How Race-Gender Status Affects the Relationship between Spanking and Depressive Symptoms among Children and Adolescents

A thesis submitted to Kent State University in partial fulfillment of the requirements for the degree of Master of Arts

by

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INTRODUCTION

Physical punishment is positively related to depressive symptomatology among children and adolescents (Christie-Mizell, Pryor, and Grossman, 2008; Gershoff, 2002; Larzelere and Kuhn, 2005; Straus, 1991). According to Straus (1991), spanking is the most often used form of physical punishment and includes slapping or hitting on the buttocks and other extremities (cf. Gershoff 2002). Though related because of the use of physical force, spanking is not synonymous with physical abuse. Research concludes that spanking is intended to correct the child through pain (e.g., soreness to skin), whereas physical abuse is meant to cause injury (e.g. broken bones).

Although spanking is usually intended for disciplinary purposes, some research indicates that it may harm children’s mental health. Specifically, spanking may lead to an increase in depressive symptoms among children and adolescents. Depressive symptoms, due to spanking, include but are not limited to irritability, fearfulness, sadness, and anxious feelings (Gershoff, 2002; Bryan and Freed, 1982; Straus and Kantor, 1994). And, while there is still some debate about the mechanisms through which spanking is associated with depressive symptoms, the bulk of research appears to indicate a positive relationship. What is less well understood is how the relationship between spanking and depressed mood vary by race and gender (Deater-Deckard & Dodge, 1997; Christie-Mizell, et al., 2008).
In this thesis, I examine whether spanking has a differential effect on depressive symptoms among four race-gender groups: African American boys, African American girls, European American boys, and European American girls. This work is an extension of Christie-Mizell and his colleagues’ 2008 work in which they find a higher frequency of spanking among African Americans compared to European Americans. However, despite the higher usage of spanking, this form of physical discipline was equally and positively related to depressive symptoms regardless of race. That is, compared to European Americans, the effects of spanking for African Americans were no more (or less) damaging to mental health. This work extends that of Christie-Mizell and his colleagues’ 2008 work by examining not only race but also gender, and more specifically race-gender status. By examining the nexus of race-gender status, this research provides a further understanding of how spanking affects depressive symptomatology. Race and gender together will allow us to recognize which groups (e.g. African American girls) compared to other groups are more (or less) affected by depressive symptoms because of spanking. With race and/or gender alone, we fail to recognize which group/s if any are significantly impacted by spanking and to what degree group differences exist.

Research generally indicates that compared to European Americans, African American children are spanked more frequently (Deater-Deckard and Dodge, 1997). However, within this common finding, it remains unclear if higher levels of spanking among African Americans actually lead to more behavioral problems (Polaha, et. al., 2004). Some research shows that European American children who are frequently
spanked exhibit greater externalizing or aggressive behavioral problems than African Americans, while other research finds no difference in levels of behavioral problems connected to spanking for African Americans (Deater-Deckard, et. al., 2007). With specific regard to this thesis, even less is known about race, depressive symptoms and spanking. Moreover, an even more complex issue is whether and how the intersectionality of race and gender might affect the relationship between spanking and depressive mood.

Similar to the pattern for race, there is some evidence that spanking may have differential effects on symptoms of depression by gender. Research indicates that stressors are more likely to be related to internalizing problems (e.g., depressive symptoms) for girls, but externalizing problems (e.g., aggression or acting-out) for boys (Rosenfield, Vertefuille, and Mcalpine, 2000). Larzelere and Kuhn (2005) have established that spanking is a stressor that has the ability to harm the mental health of children and adolescents. Consequently, because stress tends to meld into internalizing problems such as depressive symptoms for girls, it may be that spanking leads to more symptoms of depression for girls compared to boys. Nevertheless, little research exists that actually considers the ways in which the relationship between spanking and depressive symptoms may be moderated by gender. This study addresses this gap in the literature.

Further, I extend the work on spanking and depressive symptoms by also investigating the intersection of race and gender. In other words, given the known race
difference in spanking and its effects on mental health as well as the probable effects by
gender, I ask: Does combined race-gender status (e.g., European American boy or
African American girl) strengthen or lessen the impact of spanking on depressive
symptoms for certain groups over others? If African American children experience less
depressive symptoms than European Americans, and girls experience more depressive
symptoms than boys due to spanking, then a combination of race-gender may suggest
new patterns not previously examined. There are at least two possibilities. Race may
protect a child from depressive symptoms regardless of gender. Or, gender may have
stronger effects compared to race – with girls no matter their race experiencing higher
levels of depressed mood in connection with spanking.

This research offers three important contributions to the research in this area.
First and as just stated above, this study examines how race-gender status moderates the
relationship between spanking and depressive symptoms. While some studies have
investigated race and gender separately, how the intersection of these characteristics may
shape depressive symptoms among children and adolescents is not well developed in the
literature. Second, this research utilizes cross-sectional and change models to examine
the pattern between spanking and depressive symptoms. Cross-sectional models are
effective in determining what factors might be implicated in the initiation of problematic
behaviors (e.g., depressed mood), while change models are better at establishing which
factors matter over time (Christie-Mizell, 2004; Christie-Mizell, et. al., 2008). Change
models include prior measures of the main independent variables – therefore, adding an
element of time as well as a control for specification error due to omitted variables.
Finally, I estimate these models in the context of nationally representative data, which will strengthen the generalizability of my findings on how race-gender status moderates the relationship between spanking and depressive symptoms. The majority of studies on spanking and child outcomes utilize more localized samples with limited generalizability.
REVIEW OF THE LITERATURE

THE STRESS PROCESS MODEL

This study utilizes the Stress Process Model (Pearlin et al., 1981, Pearlin, 1989) as a framework to guide this research. The Stress Process Model consists of stressors, moderators, and outcomes. Stressors (e.g. spanking) are situations that tax an individual’s capacity to adapt and moderators are characteristics or resources that modify the relationship between stressors and outcomes by lessening or strengthening the impact of the stressor on the outcome. Outcomes (e.g. depressive symptoms) are the results of stress after taking into account the effects of the moderator (Aneshensel, 1992, 2002). This research utilizes the Stress Process Model by examining how spanking as a stressor affects depressive symptoms and analyzes whether and how race-gender status moderates this relationship.

CHILDREN AND ADOLESCENT DEPRESSION

This study’s outcome variable is depressive symptomatology among youth. Child and adolescent depression affects between two to four million children and adolescents or
approximately two percent of children and five to eight percent of adolescents between the ages of 9 to 17 years of age (Sung and Kirchner, 2000, Moldenhauer, 2006).

Depressive symptoms among children are growing in prevalence and can vary by symptom and severity. According to Sung and Kirchner (2000), the rate of children with depressed moods appears to have been increasing since the 1960’s and the onset seems to be developing earlier among children.

Depressive symptoms among children include sudden mood changes, low self-esteem, anxiousness, low self-mastery, and unhappiness. Further, these depressive symptoms may not be temporary, and if left unaddressed may result in increasing severity over time with dire consequences such as suicidal ideation (Straus and Kantor, 1994).

The onset of depression can be due to many sources of stress including spanking.

SPANKING AS A STRESSOR

According to Pearlin (1989), some stressors are chronic due to their persistent and frequent nature. When used frequently, spanking can be conceptualized as a chronic stressor (see e.g., Christie-Mizell et al., 2008). Early studies on depression indicate that 99% of Americans have reported being spanked sometime in their childhood and this percentage of “ever having been spanked” has fallen in recent decades to just over 90% (Sears, MacCoby, and Levin, 1957; 1982, Larzelere and Kuhn, 2005). The frequency of spanking is highest at approximately three to five years old, and is reported to only
slowly decrease as children age (Giles-Sims, et. al. 1995). About 70% of children are still spanked at around age 12 and this percentage is reduced to about 13% by age 17 (Straus and Steward, 1999).

Parents spank more often when they have fewer resources with which to rear and discipline their children. Fewer resources (e.g. lack of education, support, and income) reduce the parent’s ability to respond supportively toward their children (McLeod, Kruttschnitt, and Dornfield, 1994). For example, a young single mother with two jobs may not be able to spend adequate time learning the most effective disciplinary techniques, and therefore may resort to spanking which has been found to correct or stop problematic behavior quickly in the short-term but not over time (Straus, 1991). Several risk factors make it difficult for a parent to effectively rear and discipline their children. Family characteristics such as the number of dependent children in the home, young maternal age, and single parenting can cause an increase in role strain and a decrease in the receipt of social support which may lead to ineffectual parenting (Straus and Steward, 1999, Eamon, 2002). Prior research also shows that children who live in an inner city, urban areas or in the southern region are at greater risk for spanking (Polaha, et. al., 2004; McLeod, et. al. 1994; Deater-Deckard, et. al., 1996). McLoyd (1990) argues that the higher usage of spanking in these areas are due to the fact that, compared to other areas and regions, parents in these environments are disproportionately more likely to experience social isolation and poverty. Furthermore, socioeconomic characteristics (e.g. income, education, and unemployment) have an effect on parenting practices;
parents with fewer resources are unable to properly engage their children in educational
activities or provide them with the safe environments that might otherwise be available
with adequate resources (Mizell and Steelman, 2000; McLoyd, 1990).

Spanking is detrimental to a child’s mental health when it is used harshly and
frequently. Spanking can overwhelm the child’s ability to deal with making the very
corrections that parents are requesting and can lead to even more distress (Larzelere and
Merenda, 1994; Larzelere and Kuhn, 2005). Children who have acted out may have done
so in response to adapting to symptoms of depression and spanking may further
exacerbate these effects. When a child is spanked, he or she can become sad or
despondent due to the punishment. Further, an intense amount of distress may cause the
child to be cognitively unable to learn any lesson the parent intends to teach through
spanking (Giles-Sims, et. al., 1995). The result of such discipline may not only continue
the unwanted behavior but may exacerbate that same behavior over time (Christie-Mizell,
et. al., 2008).

There are protective factors that may lesson depressive symptamotology among
children. Emotional support may buffer against the effects of spanking. According to
Christie-Mizell and his colleagues (2008), “emotional support includes physical
affection, affirming attention, and the communication of encouragement” (pg. 337).
Emotional support can reduce stress, strengthen the parent-child relationship, diminish
behavioral problems, and improve mental health among children (McLoyd and Smith,
2001; Turner, Pearlin, and Mullan, 1998). Indeed, McLoyd and Smith (2001) found that
the effect of spanking on a child’s internalizing problems depends on the context of
emotional support in which spanking is carried out (McLoyd and Smith, 2001). In other words, emotional support reduces the impact of spanking by influencing the child’s interpretation of spanking. When a child perceives that despite spanking s/he is still able to be cared for by the parent, spanking has less harsh consequences (Rohner, Kean, and Cournoyer, 1991).

RACE AS A PROTECTIVE AND RISK FACTOR

Race may act as both a protective and a risk factor with respect to spanking and depressive symptomatology. Research shows that African Americans spank their children more often than European Americans (Gershoff, 2002). McLoyd (1990) suggest that African Americans are more likely to be single parents, lack social support, and have low socioeconomic status, and that these characteristics contribute to higher levels of spanking. Compared to European Americans, and if spanking is conceptualized as a stressor, African American children are at more risk for developing depressive symptoms because spanking is a more frequent part of their environment. Conversely, European American children may be at less risk of developing depressive symptoms because spanking is a less frequent part of their environment. So race may be a risk factor for African Americans because they are more likely to be spanked and a protective factor for European Americans in that they are less likely to be spanked. Further, less is known about race and depressive symptoms when gender is taken into account.
GENDER AS A PROTECTIVE AND RISK FACTOR

Gender may also act as both a protective and a risk factor among children. Although the majority of children are subjected to spanking (Gershoff, 2002), it appears boys are spanked more often than girls (Bryan and Freed, 1982; Turner and Finkelhor, 1996; Gils-Sims; Straus, and Sugarman, 1995). Although boys are spanked more often than girls, it is girls that are more likely than boys to exhibit depressive symptoms (Cortest, Fleming, Catalano, and Brown, 2006).

Gender acts as a protective factor for girls in that they are spanked less than boys, but simultaneously as a risk factor in that girls are more likely to experience internalizing problems as a result of spanking. Conversely, gender acts as a risk factor for boys because of their higher rates of spanking, but may also protect them because spanking is less likely to give way to internalizing problems.

RACE-GENDER STATUS

Because race and gender intersect to shape outcomes, prior research that has not simultaneously considered these statuses may have missed nuanced differences among groups. One critique of race and gender studies is that race and gender are treated as separate entities and not as a mutually constitutive relationship (Shield, 2008). I seek to, in part, redress this gap in the literature on spanking and child outcomes by examining whether spanking differentially impacts depressive symptoms by race-gender status (e.g., African American boys versus European American girls). Past research has found that
among African American and European American youth, spanking did not have an effect on depressed mood over time (Christie-Mizell, 2008). Also, boys experience fewer symptoms of depression compared to girls due to spanking. Nevertheless, these singular findings with respect to race and gender raise the question of how and in what manner might race and gender (i.e., race-gender status) jointly shape the relationship between spanking and depressed mood.

African American girls may be the most disadvantaged given that they are female and a minority. Being both an African American and a female presents challenges that non-minorities and males sometimes never face. Double jeopardy status may affect African American girls, like African American women, since they are more likely to face discrimination, prejudice, and lower socioeconomic status compared to their white counterparts (Beal, 2008). African American boys, compared to their female counterparts, experience an advantage because of their male status (Shield, 2008). European American girls are also only partly disadvantaged in that they retain the majority status of being European American. Groups with only one disadvantage status (e.g., African American boys and European American girls) need continued research to distinguish whether race more so than gender (or vice versa) is more prominent in shaping outcomes. Nonetheless, it is impossible to discuss or examine the effects spanking has on depressive symptoms without examining both race and gender. The purpose of this research is to examine whether and how race-gender moderates spanking and symptoms of depression.
SUMMARY AND HYPOTHESES

Using the Stress Process Model, this study investigates the impact that spanking has on depressive symptoms among children and young adolescents. Race-gender status is examined in this study to establish if it modifies the relationship between spanking and depressed mood. This study also assesses whether the effect of spanking on depressed mood is stronger for one group over another. That is, does being an African American girl have a heightened effect on the relationship between spanking and depressive symptoms compared to other groups? The models developed below also include other factors, such as household income, maternal education, maternal depression, and emotional support provided to the child, that have been shown to affect child and adolescent psychological well-being.

This research proposes five hypotheses. Hypothesis 1a-d: Spanking will be related to increases in child depressive symptoms for a) African American girls, b) European American girls, c) African American boys, and d) European American boys. I also test the extent to which race-gender status modifies each of the relationships specified in Hypothesis 1. Hypothesis 2a-b: Compared to African American boys, spanking will have a greater effect on depressive symptoms for a) African American girls and b) European American girls. Hypothesis 3a-b: Compared to European American
boys, spanking will have a greater effect on depressive symptoms for a) African American girls and b) European American girls. Hypothesis 4a-b: Compared to African American boys, spanking will have a greater effect on child depressive symptoms for European American a) girls and b) boys. Hypothesis 5a-b: Compared to African American girls, spanking will have a greater effect on child depressive symptoms for European American a) girls and b) boys.
DATA AND MEASURES

Two data sets are used for this study: the National Longitudinal Survey of Youth (NLSY) and the Children of the National Longitudinal Survey of Youth (NLSY-C). The NLSY data is collected by the U.S. Bureau of Labor Statistics (Center for Human Resource Research, 2004). The NLSY sample originally oversampled for African Americans, Hispanic Americans, and the economically disadvantaged, and began interviewing respondents in 1979, and then biennially after 1994. The initial age range was 14-21 years of age.

The NLSY-C consists of children born to mothers of the NLSY, and began biennial surveys in 1986 (Center for Human Resource Research, 2004). The NLSY-C survey contains questions that measure family background, child development, socio-emotional adjustment, and mental health. I utilize the 1992 (Time 1) and 1994 (Time 2) waves of the data. This study is restricted to these years because these are the only waves that contain maternal depressive symptoms - a control variable in this research. The age range of mothers in the 1994 wave is 29-37 years. My total sample size is 1839, with 343 African American boys, 359 African American girls, 562 European American boys, and 575 European American girls. Means, standard deviations and correlations for all study variables are presented on Tables 1 and 2.
### Table 1 - Intercorrelations for African-American Boys (shaded area; N=343) and African-American Girls (N=359)

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*p<.05  **p<.01  ***p<.001

### Table 2 - Intercorrelations for European-American Boys (shaded area; N=662) and European-American Girls (N=575)

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<td>-.05</td>
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<td>.05</td>
<td>-.10**</td>
<td>-.14**</td>
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<td>8. Logged Income</td>
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<td>-.19***</td>
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<td>-.04</td>
<td>-.05</td>
<td>.05</td>
<td>-.03</td>
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<td>.30***</td>
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<td>-.23***</td>
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<td>.68</td>
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<td>4.28</td>
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<td>15.97</td>
<td>21.41</td>
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<td>1.46</td>
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</table>

*p<.05  **p<.01  ***p<.001
DEPENDENT VARIABLE: DEPRESSIVE SYMPTOMS

Depressive symptoms among children and adolescents is the dependent variable in this study. Depressive symptoms are measured in two waves, 1992 (Time 1; T1) and 1994 (Time 2; T2). Depressive symptoms are measured using a 5-item sub-scale of the Behavioral Problems Index (BPI). The BPI is designed to detect and measure usual adjustment and behavioral problems among youth – rather than clinical levels of disorders (Aughinbaugh, Pierret, and Rothstein, 2005; Peterson and Zill, 1986). The 5-item sub-scale instrument asks mothers if the child (a) “experiences sudden changes in mood/feelings”; (b) “feels or complains that no one loves him/her”; (c) “is too fearful or anxious”; (d) “feels inferior or worthless”; or (e) “is unhappy, sad, or depressed.” Many studies examined by NLSY researchers have verified reliability ($\alpha > .70$) for the depressive symptoms sub-scale (see e.g., Christie-Mizell et. al, 2008). To correct for skewness, I have standardized all scores to a mean of 0 and a standard deviation of 1. Time 1 and Time 2 measures are positively correlated for African American boys and girls at .47 ($p < .001$) and .46 ($p < .001$) respectively (Table 1). The correlation between the T1 and T2 measures for European American boys is .58 ($p < .001$) and .57 ($p < .001$) for girls. The mean levels of depression do not significantly vary between any of the four groups at T1 or T2.
INDEPENDENT VARIABLE: SPANKING

The independent variable study is spanking. Interviewers asked each mother to report the frequency they spanked their child within the past week. The average frequency of spanking is 1.14 for African American boys and .40 for European American boys. The average frequency of spanking is .57 for African American girls and .27 for European American girls. Spanking is positively correlated for the following groups at T2: African American girls (r=.14, p < .05), African American boys (r=.11, p < .05), and European American girls (r=.09, p < .05). The mean level of spanking differs significantly between European American girls and African American girls (t=3.73; p < .001), European American boys and African American boys (t=5.30; p < .01), European American boys and girls (t=2.18; p < .05), European American girls and African American boys (t=2.10; p < .05), and African American boys and girls (t=3.420; p < .001). The only groups that do not significantly vary on spanking from each other are African American girls and European American boys.

CONTROL VARIABLES

Eleven control variables were selected for this study to the extent that prior research shows relationships between these variables and my dependent and independent variables. Each model in this study controls for child’s age (years), which range from 6-14. The mean age is 10.20 for African American boys, 10.03 for African American girls,
9.82 for European American boys, and 9.80 for European American girls. Age is positively correlated with depressive symptoms at T2 for European American girls \((r=.15, \ p < .01)\) and European American boys \((r=.15, \ p < .01)\). Age and spanking are negatively correlated for African Americans girls \((r=-.21, \ p < .001)\), African American boys \((r=-.12, \ p < .05)\), European American girls \((r=-.10, \ p < .05)\), and European American boys \((r=-.19, \ p < .001)\).

I also hold constant maternal marital status and the number of dependent children in the home. Never-married mothers \((1=\text{yes})\) are compared to those that are unmarried. The percentage for children with never-married mothers is 27% for African American girls, 31% for African American boys, 3% for European American girls, and 15% for European American boys. Never-married is positively correlated with depressive symptoms for European American girls at T2 \((r=.11, \ p < .05)\) and with spanking for African American girls \((r=.13, \ p < .05)\). With respect to the number of children in the home, the mean for African American boys is 2.83 and 2.81 for African American girls. The mean for European American boys is 2.48 and 2.53 for girls. Number of children in the home is positively correlated with spanking for African American girls \((r=.24, \ p < .001)\). I compare central-city residence \((1=\text{yes})\) to rural and suburban locations. For this study’s sample, 26% of African American boys and 25% of African American girls live in the inner city compared to 4% of European American boys and 3% of European American girls. Central-city residence is positively correlated with spanking for African American girls \((r=.19, \ p < .01)\) and African American boys \((r=.12, \ p < .05)\). General geographic location is also controlled. Southern states are compared to other regions in
the United States (e.g. Northeast, West). 59% and 57% of African American boys and girls respectively live in the south compared to 29% and 27% of European American boys and girls respectively. Living in the South is negatively correlated with depressive symptoms at T2 for African American boys ($r=-.10, p < .05$).

Several socioeconomic factors, including household income, maternal employment and maternal education are also controlled in the models below. Household income is measured in dollars and logged to correct for skewness. Maternal employment is measured by comparing those that are employed against those not working and maternal education is measured by years of education. A negative correlation exists between income and child depression at T2 for African American girls ($r=-.10, p < .05$), African American boys ($r=-.11, p < .05$), European American girls ($r=-.11, p < .05$), and European American boys ($r=-.16, p < .001$). Income and spanking are negatively correlated for African American girls ($r=-.09, p < .05$), and European American boys ($r=-.16, p < .01$). The mean for maternal employment among African American boys and girls is 59% and 58% respectively. The mean for maternal employment among both European American boys and girls is 68%. Maternal employment is negatively correlated with child depressive symptoms at T2 for African American boys ($r=-.11, p < .05$). The mean for maternal education for African American boys and girls is 12.28 and 12.46 and for European American boys and girls is 12.83 and 12.80. There is a positive correlation between maternal education and depressive symptoms at T2 for European American girls ($r=.01, p < .05$) and a negative correlation for European American boys ($r=-.11, p < .01$).
Maternal depression is measured using a 7-item scale in the 1994 wave. The scale is a shortened form of the original 20-item Center of Epidemiology Studies Depression (CES-D) Scale. The CES-D scale measures depressive symptoms, but does not indicate a diagnosis of clinical depression, although it does differentiate between depressed patients and others (Mirowsky and Ross, 1989). Each item of the scale is coded to range from 0 (lower) to 3 (higher). Respondents were asked, “How many days during the past week (0-7) have you; 1) felt you just couldn’t get going; 2) felt sad; 3) had trouble getting to sleep or staying asleep; 4) felt that everything was an effort; 5) felt lonely; 6) felt you couldn’t shake the blues; 7) had trouble keeping your mind on what you were doing?” The scale has an alpha reliability of .76. The seven items were totaled and coded to range from 0 (lower depression) to 21 (higher depression). The mothers of African American boys have a mean score of 5.34, while the mothers of African American girls have a mean of 5.61. The maternal depressive symptoms scale has mean score for European American boys and girls of 4.28 and 4.01, respectively. Maternal depression is positively correlated with T2 symptoms for African American girls (r=.20, p < .01), African American boys (r=.23, p < .001), European American girls (r=.28, p < .001), and European American boys (r=.29, p < .01). Also, depressed mood for mothers is positively correlated with spanking for European American boys (r=.13, p < .01).

Maternal emotional support for the child is the final control variable used in this study, and is measured via a 5-item sub-scale of the Home Observation for Measurement of the Environment (HOME) scale. The HOME scale is used to assess the quality of the relationship between the mother and the child (Bradley and Caldwell, 1980). The data
relies on information reported by the mother and observations made by the interviewer during the in-home visit. The 5-items used to measure maternal emotional support are; 1) emotional and verbal responsiveness of the mother; 2) whether the child is encouraged to talk; 3) demeanor the mother uses during child’s misbehavior; and 4) motherly affection. The fifth item is the amount of time the mother reports spending with her child, and is reported, not observed, data (e.g. conversations with child, reading a book together). The scale is internally standardized by the NLSY-C research team, and is coded for this study to range from 1 (lower emotional support) to 10 (higher emotional support) (Center for Human Resource Research, 2004). The mean score for African American boys and girls is 3.75 and 3.73, respectively. European American boys have a mean score of 5.47 and European American girls have a score of 5.66. Child depressive symptoms at T2 are negatively correlated with maternal emotional support for African American girls (r=-.10, p < .05), African American boys (r=-.12, p < .05), European American girls (r=-.18, p < .001), and European American boys (r=-.25, p < .001). Finally, maternal emotional support is inversely correlated with spanking for African American girls (r=-.17, p < .01), and European American boys (r=-.17, p < .001).

ANALYTIC STRATEGY

This research uses cross-sectional and change analyses to examine the relationship between spanking and child symptoms of depression and a central goal of this research is to examine whether race-gender status moderates this relationship. Below
I estimate separate models by race-gender status and use a comparison t statistic test for differences in the size of associations across the four groups (Christie-Mizell et al., 2008). The comparison t statistic can be represented by:

$$b(x_1) - b(x_2) / \sqrt{[SE(x_1)]^2 + [SE(x_2)]^2},$$

where $b(x_1)$ represents the unstandardized coefficient for the variable $x$ in the first equation. The unstandardized coefficient in the second equation is represented by $b(x_2)$. The standard error in the first equation is $SE(x_1)$ and the standard error in the second equation is $SE(x_2)$.

The cross-sectional model is a baseline model that includes control variables that previous research suggests are related to spanking and child symptoms of depression. This model estimates variables that have a current effect on child and adolescent depressive symptoms in 1994. Cross-sectional models may be flawed in that they measure only one point in time and that there may be other explanatory variables not added to the model (i.e. specification error). However, cross-sectional models are still useful since they still allow for a starting point in 1994 and show how current levels of depressive symptoms in 1994 may vary by variables included in the model (e.g. income, maternal depression).

A change model is also added to this study. The change model taps any difference in depressive symptoms at T2 by including the T1 measure as an explanatory variable. In other words, due to specification error, T1 has a predictive effect on the T2 measure and includes any lagged effects of omitted variables by including prior levels of the dependent variable (Parcel and Menaghan, 1993). Therefore including a change
model to this study reduces specification error and allows for a more robust testing of the effects on depressive symptomatology. While change models are flawed in that they underestimate the effects of variables that have a lag longer than two time points measured, the change model does ensure that the results are less likely to be attributed to specification error. And, variables that appear significant in both models are less likely to have been produced through specification error (Parcel and Menaghan, 1993).
Table 3. Child and Adolescent Depressive Symptoms Regressed on Variables. African-American Girls (N=359) and European-American Girls (N=575)

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<th>European-American Girls</th>
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<td>SE</td>
<td>Change (1B) b</td>
<td>SE</td>
<td>Cross-Sectional (2A) b</td>
<td>SE</td>
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<td>.513 *</td>
<td>.254</td>
<td>.829 ***</td>
<td>.233</td>
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<td>.564</td>
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<td>.313 *</td>
<td>.133</td>
<td>.769 ***</td>
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<td>.524 ***</td>
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*p<.05  **p<.01  ***p<.001

Table 4. Child and Adolescent Symptoms Regressed on Variables. African-American Boys (N=343) and European American Boys (N=562)

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<tr>
<th>Independent Variables</th>
<th>African-American Boys</th>
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<th>European-American Boys</th>
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<td>Cross-Sectional (3A) b</td>
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<td>Change (3B) b</td>
<td>SE</td>
<td>Cross-Sectional (4A) b</td>
<td>SE</td>
</tr>
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<td>Childs Age (years)</td>
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<td>.227</td>
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<td>.518</td>
<td>-.277</td>
<td>.565</td>
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<td>2.496</td>
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<td>-2.359 *</td>
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<td>.810</td>
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<td>.802</td>
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<td>.131</td>
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<td>Emotional Support Offered By Mom</td>
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<td>.008</td>
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<td>.504 ***</td>
<td>.033</td>
<td>.504 ***</td>
<td>.047</td>
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*p<.05  **p<.01  ***p<.001
RESULTS

The findings in the cross-sectional model show that the child’s age is positively and significantly related to the depressive symptoms for European American boys and girls and African American girls; however, there is no significant difference in the size of this relationship across race-gender status (Table 3, Equations 1A and 2A and Table 4, Equation 4A). Living in the South is negatively and significantly associated with the depressive symptoms for European American boys (Table 4, 4A). For maternal education there is a positive and significant association with depressive mood for European American girls and a negative association for African American boys although no significant differences exists between these two groups (Table 3, 1A and Table 4, 3A). Spanking is positively and significantly related to depressive symptoms for European American girls and African American girls, but the size of this effect does not differ between the two groups (Table 3, 1A and 2A). Maternal depression is positively and significantly related to symptoms of depression for all four groups, although there are no significant differences among these groups (Table 3, 1A, 2A, and Table 4, 3A and 4A). Emotional support offered by the mother is significantly and negatively associated to depressive symptoms for European American boys and girls, however there is no significant difference in the size of this effect across groups (Table 3, 2A and Table 4, 4A).
The change model (Tables 3 and 4, Models 1B – 4B) demonstrates the effect spanking has on depressive symptomatology. With the inclusion of T1, spanking is not significant in the change model for African American boys and European American boys and girls, although spanking remains significant for African American girls. Child depressive symptoms at T1 are significantly and positively related to the T2 measure for all groups (Table 3, 1B, 2B, and Table 3B and 4B). There is a significant difference between European American girls and African American boys (t=2.36; p < .05) with the association being significantly larger for European American girls (Table 3, 2B and Table 4, 4B). In other words, depressive symptoms at T1 have a greater impact on child symptoms of depression at T2 for European American girls compared to African American boys. There is also a significant difference between European American boys and African American boys (t=2.04; p < .05) with the association being significantly larger for European American boys, although there are no significant differences between European American girls and boys (Table 4, 3B and 4B).

Emotional support offered by the mother remains significantly and negatively associated in the change model for European American boys and no longer remained significant for European American girls (Table 3, 2B and Table 4, 4B). Maternal depression has a significant effect on depressive symptoms for each group. Maternal education is no longer significant in the change model for African American boys, although European American girls do retain a level of significance (p < .001; Table 3, 2B and Table 4, 4B). In the change model, residing in the south is no longer significant for European American boys (Table 4, 4B). Finally, child’s age is no longer significant for
European American boys and girls (Table 3, 2B, and Table 4, 4B), although the child’s age remains significant (p < .05) for African American girls (Table 3, 1A).
DISCUSSION

This study investigates the relationship between spanking and symptoms of depression using the Stress Process Model as a theoretical foundation. Using cross-sectional and change models, this research examines how race-gender affects the outcome measure. With respect to the main hypotheses of the study, recall that Hypotheses 1a-d states that spanking will be related to increases in child depressive symptoms for a) African American girls, b) European American girls, c) African American boys, and d) European American boys. Under the cross-sectional model, hypotheses 1a and 1b are supported. Spanking is related to depressive symptoms for both African American and European American girls, however only hypothesis 1a is supported under the change model, in which spanking has a significant effect on depressed mood for African American girls. Support is not found for hypotheses 1c-d in either the cross-sectional or change model. Spanking is not related to an increase in child depressive symptoms for African American boys and European American boys.

These results suggest that spanking is related to an increase in child depressive moods for girls initially, but is salient only for African American girls over time. This research finds that spanking is salient for African American girls over time whereas Christie-Mizell, et. al., (2008) found that spanking was not salient over time for either
African Americans or European Americans. The importance of this study’s findings is that it illustrates that race-gender status does have an impact on spanking and depressed mood. When reviewing race-gender status, only African American girls are affected by spanking in terms of depressive symptoms over time.

In terms of hypotheses 2a-b, spanking will have a greater effect on depressive symptoms for a) African American girls and b) European American girls, compared to African American boys. I found support for hypothesis 2a and hypothesis 2b under the cross-sectional model, although only hypothesis 2a is supported under the change model. That is, spanking has an effect on depressive symptoms for African American and European American girls in the short-term, but only for African American girls over time. These results support past research that suggests that girls exhibit more depressive symptoms compared to boys. This may be due to the potential double-jeopardy status in which African American girls may be disadvantaged by both race and gender.

The third hypothesis states that compared to European American boys, spanking will have a greater effect on depressive symptoms for a) African American girls and b) European American girls. Hypotheses 3a and 3b are supported under the cross-sectional model, but not under the change model. Only hypothesis 3a is supported under the change model. Findings for hypotheses 3a and 3b, demonstrate that spanking is a salient factor for African American and European American girls in the short-term, but remains a salient factor for African American girls in terms of depressive mood. Again, the reason may be that African American girls are disadvantaged through their status of
being a female and as a racial minority.

The fourth hypothesis posits that compared to African American boys, spanking will have a greater effect on depressive symptoms for European American girls and boys. Results indicate that for hypothesis 4a-b, only hypothesis 4a is supported in the cross-sectional model, and that no support is found for this hypothesis in the change model. For hypothesis 4a, spanking has a significant effect on depressive symptoms for European American girls only. In the cross-sectional model, being female appears to be the factor that increases depressed mood in that only European American girls are affected and not European American boys in the cross-sectional model.

The results of this study indicate that the fifth and final hypothesis 5a-b is not supported. The fifth hypothesis states that compared to African American girls, spanking will have a greater effect on depressive symptoms for European American girls and boys. European American girls and boys are not affected by depressive symptoms due to spanking to the extent that African American girls are. Spanking affects depressive symptoms among African American girls and European American girls equally in the short-term and only African American girls long-term. Again, it appears that the status of being an African American girl is what significantly modifies the relationship between spanking and depressed mood because of the disadvantaged race-gender status.

In the cross-sectional model, spanking is related to an increase to child symptoms of depression for African American and European American girls. However, spanking does not have an impact on depressive symptoms for European American girls in the change model. This pattern suggests that over time race-gender conditions the
relationship between spanking and depressive symptomatology for African American girls only. This finding supports the Stress Process Model, which suggests that African Americans are at greater risk of stress (McLoyd, 1990; Rosenfield, et. al). It may be that African American girls experience more depressive symptoms from spanking due to factors such as higher rates of external stressors (e.g., socioeconomic stressors) compared to European American girls. African American children tend to live in poorer neighborhoods and have parents with more stressors, which can lead to ineffectual parenting that can cause an increase in spanking. And, research shows that females generally exhibit depressive symptoms more than boys. Combined, the results of this study validate the Stress Process Model by illustrating that spanking as a stressor can heighten depressive mood for some groups. Moreover, there is a differential effect in which only African American girls are significantly affected by depressive symptoms due to spanking over time. The significance of this finding is that the relationship between spanking and depressed mood cannot be examined or explained by race or gender alone but by the combined race-gender status.

OTHER RACE-GENDER DIFFERENCES

There are other differences between African American girls and boys and European American girls and boys. First, emotional support has a significant and negative association with depressive symptoms for European American boys and girls in the cross-sectional model, and for European American boys in the change model. Past
research shows that emotional support is differentially associated with symptoms of depression between African Americans and European American boys, and that European American mothers provide higher levels of support to their children, which persist over time (Polaha, et. al., 2004; Christie-Mizell, et. al., 2008). Yet European American girls do not benefit from the same maternal support that benefits European American boys. Further research is needed on why this differential association among European American boys and girls exists.

Second, maternal education has a positive and significant relationship with symptoms of depression for European American girls in both cross-sectional and change models. That is, an increase in a mother’s education is associated with an increase in depression for European American girls. Typically an increase in a woman’s education leads to more income and an increase in income can provide more resources to cope with stressors such as depression (e.g., counseling) (Horwitz, Briggs-Gowan, Storfer-Isser, and Carter, 2007). Yet this research shows that an increase in a mother’s education actually increases the European American girl’s depressive mood. The reason for this occurrence may be that mothers with more education are more likely to be employed, and this employment increases the role-strain for the mother to balance both work and being a supportive mother at home for her child. While it is known that more income increases social capital which has positive effects on a child’s mental health, it is possible that at a certain point, an increase in maternal education and maternal employment may have a negative effect on the mother-child relationship which can further affect a child’s behavior (Christie-Mizell, 2004). What is less known is why this study’s finding on
education does not affect European American boys the way it affects European American girls. Future research should consider the possible reasons for the negative relationship between maternal education and symptoms of depression for girls. It may simply be that girls are more prone to internalizing behaviors regardless of the independent variable (i.e., education).

Finally, a child’s age has a significant and positive relationship with depressive symptoms for European American boys and girls and for African American girls initially, and only for African American girls over time. This result is in accordance with research that suggests females have a greater chance of exhibiting internalizing behaviors as they age and that boys exhibit less internalizing behaviors as they age (Rosenfield, et. al., 2000). Further, there appears to be a race-gender effect as well. Over time, African American girls appear to be at a greater risk for depressive symptoms than compared to European American girls. This suggests that African American girls may indeed experience more stressors (e.g. racism, inequality) over time than their white counterparts (McLoyd, 1990). Unlike European American girls, this race difference exists because of the double jeopardy status that African American girls may have. Certainly, African American girls exhibit depressive symptoms due to spanking. And, it may be that African American girls are exposed to stressors uniquely attributed to their status (e.g., racism) as they go through grade school or other life events that expose them to these unique stressors.
IMPLICATIONS FOR FUTURE RESEARCH

There are three implications for this study regarding spanking and child depressive symptoms. First, the effects of spanking on depressive symptoms do not appear to affect all children equally. Spanking has a greater effect on depressive symptoms for girls compared to boys, and that due to spanking, symptoms of depression are only found among African American girls in the change model. The implication of these findings suggests that while spanking may not have detrimental consequences on internalizing behaviors for all youth, particularly for boys, spanking does prove to be a damaging disciplinary tactic in one way or another. That is, there is abundant research that spanking does lead to behavioral problems for boys (e.g. Gunnoe and Mariner, 1997). This research, however, only examines the outcome of depressive symptomatology and not behavioral outcomes. Further, spanking only affects depressed mood for African American and European American girls initially, and only for African American girls over time.

Second, this work found emotional support to be beneficial only for European American boys and girls in the short-term and for European American boys in the long-term. African-American girls and boys do not appear to benefit from emotional support in either the cross-sectional or change model. This finding not only suggests a need for a further understanding of this racial difference, but a continued need to understand factors that do reduce depressive symptomatology for African American boys and girls. Third, maternal depressive symptoms are a salient issue for all groups in this study. To reduce
childhood depressive symptoms, this study suggests that any and all distressed mothers, as identified through the 7-item version of the CES-D, with European American and African American boys and girls between the ages of 6-14 be screened for depression.

Future research should examine other variables of interest to provide a further understanding of childhood depressive symptomatology. Socioeconomic factors generally appear to have little to no effect on symptoms of depression in the cross-sectional and change model in this research (see also, Christie-Mizell, et. al., 2008). However, the weight of the evidence suggests that socioeconomic factors (e.g. income, education) play a critical role on stress and depressive symptoms (Eamon, 2002). This research demonstrates bivariate associations with all of its variables. Given these associations, continued research is necessary to understand why SES factors used in this study do not significantly reduce depressive symptoms among children.

LIMITATIONS

Although this study has the benefit of nationally representative data as well as cross-sectional and change models, there are some limitations to this study that are important to consider. One limitation of this study focuses only on mother-child relationships. Father-child relationship data are not examined. Data on children who are spanked by fathers may further explicate the relationship between physical punishment and childhood depressive symptoms. According to Deater-Deckard and Dodge (1997), discipline by same-sex parent-child dyads are shown to have greater effects on child
behavior problems compared to different-sex parent-child dyads. There may also be unique effects on same-sex dyads for child depressive symptoms as well.

Another limitation to this study is the 29-37 year old age range of mothers in this study. The findings may have been different if the mother’s age range was expanded beyond the range used in this study. Maturity and experience in child discipline can be an issue that may be more pronounced among mothers who are younger or older than 29-37 years of age. More specifically, it may be that mothers younger than 29 years of age have less experience with properly disciplining their children and can result in them spanking their children more often whereas mothers who are older than 37 years of age may have more experience with disciplining their children and use techniques other than spanking to discipline their children. Therefore, a study using mothers beyond the ages of 29-37 may contribute toward understanding the effects of spanking on child depressive symptoms.

The lack of any child self-concept variables is another limitation to this study. Some research concludes that the effects of spanking and a child’s self-esteem may be linked to his/her age, and that the child’s self-esteem may have an impact on depressive symptoms (Larzerere and Kuhn, 2005; Coopersmith, 1967). Finally, this research is also limited to examining only African Americans and European Americans. Examining other race or ethnic groups (e.g. Hispanics, Asians) may add further insight into child depressive symptoms. For example, it may be that maternal depression has a negative effect on depressive symptoms among children regardless of race. Past research shows that regardless of socioeconomic status, some ethnic Latino groups actually have low
psychological distress confirming the Hispanic paradox (Xu, 2008). One reason for this is the strong social support they receive from their family. Opposed to Latinos, Asian Americans appear to acquire relatively high education and income with low-levels of crime, yet Asian Americans have been understudied and mental health issues among Asians may have been understated (Sue, Nakamura, Chung, and Yee-Bradbury, 1994). One reason proffered for their low-levels of mental health disorders is that they go unreported due to the stigma attached to their seeking out professional help. It appears that culture (e.g., familial support, stigma) has an important role in the mental health of Hispanic and Asian Americans. Therefore, including other racial minorities may substantiate the findings of this study by indicating that race plays a critical moderating role between the independent and dependent variable, therefore more research on other minorities is needed.

**CONCLUSION**

In conclusion, this research suggests that spanking has an effect on child depressive symptoms with results that vary by race-gender status. In the cross-sectional models, spanking has an increased effect on depressive symptoms for African American girls and European American girls compared to African American and European American boys. However, this research illustrates that spanking has a heightened effect on child depressive symptoms only for African American girls over time. This paper looks at race and gender as well as the nexus of race-gender status, which offer unique
depressive mood outcomes for only African Americans over the long-term; a result that no other study has illustrated thus far. Further, the use of cross-sectional and change models illustrates the initiation of salient factors as well as factors that matter over time. And, the use of the NLSY and the NLSY-C in this study strengthen the generalizability of the results indicated in this paper unlike more localized studies. Finally, an important contribution this research offers is evidence that spanking may not have an effect on depressive symptoms for all children but rather that race-gender status moderates this relationship. This point needs to be considered in the debate on the effects spanking has on depressive outcomes.
REFERENCES


