

The Effect of Parenting Styles and Depressive Symptoms on
Young Adult's Educational Attainment

By

Brittany N. Hearne

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Approved:

C. André Christie-Mizell, Ph.D.

Richard N. Pitt, Ph.D.

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CHAPTER I

INTRODUCTION

Interpersonal family relationships are important for the educational progress of children (Israel, Beaulieu, and Hartless 2001). Principle among these relationships is the quality of parent-child interactions. Parenting styles or strategies that include warmth and emotional support have been shown to boost educational goals and achievement among youth (Dornbusch, Ritter, Leiderman, Roberts, and Fraleigh, 1987; Steinberg, Elmen, and Mounts 1989; Davis-Kean 2005). However, less is known about the specific mechanisms that connect parenting styles to educational outcomes. On the one hand, quality parenting may directly impact educational achievement by encouraging the internalization of positive goal orientation and resilience in the face of educational difficulty. On the other hand, parent-child relationships may shape educational outcomes indirectly. For example, uninvolved parenting - characterized by little communication, indifference, and neglect - may leave a child feeling distressed and lead to mental health problems (Radziszewska, Richardson, Dent, and Flay 1996; Widom, DuMont, and Czaja 2007). In turn, poor psychological adjustment or mental health may impede the ability of the individual to achieve educationally.

In this research, I consider whether the impact of parenting during middle and late adolescence is directly connected to educational attainment in young adulthood or whether the influence of parenting is better understood as indirectly affecting educational progress through mental health. Parenting styles are predominantly divided along two orthogonal dimensions in the relevant literature – responsiveness/ supportiveness versus demanding/controlling (e.g., Maccoby and Martin 1983). These two dimensions are further divided into four categories – uninvolved parenting, permissive parenting, authoritative parenting, and authoritarian parenting

(e.g., Maccoby and Martin 1983; Baumrind 1991; Spera 2005), which are the types of parenting I consider. Variations in the characteristics of these four parenting styles are connected to whether youth perform well in school (Spera 2005). For instance, authoritative parents pay close attention to the needs of their children and express unconditional positive regard (Baumrind 1978, 1989, 1990). This style of parenting creates a balance between offering help and encouraging independence in schoolwork (Steinberg, Lamborn, Dornbusch, Darling 1992). Therefore, the children of authoritative parents may do better in school because under the watchful eyes of their parents they are simultaneously encouraged to achieve and offered help when needed.

Beyond main effects on educational outcomes, parenting styles may also shape mental health, which in turn, may impact educational attainment (Adedokun and Balschweid 2008). Specifically, parenting styles in adolescence may result in levels of depressive symptoms that interfere with educational achievement. The incidence of depressive symptoms dramatically increases in the transition from late adolescence into adulthood, resulting in young adulthood being one of the most stressful periods in the life course (Aquilino 1999; Aquilino and Supple 2001; Arnett 2000, 2007). However, fewer studies have explored the extent to which parenting styles in adolescence increase or decrease depressive symptomatology and whether these symptoms impact educational progress. For example, while authoritarian parenting (exerting high levels of control, coercion, or intrusion) may induce guilt in adolescents and promote depressive affect (Gavazzi and Sabatelli 1990; Baumrind 1991; Barber, Olsen, and Shagle 1994), it is unclear whether these symptoms would simply impact school performance (e.g., low grades) or whether they are related to specific milestone failure (e.g., high school completion versus college enrollment).

This investigation adds to the research literature in two important ways. First, with the use of longitudinal data spanning nine years, I am able to trace the direct and indirect (through depressive symptoms) impact of adolescent parenting styles on educational attainment. These data also allow a careful evaluation of not only how parenting styles operate over time, but also whether and how depressive symptoms experienced in late adolescence reach into young adulthood to shape educational attainment. This research focuses on the transition to young adulthood. This period in the life course is important to study, because this transition involves high levels of distress and the expectation that most youth will complete education. If high levels of distress lead to low educational attainment, young adults may encounter a number of problems as they mature further. Educational failure is associated with low income, unstable employment, difficulties in personal relationships, and a compromised ability to cope with conflict and disappointment (McCaul, Donaldson, Jr., Coladarci, and Davis 1992).

Second, my sample is representative of the U.S. population and includes enough variation to consider outcomes for three groups of young adults: African Americans, Hispanics, and whites. The contexts in which racial and ethnic minorities are reared vary greatly compared to whites (Christie-Mizell, Pryor, and Grossman 2008). Racial minorities are more likely to rear children in environments where single parenting is more common and economic resources are lower (McLeod 1993; Sampson, Sharkey and Raudenbush, 2008; Wight, Chau, and Aratani 2011; Quillian 2012, 2014). The parenting demands associated with these stresses and strains may shape the impact of parenting styles. For instance, some research shows that authoritarian parenting may not be as harmful to African American children compared to their white counterparts (Dornbusch, Ritter, Leiderman, Roberts, and Fraleigh 1987; Jarrett 1995; Radziszewska, Richardson, Dent, and Flay 1996). One explanation has been that disadvantaged

children may live in environments where they need more direction and firmness to keep them safe (McLoyd 1990; Lareau 2002). Therefore, the current research will add to the growing body of literature seeking to show how parent-child relationships vary in impact on outcomes by race-ethnicity.

CHAPTER II

BACKGROUND

Theoretical Framework

Family social capital theory guides this study. Coleman (1990) defined family social capital as the relationships among social actors that “inhere in family relations and in community organization and that are useful for the cognitive and social development of [youth]...” (p. 300). Family social capital facilitates interaction among individuals within networks, such as families, as well as the exchange of informal resources such as knowledge, social support, and obligations (Coleman 1988, 1990). In the research literature, family social capital is typically operationalized as the strength of ties between family members and the quality of the relationship between parent(s) and children (Parcel and Dufur 2001).

Family social capital creates parent-child bonds that allow parents to effectively convey appropriate social norms to their children. In turn, children internalize the appropriate social norms and behaviors, which lead to more positive outcomes (Christie-Mizell 2004; Christie-Mizell, Keil, Laske, and Stewart 2011). Furthermore, family social capital is created and maintained with parenting styles that include warmth, responsiveness, bidirectional communication, and firm control (Spera 2005; Sandefur, Meier, Campbell 2006). This investment in the well-being of youth pays immediate returns, but also includes later dividends as youth mature – including fewer depressive symptoms and greater academic success (Parcel and Menaghan 1994; Garber, Robinson, and Valentiner 1997; Christie-Mizell 2004).

Coleman (1988, 1990) outlined two additional forms of capital – financial and human capital – that are necessary for the development and deployment of family social capital. Financial capital encompasses economic resources such as income and wealth, while human

capital is represented by parents' education and cognitive ability. These two forms of capital allow parents to build social capital within the family (Duncan and Brooks-Gunn 1997; Teachman, Paasch, and Carver 1997). For example, parents that are well educated tend to have more stable incomes and experience fewer stressors in life allowing them the opportunity to spend time with their children to build social capital. Children of parents that have been unable to attain higher levels of financial and human capital have limited access to resources like health care, housing, and even cognitively stimulating materials and experiences, leaving these parents unable to invest time toward building social capital within the family (Bradley and Corwyn 2002).

The sociological work around the short-term and long-term effects of parenting styles on youth is extensive (Dornbusch, Ritter, Leiderman, Roberts, and Fraleigh 1987; Baumrind 1991; Ge, Best, Conger, and Simons 1996; Ozer, Flores, Tschann, and Pasch 2013), but the specification of direct and indirect effects remains imprecise. It is conceivable that in addition to its direct effect, the influence of family social capital (displayed in parenting styles) on educational achievement might also include some indirect effects. For example, it is possible that family social capital may have indirect effects on educational achievement via its potency in decreasing (or increasing) depressive symptoms for youth. Depressive symptomatology has been shown to negatively influence educational achievement (Ensminger and Slusarcick 1992; Entwisle, Alexander, and Olson 2005; McLeod and Fettes 2007).

Another limitation of the extant research is that many studies incorporating measures of family social capital are limited to outcomes during childhood and adolescence (McLeod and Shanahan 1993; Parcel and Menaghan 1993, 1994; Dumont and Provost 1999). However, parenting styles and other forms of family social capital may be especially important during the

transition into young adulthood as youth explore a variety of school, work, and identity options that will affect them well into adulthood (Kim and Schneider 2005). Parenting styles may continue to have an impact during the transition into young adulthood because of an established self-concept and mastery (Steinberg, Lamborn, Darling, and Dornbusch 1994). A positive self-concept and high sense of control has been shown to contribute to improved well-being throughout the life cycle (Reis, Sheldon, Gable, Roscie, and Ryan 2000).

Parenting Styles and Family Social Capital

Family social capital is created through the strength of relationships between parents and their children (Coleman 1988, 1990; Parcel and Menaghan 1993, 1994). This strength develops through the dynamics of social interaction processes within the family and is dependent on the parenting style employed. Parenting styles have been used across disciplines to better understand the psychological and academic consequences for youth. Results often differ by race and ethnicity because race-based differences in the level of emotional support offered to children can be partially explained by the fact that conveyance of emotional support is predicated upon socioeconomic factors, such as education and income. These are areas in which racial minorities are more likely to be disadvantaged (McLoyd 1990; Diamond and Huguley 2011).

Authoritative parenting. Baumrind (1978), foremost in the development of modern parenting typologies, defined authoritative parenting as characterized by warmth and responsiveness to a child's needs. This parenting style is most conducive to family social capital because of the tendency for bidirectional communication and parental involvement.

Characteristics of authoritative parenting, such as, firm control and acceptance may directly reduce the prevalence of depressive symptoms in youth by increasing their sense of self-worth (Ohannessian, Lerner, Lerner, and von Eye 1998). A number of research studies have found a

positive relationship between authoritative parenting styles and student achievement and learning goals (Baumrind 1967; Lamborn, Mounts, Steinberg, and Dornbusch 1991; Gonzalez, Holbein, and Quilter 2002; McLeod and Fettes 2007). However, these impacts have not been uniform across race-ethnicity. For example, Dornbusch and colleagues (1987) found that authoritative parenting was associated with higher GPAs for white children but not for black, Asian, and Hispanic children. Moreover, parental practices in line with authoritative parenting, such as parental monitoring and a positive parent-adolescent relationship, may reduce the risk of depressive symptoms by increasing self-esteem and life satisfaction for adolescents (Milevsky, Schlechter, Netter, and Keehn 2007; Bulanda and Majumdar 2009) and curb their involvement in non-normative behaviors. The absence of depressive symptoms may in turn increase adolescents' educational achievement.

Uninvolved parenting. Uninvolved parenting (or indulgent parenting) is characterized as a lack of responsiveness to a child's needs. Additionally, these parents show a lack of interest in their children and are emotionally distant (Maccoby and Martin 1983). Whereas authoritative parents will engage in conversations with their children regarding rules and expectations, uninvolved parents do not impose rules and expectations on their children (Maccoby and Martin 1983; Baumrind 1991). As a result of the uninvolved parent's lack of supervision and expectations there should be a lack of social capital within the family. Children of uninvolved parents may respond to their parent's lack of warmth and attention with emotional distress and defiance in an attempt to elicit parental attention and involvement (Ge, Best, Conger, and Simons 1996). Defiance and misbehavior may spill over into school leading to negative consequences with respect to academic achievement. Furthermore, Radziszewska and her colleagues (1996) found that gender and race-ethnicity moderates the relationship between uninvolved parenting

and depressive symptoms, such that among boys with uninvolved parents, African Americans had a significantly higher mean depression score compared to whites, Asians, and Hispanics. Conversely, African American girls had a significantly lower mean depression score compared to whites and Hispanics.

Permissive parenting. Unlike authoritative parents, permissive parents are less likely to interact and communicate with their children, and if they do engage in conversation they more likely to allow their child to dominate the interaction (Baumrind 1989, 1991). This style of communication leads to poor social ties between the parent and child because of a lack of demands and expectations for the child. Although permissive parents provide emotional support they are less likely to impose strict rules, preferring instead to promote independent decision-making and self-regulation of emotions, with avoidance of confrontation and discipline (Baumrind 1991). Nevertheless, Baumrind (1989) found that permissive parenting, characterized as highly responsive coupled with low demands, yields low measures of self-reliance, self-control, and competence for adolescents (Lamborn, Mounts, Steinberg, and Dornbusch 1991; Maccoby 1992). Permissive parenting has been associated with decreased happiness and self-regulation in children (Radziszewska, Richardson, Dent, and Flay 1996). These children are more likely to experience problems with authority and, in turn, perform poorly in school (Dornbusch, Ritter, Leiderman, Roberts, and Fraleigh 1987).

Authoritarian parenting. Baumrind (1989) described authoritarian parents as neither warm nor responsive to their children. Authoritarian parents are strict, demanding, and tend to communicate demands and expectations through rules and orders (Baumrind 1991). The lack of negotiation and explanations of rationale for rules may lead to fear and decreased family social capital. This parenting style leads to less than optimal outcomes for children compared to

authoritative parenting. In fact, Ozer and colleagues (2011) found that children who reported more accepting parents were less likely to report depressive symptoms. In the same study, youth that viewed their parents as strictly controlling were more likely to report higher levels of depressive symptoms. Moreover, psychologically controlling parents may inhibit the transition toward independence for adolescents and promote feelings of depression and misbehavior in school (Baumrind 1991; Peterson, Bush, and Supple 1999). However, multiple studies have found that authoritarian parenting leads to positive outcomes for racial minority children (Dornbusch, Ritter, Leiderman, Roberts, and Fraleigh 1987; Steinberg, Mounts, Lamborn, and Dornbusch 1991; Chao 1994).

Other Important Factors

The extant literature around parenting, depressive symptoms, and educational attainment identify several relevant factors discussed above such as gender, family structure, region of residence, and religion. Females are more likely to experience symptoms of psychological distress. Indeed, studies have found that, beginning in puberty, depression, dysthymia (a less severe but chronic depression), and anxiety disorders are up to two or three times as common in women than men (e.g., Leibenluft 1999).

Family structure, such as family size and living arrangements, may also have an impact on children's well-being. Increased family size has been shown to have a negative impact for children's educational attainment due to the depletion of resources within the family unit (Downey 1995). Resources within the family are spread thin when there are more children in the family, which may lead to weaker ties and increased depressive symptoms. Single parents are more likely to have less resources to share with their children, which may lead to negative outcomes for children such as, poor mental health and decreased educational attainment (Amato

1994; McLanahan 1997; McLanahan and Sandefur 2009). Although children may struggle when adjusting to a stepparent, there are benefits to having two parents in the home such as financial and social resources (McLanahan and Sandefur 2009).

Religiosity and one's geographic region of residence has been shown to impact depressive symptoms for youth (Christie-Mizell 2008; Petts and Jolliff 2008) and educational attainment (Muller and Ellison 2001; Parcel and Dufur 2009). Religious settings may offer social support and a resource for coping for youth and their parents, which may to decreased levels of depressive affect (Muller 2001; Kosmin 2011). People who live in the South attend church more frequently than people in other regions of the country (Kosmin 2011). Finally, regional and religious differences could affect the incentive to invest in education (Sander 1992; Muller 2001).

Summary and Hypotheses

In this paper, I considered the relationships among parenting styles, depressive symptoms, and educational attainment as youth age from adolescence into young adulthood. There were three objectives. The first objective was to determine the relationship between each parenting style and depressive symptoms. The second objective was to establish whether parenting styles and depressive symptoms are related to educational attainment for young adults. Finally, the third objective was to investigate whether race moderates the relationship between the parenting styles and educational attainment. These objectives resulted in the development of the following hypotheses:

Hypothesis 1a-c: Compared to authoritative parenting, there is a positive relationship between (a) uninvolved, (b) permissive, and (c) authoritarian parenting and depressive symptoms.

Hypothesis 2a-c: Compared to authoritative parenting, there is a negative relationship between (a) uninvolved, (b) permissive, and (c) authoritarian parenting and educational attainment.

Hypothesis 3: There is a negative relationship between depressive symptoms and educational attainment for young adults.

Each of these hypotheses were tested by race and ethnicity to the extent that the research literature indicates the effects of parenting vary among blacks, Hispanics, and whites. Race and ethnic differences are tested through a series of interaction terms in the models developed below.

My final hypothesis is as follows:

Hypothesis 4a-c: Depressive symptoms mediate the relationship between (a) uninvolved, (b) permissive, and (c) authoritarian parenting and educational attainment (with authoritative parenting as the comparison group).

The purpose of this hypothesis is to examine whether mental health – depressive symptoms, in this case – is one mechanism that links earlier parenting styles to educational attainment in young adulthood.

CHAPTER III

DATA AND MEASURES

Data

Data for this investigation were drawn from the National Longitudinal Survey of Youth 1997 Cohort (NLSY97), a longitudinal study of the educational and labor market experiences of youth in the United States. The youth sampled were born between 1980 and 1984 and ranged in age from 12 to 16 by December 31, 1996. Data collection began in 1997 and the most recent round of interviews for the NLSY97 was done in 2011. The full NLSY97 sample consists of a nationally representative group of youth that have been interviewed annually since 1997. There is purposeful over-sampling of poor and minority youth. A primary parent of each youth participated in an interview during the first wave to assess family dynamics and income, with annual income updates thereafter.

Measures

Measures for this study were taken from the first (1997; baseline), sixth (2002), and tenth (2006) waves. Using complete cases across all three waves, the final sample consists of 4,078 young adults, who were 21 to 25 years old in the tenth wave. Table 1 displays the descriptive statistics by parenting style for all study variables in the total sample. All analyses were weighted to correct for the oversampling of poor and minority youth. The weighted and unweighted estimations do not differ substantially.

Table 1: Means, Percentages and Standard Deviations for All Study Variables

	Total Sample (N=4,078)		Authoritative (N=1,710)		Uninvolved (N=404)		Permissive (N=1,488)		Authoritarian (N=476)	
	<i>Mean/Percent</i>	<i>SD</i>	<i>Mean/Percent</i>	<i>SD</i>	<i>Mean/Percent</i>	<i>SD</i>	<i>Mean/Percent</i>	<i>SD</i>	<i>Mean/Percent</i>	<i>SD</i>
<i>Dependent Variables</i>										
Education (years)	13.65	2.55	13.99	3.83	12.81***	7.66	13.61***	4.47	13.28***	.64
Depressive Symptoms '02	1.97	.64	1.95	.64	2.11***	1.92	1.93	.64	2.07***	1.92
Bachelor Degree '06 (1=yes)	.26	-	.30	-	.14***	-	.26*	-	.18***	-
<i>Race/Ethnicity, Sex, and Age</i>										
Black (1=yes)	.12	-	.14	-	.09***	-	.09***	-	.15	-
Hispanic (1=yes)	.11	-	.10	-	.13*	-	.11	-	.10	-
Female (1=yes)	.49	-	.47	-	.58***	-	.48	-	.56***	-
Age	13.95	1.28	13.81	2.55	13.97*	4.51	14.12***	2.55	13.83	4.47
Younger (1=23 or younger)	.42	-	.46	-	.38*	-	.37***	-	.47	-
<i>SES</i>										
Top Quarter (Income)	.29	-	.31	-	.21**	-	.29	-	.27	-
Parent's Education (College)	.20	-	.22	-	.14***	-	.20	-	.17*	-
Bachelor Degree '06 (1=yes)	.26	-	.30	-	.14***	-	.26*	-	.18***	-
<i>Controls</i>										
Dependents	2.35	1.28	2.41	1.92	2.34	3.86	2.27***	1.92	2.43	3.19
South	.32	-	.34	-	.29*	-	.30*	-	.34	-
Never Attend Church	.16	-	.13	-	.21**	-	.16	-	.20**	-
Biologically Intact (1=yes)	.63	-	.68	-	.51***	-	.64	-	.51***	-

Notes: Asterisks indicate a significant difference in means or proportions compared to the reference group (Authoritative Parenting) * p <0.05; ** p<0.01; ***p<0.001

Educational attainment. The main dependent variable was educational attainment measured in years. The mean years of education for the entire sample was 13.65. Respondents with authoritative parents had more years of education (13.99 years) than those with uninvolved (12.81 years), permissive (13.61 years), and authoritarian parents (13.28 years). Each parenting category varied significantly from the authoritative category with respect to educational attainment.

Each respondent's education was also measured as a categorical variable splitting the sample between those that had completed a *bachelor's degree* (1=yes) and those that had not (1=no). Of those respondents with permissive parents, 26% had earned a bachelor's degree. Moreover, 14% of those with uninvolved parents, 30% with authoritative parents, and 18% with authoritarian parents had earned a bachelor's degree. Similar to education measured in years, youth who experienced authoritative parenting were more likely to attain a college degree compared to all other categories.

Depressive symptoms. Depressive symptoms was measured as a five-item version of the mental health inventory (MHI-5). The questions included how often, within the last month, the respondent felt 1) "nervous", 2) "calm or peaceful", 3) "downhearted or blue", 4) "happy", and 5) "so down in the dumps that nothing could cheer you up." Each item ranged from 1 (none of the time) to 4 (all of the time). The Cronbach's alpha was .77. The mean for depressive symptoms was 1.97. Respondents that reported having uninvolved (2.11) or authoritarian (2.07) parents had significantly higher means for depressive symptoms than those that reported authoritative (1.95) parents.

Parenting styles and race-ethnicity. Both parenting styles and race-ethnicity, assessed at baseline, were key independent variables. The adolescents were asked to give their opinion of

their parent's level of supportiveness and responsiveness. Researchers at Child Trends, an organization involved in the NLSY97 questionnaire design process, then combined the responses to produce a parenting style variable (Moore, McGroder, Hair, Gunnoe, Richter, and Mariner 1999). The parenting styles developed were *uninvolved*, *permissive*, *authoritative*, and *authoritarian*. The mother's parenting style was used with the authoritative category omitted as the reference group. Of the 4,078 total respondents 404 had uninvolved parents, 1,488 had permissive parents, 1,710 had authoritative parents, and 476 had authoritarian parents.

I created dummy variables to distinguish between whites (1=yes), blacks (1=yes), and Hispanics (1=yes). Whites comprised 78% of the sample and were the omitted category for the analyses. Blacks were 12% of the sample and Hispanics were 11% of the sample. Compared to the authoritative category, there was a higher proportion of white children with permissive parents (.80). There was a lower proportion of black children with permissive or uninvolved parents (.09). Finally, there was a higher proportion of Hispanic children with uninvolved parents (.13).

Control variables. In the analyses below, I compare females to males (the omitted category). Males comprised 51% of the total sample. There was a lower proportion of males with uninvolved or authoritarian parents compared to those with authoritative parents (.42, .44, .53 respectively). There was a higher proportion of females with uninvolved or authoritarian parents compared to those with authoritative parents (.58 and .56 respectively). Household income was measured in \$10,000s. For this study, I coded income in quartiles to account for skewness in the original measure. I then compared the highest quartile to the three lower quartiles. Preliminary sensitivity analyses supported this decision. There was a lower proportion of people in the top quartile in the uninvolved category relative to the authoritative category (.21).

Parent's education was included as a dummy variable and coded 1 if one or both parents had a college degree. If one parent was missing on this variable then only the other parent's education was used. Of the total sample 20% reported that their parents have a college degree. 14% of those within the uninvolved category, 20% of those in permissive homes, 22% of those in authoritative homes, and 17% of those in authoritarian homes have parents with a college degree. Uninvolved and authoritarian parents were significantly different from their authoritative counterparts.

At baseline, the average age for the total sample was 13.95 years. The average for the uninvolved subsample was 13.97 years, 14.12 years for the permissive subsample, 13.81 years for the authoritative subsample, and 13.83 years for the authoritarian subsample. Compared to the authoritative category, age was significantly different for those with uninvolved and permissive parents. Age was also divided using dummy variables to compare those that were at least 23 years old to those that were not in 2006. Relying on auxiliary analyses (available upon request) this scheme was devised to account for respondents who had an adequate amount of time to complete college. That is, because I assessed the completion of a bachelor's degree as one outcome, it was important to account for differences that would make this milestone more probable for some respondents compared to others. In 2006, 42% of the total sample was younger than 23 years old. With 38% of those with uninvolved parents, 37% with permissive parents, 46% with authoritative parents, and 47% with authoritarian parents being younger than 23 years old. Compared to the authoritative subsample, uninvolved, and permissive were significantly different.

The number of dependent children per household was assessed at baseline. The average number of dependent children for the entire sample was 2.35. The mean was 2.34 for uninvolved

homes, 2.27 for permissive homes, 2.41 for authoritative homes, and 2.43 for authoritarian homes. The number of dependents in permissive homes was significantly different from authoritative homes. Using the labels defined by the census in 1997, the youths' region of residence was reported as South, North Central, Northeast, or West. Of the total sample 32% lived in the South, 30% lived in the North Central region, 17% lived in the Northeast, and 21% lived in the West. Only the proportion of respondents that lived in the South or North Central region, with permissive parents, were significantly different.

At baseline, respondents were asked how often they attended church in the past twelve months and the responses ranged from 1 (never) to 8 (everyday). The following dummy variables were created: *never attended* (1=yes), *seldom attended* or less than once a week (1=yes), *attended weekly* (1=yes), and *attended often* or more than once a week (1=yes). Of the total sample 16% never attended, 46% seldom attended, 27% attended weekly, and 11% attended more frequently.

Dummy variables were also used to measure the impact of family structure: biologically intact (1=yes), stepparent household (1=yes), or a single parent household (1=yes). Of the total sample 63% were biologically intact homes, 16% were stepparent homes, and 21% were single parent homes.

CHAPTER IV
ANALYTIC STRATEGY

To test the above hypotheses I used regression analyses. In the first analysis, the full model estimated takes the form:

$$\begin{aligned} depressive_i = & \beta_0 + \beta_1uninvolved_i + \beta_2permissive_i + \beta_3authoritarian_i + \beta_4black_i + \\ & \beta_5hispanic_i + \beta_6SES_i + \beta_7DEM_i + \varepsilon_i, \end{aligned}$$

where depressive symptoms (*depressive_i*) is a function of parenting (*uninvolved_i*, *permissive_i*, and *authoritarian_i*) and race (*black_i* and *hispanic_i*) controlling for socioeconomic status (*SES_i*) and demographic variables (*DEM_i*).

In the second analysis the full model estimated takes the form:

$$\begin{aligned} educ_i = & \beta_0 + \beta_1depressive_i + \beta_2uninvolved_i + \beta_3permissive_i + \beta_4authoritarian_i + \beta_5black_i + \\ & \beta_6hispanic_i + \beta_7SES_i + \beta_8DEM_i + \varepsilon_i, \end{aligned}$$

where highest grade completed (*educ_i*) is a function of depressive symptoms (*depressive_i*), parenting (*uninvolved_i*, *permissive_i*, and *authoritarian_i*), and race (*black_i* and *hispanic_i*) controlling for socioeconomic status (*SES_i*) and demographic variables (*DEM_i*). In both equations, lower case variables, such as *depressive_i*, represent scalar variables. Upper-case variables, such as *DEM_i*, represent vector variables indicating that more than one type of demographic characteristic is imbedded in *DEM_i* (e.g., dependents and family structure).

The analyses were done in five steps. I first estimated three additive regression models to predict depressive symptoms. The baseline model included each of the parenting variables. In the next model, depressive symptoms was regressed on race and sex as well as the parenting variables used in the initial model. Subsequently, the demographic variables were added to create the full regression model for depressive symptoms. The additive model approach allowed me to

assess the effects of the main predictor variables with and without the impact of the other relevant variables.

Second, I calculated five additive regression models to predict educational attainment in years. In the baseline model only the parenting variables were included. In the next model, years of education was regressed on depressive symptoms to evaluate the impact that depressive symptoms had on education without other relevant variables in the model. Next, the first two models were combined such that education was regressed on parenting and depressive symptoms. Finally, I estimated the full model, which included all independent and control variables of interest.

Third, I estimated a series of interactions between race and parenting styles. Each of these interactions were used in the full model in which years of education was the dependent variable. The fourth step of my analysis was to test how parenting styles and depressive symptoms impact the completion of a bachelor's degree. I used logistic regression models. The full model takes the form:

$$\text{logit}(\text{bachelor}'s_i) = \beta_0 + \beta_1 \text{depressive}_i + \beta_2 \text{uninvolved}_i + \beta_3 \text{permissive}_i + \beta_4 \text{authoritarian}_i \\ + \beta_5 \text{black}_i + \beta_6 \text{hispanic}_i + \beta_7 \text{SES}_i + \beta_8 \text{DEM}_i + \varepsilon_i,$$

where the probability of completing a bachelor's degree (*bachelor's_i*) is a function of depressive symptoms (*depressive_i*), parenting (*uninvolved_i*, *permissive_i*, and *authoritarian_i*), and race (*black_i* and *hispanic_i*) controlling for socioeconomic status (*SES_i*) and demographic variables (*DEM_i*).

Again, lower case variables represent scalar variables and upper-case variables represent vector variables. Moreover, the models were estimated in the same order as those in the second step.

That is, the modeling includes five additive regression models, wherein the initial model included only the parenting variables. Then, I regressed the probability of completing a

bachelor's degree on depressive symptoms only. The model that followed included both parenting styles and depressive symptoms. Finally, I estimated a full model, which included all independent and control variables of interest. In the fifth, and last of the analyses, I estimated interactions between race-ethnicity and parenting styles to understand racial variation in how parenting styles impact the probability of completing a bachelor's degree.

A goal of this research was to examine the process by which parenting impacts education. To further investigate the process through which parenting impacts education, I calculated mediation after estimating the regression analyses.

Table 2. Depressive Symptoms 2002 Regressed on Selected Variables (N=4,078)

	(1)		(2)		(3)	
	<i>b</i>	<i>se</i>	<i>b</i>	<i>se</i>	<i>b</i>	<i>se</i>
Independent Variables						
Uninvolved (1=yes) ^a	.16***	.03	.14***	.03	.13***	.03
Permissive (1=yes) ^a	-.02	.02	-.02	.02	-.02	.02
Authoritarian (1=yes) ^a	.13***	.03	.12***	.03	.11***	.03
Race/Ethnicity, Sex, and Age						
Black (1=yes) ^b			-.01	.02	-.01	.02
Hispanic (1=yes) ^b			.03	.02	.03	.02
Female (1=yes) ^c			.12***	.01	.12***	.01
Age (years)					.00	.01
Demographics and Church Attendance						
Top Quarter (Income) ^d					.00	.02
Parent's Education (College)					-.00	.02
Dependents					-.00	.01
South ^e					-.01	.02
No Church Attendance ^f					.03	.02
Biologically Intact (1=yes) ^g					-.05**	.02
Intercept	1.95***	.01	1.89***	.01	1.87***	.08
R-Square	.02		.03			
					.04	

Notes: Asterisks indicate a significant difference from the reference group(s) *p <0.05; **p<0.01; ***p<0.001

^a Reference group is authoritative parenting;

^b Reference group is whites;

^c Reference group is males;

^d Reference group is those with an income in the lower three quarters;

^e Reference groups are North Central, West, and Northeast;

^f Reference groups are those attending church more than once a week, weekly, and less than once a week;

^g Reference groups are stepparent and single parent homes

CHAPTER V

RESULTS

Multivariate Findings

Table 2 presents three regression models for depressive symptoms. In Model 1, uninvolved parenting ($b = .16, se = .03, p < .001$) and authoritarian parenting ($b = .13, se = .03, p < .001$) were positively associated with depressive symptoms compared to authoritative parenting. Race-ethnicity and sex were added to Model 2 and being female ($b = .12, se = .01, p < .001$) was positively associated with depressive symptoms. In this second model the impact of uninvolved parenting and authoritarian parenting remained positive and significant. In Model 3, I included demographic variables. In this final model, biologically intact family structure ($b = -.05, se = .02, p < .01$) compared to other types of family structures was negatively associated with depressive symptoms. Similar to the first two models, uninvolved and authoritarian parenting as well as being female remained positively associated with depressive affect, with negligible changes in the size of effects.

Table 3. Educational Attainment (years) Regressed on Selected Variables and Interaction Terms (N=4,078)

	(1)		(2)		(3)		(4)		(5)	
	<i>b</i>	<i>se</i>	<i>b</i>	<i>se</i>	<i>b</i>	<i>se</i>	<i>b</i>	<i>se</i>	<i>b</i>	<i>se</i>
Independent Variables										
Uninvolved (1=yes) ^a	-1.18***	.13			-1.13***	.13	-.87***	.12	-1.05***	.13
Permissive (1=yes) ^a	-.39***	.08			-.39***	.08	-.39***	.07	-.43***	.08
Authoritarian (1=yes) ^a	-.71***	.12			-.67***	.12	-.44***	.11	-.61***	.13
Depressive Symptoms '02			-.41***	.08	-.33***	.08	-.35***	.07	-.35***	.07
Race/Ethnicity, Sex, and Age										
Black (1=yes) ^b							-.28**	.11	-.50**	.15
Hispanic (1=yes) ^b							-.48***	.11	-.69***	.17
Female (1=yes) ^c							.64***	.07	.64***	.07
Age (years)							.03	.05	.03	.05
Younger (1=23 or younger) ^d							-.38**	.13	-.38**	.13
Demographics and Church Attendance										
Top Quarter (Income) ^e							.79***	.08	.79***	.08
Parent's Education (College)							1.42***	.09	1.41***	.09
Dependents							-.14***	.03	-.14***	.03
Biologically Intact (1=yes) ^f							.82***	.07	.81***	.07
South ^g							-.21**	.07	-.21**	.07
No Church Attendance ^h							-.62***	.09	-.61***	.09
Interactions										
Black X Uninvolved									.87*	.39
Hispanic X Uninvolved									.80*	.34
Black X Permissive									.18	.23
Hispanic X Permissive									.10	.24
Black X Authoritarian									.68*	.31
Hispanic X Authoritarian									.74*	.36
Intercept	13.99***	.06	14.45***	.15	14.64***	.16	13.64***	.71	13.68***	.71
R-Square	.02		.01		.03		.25		.25	

Notes: Asterisks indicate a significant difference from the reference group(s) * p < 0.05; ** p < 0.01; *** p < 0.001.

^a Reference group is authoritative parenting;

^b Reference group is whites;

^c Reference group is males;

^d Respondents above the age of 23 in 2006;

^e Reference group is those with an income in the lower three quarters;

^f Reference groups are stepparent and single parent homes;

^g Reference groups are North Central, West, and Northeast;

^h Reference groups are those attending church more than once a week, weekly, and less than once a week

Table 3 displays the results for years of educational attainment. Model 1 shows that uninvolved parenting ($b = -1.18, se = .13, p < .001$), permissive parenting ($b = -.39, se = .08, p < .001$), and authoritarian parenting ($b = -.71, se = .12, p < .001$) were negatively associated with educational attainment compared to authoritative parenting. Model 2 shows that there was a negative relationship between depressive symptoms ($b = -.41, se = .08, p < .001$) and educational attainment. With the addition of parenting styles in Model 3, depressive symptoms ($b = -.33, se = .08, p < .001$) remained negatively associated with educational attainment, though reduced in effect size by 20%. Uninvolved parenting ($b = -1.13, se = .13, p < .001$), permissive parenting ($b = -.39, se = .08, p < .001$), and authoritarian parenting ($b = -.67, se = .12, p < .001$) persisted in reducing education attainment, similar to Model 1.

In Table 3, Model 4 I added demographic characteristics, family structure, and church attendance. High income ($b = .79, se = .08, p < .001$), parents' education ($b = 1.42, se = .09, p < .001$), and a biologically intact parental structure ($b = .82, se = .07, p < .001$) contributed to higher educational attainment. Conversely, the number of siblings ($b = -.14, se = .03, p < .001$), living in the South ($b = -.21, se = .07, p < .01$), and no church attendance ($b = -.62, se = .09, p < .001$), were inversely related to educational achievement. Compared to authoritative parenting, each of the other parenting styles was negatively related to educational attainment (uninvolved: $b = -.87, se = .12, p < .001$; permissive: $b = -.39, se = .07, p < .001$; authoritarian: $b = -.44, se = .11, p < .001$). Depressive symptoms ($b = -.35, se = .07, p < .001$) and being black ($b = -.28, se = .11, p < .001$) or Hispanic ($b = -.48, se = .11, p < .001$) was negatively associated with educational attainment. Females ($b = .64, se = .07, p < .001$) were more educated than males and those in biologically intact homes ($b = .82, se = .07, p < .001$) were more educated than their

peers. Younger respondents had less education ($b = -.38, se = .13, p < .001$). Those that never attended church also had less education ($b = -.62, se = .09, p < .001$).

Moreover, an increase in the number of dependent children in the home ($b = -.14, se = .03, p < .001$) was inversely related to educational attainment and southern residence ($b = -.21, se = .07, p < .001$), compared to all other regions, was negatively related to educational attainment. Being in the top quarter of income ($b = .79, se = .08, p < .001$) was positively related to educational attainment. Having parents with a college education was positively related to educational attainment for young adults ($b = 1.42, se = .09, p < .001$).

Recall that one of the goals of this research was to test for mediation. The effect of uninvolved parenting on the educational attainment of youth was partially mediated by mental health (*Sobel t-test*: $-3.27, p < .001$). Depressive symptoms partially mediated the impact of authoritarian parenting on education (*Sobel t-test*: $-2.96, p < .001$). Mediation for permissive parenting was not possible because there was no association between permissive parenting and depressive symptoms (see Table 2).

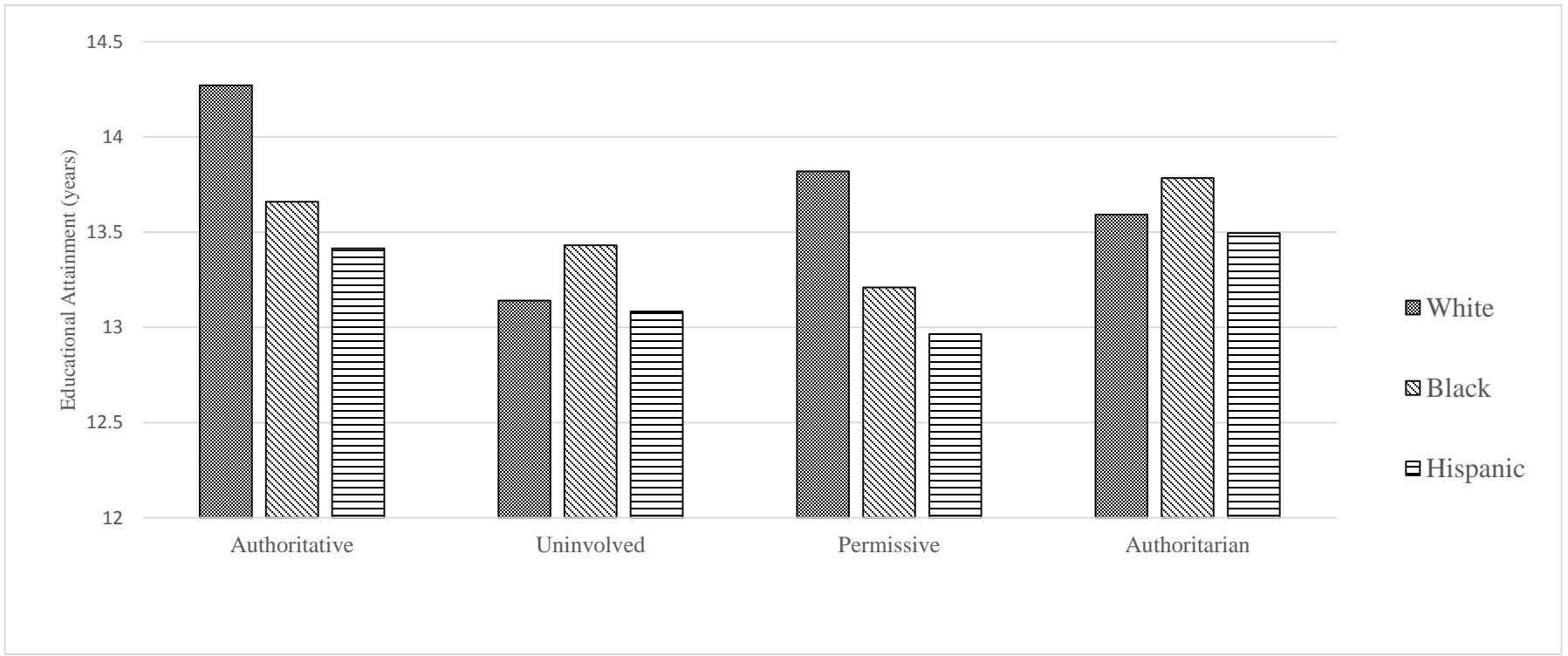


Figure 1: The Effects of Race and Parenting Styles on Educational Attainment (years)

In Table 3, Model 5 includes interaction terms for race-ethnicity and parenting styles. Race-ethnicity moderated the relationship between parenting styles and educational attainment. Figure 1 graphically displays these interactions. Authoritative parenting was associated with more years of education for white youth. Permissive, authoritarian, and uninvolved parenting followed authoritative parenting in their influence on educational attainment, respectively, for white youth. However, authoritarian parenting, compared to the other styles, led to higher levels of education for black and Hispanic youth. For black and Hispanic youth, authoritative, uninvolved, and permissive parenting led to the next highest levels of education, respectively.

In Table 3, Model 5, depressive symptoms ($b = -.35, se = .07, p < .001$) remained negatively associated with educational attainment. Females had more education ($b = .64, se = .07, p < .001$). Furthermore, those in the top quarter of the income distribution ($b = .79, se = .08, p < .001$), respondents with parents that have a bachelor's degree ($b = 1.41, se = .09, p < .001$), and respondents that lived in biologically intact homes ($b = .81, se = .07, p < .001$) had more education. Younger respondents ($b = -.38, se = .13, p < .01$), southern residents ($b = -.21, se = .07, p < .01$), and those that never attended church ($b = -.61, se = .09, p < .001$) had less education. Finally, an increase in the number of dependents in the home was associated with decreased educational attainment ($b = -.14, se = .03, p < .001$).

Table 4. Logistic Regression Analyses for the Probability of Earning a Bachelor's Degree by 2006 (1=yes) (N=4,078)

	(1)		(2)		(3)		(4)		(5)	
	<i>Logit</i>	<i>Odds</i>	<i>Logit</i>	<i>Odds</i>	<i>Logit</i>	<i>Odds</i>	<i>Logit</i>	<i>Odds</i>	<i>Logit</i>	<i>Odds</i>
<i>Independent Variables</i>										
Uninvolved (1=yes) ^a	-.97***	.38			-.95***	.39	-.89***	.41	-1.06***	.35
Permissive (1=yes) ^a	-.16	.85			-.16	.85	-.26*	.77	-.23*	.79
Authoritarian (1=yes) ^a	-.66***	.52			-.64***	.53	-.54**	.58	-.75**	.47
Depressive Symptoms '02			-.23**	.80	-.17*	.85	-.25*	.78	-.25*	.78
<i>Race/Ethnicity, Sex, and Age</i>										
Black (1=yes) ^b							-.40**	.67	-.51**	.60
Hispanic (1=yes) ^b							-.65***	.52	-.75***	.47
Female (1=yes) ^c							.70***	2.01	.70***	2.01
Age							.13*	1.14	.13*	1.14
Younger (1=23 or younger) ^d							-.64**	.53	-.64**	.53
<i>SES</i>										
Top Quarter (Income) ^e							.71***	2.03	.71***	2.03
Parent's Education (College)							1.21***	3.36	1.21***	3.35
<i>Controls</i>										
Dependents							-.12*	.89	-.12**	.89
Biologically Intact (1=yes) ^f							.81***	2.25	.81***	2.25
South ^g							-.04	.96	-.04	.96
No Church Attendance ^h							-.52***	.60	-.51***	.60
<i>Interactions</i>										
Black X Uninvolved									0.90	2.47
Hispanic X Uninvolved									.95	2.58
Black X Permissive									-.33	.72
Hispanic X Permissive									-.20	.82
Black X Authoritarian									1.11**	3.04
Hispanic X Authoritarian									0.91*	2.48
Chi-Square	48.31***		9.13**		51.64***		545.53**		549.47***	
df	3		1		4		15		21	

Notes: Asterisks indicate a significant difference from the reference group(s) * p <0.05; ** p<0.01; ***p<0.001.

^a Reference group is authoritative parenting;

^b Reference group is whites;

^c Reference group is males;

^d Respondents above the age of 23 in 2006;

^e Reference group is those with an income in the lower three quarters;

^f Reference groups are stepparent and single parent homes;

^g Reference groups are North Central, West, and Northeast;

^h Reference groups are those attending church more than once a week, weekly, and less than once a week

Table 4 shows the results of the logistic regression analyses for the probability of earning a bachelor's degree by 2006. In Model 1, compared to authoritative parenting, uninvolved parenting was associated with 62% lesser odds of having completed a bachelor's degree and authoritarian parenting was associated with 48% lower odds of having completed a bachelor's degree. Model 2 shows that depressive symptoms were related to a decreased odds of 20% of having earned a bachelor's degree.

In Table 4, Model 3, I combined Models 1 and 2. Compared to authoritative parenting, there were lower odds of earning a bachelor's degree for those with uninvolved parents or authoritarian parents (61% and 47%, respectively). There was a 15% lower odds of earning a bachelor's degree for those with depressive symptoms. In Model 4, uninvolved parenting, permissive parenting, and authoritarian parenting were associated with a lower likelihood of earning a four-year degree (59%, 23%, and 42%, respectively). Depressive symptoms and race – black and Hispanic – were negatively associated with the probability of completing of a bachelor's degree (22%, 33% and 48%, respectively). There was a 47% lower odds of attaining a bachelor's degree for younger respondents, 11% lower odds for those in households with more dependents, and 40% reduced odds for those that never attended church. Females, youth that lived in a biologically intact home, and those within the top quarter of the income distribution were twice as likely to earn a four-year degree. Respondents with parents that had attained a bachelor's degree were three times more likely to earn a bachelor's degree. Each year increase in age was associated with a 14% increase in the odds of earning a bachelor's degree.

For better insight into the process behind the relationship between parenting and educational outcomes I tested for the possibility of mediation. The effect of uninvolved parenting on the likelihood of earning a bachelor's degree was partially mediated by depressive symptoms

(*Sobel t-test*: -2.34, $p < .05$). Mental health partially mediated the effect of authoritarian parenting on the odds of completing a bachelor's degree (*Sobel t-test*: -2.21, $p < .05$). Mediation for permissive parenting was not possible because there was no association between permissive parenting and depressive symptoms (see Table 2).

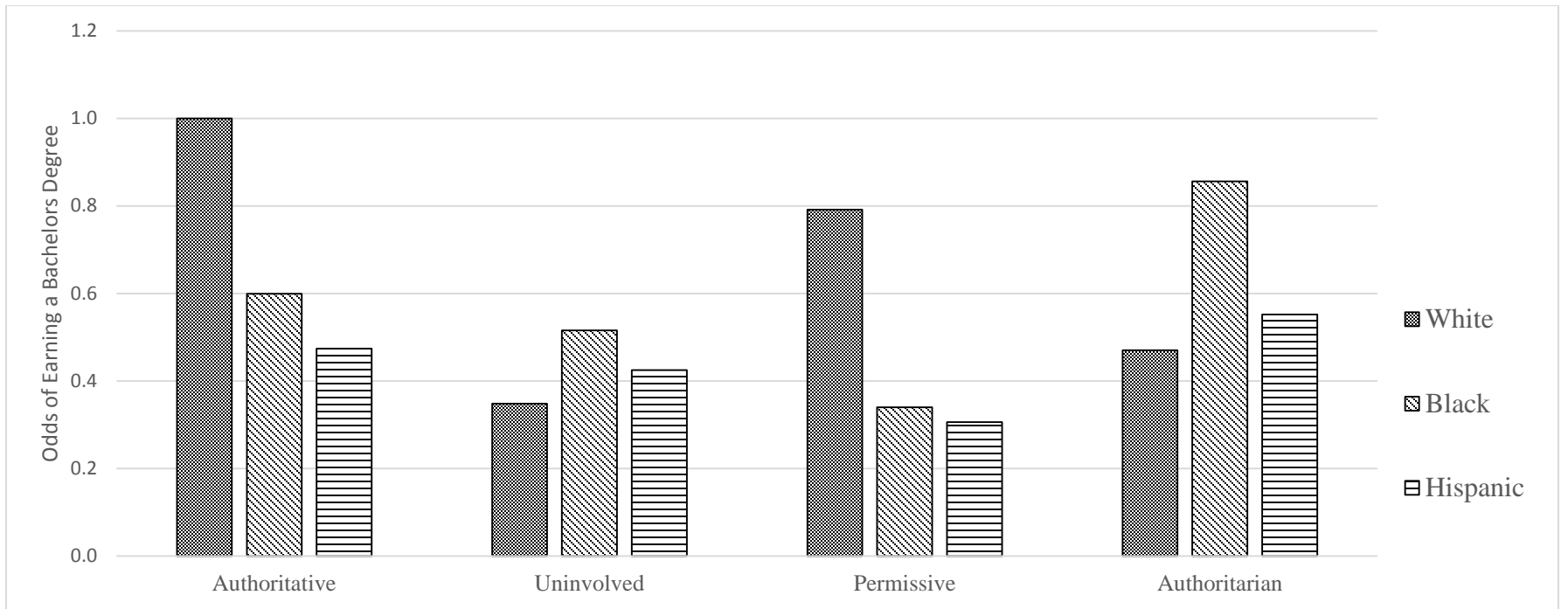


Figure 2: The Odds of Earning a Bachelor's Degree by 2006 (1=yes)

In Table 4, Model 5 included interaction terms to test whether race moderates the relationship between parenting styles and educational attainment. Race moderated the relationship between authoritarian parenting and the probability of earning a bachelor's degree. Figure 2 graphically displays these interactions. Authoritative parenting was associated with greater odds of earning a bachelor's degree for white youth. Permissive, authoritarian, and uninvolved parenting followed authoritative parenting in their influence on earning a bachelor's degree, respectively, for white youth. However, authoritarian parenting, compared to the other styles, led to a greater odds of earning a bachelor's degree for black and Hispanic youth. Black young adults with authoritarian parents were three times more likely than their counterparts to earn a bachelor's degree. Hispanic young adults with authoritarian parents were about 2.5 times more likely than their counterparts to earn a bachelor's degree. The effect on the odds of earning a bachelor's degree was greatest for authoritative parenting, followed by uninvolved, permissive, and authoritarian parenting, respectively, for black and Hispanic young adults.

In Table 4, Model 5, the odds of earning a four-year degree were 22% lower for respondents that reported depressive symptoms. Younger respondents were 47% less likely to complete their bachelor's degree by 2006. Those that never attended church were 40% less likely to have completed a bachelor's degree and as the number of dependents in the home increased the odds of having earned a bachelor's degree decreased by 11%. Females, youth that lived in a biologically intact home, and those in the top quarter of the income distribution were twice as likely to complete college. Respondents with parents with a bachelor's degree were three times as likely to earn a bachelor's degree. Further, each year increase in age increased the odds of earning a bachelor's degree by 14%.

In short, females experienced more depressive symptoms and gained more education than their male peers. The findings support that biologically intact family structures are beneficial for the mental health and educational progress for youth. As could be expected, those of higher socioeconomic status were more educationally successful. An increased number of dependents in the home may take a toll on the family resources and decrease educational attainment, as supported here. Lastly, those who lived in the south and those that had not attended church earned less education than their counterparts.

CHAPTER VI

DISCUSSION AND CONCLUSIONS

Using family social capital theory, I examined how parenting styles impact depressive symptoms and educational attainment for youth. I explored whether race moderated the impact of parenting styles on depressive symptoms. Lastly, I tested whether depressive symptoms mediated the relationship between parenting styles and educational attainment. I developed four hypotheses to accomplish this goal. I found support for hypotheses 1a and 1c – that uninvolved and authoritarian parenting is positively related to depressive symptoms. However, I did not find support for hypothesis 1b – that permissive parenting is associated with depressive symptoms. Consistent with hypotheses 2a-c, the results indicated that non-authoritative parenting is negatively related to educational attainment for youth. I also found support for hypothesis 3 – that depressive symptoms in 2002 is negatively associated with educational attainment measured in 2006. Finally, hypotheses 4a and 4c were supported: mental health partially mediated the relationship between uninvolved parenting and educational attainment and the relationship between authoritarian parenting and educational attainment. I did not find support for hypothesis 4b – depressive symptoms mediates the relationship between permissive parenting and educational attainment.

My findings indicate that parenting styles have an impact on youth during adolescence and continue to have an impact into adulthood in two ways. First, parenting styles directly affect how much education is attained. Second, parenting styles also exert influence on educational progress through mental health. That is, overly strict (i.e., authoritarian) or overly relaxed (i.e., uninvolved) parenting practices are detrimental to the mental health of youth as they progress into their early adult years, and in turn, educational attainment.

I also explored whether race moderates the relationship between each parenting style and educational attainment. I found that race moderates the relationships between uninvolved and authoritarian parenting styles and years of education. Uninvolved and authoritarian parenting styles led to an increase in the years of education attained by black and Hispanic youth, compared to white youth. In other words, black and Hispanic youth cope with uninvolved and authoritarian parenting better than their white counterparts and go on to do better than whites with respect to education.

The support for mediation gives a better understanding of the processes that link parenting styles to educational outcomes. Uninvolved and authoritarian parenting indirectly impacted the educational attainment young adults attained through depressive affect. As noted above, the processes through which parenting styles impact outcomes such as education is not fully explored in the extant literature. My research has shown that uninvolved parenting and authoritarian parenting works through depressive affect to have an impact on young adults' education.

According to the 2000 census, 80% of individuals over the age of 25 had a high school diploma (Bauman and Graf 2003). Because the majority of American youth complete high school, I tested the relationship between parenting styles and the probability of the young adults completing a bachelor's degree. There was a negative relationship between uninvolved and authoritarian parenting and the probability of earning a bachelor's degree. There was also a negative relationship between depressive symptoms and the probability of earning a bachelor's degree. Young adults who experienced uninvolved or authoritarian parenting in adolescence were less likely than their counterparts to earn a bachelor's degree. Further, those that reported depressive affect were less likely to earn a bachelor's degree as well.

In the logistic regression analysis, only the interactions between race and authoritarian parenting was significant. Among the respondents with authoritarian parents, black and Hispanic young adults were more likely to complete a bachelor's degree compared to their white counterparts. The interactions between race and uninvolved parenting were not significant in the logistic regression. The results indicate that black and Hispanic children with uninvolved parents may complete more years of education, compared to their white peers; however, they are not any more likely to earn a college degree.

Consistent with research that has considered the impact of parenting by race, authoritarian parenting strategies led to positive educational outcomes for black and Hispanic children, compared to their white peers (McLeod, Kruttschnitt, and Dornfield 1994). The results do not indicate that uninvolved and authoritarian parenting styles should be the preferred method of parenting for racial minority children. Instead, the findings here suggest that authoritarian and uninvolved parenting was not as detrimental for black and Hispanic children as it was for white children, with respect to educational attainment. The black and Hispanic youth with authoritarian or uninvolved parents demonstrated greater resilience than their white peers. The processes that promote such resilience for black and Hispanic youth should be further investigated. Researchers should further investigate the consequences of uninvolved parenting – why does race moderate the impact of uninvolved parenting on years of education attained, but not the impact on the odds of earning a bachelor's degree?

Although some authors (see e.g., Gelfand and Teti 1990 or LaFrenière and Dumas 1992) have speculated that permissive parenting leads to affective disorders in children, that finding is not supported here. Further, permissive parenting was related to the years of education completed, but it was unrelated to the probability of earning a bachelor's degree. Perhaps youth

are more appreciative of permissive parents at younger ages but as they grow older and make more mistakes they begin to experience depressive symptoms and a decline in educational progress. For example, Feather (1980) and Greenberger (1984) argued that permissive parenting was not associated with depression initially because adolescents value self-reliance and the ability to make their own decisions. However, over time permissive parenting may be associated with depressive symptoms as a consequence of bad decisions during adolescence. The results presented here indicate that the post-high school effects of permissive parenting should be studied further.

This study adds to the literature in two important ways. First, with the use of longitudinal data I was able to trace the impact of parenting beyond childhood into the early years of adulthood. The findings suggest that uninvolved and authoritarian parenting, in comparison to authoritative parenting, does indeed have a negative impact on children. Uninvolved and authoritarian parenting led to a manifestation of depressive symptoms for youth. Each of the parenting styles had a direct impact on the years of education attained, and uninvolved and authoritarian parenting continued to have an influence on whether one completed a bachelor's degree. However, the effect of permissive parenting is less clear with respect to college completion.

Second, the findings also suggest that the influence of parenting styles vary with respect to race-ethnicity. Although scholars have consistently argued that authoritative parenting is the better form of parenting, the previous research has overlooked how these experiences may vary by race-ethnicity. The findings here suggest that black and Hispanic youth are better able to adapt to, and academically excel with, uninvolved and authoritarian parents, compared to their white peers. The structural position (e.g., social class) as well as the day-to-day experience of

blacks and Hispanics may simply mean that they may be more adaptive to varying parenting styles. Other related research has shown that various forms of parenting (e.g., spanking – see e.g., Christie-Mizell, Pryor, and Grossman 2008) have different effects across the racial and ethnic groups studied here. The typical theoretical reasoning is that because the context of daily life differs for racial minorities (compared to whites), research utilizing largely white, middle class families may simply not apply to blacks and Hispanics (Christie-Mizell, Pryor, and Grossman 2008; Lareau 2002). That is, scholars should develop strategies that avoid imposing expectations developed from studies that focus on white respondents on racial and ethnic minorities; instead, research should continue to carefully differentiate between the consequences of parenting by race-ethnicity.

This study also had a few limitations. First, only the reported parenting styles for mothers were used here. While mother-child data dominates this type of research, other studies also show the importance of considering paternal parenting contribution in conjunction with those of mothers (see e.g., Christie-Mizell, Keil, Laske, and Stewart 2011). Second, this study may not tell the full story for respondents that may have to take time off from college or those that simply take longer to graduate. Recent research shows that not only are adults taking longer to complete post-secondary degrees, but also that the factors shaping completion of degrees vary as adults mature (Elman, Wray, and Xi 2014). Third, this research is not generalizable to other groups, beyond blacks, Hispanics, and whites. It is quite possible the relationships among parenting, mental health, and educational attainment vary for other groups not studied here. For example, Chinese American parents, similar to African Americans, are more likely to employ authoritarian parenting, but their educational outcomes and socioeconomic backgrounds are more similar to whites (Kim, Wang, Orozco-Lapray, Shen, and Murtuza 2013; Chao 2001). Therefore, the

extent to which the patterns found in this research apply to Chinese Americans – or other groups for that matter – is unknown.

In conclusion, future research should continue to employ longitudinal data to further investigate the mechanisms that link parenting styles early in the life course to outcomes as youth age into adulthood. Such research elucidates how early relationships both directly and indirectly transforms educational outcomes. For instance, had I simply studied the relationship between parenting styles and educational attainment, I would have overestimated the direct influence of parenting styles. Instead, a focus on the mechanisms that link parenting styles to educational progress proved fruitful and revealed that in addition to direct effects, part of the influence of parenting on education flows through mental health. To the extent that the extant literature has shown that parenting styles are linked to a variety adolescent outcomes (e.g., self-esteem and social competence – see Gonzales, Holbein, and Quilter 2002), other research should continue this pattern of exploring how other potential mediators link the experience of parenting styles in adolescence to educational attainment in young adulthood.

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