggest that in the current study, parental warmth

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may be associated with young adults' prosocial behaviors, but in different ways, especially across mothers and fathers.

The work on parental control and young adults' prosocial behaviors also generally supports the idea that types of control, and appropriate versus inappropriate levels of it can have an influence on young adults' prosocial behaviors (e.g., Clark et al., 2015; Padilla-Walker et al., 2016). Appropriate levels of control, such as parents' demands for moral behavior have been associated with prosocial behavior (Hastings et al, 2007; Kuppens et al., 2009; Padilla-Walker et al., 2012). Inappropriate levels of control, such as harsh parenting, can also influence young adults' prosocial behaviors, such as a study by Streit et al. (2021) in which U.S. Mexican fathers' harsh parenting was positively associated with self-oriented prosocial behavior and negatively associated with young adults' other-oriented prosocial behaviors.

Research focusing on ethnic minority parenting and young adults' prosocial behaviors is limited although findings are consistent with those previously mentioned, suggesting that positive forms of parenting are associated with young adults' prosocial behaviors (Davis et al., 2018; Gryczkowski et al., 2018; Streit et al., 2018; Streit et al., 2020). To the author's knowledge little research has examined the relations between ethnic minority parents' use of psychological control and college student's prosocial behaviors with one exception being a study by Clark and colleagues (2015). The researchers in this study examined relations between European American and Black college students' remembered parenting styles and parental psychological control, and the students' prosocial behavior and relational aggression. The researchers found differences in the relations between parents' psychological control and the students' prosocial behavior, and that this relation was moderated by race. This was true specifically for Black students, but not for European American students, suggesting that social position variables such as race and ethnicity

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may be important to consider in understanding the relation between parenting and young adults' prosocial behaviors.

Parenting and Emotion Regulation

A large body of research indicates that emotion regulation is an important developmental skill, and parents contribute substantially to its development in young adults (Morris et al., 2017). Researchers studying emotion regulation strategies have often divided it into two forms, emotional/cognitive reappraisal and expressive suppression (Gross & John, 2003; Davis et al., 2018). Emotion reappraisal is conceptualized as “re-evaluating the meaning of a given situation to reduce its emotional impact” (Juang, et al., 2016, p. 22; Gross & John, 2003). Expressive suppression is often defined as the “inhibiting of an emotional response” (Juang, et al., 2016, p. 22; Gross & John, 2003). Emotion reappraisal is often viewed as being the more adaptive form of emotion regulation such as in Juang and colleagues' (2016) study in which U.S. Latinx and Asian-heritage college students' mental health and behavior (e.g., depression, anxiety, and aggression) was negatively associated with emotion reappraisal, and positively associated with expressive suppression. However, emotion reappraisal may not always be the most adaptive form of emotion regulation, as it has also been found to be moderated by context, such as the ability of one to control a stressor (Gross, 2015).

In terms of parenting and emotion regulation, one model by Morris and colleagues (2007) theorizes that parents contribute to children's outcomes in three ways: first, through parents' modeling of emotion regulation, second, through emotion-related parenting practices, and finally, through the emotional climate of the family. Focusing specifically on the emotional climate, parents who are warmer and more responsive are therefore more likely to recognize and respond to their child's emotions and help them express them in socially acceptable ways

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(Morris et al., 2017). In addition, children with parents who are warm will likely feel more comfortable and open to expressing their emotions (Morris et al., 2017). Psychological control on the other hand, would likely have a negative impact on children's emotion regulation as it is used to manipulate and control children's thoughts and emotions (Cui et al., 2014; Morris et al., 2017). The current study will explore the role of ethnic minority parents' nurturance and psychological control on their young adult's emotion reappraisal and expressive suppression.

Emotion Regulation and Prosocial Behavior

Emotion regulation is often studied in relation to prosocial behavior because researchers theorize that in order to help others, one must often be able to control one's own negative emotions (e.g., sadness, anger) and focus less on one's own wants and needs (Eisenberg, 2000; Eisenberg et al., 2015; Eisenberg et al., 2014). Therefore, young adults who are able to regulate their emotions, especially in potentially stressful situations, will be able to orient towards others and help them. Emotion regulation is typically theorized as impacting an individual's behavior in one of two ways when they encounter others in need or distress: The first occurs for individuals who successfully regulate their emotions and experience affective concern for the other person (i.e., sympathy), leading to prosocial behavior. The second way is when an individual is unable to regulate their emotions, becoming emotionally flooded (i.e., personal distress), which then manifests in a self-oriented response to the other's need (e.g., discomfort, anxiety) rather than engaging in prosocial behavior (Eisenberg et al., 2014; Liew et al., 2011). Research on emotion regulation and prosocial behavior in children and adolescents tends to support these conceptualizations (e.g., Carlo et al., 2012; Liable et al., 2010; Rydell et al., 2003). One study by Liable and colleagues (2010) focusing on early adolescents found that young adults clustered into four groups based on their negative emotionality and emotion regulation. Those adolescents

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who were moderate in negative emotionality and emotion regulation tended to score highest on prosocial behavior compared to those in the other clusters. A more recent study involving early adolescent students found similar conclusions with emotion regulation, being directly and indirectly associated with prosocial behavior toward classmates (Benita et al., 2017). In light of the empirical support between emotion regulation and prosocial behavior, one goal of the current study is to explore how young adults' expressive suppression and emotion reappraisal is linked to different forms of prosocial behavior.

Mediating Role of Emotion Regulation

Researchers have found that emotion regulation not only tends to be related to prosocial behavior, but that it also functions as a mediator between parenting and prosocial behaviors. This mediating function likely exists because of the socialization role that parents play, particularly in socializing their children's emotions (Eisenberg, et al., 2010; Morris et al., 2007). The different ways that parents help in this socialization process were discussed previously, but if done by parents with warmth and responsiveness children are able to learn how to regulate their own emotions in socially acceptable ways, including through prosocial behaviors (Morris et al., 2007).

Empirical findings provide support for the mediating influence of emotion regulation between parenting and young adults' outcomes (see Eisenberg, et al., 2010 for a previous review). For example, one study using a sample of disadvantaged young adults examined whether anger regulation and anger reactivity acted as mediators between parenting support and permissive parenting, and the young adults' antisocial and prosocial behaviors (Houlberg et al., 2016). The findings indicated that anger regulation only mediated a positive association between parenting support and young adults' prosocial behavior, while anger reactivity mediated a

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positive association between permissive parenting and young adults' antisocial behavior. These associations remained significant even after the covariates (sex and age) were added to the models, further highlighting the importance of anger regulation and anger reactivity in these links. A similar study by Rueth and colleagues (2017) focused on examining the role of adolescents' emotion regulation (operationalized as anger regulation) as a possible mediator between parents' psychological control and autonomy support, and adolescents' prosocial and problem behavior. Results were similar to the work by Houltberg et al. (2016) in that warm parenting (i.e., autonomy support) was positively linked with adolescents' prosocial behavior via the adolescents' adaptive anger regulation, while controlling parenting (i.e., psychological control) was associated with adolescents' internalizing and externalizing symptoms via their maladaptive anger regulation. Taken together, these findings suggest that emotion regulation plays an important explanatory role in understanding how parenting might contribute to young adults' prosocial behaviors. The current study will consider the mediating role of emotion regulation between parenting and various types of prosocial behaviors, and address limitations within current literature by considering these associations with ethnic minority college students.

Prosocial Behaviors

Previous research on prosocial behaviors has often examined it as a global construct, one in which all prosocial behaviors are considered to be equal, and which are the same across cultures (Padilla-Walker & Carlo, 2014). However, recently scholars have extended a call to examine the multidimensionality of prosocial behaviors, including a better focus on the various predictors, types, and contextual influences of prosocial behaviors (Padilla-Walker & Carlo, 2014). In response to this call, one specific area of interest for scholars has been in examining different types of prosocial behaviors (Carlo, 2014). Some scholars have studied types such as

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those used toward certain targets (i.e., family, friends, and strangers) (Padilla-Walker et al., 2016) and high- and low-cost prosocial behaviors (Abramson et al., 2018). Researchers Carlo and Randall (2002; Carlo et al., 2010) have proposed examining prosocial behaviors according to six different types that individuals may engage in (public, emotional, dire, anonymous, altruistic, and compliant). Public prosocial behaviors include helping to be seen by others or enhance one's self-worth. Emotional prosocial behaviors involve helping in emotionally evocative situations. Dire prosocial behaviors involve helping in crisis or emergency situations. Altruistic prosocial behaviors are helping others with no expectation of reward. Anonymous prosocial behaviors involve helping without others knowing. Finally, compliant behaviors involve helping when asked to by others. (Carlo & Randall, 2002). This measure, known as the Prosocial Tendencies Measure (PTM) has shown to be helpful in assessing the multidimensionality of prosocial behaviors as it reflects different motivations and contexts for helping (Carlo et al., 2010; Carlo & Randall, 2002). The PTM will be used in the current study as it has been used in studies examining parenting and young adults' prosocial behaviors (e.g., Carlo et al., 2007; Davis & Carlo, 2018) and has also been found to be reliable and valid in samples across different age groups and ethnic groups (Carlo et al., 2010; Carlo et al., 2011; Carlo et al., 2018; Streit et al., 2018). However, rather than examine all six types of prosocial behavior, a composite of the most commonly displayed types of prosocial behavior (i.e., emotional, dire, and compliant) (Carlo et al., 2018; Maiya et al., 2021) will be used.

Although research involving ethnic minority parenting and their children's prosocial behaviors seems especially relevant in terms of focusing on the strengths of minority families, research in the area is limited, particularly involving Black families (see Gaylord-Harden et al., 2018 and Lindsey et al., 2008 as exceptions). There is general research that focuses on prosocial

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development among Black young adults but much of it does not examine development related to parenting (Belgrave et al., 2011; Grills et al., 2016; Harris & Kruger, 2021; McMahon et al., 2013; White-Johnson, 2012). However, there has been increasing research regarding Black parenting and young adults suggesting that parents do contribute to their young adults' prosocial behaviors and prosocial involvement via racial-ethnic socialization. Yet, it is important to recognize that much of this research only considers parenting in terms of racial-ethnic socialization and not specific parenting practices (Maiya et al., 2021; White-Johnson et al., 2015).

Compared to research about prosocial behavior in Black families, a large amount of work has been conducted examining U.S. Latinx families, particularly among adolescents and some college student samples (Carlo et al., 2018; Davis et al., 2018a, 2018b; Streit et al., 2020). Findings among these studies generally suggest that positive parenting (e.g., acceptance and involvement; Davis et al., 2018b; Streit et al., 2020) and responsive parenting styles (e.g., authoritative; Carlo et al., 2018) help foster prosocial behaviors in U.S. Latinx young adults, particularly by mothers. In Streit and colleagues' (2020) study they examined the contribution of fathers' and mothers' support on college students' prosocial behaviors and found that fathers' support contributed directly with young adults' prosocial behaviors towards strangers, but not to the other two targets examined (family and friends). Therefore, it may be important to consider both mothers and fathers as they may impact prosocial development in different and unique ways. Because of the limited work examining prosocial behaviors in ethnic minority young adults, the current study will focus on relations between ethnic minority parents' parenting practices and their young adults' prosocial behaviors.

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Gender

Parents' Gender

One important aspect to consider when studying parenting and young adults' outcomes is gender, both of the parent and of the child. Mothers and fathers are known to parent differently, especially towards boys and girls (McKinney & Renk, 2008; Yaffe, 2020). For example, research generally indicates that mothers tend to display higher levels of warmth toward their children than fathers do (Nelson et al., 2011). Meanwhile, there are mixed findings regarding parents' gender and their use of psychological control, with some studies indicating that mothers are more likely to use it than fathers, and other studies finding no differences between mothers and fathers (Scharf & Goldner, 2018).

Understanding the context that mothers and fathers parent in is important for understanding the role of gender differences as well. For example, in the context of parenting an emerging adult, some research suggests that mothers and fathers have different criteria for sons and daughters when it comes to attaining adulthood (Nelson et al., 2007). Ethnic group is another important contextual factor in understanding parenting. For example, at the general level Latinx parents perform traditional parenting roles in which mothers provide more of the caregiving compared to fathers (see Umaña-Taylor & Updegraff, 2013 for a review).

These differences between mothers and fathers can influence their approaches toward emotion socialization, which in turn impacts their child's emotion regulation. Research on younger children suggests mothers are more likely to respond in positive ways to their child's negative emotions, whereas fathers are more likely to respond punitively to their child's vulnerable emotions or try to minimize or discourage negative emotions (Cassano et al., 2007; Eisenberg et al., 1999). Little research has examined the different contributions of mothers and

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fathers during adolescence and emerging adulthood, and particularly few involving Latinx and Black parents.

Furthermore, research also indicates that the parents' gender contributes towards fostering a child's prosocial behavior. Most research suggests that mothers play a more predictive role in their child's prosocial behavior, but this may also be attributed to how much of the research in this area has primarily focused on the mother-child relationship (Carlo, 2014; Eisenberg et al., 2015; Hastings et al., 2007). There have been more calls for research on fathers' roles in promoting their child's prosocial behaviors and recent findings indicate that fathers do have unique contributions (e.g., Gryczkowski et al., 2018; Padilla-Walker et al., 2018; Streit et al., 2020). Some research suggests fathers' parenting may influence to whom children are prosocial towards (i.e., friends), and that fathers' negative parenting has a stronger influence on young adults' prosocial behavior (Padilla-Walker et al., 2016). Additionally, a growing amount of research on the subject has been done with Latinx fathers, with findings highlighting how fathers' parenting such as involvement, acceptance, and support contribute to their child's prosocial behaviors (Carlo et al., 2018; Streit et al., 2018; 2020).

Of course, differences in mothers' and fathers' parenting can also arise across ethnic groups. For example, Black young adults tend to spend more time with their mothers than with their fathers, likely because Black fathers are often non-resident fathers (McLoyd et al., 2019). This might suggest that mothers' parenting practices have more associations with their young adults' prosocial behaviors compared to fathers. Additionally, research has suggested that Latinx value traditional gender roles (Raffaelli & Ontai, 2004), which might impact how parents socialize their children, especially in terms of emotions and prosocial behaviors. For example, other research on Latinx families suggests that parents' socialization of cultural values influence

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young adults' prosocial behaviors (Knight et al., 2016). Overall, research in this area indicates that mothers' and fathers' contributions to their child's prosocial behaviors are important and that there is value in examining both parents in relation to their child's outcomes.

Young Adult's Gender

The young adult's gender is also important in considering the links between parenting, emotion regulation, and prosocial behavior. Generally, there are mixed findings regarding the moderating effects of child gender on associations between parenting and young adults' outcomes (Steinberg & Silk, 2002; Hastings et al., 2007). For example, several studies indicate that boys report more psychological control than girls, but these findings are also not supported in other research (Scharf & Goldner, 2018). Similarly, other research indicates no gender differences in relations between parents' psychological control and young adults' outcomes (Cui et al., 2014 as a reference; Kuppens et al., 2013). This also seems to be the case across ethnic groups (Kincaid et al., 2011). One reason for these divergent findings might be because different methods and different respondents (parents vs young adults) are used, thus leading to conflicting results (Scharf & Goldner, 2018).

When considering how parenting may impact their treatment of children, it's also important to recognize that parents may hold different expectations for their children based on their gender, especially according to the family's ethnic group (Raffaelli & Ontai, 2004; Varner & Mandara, 2014). For example, in Latinx families, the gender-specific values of *marianismo* for females and *machismo* for males typically translates into more restrictions for girls (e.g., an earlier curfew) and increased expectations to help at home, while the opposite is true for boys (Raffaelli & Ontai, 2004; Umaña-Taylor & Updegraff, 2007). And there is a saying within Black communities, that "mothers love their sons and raise their daughters", meaning mothers give

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their sons more warmth and less rules and responsibilities compared to their daughters (McLoyd et al., 2019; Mandara et al., 2010). Despite the limited research on the topic, existing findings do support these ideas of differential treatment toward Black children (see McLoyd et al., 2019 for a review).

A large amount of research has found gender differences across emotion-regulation strategies (e.g., Nolen-Heksema & Aldao, 2011; Tamres et al., 2002). Work on the subject, including a meta-analysis of coping strategies (Tamres et al., 2002) repeatedly find that in general women tend to use a broader range of strategies, including reappraisal compared to men (Nolen-Heksema & Aldao, 2011). However, findings seem to be mixed regarding which gender may use the strategies of reappraisal and suppression more. For example, some articles have found women to use more reappraisal than men, and men to use more suppression (Flynn et al., 2010; Rogier et al., 2019) while other work did not find gender differences in use of expression suppression (Nolen-Heksema & Aldao, 2011). With these findings in mind, it has been suggested that there are actually more similarities in men and women's emotion regulation than there are differences (Nolen- Heksema, 2012).

Ethnicity is another important factor when examining differences in parenting and young adults' emotion regulation across gender. Research on Black parents suggests that generally they report less supportive responses to their children's negative emotions (i.e., fear, sadness) compared to European American parents (Brown et al., 2015; Labella, 2018; Nelson et al., 2012; McLoyd et al., 2019). Some research also indicates that Black mothers use more nonsupportive responses to negative emotions for sons than for daughters (Nelson et al., 2012). It's suggested that such findings reflect Black mothers' perceptions for heightened discrimination and costs in society around Black males' emotions than for Black females' emotions (McLoyd et al., 2019).

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In regard to Latinx parents' responses to their children's emotions, there do seem to be differences in terms of socializing children's emotions between ethnic groups (Lugo-Candelas et al., 2016), but no clear research exists that points to differences across child gender. However, based on the patterns of traditional gender roles in Latinx families and socialization of boys and girls discussed earlier, it is likely that how parents socialize their sons and daughters also translates into how they socialize their children's emotion regulation as well.

Turning now to young adults' prosocial behaviors, research generally indicates that girls tend to be more prosocial than boys (Carlo, 2014; Eisenberg et al., 2015). However, the significance of sex differences in these studies may vary based on characteristics of the study (e.g., self-report vs observer-report), which might also be linked to different expectations for how boys and girls should behave (Carlo, 2014; Eisenberg et al., 2015). Still, child gender has also been associated with different types of prosocial behavior (Carlo, 2014). This may be in part driven by gender roles that are internalized by young adults as well as externally pressured by society (Eagly, 2009). In general, research suggests that boys engage more often in public forms of prosocial behavior and girls engage in more emotional and selfless prosocial behaviors (Carlo et al., 2003).

When examining prosocial behaviors across Black and Latinx ethnic young adults, no consistent patterns seem apparent in the current literature. Typically, gender is often used as a control variable or no gender differences are found in comparing models (e.g., Davis et al., 2018; White-Johnson, 2012; Maiya et al., 2021; Streit et al., 2020). One exception was a study that found associations between Mexican American mothers' nativity status, parenting styles, cultural values (respect and traditional gender roles) and adolescents' prosocial behaviors (Davis et al., 2015). In terms of parenting styles, for boys, mothers' supportive parenting was positively

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associated with public prosocial behaviors and negatively associated with public prosocial behaviors. For boys, firm parenting was also positively associated with dire prosocial behavior. Meanwhile, for girls, mothers' supportive parenting was positively associated with compliant, altruistic, and dire prosocial behaviors and negatively associated with public prosocial behaviors. Also, mothers' firm parenting was positively associated with boys and girls emotional and compliant prosocial behaviors (Davis et al., 2015). This body of research suggests that considering the child's gender is important when studying parenting, emotion regulation, and prosocial behavior. Therefore, the current study will explore associations for young adults across gender.

Taken together, because of the limited research examining ethnic minority parenting and its impact on young adults' prosocial behaviors, the current study seeks to provide greater insight regarding this topic. This study will specifically address how two dimensions of Latinx and Black parenting: parental nurturance and psychological control, are associated with college students' prosocial behaviors, and the possible mediating role of emotion regulation in these relations.

Hypotheses

The current study examines direct and indirect effects of Latinx and Black parents' nurturance and psychological control on young adults' prosocial behaviors. It also explores the mediating roles of emotion reappraisal and expressive suppression on these relations. (See Figure 1 for the conceptual model). The following hypotheses were examined:

Direct Effects

1. Mothers' and fathers' nurturance will be positively associated with young adults' prosocial behavior.

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2. Mothers' and fathers' psychological control will be negatively associated with young adults' prosocial behaviors,
3. Mother and fathers' nurturance will also be positively associated with young adults' emotion reappraisal and negatively associated with young adults' expressive suppression.
4. Mothers' and fathers' psychological control will be positively associated with young adults' expressive suppression and negatively associated with their emotion reappraisal.
5. Young adults' emotion reappraisal will be positively associated with their prosocial behaviors.
6. Young adults' expressive suppression will be negatively associated with their prosocial behaviors.

Indirect Effects

7. Mothers' and fathers' nurturance and psychological control will be indirectly associated with young adults' prosocial behavior via young adults' emotion regulation (emotion reappraisal and expressive suppression).

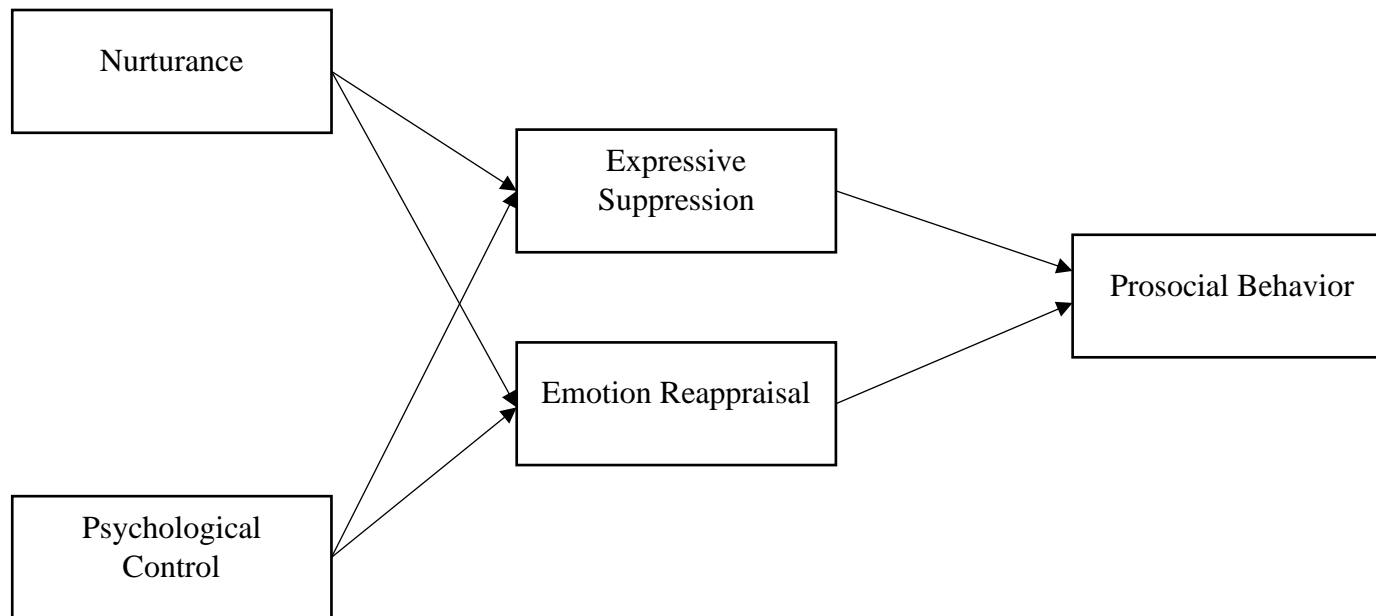
Gender Effects

8. Given the discrepant findings on gender as a moderator, we present no hypotheses and view any associations between parenting practices, emotion regulation, and prosocial behavior as exploratory.

Ethnic-Racial Group Effects

9. Given that other research has found similar associations between parenting practices and young adults' outcomes, regardless of ethnic-racial group, it is hypothesized that there will be no differences by ethnic-racial group.

Figure 1: Conceptual model



Note: Direct paths between nurturance and psychological control and prosocial behaviors are not depicted but are also included in the analysis.

Methods

Sample

The sample for this study is taken from the Multisite University Study of Identity and Culture (MUSIC) project (see Weisskirch et al., 2013 for additional overview of the project). The MUSIC project was a collaborative effort of researchers across 30 universities and colleges in the United States, and was focused on better understanding identity, racial/ethnic, and cultural issues. The sample consists of Black ($N = 204$, $M_{\text{age}} = 19.98$, $SD = 1.62$; 73.52% women) and Latinx ($N = 363$, $M_{\text{age}} = 19.57$, $SD = 1.58$; 72.45% women) college students for a total of 567 participants. ($M_{\text{age}} = 19.72$, $SD = 1.60$; 72.83% women).

Procedure

Participants at each site were offered either extra credit or experiment credit for participating in the study, depending on the researcher and the site. The participants completed a survey via a link either emailed to them by their course instructor or through a posting on their course management website. The survey was five webpages long in 2007, and six pages long in 2008-2009 after additional measures were added. Time to complete the survey ranged between 45 and 90 minutes. The Institutional Review Board of each institution provided approval for each collaborator of the project (see Weisskirch et al., 2013).

Measures

Parental Nurturance

Participants rated their mother's and father's nurturance using the Nurturant Parenting Scale (Finley & Schwartz, 2004; Finley et al., 2008). Due to the face validity and inter-item correlations of the measure, confirmatory factor analysis (CFA) was conducted to verify the factor structure of the measure. Three CFA models were examined and compared: 1) included all

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nine items of the measure, 2) included eight items with one item removed (the worst in terms of face validity and inter-item correlations), 3) included four items (items had the best face validity). The third model with the four-item scale for nurturance had the best model fit and was used in the analyses for this study (See CFA results in Appendix B). The items were measured on a 5-point Likert scale ranging from 1 to 5 and were averaged together to form an overall score (Maternal nurturance $\alpha = 0.95$; Paternal nurturance $\alpha = 0.96$). Anchors varied according to the ending of each item, but across all the items, a lower rating indicated lower nurturance and a higher rating indicated higher nurturance. An example is, “When you needed your mother’s support, was she there for you?”.

Parental Psychological Control

Participants reported on their parents’ psychological control using the psychological control subscale from the Child Report of Parental Behavior Inventory (Schaefer, 1965). One item from the original subscale was removed from the survey because it was previously found to not be equivalent across ethnic groups (Krishnakumar, Buehler, and Barber, 2004). Eight items were measured using a 5-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*) (Maternal psychological control $\alpha = 0.90$; Paternal psychological control $\alpha = 0.90$). A lower rating indicated lower psychological control and a higher rating indicated higher psychological control. Item ratings were averaged together to form an overall score. An example of one of the items is, “My father was always trying to change how I felt or thought about things.”

Emotion Regulation

Participants responded to questions concerning emotion regulation using the Emotion Regulation Questionnaire (Gross & John, 2003). This 10-item scale assesses two forms of

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emotion regulation, expressive suppression (four items), and emotion reappraisal (six items), and each uses a 7-point Likert scale. Responses range from 1 (strongly disagree) to 7 (strongly agree). A lower rating indicated lower expressive suppression or emotion reappraisal and a higher rating indicated higher expressive expression or emotion reappraisal. Item ratings were averaged together to form an overall score (Expressive suppression $\alpha = 0.77$; Emotion reappraisal $\alpha = 0.90$). A sample item for expressive suppression includes, “When I am feeling negative emotions, I make sure not to express them.” An example item includes, “When I’m faced with a stressful situation, I make myself think about it in a way that helps me stay calm.”

Prosocial Behavior

Participants reported on their tendency to engage in six types of prosocial behavior using the Prosocial Tendencies Measure (PTM; Carlo & Randall, 2002). Some errors occurred while entering in the items, so participants completed a modified version of the measure. To help shorten the survey and increase clarity, items were slightly reworded and four items from the original measure were deleted. Three subscales of the measure (emotional ($\alpha = 0.75$), dire ($\alpha = 0.67$), and compliant ($\alpha = 0.79$)) which reflect commonly displayed types of prosocial behavior (Carlo et al., 2018) were averaged together to create one composite score of prosocial behavior. Each of the items were rated on a scale ranging from 0 (Does not describe me at all) to 4 (Describes me greatly). A lower rating indicated lower prosocial behavior and a higher rating indicated higher prosocial behavior. Emotional prosocial behaviors (four items) involve helping in emotionally evocative situations (e.g., “I like to help others particularly when they are emotionally distressed”). Dire prosocial behaviors (three items) involve helping in crisis or emergency situations (e.g., “It is easy for me to help others when they are in an emergency

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situation”). Compliant behaviors (two items) involve helping when asked by others (e.g., “When people ask me to help them, I don’t hesitate to help”).

Ethnicity

Participants were asked to report their ethnicity by selecting one of four options. Relevant to the current study, students selected the following two options: 1) Black, African American, Afro-Caribbean, Black African, Other in this category, or 2) Latino/a, Hispanic, Spanish, Latin American, of Spanish speaking-South American/Caribbean heritage, Other in this category. Because of the large variability within these two ethnic groups options, Latinx and Black were used as the broader terms used in reference to these groups throughout the study.

Gender

Participants were asked to report on their gender by selecting either 1) Male or 2) Female.

Results

Preliminary Analyses

Descriptive statistics and correlations between the main variables were conducted using R (See Table 1). Maternal nurturance was positively correlated with paternal nurturance, and negatively correlated with maternal psychological control and paternal psychological control. Maternal nurturance was also positively correlated with emotion reappraisal and prosocial behaviors. Paternal nurturance was negatively correlated with paternal psychological control and positively correlated with emotion reappraisal and prosocial behaviors. Maternal and paternal psychological control were positively correlated with each other and with expressive suppression, and negatively associated with prosocial behaviors. Maternal psychological control was also negatively associated with emotion reappraisal. Emotion reappraisal was positively associated with expressive suppression and prosocial behaviors. Descriptive statistics and

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correlations between the main variables were also conducted in R separately for young adults' gender and ethnicity. (See Tables 2 and 3).

Main Analyses

Structural equation modeling (SEM) was conducted to assess the conceptual model using maximum likelihood estimation in MPlus (Muthén, & Muthén, 1998-2017). Initially, the full dataset had 42% missing data and Little's MCAR Test indicated that the data was not missing completely at random ($\chi^2 = 4348$, $df = 8605$, $p = 1$). University site was the main factor of missingness and thus the dataset was filtered to only using university sites where key variables were present. Additional missing data was handled using pairwise deletion, and multiple imputation was performed in R with the 'MICE' package (van Buuren S, Groothuis-Oudshoorn K, 2011) prior to conducting the SEM analysis in Mplus (Muthén, & Muthén, 1998-2017). Separate models were conducted with maternal and paternal nurturance and psychological control as the exogenous variables, emotion reappraisal and expressive suppression as the mediating variables, and the prosocial behavior composite as the endogenous variable (see Figure 2 and Figure 3). Model fit is considered good in SEM if the chi-square p -value is non-significant ($p < 0.01$), the comparative fit index (CFI) is 0.96 or greater (acceptable at 0.90 to 0.95), the standardized root mean square residual (SRMR) is between 0.01 and 0.05 (0.06 to 0.08 is acceptable), and the root mean square error of approximation (RMSEA) is between 0.01 and 0.05 (0.06 to 0.08 is acceptable) (Hu & Bentler, 1999).

Multi-group analyses were first conducted to determine whether differences existed across young adult gender (1 = male, 2 = female) and young adult ethnic group (1 = Black, 2 = Latinx). For mothers and fathers' parenting variables, analyses were conducted on both sets of grouping variables for a total of sixteen models (four freely estimated models with no controls,

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four freely estimated models with controls, four constrained models, and four final models). In each case, a freely estimated model without controls and then with controls were conducted, followed by a constrained model (each using MLR), and a Satorra–Bentler-scaled chi-square (S-B χ^2) difference test was used to test group differences. None of the chi-square difference test results indicated a significant difference across young adult gender, nor across young adults' ethnic group (See Tables 4 and 5). Therefore, the model results presented use the full sample, used ML (maximum likelihood) estimation, and include young adult gender and young adult ethnicity as covariates. See Figures 2 and 3 for path estimates.

For the freely estimated models, modification indices suggested that a path should be added between gender and expressive suppression. Some research has found gender differences in the use of emotion regulation strategies, including expressive suppression (Spaapen, Waters, Brummer, Stopa, & Bucks, 2014; Zimmerman & Iwanski, 2014; Zhao, Zhang, & Zheng, 2014), thus this specific path was added and slightly improved the model fit for the final maternal and paternal models. Fit for the overall maternal model (see Figure 2) was good, $\chi^2(7) = 19.28$, $p < .01$, CFI = .92, SRMR = 0.04, RMSEA = .06. The results indicated that maternal nurturance was positively associated with emotion reappraisal and prosocial behavior. Maternal psychological control was positively associated with expressive suppression and was not associated with prosocial behavior. Gender was negatively associated with expressive suppression, indicating that males were more likely to report greater expressive suppression than females. Both gender and ethnicity were positively associated with prosocial behavior, showing that females and Latinx were more likely to report higher prosocial behavior.

In addition to the direct paths in the maternal model, indirect paths were also examined. Mediation tests used bootstrapped confidence intervals (bootstrap samples = 5,000 and one

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significant indirect relation was found. Maternal nurturance was indirectly associated with prosocial behavior via emotional reappraisal (indirect effect = .04, standard error = .02, 95% confidence interval [.02, .08], $p < .05$). The magnitude of the predictors on prosocial behavior was small with only 11.5% of the variance in prosocial behavior being accounted for.

Fit for the overall paternal model (see Figure 3) was good except for a lower CFI, $\chi^2(7) = 24.28$, $p < .01$, CFI = .85, SRMR = 0.04, RMSEA = .07. The model demonstrated that paternal nurturance was positively associated with prosocial behavior. Paternal psychological control was positively associated with expressive suppression, and gender was negatively associated with expressive suppression. Emotion reappraisal and ethnicity were also both positively associated with prosocial behavior. Although indirect paths among the main variable were tested, no significant indirect paths were found.

Table 1. *Descriptives and Correlation Matrix for Parenting, Emotion Regulation, Prosocial Behavior, and Control Variables (Combined Sample)*

Variables	1	2	3	4	5	6	7
1. Maternal nurturance	--						
2. Paternal nurturance	.33**	--					
3. Maternal psychological control	-.41**	-.13**	--				
4. Paternal psychological control	-.21**	-.27**	.51**	--			
5. Emotion reappraisal	.26**	.19*	-.09*	-.06	--		
6. Expressive suppression	.01	-.02	.11**	.14**	.20**	--	
7. Prosocial behaviors	.26**	.18**	-.10*	-.10*	.21**	-.04	--
<i>Mean</i>	4.18	3.16	2.08	2.04	4.93	3.72	3.56
<i>SD</i>	0.98	1.29	0.95	0.93	1.26	1.25	0.78

Note. ** $p < .01$, * $p < .05$.

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Table 2. *Descriptives and Correlation Matrix for Parenting, Emotion Regulation, Prosocial Behavior, and Control Variables (By Gender)*

	<i>Mean</i>	4.20	3.19	2.17	2.15	4.90	4.11	3.45
	<i>SD</i>	0.87	1.21	1.01	0.92	1.23	1.11	0.68
Variables		1	2	3	4	5	6	7
1. Maternal nurturance		--	.41**	-.35**	-.36**	.31**	-.02	.30**
2. Paternal nurturance		.29**	--	-.16**	-.29**	.13	.03	.27**
3. Maternal psychological control		-.47**	-.13**	--	.57**	-.11	.08	-.08
4. Paternal psychological control		-.19**	-.27**	.48**	--	-.11	.05	-.10
5. Emotion reappraisal		.22**	.05	-.10	-.07	--	.32**	.24**
6. Expressive suppression		-.02	-.06	.10*	.14**	.14**	--	.09
7. Prosocial behaviors		.27**	.17**	-.10	-.09	.23**	-.05	--
	<i>Mean</i>	4.18	3.16	2.05	2.00	4.95	3.58	3.60
	<i>SD</i>	1.00	1.31	.92	.92	1.25	1.26	.82

Note. Coefficients below the diagonal represent correlations with female young adults. Coefficients above the diagonal represent correlations with the male young adults. ** $p < .01$, * $p < .05$.

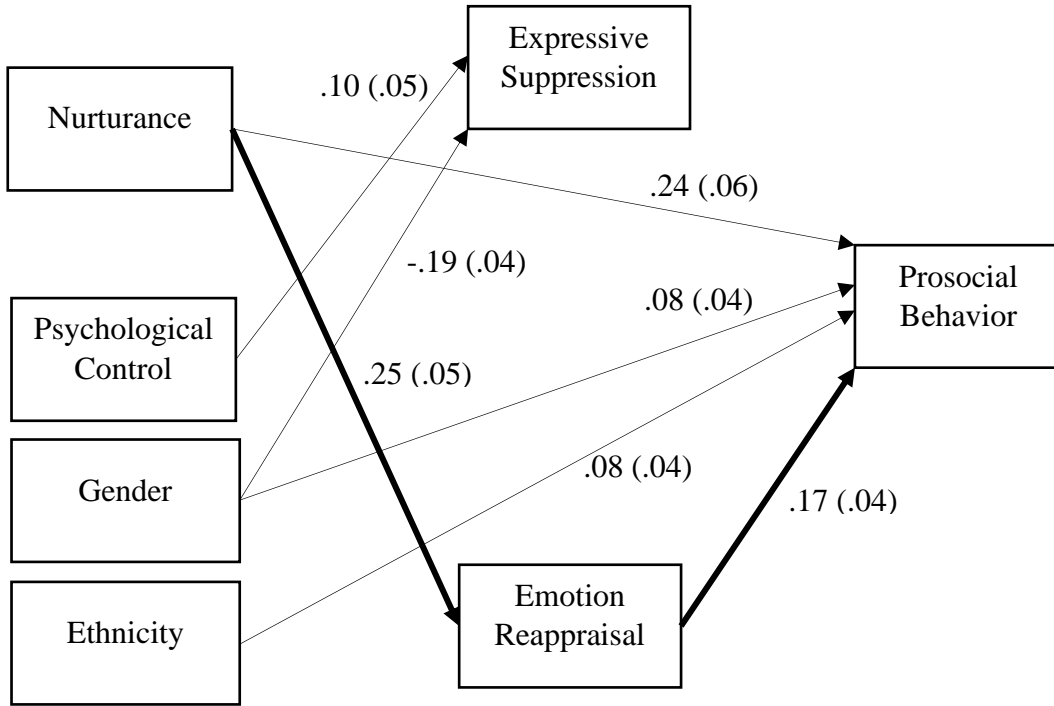
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Table 3. *Descriptives and Correlation Matrix for Parenting, Emotion Regulation, Prosocial Behavior, and Control Variables (By Ethnicity)*

	<i>Mean</i>	4.26	3.28	2.08	2.05	5.04	3.72	3.64
	<i>SD</i>	0.86	1.24	0.98	0.95	1.21	1.28	0.74
Variables		1	2	3	4	5	6	7
1. Maternal nurturance	--		.29**	-.45**	-.23**	.21**	-.02	.19**
2. Paternal nurturance	.37**	--		-.13**	-.29**	.09	.01	.13*
3. Maternal psychological control	-.39**	-.12	--		.50**	-.06	.11*	-.12*
4. Paternal psychological control	-.19**	-.24**	.55**	--		-.04	.11*	-.11*
5. Emotion reappraisal	.31**	.04	-.14*	-.10	--		.18**	.11*
6. Expressive suppression	.04	-.08	.12	.21**	.23**	--		-.08
7. Prosocial behaviors	.32**	.23**	-.07	-.11	.34**	.01	--	
<i>Mean</i>		4.04	2.95	2.08	2.02	4.73	3.72	3.42
<i>SD</i>		1.16	1.35	0.89	0.89	1.33	1.22	0.84

Note. Coefficients below the diagonal represent correlations with Black young adults. Coefficients above the diagonal represent correlations with the Latinx young adults. ** $p < .01$, * $p < .05$.

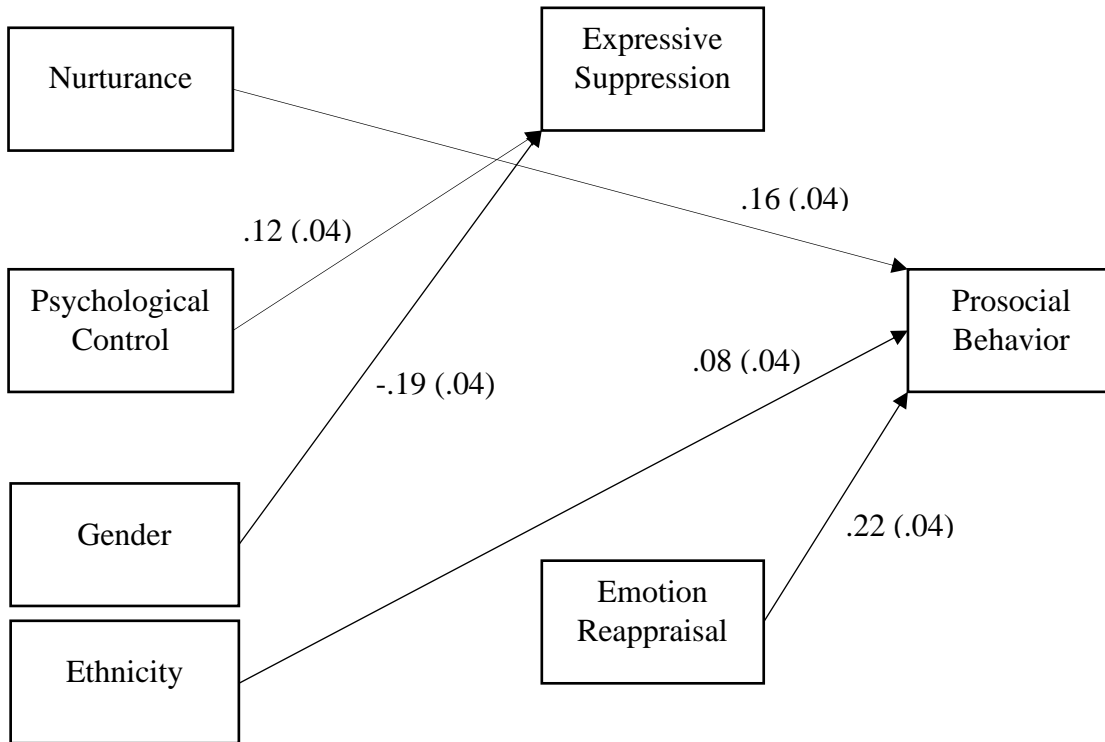
Figure 2: Significant path estimates for maternal parenting, emotion regulation, and prosocial behavior



Note: Indirect paths are bolded. Nonsignificant paths, as well as paths representing correlations among variables are not depicted. All reported paths are significant at $p < .05$.

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Figure 3: Significant path estimates for paternal parenting, emotion regulation, and prosocial behavior



Note: Indirect paths are bolded. Nonsignificant paths, as well as paths representing correlations among variables are not depicted. All reported paths are significant at $p < .05$.

Discussion

The current study is important because it contributes to our understanding of the family and individual correlates of ethnic minority college students' prosocial behavior. Associations between Black and Latinx mothers' and fathers' parenting practices, young adults' emotion regulation, and their prosocial behavior were examined. The hypotheses for this study were partially supported. Parenting practices were linked to young adults' prosocial behavior via emotion regulation. Associations between these variables differed for mothers and fathers. These processes were not moderated by young adults' ethnicity nor gender.

Parental Nurturance and Psychological Control

This study provides support for the idea that parenting practices are associated with Black and Latinx young adults' prosocial behaviors. As expected, mothers' and fathers' nurturance were positively associated with young adults' prosocial behaviors. These findings demonstrate that ethnic minority parents' positive parenting does have direct links to the kind actions of their young adult children. This is in line with previous parenting research that has typically found that parental warmth, similar to nurturance, was associated with young adults' well-being (Bámaca-Colbert et al., 2018; Cabrera & Bradley, 2012; Lowe & Dotterer, 2013; Stanik et al., 2013). This finding also extends theory related to the development of ethnic minority youth (Carlo & de Guzman, 2009; Spencer, 1995; 2006) by demonstrating that contextual aspects of ethnic minority young adults' environments, namely their mothers' and fathers' parenting practices, are associated with their positive outcomes. Furthermore, this finding adds to the limited research on ethnic minority parenting and young adults' prosocial behaviors, which has suggested positive forms of parenting are associated with young adults' prosocial behaviors (Davis et al., 2018; Gryczkowski et al., 2018; Streit et al., 2018; Streit et al., 2020).

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Although not directly tested, the association between nurturance and prosocial behavior appeared stronger for mothers than the association for fathers, suggesting that mothers' warmth and acceptance may be a stronger predictor of young adults' prosocial behaviors. This will need to be directly tested in future research with ethnic minority young adults, but the finding would be consistent with other college student research on parental warmth and young adults' prosocial behaviors (Gülseven et al., 2022; Padilla-Walker et al., 2018).

Contrary to expectations, in the current study parental psychological control was not associated with young adults' prosocial behaviors. This may suggest that for ethnic minority young adults, their parents' psychological control is not associated with how they might respond to others' needs. This may particularly be the case for emerging adults, as were used in this study, because for this age group, they are outside their home and the influence of their parents' control in some areas has lessened (Padilla-Walker et al., 2014). Within the context of Spencer's PVEST theory (Spencer, 1995; Spencer 2006), this finding may suggest that ethnic minority young adults in the current study, despite experiencing psychological control from their parents, have other supports such as their parents' nurturing behaviors, that balance out the potential stress of their parents' control, and negate any lasting impact on their identity and prosocial behavior outcomes. Alternatively, young adults may be using adaptive coping strategies that they have gained, negating potential stress from their parents' psychological control, and thus limiting an impact on their prosocial behaviors. Overall, this specific finding was surprising as psychological control is typically linked with young adults' well-being (Cui et al., 2014; Lindell et al., 2017; Piquart, 2017a, 2017b) and for ethnic minority young adults as well (Kincaid et al., 2011; Mandara & Pikes, 2008, Kline et al., 2016; Shigeto et al., 2019). For example, in a study involving Black college students, psychological control was negatively associated with prosocial

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behavior (Clark et al., 2015). Another reason this finding might be contradicting expectations is because of the forms of prosocial behavior used in the current study. Some research has found that harsh parenting was associated with Latinx adolescents' self-oriented prosocial behaviors, and negatively associated with other-oriented prosocial behaviors (Streit et al., 2021). Therefore, the forms of prosocial behavior used in this study may be capturing other-oriented prosocial behavior which leads to no associations between parents' psychological control and prosocial behavior, while if self-oriented prosocial behavior were used, results may differ. However, this study's findings are still noteworthy as they contribute towards research on Black young adults reporting on their fathers' parenting when a large amount of research is typically regarding mothers' parenting (Kincaid et al., 2011; Mandara & Pikes, 2008).

Emotion Regulation

One of the main aims of this study was to assess whether parenting practices are associated with young adults' prosocial behaviors via emotion regulation. This idea was supported as maternal nurturance was indirectly associated with young adults' prosocial behaviors via emotion reappraisal. Greater maternal nurturance was linked to greater emotion reappraisal, which was then linked to more prosocial behavior. Therefore, young adults with warm parents may be better able to reflect on their emotions in emotional situations, and thus can help and support others in those situations. This finding supports cultural theories of parenting such as Carlo and de Guzman's (2009) model related to prosocial development and PVEST theory (Spencer, 1995; 2006), which suggest that individuals' outcomes develop as a result of contextual factors such as parenting practices, as well as from sociocognitive skills, such as emotion regulation. PVEST theory (Spencer, 1995; 2006) for example, would suggest that emotion reappraisal may act as an adaptive coping strategy which has been repeatedly used by

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the ethnic minority young adults because of their parents' positive parenting. Emotion reappraisal in turn, has become integrated as part of the young adults' emergent identity, and thus allows them to engage in productive outcomes such as prosocial behavior.

Interestingly, this indirect link was only found for maternal nurturance and not paternal nurturance. At first glance this finding may again harken to parenting and young adulthood research which has suggested that mothers tend to be more involved in their children's lives than fathers, and that mothers report more closeness and parental knowledge than fathers do (Oliveira et al., 2020). However, as previously mentioned, there were significant direct associations between *both* mothers' and fathers' nurturance and young adults' prosocial behaviors. Therefore, only the indirect association between nurturance and prosocial behaviors via emotion reappraisal was significant for mothers and not for fathers. This seems to indicate that maternal nurturance rather than paternal nurturance is linked to greater emotion regulation, and in turn prosocial behavior for ethnic minority young adults. This link possibly exists because of the role mothers have on their children's emotion socialization, for example in how they respond to their children's emotions compared to fathers (Brand & Klimes-Dugan, 2010).

Overall, the literature examining these specific processes within young adulthood, and particularly with ethnic minority young adults is limited (see Kang & Guo, 2022 as an example). Thus the current study's findings regarding emotion regulation as an indirect link between parenting practices and prosocial behavior significantly adds to the existing literature. Overall, these findings do align with research among other age groups, such as adolescents, that has found similar associations between parenting, emotional or cognitive skills, and prosocial behavior (Padilla-Walker & Christensen, 2010).

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In addition to examining associations of parenting practices with young adults' prosocial behavior, direct associations between parenting practices and young adults' emotion regulation were also considered. Two aspects of emotion regulation were focused on: emotion reappraisal (reframing a situation to reduce its emotional impact) (Gross & John, 2003) and expressive suppression (limiting the expression of an emotion) (Juang, et al., 2016). It was hypothesized that mother and fathers' nurturance would be positively associated with young adults' emotion reappraisal, and negatively associated with young adults' expressive suppression. This hypothesis was partially supported as maternal nurturance did have positive links to young adults' emotion reappraisal, but neither maternal nor paternal nurturance was associated with expressive suppression. The finding that maternal nurturance was associated with young adults' emotion reappraisal is not surprising considering the wealth of research which suggests mothers tend to respond more positively to their child's negative emotions compared to fathers (Brand & Klimes-Dugan, 2010; Cassano et al., 2007; Eisenberg et al., 1999; Miller-Slough & Dunsmore, 2016) and that positive parenting, such as warmth, is typically associated with positive forms of young adults' emotion regulation (Morris et al., 2017; Silvers, 2022).

Meanwhile, maternal and paternal psychological control were positively associated with young adults' expressive suppression and not associated with emotion reappraisal. These hypotheses were partially supported as it was expected that parents' psychological control would be positively associated with young adults' expressive suppression, and negatively associated with their emotion reappraisal. These findings suggest that as mothers and fathers of ethnic minority young adults use psychological control, their young adult will be more likely to hold back or hide their emotions. This idea, along with the fact that no associations arose between parents' psychological control and emotion reappraisal, is not entirely surprising as

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psychological control is a form of parenting that may hinder young adults' emotional self-regulation, which at this time in the young adults' lives, may limit their ability to think about or reflect on the emotions they experience (Gross & John, 2003; Rogers et al., 2019).

Ethnicity and Gender

One key purpose of this study was to examine whether there would be different links between ethnic minority parenting and their young adult child's emotion regulation and prosocial behaviors based on ethnic-racial group and young adults' gender. These differences, however, were not found, indicating that parenting practices are associated with young adults' emotion regulation and prosocial behaviors in similar ways, regardless of ethnic-racial group. To the author's knowledge, this is one of the first studies to examine these processes and do so with an ethnic minority young adult sample (see Kang & Guo, 2021 as another similar study). However, similar processes have been studied with different age groups and ethnic groups, and these studies have yielded similar patterns of findings (Davis & Carlo, 2018; Gülseven et al., 2022; Houlberg et al., 2016; Padilla-Walker & Christensen, 2010). All of these findings generally indicate that positive forms of parenting are associated with young adults' prosocial behaviors via moral emotions, emotion regulation, or other sociocognitive skills (e.g., perspective-taking).

Additionally, results indicated that there were no differences in the models by young adults' gender. There were no specific hypotheses related to how the results might differ by young adult gender, as some research with similar models did not find gender differences (Davis & Carlo, 2018; Gülseven et al., 2022; Houlberg et al., 2016; Padilla-Walker & Christensen, 2010). More research on this topic will be helpful to provide additional evidence, but overall, this finding suggests that regardless of young adults' gender, the processes involving parenting practices, emotion regulation, and prosocial behavior operate in similar ways.

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Interestingly, despite no multi-group differences by young adults' gender, gender was associated with expressive suppression. In both mother and father parenting models, gender had a negative association with expressive suppression, suggesting that males were more likely to report higher levels of expressive suppression. Findings on gender differences on types of emotion regulation have been mixed (Nolen-Heksema & Aldao, 2011; Tamres et al., 2002), but the current study's findings seem to align with those that suggest males use more suppression compared to females (Flynn et al., 2010; Rogier et al., 2019).

Further, in the model for mothers, young adult gender was associated with prosocial behavior as well. Concerning the positive association between gender and prosocial behavior, this finding suggests that females were more likely to report higher rates of prosocial behavior. This does align with other research that has found that girls tend to be more prosocial than boys (Carlo, 2014; Eisenberg et al., 2015). However, scholars have also emphasized that gender differences related to prosocial behaviors are often modest, that they can be context-specific (e.g., the type of help being required such as instrumental versus emotional help), and that study characteristics (e.g., self-report versus observational reports) may factor into such results (Diekmann, & Clark, 2015); Eisenberg et al., 2015). Therefore, it is important to be cautious regarding the degree of such gender differences as found in the current study.

Limitations

Although the study found that parenting practices are associated with young adults' prosocial behaviors, there are limitations that should be considered. First, this study was correlational and cannot make any claims about causation nor about the direction of effects. Therefore, future research should collect longitudinal data in order to better understand the associations between parenting and young adults' prosocial behaviors over time. A second

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limitation is that this study used only young adults' reports about their mothers' and fathers' parenting and their own emotion regulation and prosocial behavior. Gathering data from both parents and their children would provide stronger evidence regarding parents' and young adults' behavior and avoid any concerns regarding self-report bias. Finally, this study may not generalize to all Black or Latinx young adults because 1) the sample included college students who do not represent all young adults in the U.S and 2) Blacks and Latinx are not a homogenous group. For example, to the later point, there are differences in Latinx in the U.S. including in areas such as generation, SES, country-of-origin, and immigration status (Fuller & Garcia Coll, 2010; Knight & Carlo, 2012). A future improvement of this research would mean including young adults from multiple family and educational backgrounds in the sample, as well as attempting to understand how variability within ethnic minority group might contribute to such findings.

Conclusion

Despite these limitations, the current study supports theory and extends research on studying the role of parenting practices, emotion regulation, and prosocial behavior within ethnic minority young adults. This is especially useful as most prosocial behavior research in the past has been focused on children and adolescents (Padilla-Walker et al., 2017) and it is important to understand the contributions of parenting on young adults' prosocial behavior. Furthermore, research on ethnic minority young adults' prosocial behavior is limited, particularly for Black young adults (for exceptions see Maiya et al., 2021; White-Johnson, 2012; 2015), and this study helps address the strengths and positive aspects of their development compared to past research that has used a deficit-approach (Cabrera et al., 2012). Finally, this study provides insight regarding the role of parenting practices and emotion regulation on ethnic minority young adults'

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prosocial behavior, extending other work on the role of emotion regulation in parent-child relationships.

This study also provides insights regarding processes which future research can build upon. For example, the current study only examined a composite of prosocial behavior rather than specific types of prosocial behavior (i.e., public, altruistic, emotional, or compliant (Carlo & Randall, 2002; Carlo et al., 2010)). It is possible that had specific types been used, different associations between parenting, emotion regulation, and prosocial behavior may have been found. In addition, the current study only examined parenting practices and emotion regulation independently, whereas future work could also examine the combined influence of parental nurturance and psychological control by creating interactions between these variables (e.g., moderated mediation). Different associations between these parenting interactions and emotion regulation and prosocial behaviors might be present.

Results from the current study suggest that parenting practices and emotion regulation are associated with ethnic minority college students' prosocial behavior. With these findings in mind, prevention and intervention experts should continue to develop programs that support parents in creating warm environments within their homes. Additionally, providing education and resources to ethnic minority parents regarding healthy forms of emotion regulation will enable future young adults to develop prosocial behaviors that benefit families, communities, and society.

Note

¹ Some of the articles cited in the current study use the words "African American" and others use the word "Black". The current study uses the word "Black" to describe African Americans and Blacks from different backgrounds (e.g., Afro-Caribbean; Reynolds et al., 2017).

References

- Abramson, L., Daniel, E., & Knafo-Noam, A. (2018). The role of personal values in children's costly sharing and non-costly giving. *Journal of experimental child psychology*, *165*, 117-134.
- Arnett, J. J. (2000). Emerging adulthood: A theory of development from the late teens through the twenties. *American Psychologist*, *55*, 469 – 480.
- Bámaca-Colbert, M. Y., Gonzales-Backen, M., Henry, C. S., Kim, P. S. Y., Roblyer, M. Z., Plunkett, S. W., & Sands, T. (2018). Family Profiles of Cohesion and Parenting Practices and Latino Youth Adjustment. *Family Process*, *57*(3), 719–736.
<https://doi.org/10.1111/famp.12314>
- Barber, B. K. (1996). Parental psychological control: revisiting a neglected construct. *Child Development*, *67*, 3296–3319.
- Baumrind, D. (1971). Current patterns of parental authority. *Developmental Psychology Monographs*, *4*(1, Part 2).
- Baumrind, D., & Black, A. E. (1967). Socialization practices associated with dimensions of competence in preschool boys and girls. *Child Development*, *38*(2), 291–327.
- Bean, R. A., Barber, B. K., & Crane, D. R. (2006). Parental support, behavioral control, and psychological control among African American youth: The relationships to academic grades, delinquency, and depression. *Journal of Family Issues*, *27*(10), 1335–1355.
<https://doi.org/10.1177/0192513X06289649>
- Belgrave, F. Z., Nguyen, A. B., Johnson, J. L., & Hood, K. (2011). Who is likely to help and hurt? Profiles of African American adolescents with prosocial and aggressive behaviour. *Journal of Youth and Adolescence*, *40*, 1012–1024. <http://dx.doi.org/10.1007/s10964-010-9608-4>.

EMOTION REGULATION

- Benita, M., Levkovitz, T., & Roth, G. (2017). Integrative emotion regulation predicts adolescents' prosocial behavior through the mediation of empathy. *Learning and Instruction, 50*, 14–20. <https://doi.org/10.1016/j.learninstruc.2016.11.004>.
- Brand, A. E., & Klimes-Dugan, B. (2010). Emotion socialization in adolescence: The roles of mothers and fathers. In A. Kennedy Root & S. Denham (Eds.), *The role of gender in the socialization of emotion: Key concepts and critical issues*. New Directions for Child and Adolescent Development, 128, 85–100. San Francisco: Jossey-Bass
- Brody, G. H., & Flor, D. L. (1998). Maternal resources, parenting practices, and child competence in rural, single-parent African-American families. *Child Development, 69*, 803–816.
- Bronfenbrenner, U. (1977). Toward an experimental ecology of human development. *American Psychologist, 32*(7), 513–531. <https://doi.org/10.1037/0003-066X.32.7.513>
- Bronfenbrenner, U., & Morris, P. A. (2006). The bioecological model of human development. In R. M. Lerner & W. Damon (Eds.), *Handbook of child psychology: Theoretical models of human development* (Vol. 1, 6th ed., pp. 793–828). John Wiley & Sons.
- Brown, G. L., Craig, A. B., & Halberstadt, A. G. (2015). Parent gender differences in emotion socialization behaviors vary by ethnicity and child gender. *Parenting, 15*, 135–157. <http://dx.doi.org/10.1080/15295192.2015.1053312>
- Byrnes, H., Miller, B., Chen, M.-J., & Grube, J. (2011). The roles of mothers' neighborhood perceptions and specific monitoring strategies in youths' problem behavior. *Journal of Youth & Adolescence, 40*(3), 347–360. <https://doi.org/10.1007/s10964-010-9538-1>
- Cabrera, N. J., Beeghly, M., & Eisenberg, N. (2012). Positive development of minority children: Introduction to the special issue. *Child Development Perspectives, 6*, 207–209.

EMOTION REGULATION

- Cabrera, N. J., & Bradley, R. H. (2012). Latino fathers and their children. *Child Development Perspectives, 6*(3), 232–238
- Carlo, G. (2014). The development and correlates of prosocial moral behaviors. In M. Killen & J. G. Smetana (Eds.), *Handbook of moral development* (2nd ed.). New York, NY: Psychology Press.
- Carlo, G., Crockett, L. J., Wolff, J. M., & Beal, S. J. (2012). The role of emotional reactivity, self-regulation, and puberty in adolescents' prosocial behaviors. *Social Development, 21*, 667– 685. <http://dx.doi.org/10.1111/j.1467-9507.2012.00660.x>
- Carlo G., de Guzman M. R. T. (2009). Theories and research on prosocial competencies among U.S. Latinos/as. In Villarruel F. A., Carlo G., Grau J. M., Azmitia M., Cabrera N. J., Chahin T. J. (Eds.), *Handbook of U.S. Latino psychology: Developmental and community-based perspectives* (pp. 191–211). Sage.
- Carlo, G., Hausmann, A., Christiansen, S., & Randall, B. A. (2003). Sociocognitive and behavioral correlates of a measure of prosocial tendencies for adolescents. *Journal of Early Adolescence, 23*(1), 107–134. <https://doi.org/10.1177/0272431602239132>
- Carlo, G., Knight, G. P., McGinley, M., & Hayes, R. (2011). The roles of parental inductions, moral emotions, and moral cognitions in prosocial tendencies among Mexican American and European American early adolescents. *The Journal of Early Adolescence, 31*(6), 757–781. doi:10.1177/0272431610373100
- Carlo, G., Knight, G. P., McGinley, M., Zamboanga, B. L., & Jarvis, L. H. (2010). The multidimensionality of prosocial behaviors and evidence of measurement equivalence in Mexican American and European American early adolescents. *Journal of Research on Adolescence, 20*(2), 334-358.

EMOTION REGULATION

- Carlo, G., McGinley, M., Hayes, R., Batenhorst, C., & Wilkinson, J. (2007). Parenting styles or practices? Parenting, sympathy, and prosocial behaviors among adolescents. *The Journal of Genetic Psychology, 168*, 147–176. <https://doi.org/10.3200/GNTP.168.2.147-176>.
- Carlo, G., Mestre, M. V., Samper, P., Tur, A., & Armenta, B. E. (2011). The longitudinal relations among dimensions of parenting styles, sympathy, prosocial moral reasoning, and prosocial behaviors. *International Journal of Behavioral Development, 35*, 116–124. <https://doi.org/10.1177/0165025410375921>.
- Carlo, G., McGinley, M., Hayes, R., Batenhorst, C., & Wilkinson, J. (2007). Parenting styles or practices? Parenting, sympathy, and prosocial behaviors among adolescents. *The Journal of Genetic Psychology, 168*(2), 147–176. <https://doi.org/10.3200/GNTP.168.2.147-176>.
- Carlo, G., & Randall, B. A. (2002). The development of a measure of prosocial behaviors for late adolescents. *Journal of Youth and Adolescence, 31*, 31–44.
- Carlo, G., White, R. M. B., Streit, C., Knight, G. P., & Zeiders, K. H. (2018). Longitudinal relations among parenting styles, prosocial behaviors, and academic outcomes in U.S. Mexican adolescents. *Child Development, 89*(2), 577–592. [gc722w](https://doi.org/10.1111/cdev.12722).
- Cassano, M., Perry-Parrish, C., & Zeman, J. (2007). Influence of gender on parental socialization of children's sadness regulation. *Social Development, 16*(2), 210-231. doi: 10.1111/j.1467-9507.2007.00381.x
- Chapman, A. (2012). Parental Authority, Parental Nurturance, Depression and Self-Esteem among Latino Emerging Adults. Retrieved from http://scholarlyrepository.miami.edu/oa_dissertations/899.

EMOTION REGULATION

- Clark, C. M., Dahlen, E. R., & Nicholson, B. C. (2015). The role of parenting in relational aggression and prosocial behavior among emerging adults. *Journal of Aggression, Maltreatment & Trauma, 24*(2), 185-202.
- Conger, R. D. & Elder, G. H., Jr. (Eds.). (1994). *Families in troubles times: Adapting to change in rural America*. Hawthorne, NY: Aldine de Gruyter.
- Conger, R. D., Wallace, L. E., Sun, Y., Simons, R. L., McLoyd, V. C., & Brody, G. H. (2002). Economic pressure in African American families: A replication and extension of the family stress model. *Developmental Psychology, 38*, 179 –193.
<http://dx.doi.org/10.1037/0012-1649.38.2.179>
- Crockett, L. J., Brown, J., Russell, S. T., & Shen, Y.-L. (2007). The meaning of good parent–child relationships for Mexican American adolescents. *Journal of Research on Adolescence, 17*, 639–668. doi:10.1111/j.1532- 7795.2007.00539.x
- Cui, L., Morris, A.S, Criss, M.M., Houlberg, B.J., & Silk, J.S. (2014). Parental Psychological Control and Adolescent Adjustment: The Role of Adolescent Emotion Regulation. *Parenting: Science & Practice, 14*(1), 47–67.
<https://doi.org/10.1080/15295192.2014.880018>
- Cunningham, M., Swanson, D. P., Youngblood, J. II, Seaton, E. K., Francois, S., & Ashford, C. (2023). Spencer’s phenomenological variant of ecological systems theory (PVEST): Charting its origin and impact. *American Psychologist, 78*(4), 524-534. <https://doi.org/10.1037/amp0001051>
- Darling, N., & Steinberg, L. (1993). Parenting style as context: An integrative model. *Psychological Bulletin, 113*(3), 487–496. <https://doi.org/10.1037/0033-2909.113.3.487>

EMOTION REGULATION

- Davis, A. N., & Carlo, G. (2018). The roles of parenting practices, sociocognitive/emotive traits, and prosocial behaviors in low-income adolescents. *Journal of Adolescence*, *62*, 140–150. <https://doi.org/10.1016/j.adolescence.2017.11.011>.
- Davis, A. N., Carlo, G., & Crockett, L. J. (2020). The role of economic stress in parents' depression and warmth and adolescents' prosocial behaviors among U.S. Latino/as. *Peace and Conflict: Journal of Peace Psychology*, *26*(2), 162–170. <https://doi.org/10.1037/pac0000406>
- Davis, A. N., Carlo, G., & Knight, G. P. (2015). Perceived maternal parenting styles, cultural values, and prosocial tendencies among Mexican American youth. *The Journal of Genetic Psychology*, *176* (4), 235–252. <https://doi.org/10.1080/00221325.2015.1044494>
- Davis, A. N., Carlo, G., Schwartz, S. J., Zamboanga, B., Armenta, B., Kim, S. Y., Opal, D., & Streit, C. (2018). The roles of familism and emotion reappraisal in the relations between acculturative stress and prosocial behaviors in Latino/a college students. *Journal of Latinx Psychology*, *6*, 175-189.
- Davis, A. N., Carlo, G., Streit, C., Schwartz, S. J., Unger, J. B., Baezconde-Garbanati, L., & Szapocznik, J. (2018). Longitudinal associations between maternal involvement, cultural orientations, and prosocial behaviors among recent immigrant Latino adolescents. *Journal of Youth & Adolescence*, *47*(2), 460–472. <https://doi.org/10.1007/s10964-017-0792-3>
- Desjardins, T., & Leadbeater, B. J. (2017). Changes in parental emotional support and psychological control in early adulthood: Direct and indirect associations with educational and occupational adjustment. *Emerging Adulthood*, *5*(3), 177–190. <https://doi.org/10.1177/2167696816666974>

EMOTION REGULATION

- Diekman A. B., Clark E. K. (2015). Beyond the damsel in distress: Gender differences and similarities in enacting prosocial behavior. In Schroeder D. A., Graziano W. G. (Eds.), *The Oxford handbook of prosocial behavior* (pp. 376-391). New York, NY: Oxford University Press.
- Domenech Rodríguez, M. M., Donovanick, M. R., & Crowley, S. L. (2009). Parenting styles in a cultural context: Observations of "protective parenting" in first-generation Latinos. *Family Process, 48*(2), 195– 210. <https://doi.org/10.1111/j.1545-5300.2009.01277.x>
- Doyle, O., Pecukonis, E. V., & Lindsey, M. A. (2015). Correlates and consequences of father nurturance in an African American college sample. *Journal of Family Issues, 36*(7), 880-901.
- Dunbar, A.S., Leerkes, E.M., Coard, S.I., Supple, A.J. & Calkins, S. (2017) An integrative conceptual model of parental racial/ethnic and emotion socialization and links to children’s social-emotional development among African American families. *Child Development Perspectives, 11*(1), 16-22. <https://doi.org/10.1111/cdep.12218>
- Durkee, M. I., Perkins, T. R., & Smith, R. E., II. (2022). Longitudinal effects of the “acting White” accusation and racial identity development among Black college students. *Journal of Research on Adolescence, 32*(1), 191207. <https://doi.org/10.1111/jora.12708>
- Eagly, A. H. (2009). The his and hers of prosocial behavior: An examination of the social psychology of gender. *American Psychologist, 64*(8), 644–658. <https://doi.org/10.1037/0003-066X.64.8.644>
- Eisenberg, N. (2000). Emotion, regulation, and moral development. *Annual Review of Psychology, 51*(1), 665-697.

EMOTION REGULATION

Eisenberg, N., Fabes, R. A., Shepard, S. A., Guthrie, I. K., Murphy, B. C., & Reiser, M. (1999).

Parental reactions to children's negative emotions: Longitudinal relations to quality of children's social functioning. *Child Development, 70*, 513–534.

Eisenberg, N., Fabes, R. A., & Spinrad, T. L. (2006). Prosocial behavior. In N. Eisenberg (Ed.),

Social, emotional, and personality development. Volume 3 of the *Handbook of child psychology* (6th ed., pp. 646–718). Editors-in-Chief: W. Damon & R. M. Lerner.

Hoboken, NJ: Wiley.

Eisenberg, N., Spinrad, T.L., & Eggum, N.D. (2010). Emotion related self-regulation and its

relation to children's maladjustment. *Annual Review of Clinical Psychology, 6*, 495–525.

<https://doi:10.1146/annurev.clinpsy.121208.131208>

Eisenberg, N., Spinrad, T. L., & Knafo-Noam, A. (2015). Prosocial development. In M. E.

Lamb, & R. M. Lerner (Eds.), *Handbook of child psychology and developmental science, Vol. 3: Socioemotional processes* (7th ed., pp. 610–656). Hoboken, NJ, US: John Wiley & Sons.

Eisenberg, N., Spinrad, T., & Morris, A. (2014). Empathy-related responding in children. In M.

Killen & J. G. Smetana (Eds.), *Handbook of moral development* (2nd ed., pp. 184–207).

New York, NY: Psychology Press.

Elmore, C. A., & Gaylord-Harden, N. K. (2013). The influence of supportive parenting and

racial socialization messages on African American youth behavioral outcomes. *Journal of Child and Family Studies, 22*, 63–75. <https://doi.org/10.1007/s10826-012-9653-6>

Finley, G. E., Mira, S. D., & Schwartz, S. J. (2008). Perceived Paternal and maternal

involvement: Factor structures, mean differences, and parental roles. *Fathering, 6*, 62–82.

EMOTION REGULATION

- Finley, G. E., & Schwartz, S. J. (2004). The father involvement and nurturant fathering scales: Retrospective measures for adolescent and adult children. *Educational and Psychological Measurement, 64*, 143–164. <https://doi.org/10.1177/0013164403258453>
- Finley, G. E., & Schwartz, S. J. (2010). The divided world of the child: Divorce and long-term psychosocial adjustment. *Family Court Review, 48*(3), 516–527. doi:10.1111/j.1744-1617.2010.01326.x.
- Flynn, J. J., Hollenstein, T., & Mackey, A. (2010). The effect of suppressing and not accepting emotions on depressive symptoms: Is suppression different for men and women? *Personality and Individual Differences, 49*, 582–586
- Fuller, B., & García Coll, C. (2010). Learning from Latinos: Contexts, families, and child development in motion. *Developmental Psychology, 46*(3), 559–565. <https://doi.org/10.1037/a0019412>
- Garcia Coll, C., Lamberty, G., Jenkins, R., McAdoo, H. P., Crnic, K., Wasik, B. H., & Garcia, H. V. (1996). An integrative model for the study of developmental competencies in minority children. *Child Development, 67*, 1891-1914. doi: 10.2307/1131600
- Gaylord-Harden, N. K., Barbarin, O., Tolan, P. H., & Murry, V. M. (2018). Understanding development of African American boys and young men: Moving from risks to positive youth development. *American Psychologist, 73*(6), 753–767. <https://doi.org/10.1037/amp0000300>
- Grills C., Cooke D., Douglas J., Subica A., Villanueva S., Hudson B. (2016). Culture, racial socialization, and positive African American youth development. *Journal of Black Psychology, 42*(4), 343–373.

EMOTION REGULATION

- Gross, J. J. (2015). Emotion regulation: Current status and future prospects. *Psychological Inquiry*, 26, 1–26. <http://dx.doi.org/10.1080/1047840X.2014.940781>
- Gross, J. J., & John, O. P. (2003). Individual differences in two emotion regulation processes: Implications for affect, relationships, and wellbeing. *Journal of Personality and Social Psychology*, 85, 348–362. <http://dx.doi.org/10.1037/0022-3514.85.2.348>
- Grusec, J. E., & Goodnow, J. J. (1994). Impact of parental discipline methods on the child's internalization of values: A reconceptualization of current points of view. *Developmental Psychology*, 30(1), 4–19. <https://doi.org/10.1037/0012-1649.30.1.4>.
- Gülseven, Z., Maiya, S., & Carlo, G. (2022). The intervening roles of shame and guilt in relations between parenting and prosocial behavior in college students. *The Journal of Genetic Psychology*, 183(6), 564-579.
- Gryczkowski, M., Jordan, S. S., & Mercer, S. H. (2018). Moderators of the Relations Between Mothers' and Fathers' Parenting Practices and Children's Prosocial Behavior. *Child Psychiatry & Human Development*, 49(3), 409–419. <https://doi.org/10.1007/s10578-017-0759-3>
- Halgunseth, L. C., Ispa, J. M., & Rudy, D. (2006). Control in Latino families: An integrated review of the literature. *Child Development*, 77, 1282–1297. doi:10.1111/j. 1467-8624.2006.00934.x
- Harris, J., & Kruger, A. C. (2019). Exploring the influence of racial-ethnic and gender identity on the prosocial behaviors of African American adolescent males. *Youth and Society*. <https://doi.org/10.1177/0044118x19854936V>.

EMOTION REGULATION

- Hart, J. R., Coates, E. E., & Smith-Bynum, M. A. (2019). Parenting style and parent-adolescent relationship quality in African American mother-adolescent dyads. *Parenting, 19*(4), 318–340. <https://doi.org/10.1080/15295192.2019.1642085>
- Hastings, P. D., Utendale, W. T., & Sullivan, C. (2007). The socialization of prosocial development. In J. E. Grusec & P. D. Hastings (Eds.), *Handbook of socialization* (pp. 638–664). New York: Guilford Press.
- Hoffman, M. L. (2000). *Empathy and moral development: Implications for caring and justice*. Cambridge, UK: Cambridge University Press.
- Houlberg, B. J., Sheffield, A., Cui, L., Henry, C. S., & Criss, M. M. (2016). The Role of Youth Anger in Explaining Links Between Parenting and Early Adolescent Prosocial and Antisocial Behavior. *The Journal of Early Adolescence, 36*(3), 297–318. <https://doi.org/10.1177/0272431614562834>
- Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling, 6*(1), 1-55. doi: 10.1080/10705519909540118
- Jackson-Newsom, J., Buchanan, C. M., & McDonald, R. M. (2008). Parenting and perceived maternal warmth in European American and African American adolescents. *Journal of Marriage and Family, 70*, 62-75. doi: 10.1111/j.1741-3737.2007.00461.x
- Juang, L. P., Moffitt, U., Kim, S. Y., Lee, R. M., Soto, J. A., Hurley, E., Weisskirch, R. S., Blozis, S. A., Castillo, L. G., Huynh, Q.-L., & Whitbourne, S. K. (2016). Cognitive reappraisal and expressive suppression: Links to racial-ethnic discrimination and adjustment among Latino/a and Asian-heritage college students. *Journal of Adolescence, 53*, 21–33. <https://doi.org/10.1016/j.adolescence.2016.08.012>

EMOTION REGULATION

- Kang, J., & Guo, H. (2022). The effects of authoritative parenting style on young adult children's prosocial behaviour: the mediating role of emotion-regulation. *China Journal of Social Work, 15*(2), 162-177.
- Kincaid, C., Jones, D., Cuellar, J., & Gonzalez, M. (2011). Psychological Control Associated with Youth Adjustment and Risky Behavior in African American Single Mother Families. *Journal of Child & Family Studies, 20*(1), 102–110.
<https://doi.org/10.1007/s10826-010-9383-6>
- Kline, G. C., Killoren, S. E., & Alfaro, E. C. (2016). Perceived parental psychological control, familism values, and Mexican American college students' adjustment. *Cultural Diversity and Ethnic Minority Psychology, 22*(4), 524–532. <https://doi.org/10.1037/cdp0000096>
- Knight, G. P., & Carlo, G. (2012). Prosocial development among Mexican American youth. *Child Development Perspectives, 6*, 258 –263. doi: 10.1111/j.1750-8606.2012.00233.x
- Knight, G. P., Carlo, G., Mahrer, N. E., & Davis, A. N. (2016). The socialization of culturally related values and prosocial tendencies among Mexican American adolescents. *Child Development, 87*, 1758–1771.
- Knight, G.P., Carlo, G., Streit, C., & White, R.M.B. (2017). A model of maternal and paternal ethnic socialization of Mexican-American adolescents' self-views. *Child Development, 88*(6), 1885-1896.
- Knight, G. P., Berkel, C., Umaña-Taylor, A. J., Gonzales, N. A., Ettekal, I., Jaconis, M., et al. (2011). The familial socialization of culturally related values in Mexican American families. *Journal of Marriage and Family, 73*(5), 913–925. doi:10.1111/j.1741-3737.2011.00856.x.

EMOTION REGULATION

- Krishnakumar, A., Buehler, C., & Barber, B. K. (2004). Cross-ethnic equivalence of socialization measures in European American and African American families. *Journal of Marriage and Family, 66*, 809-820.
- Kuppens, S. & Ceulemans, E. (2019) Parenting styles: A closer look at a well-known concept. *Journal of Child and Family Studies, 28*(1): 168–181.
- Kuppens, S., Grietens, H., Onghena, P., & Michiels, D. (2009). Measuring parenting dimensions in middle childhood: multitrait-multimethod analysis of child, mother, and father ratings. *European Journal of Psychological Assessment, 25*, 133–140.
- Kuppens, S., Laurent, L., Heyvaert, M., & Onghena, P. (2013). Associations between parental psychological control and relational aggression in children and adolescents: A multilevel and sequential meta-analysis. *Developmental Psychology, 49*, 1697–1712.
- Kwon, J. A., & Wickrama, K. S. (2014). Linking family economic pressure and supportive parenting to adolescent health behaviors: Two developmental pathways leading to health promoting and health risk behaviors. *Journal of Youth and Adolescence, 43*(7), 1176-1190. doi:10.1007/s10964-013-0060-0
- Labella, M. H. (2018). The sociocultural context of emotion socialization in African American families. *Clinical Psychology Review, 59*, 1–15.
<http://dx.doi.org/10.1016/j.cpr.2017.10.006>
- Laible, D., Carlo, G., Panfile, T., Eye, J., & Parker, J. (2010). Negative emotionality and emotion regulation: A person-centered approach to predicting socioemotional adjustment in young adolescents. *Journal of Research in Personality, 44*(5), 621-629.
[doi:10.1016/j.jrp.2010.08.003](http://dx.doi.org/10.1016/j.jrp.2010.08.003)

EMOTION REGULATION

- Landers-Potts, M. A., Wickrama, K. A. S., Simons, L. G., Cutrona, C., Gibbons, F. X., Simons, R. L., & Conger, R. (2015). An Extension and Moderational Analysis of the Family Stress Model Focusing on African American Adolescents. *Family Relations, 64*(2), 233–248. <https://doi.org/10.1111/fare.12117>
- Leerkes, E. M., Supple, A. J., & Gudmunson, J. A. (2014). Ethnic differences in women's emotional reactions to parental nonsupportive emotion socialization. *Marriage & Family Review, 50*, 435–446. doi:10.1080/01494929.2014.897671
- Liew, J., Eisenberg, N., Spinrad, T. L., Eggum, N. D., Haugen, R. g., Kupfer, A., Reiser, M. R., Smith, C. L., Lemery-Chalfant, K., & Baham, M. E. (2011). Physiological regulation and fearfulness as predictors of young children's empathy-related reactions. *Social Development, 20*(1), 111–134. <https://doi.org/10.1111/j.1467-9507.2010.00575.x>
- Lindell, A. K., Campione-Barr, N., & Killoren, S. E. (2017). Implications of parent-child relationships for emerging adults' subjective feelings about adulthood. *Journal of Family Psychology, 31*(7), 810–820. <https://doi.org/10.1037/fam0000328>
- Lindsey, E. W., Colwell, M. J., Frabutt, J. M., Chambers, J. C., & MacKinnon-Lewis, C. (2008). Mother-child dyadic synchrony in European American and African American families during early adolescence: Relations with self-esteem and prosocial behavior. *Merrill-Palmer Quarterly, 54*, 289–315. <https://doi.org/10.1353/mpq.0.0003>
- Lowe, K., & Dotterer, A. (2013). Parental monitoring, parental warmth, and minority youths' academic outcomes: Exploring the Integrative Model of Parenting *Journal of Youth & Adolescence, 42*(9), 1413–1425. <https://doi.org/10.1007/s10964-013-9934-4>
- Lugo-Candelas, C. I., Harvey, E. A., Breaux, R. P., & Herbert, S. D. (2016). Ethnic differences in the relation between parental emotion socialization and mental health in emerging

EMOTION REGULATION

- adults. *Journal of Child and Family Studies*, 25(3), 922–938. <https://doi.org/10.1007/s10826-015-0266-8>
- Luyckx, K., Soenens, B., Vansteenkiste, M., Goossens, L., & Berzonsky, M. (2007). Parental psychological control and dimensions of identity formation in emerging adulthood. *Journal of Family Psychology*, 21, 546–550.
- Maccoby, E. E., & Martin, J. A. (1983). Socialization in the context of the family: Parent-child interaction. In E. M. Hetherington (Ed.), *Handbook of child psychology: Vol. 4. Socialization, personality, and social development* (pp. 1–101). New York: Wiley.
- Maiya, S., Carlo, G., Landor, A. M., & Memmott-Elison, M. K. (2021). Ethnic-racial and religious identity as mediators of relations between ethnic-racial socialization and prosocial behaviors among Black young adults. *Journal of Black Psychology*, 47(1), 31–50. <https://doi.org/10.1177/0095798420971388>
- Mandara, J., & Pikes, C. L. (2008). Guilt Trips and Love Withdrawal: Does Mothers' Use of Psychological Control Predict Depressive Symptoms Among African American Adolescents? *Family Relations*, 57(5), 602–612. <https://doi.org/10.1111/j.1741-3729.2008.00526.x>
- Mandara, J., Varner, F., & Richman, S. (2010). Do African American mothers really “love” their sons and “raise” their daughters? *Journal of Family Psychology*, 24(1), 41-50. <https://doi.org/10.1037/a0018072>
- Masarik, A. S., & Conger, R. D. (2017). Stress and child development: A review of the family stress model. *Current Opinion in Psychology*, 13, 85–90. <http://dx.doi.org/10.1016/j.copsyc.2016.05.008>

EMOTION REGULATION

- McAdoo, H. P., & Younge, S. N. (2009). Black families. In H. A. Neville, B. M. Tyes, & S. O. Utsey (Eds.), *Handbook of African American psychology* (pp. 103–125). Newbury Park, CA: Sage.
- McDermott, E. R., Zeiders, K. H., Landor, A. M., & Carbajal, S. (2022). Coping with ethnic–racial discrimination: Short-term longitudinal relations among Black and Latinx college students. *Journal of Research on Adolescence*, *32*(4), 1530-1545.
- McKinney, C., & Renk, K. (2008). Differential parenting between mothers and fathers. implications for late adolescents. *Journal of Family Issues*, *29*(6), 806–827.
- McLoyd, V.C., Hardaway, C.R., Jocoson, R.M. (2019). *African American parenting*. In Bornstein, M. (Ed) *Handbook of parenting, Volume 4: Social conditions and applied parenting, Third Edition*, (pp. 24 – 56). <https://doi.org/10.4324/9780429398995>
- McMahon, S. D., Todd, N. R., Martinez, A., Coker, C., Sheu, C. F., Shah, S., & Washburn, J. J. (2013). Aggressive and prosocial behavior: Community violence, cognitive, and behavioral predictors among urban African American youth. *American Journal of Community Psychology*, *51*, 407–421.
- Miller-Slough, R. L., & Dunsmore, J. C. (2016). Parent and friend emotion socialization in adolescence: Associations with psychological adjustment. *Adolescent Research Review*, *1*, 287–305. <https://doi.org/10.1007/s40894-016-0026-z>.
- Morris, A. S., Criss, M. M., Silk, J. S., & Houtberg, B. J. (2017). The impact of parenting on emotion regulation during childhood and adolescence. *Child Development Perspectives*, *11*(4), 233–238. <https://doi.org/10.1111/cdep.12238>

EMOTION REGULATION

- Morris, A. S., Silk, J. S., Steinberg, L., Myers, S. S., & Robinson, L. R. (2007). The Role of the Family Context in the Development of Emotion Regulation. *Social Development, 16*(2), 361–388. <https://doi.org/10.1111/j.1467-9507.2007.00389.x>
- Muthén, L. K., & Muthén, B. O. (1998-2017). Mplus User's Guide. Eighth Edition. Los Angeles, CA: Muthén & Muthén.
- Neblett, E.W., Rivas-Drake, D., & Umaña-Taylor, A.J. (2012). The promise of racial and ethnic protective factors in promoting ethnic minority youth development. *Child Development Perspectives, 6*, 295– 303. doi:10.1111/j.1750-8606.2012.00239.x
- Nelson, L. J., & Barry, C. M. (2005). Distinguishing features of emerging adulthood: The role of self-classification as an adult. *Journal of Adolescent Research, 20*, 242-262.
- Nelson, J. A., Leerkes, E. M., O'Brien, M., Calkins, S. D., & Marcovitch, S. (2012). African American and European American mothers' beliefs about negative emotions and emotion socialization practices. *Parenting: Science and Practice, 12*(1), 22-41.
doi:10.1080/15295192.2012.638871
- Nelson, L. J., Padilla-Walker, L. M., Carroll, J. S., Madsen, S., Barry, C. M., & Badger, S. (2007). 'If you want me to treat you like an adult, start acting like one!' Comparing the criteria for adulthood among emerging adults and their parents. *Journal of Family Psychology, 21*, 665-674.
- Nelson, L. J., Padilla-Walker, L. M., Christensen, K. J., Evans, C. A., & Carroll, J. S. (2011). Parenting in emerging adulthood: An examination of parenting clusters and correlates. *Journal of Youth and Adolescence, 40*(6), 730–743. <https://doi.org/10.1007/s10964-010-9584-8>

EMOTION REGULATION

- Neppl, T. K., Senia, J. M., & Donnellan, M. B. (2016). Effects of economic hardship: Testing the family stress model over time. *Journal of Family Psychology, 30*, 12–21.
<http://dx.doi.org/10.1037/fam0000168>
- Nolen-Hoeksema, S. (2012). Emotion regulation and psychopathology: The role of gender. *Annual Review of Clinical Psychology, 8*, 161–187. <http://dx.doi.org/10.1146/annurev-clinpsy-032511-143109>
- Nolen-Hoeksema, S., & Aldao, A. (2011). Gender and age differences in emotion regulation strategies and their relationship to depressive symptoms. *Personality and Individual Differences, 51*(6), 704–708. <https://doi.org/10.1016/j.paid.2011.06.012>
- Oliveira, C., Fonseca, G., Sotero, L., Crespo, C., & Relvas, A. P. (2020). Family dynamics during emerging adulthood: Reviewing, integrating, and challenging the field. *Journal of Family Theory & Review, 12*(3), 350–367. <https://doi.org/10.1111/jftr.12386>.
- Padilla-Walker, L. M., & Carlo, G. (2014). The study of prosocial behavior: Past, present, and future. In L. M. Padilla-Walker & G. Carlo (Eds.), *Prosocial Development: A multidimensional approach* (pp. 3–16). Oxford University Press.
- Padilla-Walker, L. M., Carlo, G., Christensen, K. J., & Yorgason, J. B. (2012). Bidirectional relations between authoritative parenting and adolescents' prosocial behaviors. *Journal of Research on Adolescence, 22*(3), 400–408
- Padilla-Walker, L. M., Carlo, G., & Memmott-Elison, M. K. (2018). Longitudinal change in adolescents' prosocial behavior toward strangers, friends, and family. *Journal of Research on Adolescence, 28*, 698–710. <https://doi.org/10.1111/jora.12362>

EMOTION REGULATION

- Padilla-Walker, L. M., & Christensen, K. J. (2010). Empathy and self-regulation as mediators between parenting and adolescents' prosocial behavior toward strangers, friends, and family. *Journal of Research on Adolescence, 21*(3), 545-551. doi:10.1111/j.1532-7795.2010.00695.x
- Padilla-Walker, L., Harper, J. M., & Jensen, A. C. (2010). Self-regulation as a mediator between sibling relationship quality and early adolescents' positive and negative outcomes. *Journal of Family Psychology, 24*(4), 419-428. doi:10.1037/a0020387
- Padilla-Walker, L. M., Nelson, L. J., Fu, X., & Barry, C. M. (2018). Bidirectional relations between parenting and prosocial behavior for Asian and European-American emerging adults. *Journal of Adult Development, 25*(2), 107-120. doi:10.1007/s10804-017-9272-y
- Padilla-Walker, L. M., Nelson, L. J., & Knapp, D. J. (2014). "Because I'm still the parent, that's why!" Parental legitimate authority during emerging adulthood. *Journal of Social and Personal Relationships, 31*, 293-313. doi:10.1177/0265407513494949
- Padilla-Walker, L. M., Nielson, M. G., & Day, R. A. (2016). The role of parental warmth and hostility on adolescents' prosocial behavior toward multiple targets. *Journal of Family Psychology, 30*, 331-340. <https://doi.org/10.1037/fam0000157>
- Perry, N., Leerkes, E. M., Dunbar, A. S., & Cavanaugh, A. M. (2017). Gender and ethnic differences in young adults' emotional reactions to parental punitive and minimizing emotion socialization practices. *Emerging Adulthood, 5*, 83-92. <https://doi.org/10.1177/2167696816653856>
- Perez-Brena, N. J., Updegraff, K. A., & Umaña-Taylor, A. J. (2015). Transmission of cultural values among Mexican-origin parents and their adolescent and emerging adult offspring. *Family Process, 54*(2), 232-246. <https://doi.org/10.1111/famp.12114>

EMOTION REGULATION

- Pinquart, M. (2017a). Associations of parenting dimensions and styles with externalizing problems of children and adolescents: An updated meta-analysis. *Developmental Psychology*, 53(5), 873–932. <https://doi.org/10.1037/dev0000295>
- Pinquart, M. (2017b). Associations of parenting dimensions and styles with internalizing symptoms in children and adolescents: A meta-analysis. *Marriage & Family Review*, 53, 613-640. doi:10.1080/01494929.2016.1247761
- Quintana, S. M., & Scull, N. C. (2009). Latino ethnic identity. In F. A. Villarruel, G. Carlo, J. M. Grau, M. Azmitia, N. J. Cabrera & T. J. Chahin (Eds.), *Handbook of U.S. Latino psychology: Developmental and community based perspectives* (pp. 81-98). Thousand Oaks, CA: SAGE.
- Raffaelli, M., & Ontai, L. L. (2004). Gender socialization in Latino/a families: Results from two retrospective studies. *Sex Roles*, 50, 287–299. doi: 10.1023/B:SERS.0000018886.58945.06
- Rious, J. B., Cunningham, M., & Beale Spencer, M. (2019). Rethinking the notion of “hostility” in African American parenting styles. *Research in Human Development*, 16, 35–50. <https://doi.org/10.1080/15427609.2018.1541377>
- Reynolds, J. E., Gonzales-Backen, M. A., Allen, K. A., Hurley, E. A., Donovan, R. A., Schwartz, S. J., Williams, M. (2017). Ethnic–racial identity of Black emerging adults: The role of parenting and ethnic– racial socialization. *Journal of Family Issues*, 38, 2200 –2224.
- Rogier, G., Garofalo, C., & Velotti, P. (2019). Is emotional suppression always bad? A matter of flexibility and gender differences. *Current Psychology*, 38(2), 411–420. <https://doi.org/10.1007/s12144-017-9623-7>

EMOTION REGULATION

- Rogers, A. A., Memmott-Elison, M. K., Padilla-Walker, L. M., & Byon, J. (2019). Perceived parental psychological control predicts intraindividual decrements in self-regulation throughout adolescence. *Developmental Psychology, 55*, 2352–2364.
doi:10.1037/dev0000818
- Rueth, J. E., Otterpohl, N., & Wild, E. (2017). Influence of parenting behavior on psychosocial adjustment in early adolescence: Mediated by anger regulation and moderated by gender. *Social Development, 26*(1), 40-58.
- Rydell, A. M., Berlin, L., & Bohlin, G. (2003). Emotionality, emotion regulation, and adaptation among 5-to 8-year-old children. *Emotion, 3*(1), 30–47. <https://doi.org/10.1037/1528-3542.3.1.30>
- Schaefer, E. S. (1965). A configurational analysis of children's reports of parent behavior. *Journal of Consulting Psychology, 29*, 552–557. [http:// dx.doi.org/10.1037/h0022702](http://dx.doi.org/10.1037/h0022702)
- Scharf, M., & Goldner, L. (2018). “If you really love me, you will do/be . . .”: Parental psychological control and its implications for children's adjustment. *Developmental Review, 49*, 16–30
- Schwartz, S. J., Zamboanga, B. L., Ravert, R. D., Kim, S. Y., Weisskirch, R. S., Williams, M. K., . . . Finley, G. E. (2009). Perceived parental relationships and health-risk behaviors in college-attending emerging adults. *Journal of Marriage and Family, 71*(3), 727–740.
<https://doi.org/10.1111/j.1741-3737.2009.00629.x>
- Shigeto, A., Grzywacz, J. G., & Cui, M. (2019). Parental Control for Latinas and Non-Latinas: Implications for Emerging Adult Mental Health. *Journal of Child & Family Studies, 28*(4), 1071–1083. <https://doi.org/10.1007/s10826-019-01345-4>

EMOTION REGULATION

Silvers, J. A. (2022). Adolescence as a pivotal period for emotion regulation development.

Current Opinion in Psychology, 44, 258–263. [https://](https://doi.org/10.1016/j.copsyc.2021.09.023)

doi.org/10.1016/j.copsyc.2021.09.023

Simons, L. G., Wickrama, K. A. S., Lee, T. K., Landers-Potts, M., Cutrona, C., & Conger, R. D.

(2016). Testing Family Stress and Family Investment Explanations for Conduct Problems

Among African American Adolescents: Testing Family Stress and Investment

Explanations. *Journal of Marriage and Family*, 78(2), 498–515.

<https://doi.org/10.1111/jomf.12278>

Spaapen, D. L., Waters, F., Brummer, L., Stopa, L., & Bucks, R. S. (2014). The Emotion

Regulation Questionnaire: Validation of the ERQ-9 in two community samples.

Psychological Assessment, 26, 46–54. <https://doi.org/10.1037/a0034474>.

Spencer, M. B. (1995). Old issues and new theorizing about African–American youth: A

phenomenological variant of ecological systems theory. In R. L. Taylor (Ed.), *Black*

youth: Perspectives on their status in the United States (pp. 37–69). Westport, CT:

Praeger.

Spencer, M. B. (2006). Phenomenology and ecological systems theory: Development of diverse

groups. In R. M. Lerner & W. Damon (Eds.), *Handbook of child psychology, vol. 1:*

Theoretical models of human development (6th ed., pp. 829–893). New York: Wiley

Publishers.

Spencer, M. B., Dupree, D., & Hartmann, T. (1997). A phenomenological variant of ecological

systems theory (PVEST): A self-organization perspective in context. *Development and*

Psychopathology, 9(4), 817–833. <https://doi.org/10.1017/S0954579497001454>

EMOTION REGULATION

- Stanik, C. E., Riina, E. M., & McHale, S. M. (2013). Parent–adolescent relationship qualities and adolescent adjustment in two-parent African American families. *Family relations*, 62(4), 597-608.
- Steinberg, L. (1990). Autonomy, conflict, and harmony in the family relationship. In S. S. Feldman, & G. R. Elliot (Eds.), *At the threshold: The developing adolescent* (pp. 255–276). Cambridge, MA: Harvard University Press.
- Steinberg, L., & Silk, J. S. (2002). Parenting Adolescents. In M. H. Bornstein (Ed.), *Handbook of parenting: Vol. 1. Children and parenting* (2nd ed., pp. 103–134). Lawrence Erlbaum.
- Streit, C., Carlo, G., Ispa, J., & Palermo, F. (2017). Negative emotionality and discipline as long-term predictors of behavioral outcomes in African American and European American children. *Developmental Psychology*, 53, 1013-1026
- Streit, C., Carlo, G., & Killoren, S. E. (2020). Family support, respect, and empathy as correlates of US Latino/Latina college students' prosocial behaviors toward different recipients. *Journal of Social and Personal Relationships*, 37(5), 1513-1533.
- Streit, C., Carlo, G., Killoren, S. E., & Alfaro, E. C. (2018). Family Members' Relationship Qualities and Prosocial Behaviors in U.S. Mexican Young Adults: The Roles of Familism and Ethnic Identity Resolution. *Journal of Family Issues*, 39(4), 1056–1084.
<https://doi.org/10.1177/0192513X16686134>
- Streit, C., Carlo, G., Knight, G., White, R., & Maiya, S. (2021). Relations among parenting, culture, and prosocial behaviors in U.S. Mexican youth: An integrative approach. *Child Development*, 92, e383–e397. <https://doi.org/10.1111/cdev.13550>

EMOTION REGULATION

- Tamres, L. K., Janicki, D., & Helgeson, V. S. (2002). Sex differences in coping behavior: A meta-analytic review and an examination of relative coping. *Personality and Social Psychology Review*, 6, 2–30. [http://dx .doi.org/10.1207/S15327957PSPR0601_1](http://dx.doi.org/10.1207/S15327957PSPR0601_1)
- 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, 549-567. doi: 10.1016/j.adolescence.2006.08.002
- Umaña-Taylor, A. J., & Updegraff, K. A. (2013). Latino families in the United States. In G. W. Peterson, & K. R. Bush (Eds.), *Handbook of Marriage and the Family* (3rd ed.), (pp. 723–747). Springer
- Van Buuren, S., & Groothuis-Oudshoorn, K. (2011). mice: Multivariate imputation by chained equations in R. *Journal of Statistical Software*, 45, 1-67.
- Varner, F., & Mandara, J. (2014). Differential parenting of African American adolescents as an explanation for gender disparities in achievement. *Journal of Research on Adolescence*, 24(4) 667-680. <https://doi.org/10.1111/jora.12063>
- Veneziano, R. A. (2000). Perceived paternal and maternal acceptance and rural African American and European American youths' psychological adjustment. *Journal of Marriage and the Family*, 62(1), 123–132. <https://doi.org/10.1111/j.1741-3737.2000.00123.x>
- Wang, M.-T., Hill, N. E., & Hofkens, T. (2014). Parental involvement and African American and European American adolescents' academic, behavioral, and emotional development in secondary school. *Child Development*, 85(6), 2151–2168. <https://doi.org/10.1111/cdev.12284>

EMOTION REGULATION

- Weisskirch, R. S., Zamboanga, B. L., Ravert, R. D., Whitbourne, S. K., Park, I. J. K., Lee, R. M., & Schwartz, S. J. (2013). An introduction to the composition of the Multi-Site University Study of Identity and Culture (MUSIC): A collaborative approach to research and mentorship. *Cultural Diversity and Ethnic Minority Psychology, 19*(2), 123.
<https://doi.org/10.1037/a0030099>
- White, R. B., Liu, Y., Nair, R. L., & Tein, J.-Y. (2015). Longitudinal and integrative tests of family stress model effects on Mexican origin adolescents. *Developmental Psychology, 51*, 649–662. doi:10.1037/a0038993
- White, R. B., Zeiders, K. H., Gonzales, N. A., Tein, J., & Roosa, M. W. (2013). Cultural values, U.S. neighborhood danger, and Mexican American parents' parenting. *Journal of Family Psychology, 27*, 365–375. doi:10.1037/a0032888
- White-Johnson, R. L. (2012). Prosocial involvement among African American young adults: Considering racial discrimination and racial identity. *Journal of Black Psychology, 38*(3), 313-341.
- White-Johnson, R. L. (2015). The impact of racial socialization on the academic performance and prosocial involvement of Black emerging adults. *Journal of College Student Development, 56*(2), 140-154.
- Yaffe, Y. (2020). Systematic review of the differences between mothers and fathers in parenting styles and practices. *Current Psychology, 1-14*. <https://doi.org/10.1007/s12144-020-01014-6>
- Zhao, X., Zhang, R., & Zheng, K. (2014). Gender differences in emotion regulation strategies in adolescents. *Chinese Journal of Clinical Psychology, 22*(05), 849–854. <https://doi.org/10.16128/j.cnki.1005-3611.2014.05.067>

EMOTION REGULATION

Zimmermann, P., & Iwanski, A. (2014). Emotion regulation from early adolescence to emerging adulthood and middle adulthood: Age differences, gender differences, and emotion-specific developmental variations. *International Journal of Behavioral Development, 38*, 182-194. doi: 10.1177/0165025413515405

Appendix A:

Measures Used in the Study

Parenting Practices

Maternal Nurturance

Please answer these questions regarding the person you think of as having been the most important mother figure in your life. Think about the time when you were growing up.

1. Overall, how would you rate your mother?
1 = poor; 2 = fair; 3 = good; 4 = very good; 5 = outstanding
2. When you needed your mother's support, was she there for you?
1 = never; 2 = rarely; 3 = sometimes; 4 = often; 5 = always
3. How emotionally close are you to your mother?
1 = not at all; 2 = a little; 3 = somewhat; 4 = very; 5 = extremely
4. How much do you think your mother enjoys being a mother?
1 = never; 2 = rarely; 3 = somewhat; 4 = very much; 5 = a great deal
5. When you were growing up, did your mother have enough energy to meet your needs?
1 = never; 2 = rarely; 3 = sometimes; 4 = often; 5 = always
6. When you were growing up, was your mother available to spend time with you in activities?
1 = never; 2 = rarely; 3 = sometimes; 4 = often; 5 = always
7. Do you feel that you can confide in your mother?
1 = never; 2 = rarely; 3 = sometimes; 4 = often; 5 = always
8. When you were a teenager, how well did you get along with your mother?
1 = very poorly; 2 = poorly; 3 = ok; 4 = well; 5 = very well
9. As you go through your day, how much of a psychological presence does your mother have in your daily thoughts and feelings?
1 = never there; 2 = rarely there; 3 = sometimes there; 4 = often there; 5 = always there

Maternal Psychological Control

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

My mother was always trying to change how I felt or thought about things.

1. My mother changed the subject whenever I had something to say.
2. My mother often interrupted me when I am talking.
3. My mother blamed me for other family members' problems.
4. My mother brought up past mistakes when she criticized me.

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5. My mother was less friendly with me if I did not see things her way.
6. My mother would avoid looking at me when I disappointed her.
7. If I hurt my mother's feelings, she stopped talking to me until I pleased her again.

Paternal Nurturance

Please answer these questions regarding the person you think of as having been the most important father figure in your life. Think about the time when you were growing up.

1. Overall, how would you rate your father?
1 = poor; 2 = fair; 3 = good; 4 = very good; 5 = outstanding
2. When you need your father's support, was he there for you?
1 = never; 2 = rarely; 3 = sometimes; 4 = often; 5 = always
3. How emotionally close were you to your father?
1 = not at all; 2 = a little; 3 = somewhat; 4 = very; 5 = extremely
4. How much do you think your father enjoyed being a father?
1 = never; 2 = rarely; 3 = somewhat; 4 = very much; 5 = a great deal
5. When you were growing up, did your father have enough energy to meet your needs?
1 = never; 2 = rarely; 3 = sometimes; 4 = often; 5 = always
6. When you were growing up, was your father available to spend time with you in activities?
1 = never; 2 = rarely; 3 = sometimes; 4 = often; 5 = always
7. Did you feel that you could confide in your father?
1 = never; 2 = rarely; 3 = sometimes; 4 = often; 5 = always
8. When you were a teenager, how well did you get along with your father?
1 = very poorly; 2 = poorly; 3 = ok; 4 = well; 5 = very well
9. As you go through your day, how much of a psychological presence does your father have in your daily thoughts and feelings?
1 = never there; 2 = rarely there; 3 = sometimes there; 4 = often there; 5 = always there

Paternal Psychological Control

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

1. My father was always trying to change how I felt or thought about things.
2. My father changed the subject whenever I had something to say.
3. My father often interrupted me when I was talking.
4. My father blamed me for other family members' problems.
5. My father brought up past mistakes when he criticized me.
6. My father was less friendly with me if I did not see things his way.

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7. My father would avoid looking at me when I disappointed him.
8. If I hurt my father's feelings, he stopped talking to me until I pleased him again.

Emotion Regulation Questionnaire

We would like to ask you some questions about your emotional life, in particular, how you control (that is, regulate and manage) your emotions. The questions below involve two distinct aspects of your emotional life. One is your emotional experience, or what you feel like inside. The other is your emotional expression, or how you show your emotions in the way you talk, gesture, or behave. Although some of the following questions may seem similar to one another, they differ in important ways.

For each item, please answer using the following scale:

1	2	3	4	5	6	7
<i>Strongly Disagree</i>	<i>Neutral/ Mixed</i>	<i>Strongly Agree</i>

1. When I want to feel more positive emotion (such as joy or amusement), I change what I'm thinking about.

Strongly Disagree 1 2 3 4 5 6 7 *Strongly Agree*

2. I keep my emotions to myself.

Strongly Disagree 1 2 3 4 5 6 7 *Strongly Agree*

3. When I want to feel less negative emotion (such as sadness or anger), I change what I'm thinking about.

Strongly Disagree 1 2 3 4 5 6 7 *Strongly Agree*

4. When I am feeling positive emotions, I am careful not to express them.

Strongly Disagree 1 2 3 4 5 6 7 *Strongly Agree*

5. When I'm faced with a stressful situation, I make myself think about it in a way that helps me stay calm.

Strongly Disagree 1 2 3 4 5 6 7 *Strongly Agree*

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6. I control my emotions by not expressing them.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

7. When I want to feel more positive emotion, I change the way I'm thinking about the situation.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

8. I control my emotions by changing the way I think about the situation I'm in.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

9. When I am feeling negative emotions, I make sure not to express them.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

10. When I want to feel less negative emotion, I change the way I'm thinking about the situation.

Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

Prosocial Behavior

This does not describe me at all	This describes me a little	This describes me somewhat	This describes me well	This describes me greatly
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1

2

3

4

5

_____ I can help others best when people are watching me.

_____ It is most fulfilling to me when I can comfort someone who is very distressed.

_____ When other people are around, it is easier for me to help needy others.

_____ I think that one of the best things about helping others is that it makes me look good.

_____ I get the most out of helping others when it is done in front of other people

_____ I tend to help people who are in a real crisis or need.

_____ When people ask me to help them, I do not hesitate.

_____ I prefer to donate money anonymously.

_____ I tend to help people who are hurt badly.

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- _____ I believe that donating goods or money works best when it is tax-deductible.
- _____ I tend to help needy others most when they do not know who helped them.
- _____ I tend to help others particularly when they are emotionally distressed.
- _____ Helping others when I am in the spotlight is when I work best.
- _____ It is easy for me to help others when they are in a bad situation.
- _____ Most of the time, I help others when they do not know who helped them.
- _____ I think there should be more recognition for the time and energy people spend on charity work.
- _____ I respond to helping others best when the situation is highly emotional.
- _____ I never hesitate to help others when they ask for it.
- _____ I think that helping others without them knowing is the best type of situation.
- _____ One of the best things about doing charity work is that it looks good on my resume.
- _____ Emotional situations make me want to help others in need.
- _____ I often make anonymous donations because they make me feel good.
- _____ I feel that if I help someone, they should help me in the future.

Ethnicity

My ethnicity is (choose one):

- a. Black, African American, Afro-Caribbean, Black African, Other in this category.
- b. Caucasian, White, European American, White European, Other in this category.
- c. East Asian, Asian American, Amerasian, Asian-Caribbean, Other in this category.
- d. Latino/a, Hispanic, Spanish, Latin American, of Spanish speaking- South American/Caribbean heritage, Other in this category.

Gender

Gender (check one): Male Female

Appendix B

Confirmatory Factor Analysis Results for Parental Nurture Scale

Table 4. *Fit Indices for Maternal Nurture CFA Testing (N = 573).*

	χ^2	df	χ^2/df	P-Value	CFI	RMSEA	SRMR
All Nine Items Included	200.79	27	7.44	0.00	0.96	0.11	0.03
All Items Except Item 9	193.17	20	9.66	0.00	0.96	0.12	0.03
Four Items Only (2,3,7,8)	5.13	2	2.56	0.08	0.10	0.05	0.01

Appendix C

Model Fit Tables for Main Analyses

Table 5. *Fit Indices for Models Mothers Model Testing* (N = 567).

	χ^2	df	χ^2/df	Scaling Factor	CFI	RMSEA	SRMR	$\Delta\chi^2$
Free, No Controls	0.00	0.00	0.00	1.00	1.00	0.00	0.00	
Free (gender grouping)	26.64*	8.00	3.33	0.98	0.85	0.09	0.04	
Fully constrained model (gender grouping)	33.09*	19.00	1.53	1.04	0.88	0.05	0.06	7.63 (11) p = 0.75
Final Model	19.28*	7.00	2.75		0.92	0.06	0.04	
Free, No Controls	0.00	0.00	0.00	1.00	1.00	0.00	0.00	
Free (ethnicity grouping)	35.81*	8.00	4.47	0.94	0.77	0.11	0.05	
Fully constrained (ethnicity grouping)	42.94*	19.00	2.26	0.98	0.81	0.07	0.06	8.46 (11) p = 0.67
Final Model	19.28*	7.00	2.75		0.92	0.06	0.04	

Note: ¹Comparison model (based on $\Delta\chi^2$) is the fully constrained model; * $p < .05$.

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Table 6. *Fit Indices for Paternal Parenting Model Testing (N = 567).*

	χ^2	df	χ^2/df	Scaling Factor	CFI	RMSEA	SRMR	$\Delta\chi^2$
Free, No Controls	0.00	0.00	0.00	1.00	1.00	0.00	0.00	
Free (gender grouping)	24.21*	8.00	3.03	1.01	0.82	0.09	0.04	
Fully constrained model (gender grouping)	29.82*	19.00	1.57	1.02	0.88	0.05	0.05	5.78 (11) p = 0.89
Final Model	24.28*	7.00	3.47		0.85	0.07	0.04	
Free, No Controls	0.00	0.00	0.00	1.00	1.00	0.00	0.00	
Free (ethnicity grouping)	29.88*	8.00	3.74	0.95	0.77	0.10	0.05	
Fully constrained (ethnicity grouping)	41.8*	19.00	2.20	0.98	0.76	0.07	0.06	12.54 (11) p = 0.32
Final Model	24.28*	7.00	3.47		0.85	0.07	0.04	

Note: ¹Comparison model (based on $\Delta\chi^2$) is the fully constrained model; * $p < .05$.