Parentification, Ethnic Identity, and Psychological Health in Black and White American College Students: Implications of Family-of-Origin and Cultural Factors

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INTRODUCTION

Parentification, along with the related psychology of families, is a phenomenon whereby parental roles and responsibilities are abdicated by parents and carried out by children and adolescents. Typically these roles and responsibilities evidenced in the family of origin are considered developmentally inappropriate and excessive. This ubiquitous phenomenon is often seen in mental health patients and nonclinical populations, including college students (Castro, Jones, and Mirsalimi, 2004; East, 2010; Gilford and Reynolds, 2011; Hooper, 2007a; Hooper and Wallace, 2010; Jacobvitz and Bush, 1996; Kuperminc, Jurkovic, and Casey, 2009; McMahon and Luthar, 2007; Thomas et al., 2003). Since the introduction of the terms parentification, parentified child, and adult child into the mental health, developmental, and family psychology nomenclature (see Boszormenyi-Nagy and Spark, 1973; Karpel, 1976; Kerg, 2005; Minuchin, Montalvo, Guerney, Rosman, and Schumer, 1967), American families have changed (Antecol and Bedard, 2005; Gilford and Reynolds, 2011; Lowe, 2000). Society has also changed; specifically, most would agree that society has become racially and culturally diverse and racially and culturally pluralistic (Chao and Otsuki-Clutter, 2011; U.S. Census Bureau, 2008). Therefore, an updated and expanded view of parentification may be useful.

Moreover, a significant distinction of the original, seminal research on parentification was the composition of research participants on which the original conclusions were based. More specifically, until the very recent past (East, 2010; Telzer and Fuligni, 2009), most studies have primarily consisted of White American participants, thereby limiting the generalizability of those findings. The few studies that were conducted with racially diverse study samples may have caused some researchers to misconstrue the outcomes, processes, and behaviors of racial minority patients and research participants (Kane and Erdman, 1998). For example, Kane and Erdman (1998) asserted, "Both Hispanic American and Anglo-American counselors could be tempted to judge the level of intimacy and/or autonomy demonstrated by an African American family as extreme, perhaps dysfunctional,"
Thus, the findings that were originally put forward in the 1960s and 1970s may no longer hold true, or they may no longer be culturally relevant to current family systems and individual family members. For example, in some instances researchers and clinicians could have perpetuated erroneous interpretations related to parentification in racially diverse—primarily Black American—patients and research participants and in the families in which they were embedded (Anderson, 1999; Boyd-Franklin, 1989; Siskowski, 2006). Given the oft-reported problem involving misdiagnosis or underdiagnosis of mental health disorders among Black American patients (Hooper, 2010; Satcher, 2001; Smedley, Stithy, and Nelson, 2002), a similar phenomenon may hold true for understanding the cultural implications of the parentification process in the context of Black American populations (Chao and Otsuki-Clutter, 2011; Harrison, Wilson, Pine, Chan, and Buriel, 1990). The phenomenon of parentification is complex; and unmeasured factors (e.g., poverty, interpersonal violence, lack of resources, educational and academic factors, single-parent households, normative culturally responsive coping methods) rather than race may attenuate or amplify the outcomes associated with parentification (Pinquart and Sorensen, 2005).

The original research on which current conceptualizations about parentification are based should not be considered trivial or unimportant. On the contrary, much of the seminal work and original hypotheses put forward 40 years ago (see Boszormenyi-Nagy and Spark, 1973; Minuchin et al., 1967) continue to hold true in studies consisting of White American research participants and some racial minority research participants. However, recent studies composed of racial and ethnic minority participants have tended to reflect the possibility for bimodal outcomes (Hooper, Doehler, Jankowski, and Tomek, 2012; Hooper, Marotta, and Lanthier, 2008; Kuperminc et al., 2009; McMahon and Luthar, 2007; Mikelson and Demnings, 2008; Telzer and Fuligni, 2009). That is, in addition to the negative and pernicious psychological aftereffects originally postulated 40 years ago, studies have also found that resilience, thriving, and posttraumatic growth may result from parentification (Byng-Hall, 2008b; Doucet and Rovers, 2010; Hooper, 2007a; Hooper, Marotta, and DePuy, 2009). Thus, an expanded and updated view of parentification may be warranted for all racial groups. In particular, additional research of racially and ethnically diverse samples is essential to help researchers better understand the implications of parentification for the psychological health of these populations.

The present study adds to the literature base by examining parentification in a convenience sample of Black American and White American college students. Additionally, this study includes ethnic identity as a potentially important factor between parentification and psychological health. Given the extant literature base, this study may be useful in elucidating the relations among parentification, ethnic identity, and psychological health. Parentification is defined in the current study as a type of role reversal, boundary distortion, and inverted hierarchy between parents and other family members in which adolescents assume developmentally inappropriate levels of responsibility in the family of origin (Boszormenyi-Nagy and Spark, 1973; Hooper, 2011; Jurkovic, 1997; Kerig, 2005; Minuchin et al., 1967).

BACKGROUND

Parentification and Psychopathology

As previously mentioned, the term parentification was introduced by family systems
theorists Minuchin and colleagues (1967), who asserted that in the process of parentification, "the parent(s) relinquishes executive functions by delegation of instrumental roles to a parental child or by total abandonment of the family psychologically and/or physically" (p. 219). Other terms often used interchangeably with parentification include adultification (Burton, 2007), spousification (Sroufe and Ward, 1980), role reversal (Macfie, McElwain, Houts, and Cox, 2005), adultoids (Galambos and Tilton-Weaver, 2000; Greenberger and Steinberg, 1986), little parent (Byng-Hall, 2008b), mature minor (Garber, 2011), and young carers or young caregivers (Aldridge and Becker, 1993; Siskowski, 2006). Some scholars have asserted that the parentification process can be equated with a type of psychological control that parents exert over their children (Barber, 1996, 2001). Garber (2011) provided a comprehensive review of how some of these terms may be defined, operationalized, and differentiated.

The negative sequelae of parentification—in all racial groups—cannot be ignored (Chase, 1999). The empirical evidence about the relation between parentification and adult psychopathology is copious and vast; therefore, a comprehensive review of the literature is beyond the scope of this article. However, to clarify what is known about negative outcomes and parentification, we put forward a brief summary here.

Empirical studies typically demonstrate that parentification is associated with negative sequelae. Associations that have been found between parentification and pathology include the following conditions and disorders: trauma, distress, and adversity (Alexander, 1992; Barber, 1996; Hooper et al., 2008; Lackie, 1999); eating disorders (Rowa, Kerig, and Geller, 2001); mood disorders (Hooper and Wallace, 2010; Shifren and Kachorek, 2003); substance use disorders (Carroll and Robinson, 2000; Chase, Demming, and Wells, 1998; Godsall, Jurkovic, Emshoff, Anderson, and Stanwyck, 2004); dissociative disorders (Jones and Wells, 1996; Wells and Jones, 1998); and personality disorders (Jones and Wells, 1996).

A recent meta-analysis confirmed the link between retrospective, self-reported parentification and psychopathology. Hooper, DeCoster, White, and Voltz (2011) found a statistically significant link between parentification (measured retrospectively) and eating, anxiety, and personality disorders and symptoms. Significant positive relations were evidenced also between parentification, substance use, and depressive symptomatology. In that meta-analytic study, the researchers found that cultural factors such as race—but not gender—moderated the relation between parentification and psychopathology. Specifically, the strength of the relation between parentification and psychopathology increased in samples with a greater proportion of Black Americans. Given the significant historical and substantive empirical link between psychological distress and parentification, we have included three psychological health indicators in our present study: eating symptoms, mood symptoms, and alcohol use behavior. Given the buffering effects that ethnic identity often has (Phinney, 1990; Phinney and Ong, 2007), we also explored the extent to which ethnic identity (described below) would add predictive power to our exploratory model.

Parentification and the Family System

Because parentification is as much about the family system and subsystems as it is about the individual, we consider a discussion of how the family system relates to parentification to be paramount. Indeed, the original conceptualizations and definitions of parentification emerged mostly from systems theories (e.g., family systems theory, ecological systems theory) (Boszormenyi-Nagy and Spark, 1973; Bronfenbrenner, 1979; Minuchin et al., 1967). For example, many researchers who conduct culturally focused research have
concluded that Black American family and community systems appear to place a higher emphasis on parentification roles and responsibilities than do the White American family and community systems (Boyd-Franklin, 1989; Dodson and Dickert, 2004; Kane and Erdman, 1998; Pinquart and Sorensen, 2005). These differences may be due to the unique structure of many Black American families.

Given the family structure, values, and belief systems often evinced in Black American families (Boyd-Franklin, 1989; Harrison et al., 1990; Hill, 1992), it is crucial to consider cultural factors and bimodal outcomes of parentification in the family of origin (Hooper, 2007b; Hooper et al., 2008; Jurkovic, 1997, 1998; McMahon and Luthar, 2007; Winton, 2002). Although 45% of all Black American households in 2000 were one-parent families headed by women (U.S. Bureau of the Census, 2000), researchers have described up to 81 different combinations of family structures within the Black American community (Wilson et al., 1995). In addition, the organizational structure of Black American families reveals a close network of relationships within families and between families who may or may not be blood relatives (Nobles, Goddard, Cavil, and George, 1987). Martin and Martin (1978) described the characteristics of this extended family network as multigenerational and interdependent and as reaching across geographical boundaries. This system of sharing is facilitated by a strong sense of obligation to the family (Wilson, 1990). A positive view of this sense of obligation to the family may account for differences in levels of parentification and also in outcomes associated with parentification in Black American families compared to White American families.

For example, in some Black American families, the roles and processes of parentification may be a creative and positive solution to maintain family cohesion and stability—not a pathological and deleterious solution to a family system problem, as currently evidenced in the literature (Boyd-Franklin, 1989; Harrison et al., 1990; Lowe, 2000; Townsend and Lanphier, 2007). Parentification may also serve as the impetus for some persons to thrive, to “do better,” and to rise above the stress of the family of origin later in life (see Hooper, 2007b; Hooper et al, 2008). For example, in a recent qualitative study, composed of Black American female college students, Gilford and Reynolds (2011) found that many of the participants who self-identified as being parentified during their childhood were able to make use of the family-of-origin difficulties associated with the parentification process and were in some ways better for it in their current college-aged years. Participants articulated that the parentification role and process engendered confidence and transportable skills that could be used to thrive and to manage the stress often experienced in college.

**Parentification and Ethnic Identity**

As previously stated, how individuals are affected by the parentification process may be associated with cultural factors. Of particular relevance to developmental outcomes among racial and ethnic populations is ethnic identity. Phinney (1996) suggested that the strength, as well as the meaning, of one's ethnic identity varies among racial groups and racial group members. Ethnic identity can be operationalized as the degree of positive expression related to ethnic attitudes, identification, affirmation, and belonging to a particular racial group (Phinney, 1996). The importance of ethnic identity has been described extensively in the psychology and family studies literature (Garbarino and Kostelnly, 1992; Phinney, 1990; Phinney, Romero, Nava, and Huang, 2001). Toward this end, the literature base is abundant with studies describing the buffering and positive effects that ethnic identity often has for Black American populations (e.g., adolescents, community samples, college students, and so forth). We use the term *ethnic identity* in the current study to refer to “a group that holds a
specific heritage and set of values, beliefs, and customs" (Schwartz, Zamboanga, and Jarvis, 2007, p. 364). Of significance to the current study, ethnic identity has been shown to relate to a range of positive psychological outcomes among individuals from diverse racial backgrounds (Avery, Tonidandel, Thomas, Johnson, and Mack, 2007; McMahon and Watts, 2002).

It is plausible that parentification—both separate from and in conjunction with ethnic identity—could help build confidence and self-esteem in parentified college students to be carried into later adulthood (see Anderson, 1999; Gilford and Reynolds, 2011; Hooper, Doehler, et al., 2012; Jurkovic, Thirkield, and Morrell, 2001; Phinney, 1992). A first important step is to explore how these constructs (parentification and ethnic identity) relate to one another.

As previously mentioned, we cannot discount the numerous research studies that have also uncovered the negative sequelae seen across the lifespan in other populations. Empirical studies typically demonstrate that retrospective, self-reported parentification and an overload of parental, sibling, and familial responsibilities are associated with poor psychological health (e.g., depression and substance use disorders) and other factors (e.g., low academic achievement) in Black American populations. However, given the high value placed on family, and especially on maintaining obligations to family, among Black American populations (Wilson, 1990), it is plausible that parentification—separately and in conjunction with ethnic identity—could also lead to positive psychological outcomes (see Anderson, 1999; Gilford and Reynolds, 2011; Jurkovic et al., 2001; Phinney, 1992).

Thus, we have included ethnic identity in our exploratory model. Exploring parentification and ethnic identity in the same study gives the current investigation unique value and meaning. Previous empirical investigations have not considered cultural context and specifically ethnic identity in an effort to better understand outcomes associated with parentification. The current study fills this gap.

OBJECTIVES AND HYPOTHESES

The primary research objective in the present study is to add to the current literature by examining the possible relations between the study variables: parentification, ethnic identity, and psychological health. We also examined the extent to which differences exist between Black American and White American college students with regard to parentification, ethnic identity, and psychological health. We explored a conceptual two-factor model in which parentification and ethnic identity predict psychological health in college students. We hypothesized that the model would be predictive for Black American and White American students. Thus, our three research questions are as follows: (1) To what extent are there differences in levels of parentification (i.e., mean scores) between Black American and White American college students? (2) To what extent are there differences in item responses (differential item functioning) related to parentification between Black American and White American college students? (3) To what extent are there differences in the associations and predictive power of ethnic identity and parentification for psychological health between Black American and White American college students? These three research questions were tested with four hypotheses in the present study:

Hypothesis 1. Significant differences exist between mean parentification scores of Black American college students and those of White American college students.
Hypothesis 2. Significant differences exist between item responses for parentification given by Black American college students and those given by White American college students.

Hypothesis 3: Significant differences in the magnitude of the relations between predictor variables and outcome variables exist between Black American college students' responses and White American college students' responses.

Hypothesis 4. The degree to which ethnic identity and parentification predict psychological health is statistically significantly different for Black American college students and White American college students.

METHOD

Participants and Procedure

Participants were a convenience sample of 314 students from a large state university in the southeastern region of the United States. The sample included 157 Black American students and 157 White American students. The Black American sample included 90 female participants and 67 male participants; mean age in years for this sample was 22.57 (SD = 6.19). The White American sample included 86 female participants and 71 male participants; mean age in years for this sample was 20.37 (SD = 1.91).

Following Institutional Review Board approval, we recruited participants in undergraduate-level classrooms and then later by email. We administered the electronic survey packet online using a web-based survey methodology. The online survey included a demographic information survey and measures of parentification, ethnic identity, and psychological health. The instruments were in English. Extra course credit was provided both as an incentive and as compensation for time and effort involved in participating in the study. The survey took approximately 25 to 30 minutes to complete. All study measures, with the exception of the Parentification Inventory, have been used and validated with a range of racially and culturally diverse samples, demonstrating preliminary cross-cultural measurement equivalence.

Measures

Demographic information. A researcher-designed demographic information survey was created for the study. Questions included the participant's year in school, academic discipline, religious affiliation, age, gender, and racial and ethnic background.

Parentification. The Parentification Inventory (PI; Hooper, 2009) is a retrospective 22-item self-report measure that assesses caregiving roles and responsibilities usually reserved for adults but carried out by children. The PI is also designed to measure the perceived benefits of performing caregiving roles in one's family of origin. Participants respond to the 22 items using a five-point, Likert-type scale, ranging from 1 (never true) to 5 (always true). The PI consists of three subscales: parent-focused parentification (PFP), sibling-focused parentification (SFP), and perceived benefits of parentification (PBP). Scores can fall in the range of 1 to 5, with higher total and subscale scores reflecting greater perceived levels of parentification or perceived benefits of the parentification process. Cronbach's alpha values were acceptable for all three subscale scores used in the current study: PFP $\alpha = .83$; SFP $\alpha = .80$; PBP $\alpha = .80$. Additionally, alphas for the Black American study sample were as follows: PFP $\alpha = .83$; SFP $\alpha = .76$; PBP $\alpha = .80$. Alphas for the White American study sample were as
follows: PFP $\alpha = .85$; SFP $\alpha = .79$; PBP $\alpha = .81$.

**Ethnic identity.** The Multigroup Ethnic Identity Measure (MEIM; Phinney, 1992) is a widely used 21-item self-report measure that assesses three unique dimensions of ethnic identity: search for ethnic identity, belonging and commitment to one's ethnic identity, and other ethnic group orientation. For subscales 1 (ethnic identity [EI]) and 2 (ethnic belonging [EBEL]), participants respond to questions using a four-point Likert scale that ranges from 1 (strongly disagree) to 4 (strongly agree). For subscale 3, other ethnic group orientation (OEGO), items are rated on a five-point Likert scale that ranges from 1 (strongly disagree) to 5 (strongly agree). Several researchers have reported significant correlations between the MEIM and mental health. Alpha coefficients for the MEIM among racially diverse college students have ranged from .74 to .90 (Phinney, 1992). Internal consistency for the three subscale scores in the current study sample ranged from .79 to .82.

**Psychological health.** Psychological health was measured in terms of depressive symptoms, alcohol-related symptoms and behaviors, and eating symptoms and behaviors.

**Depressive symptoms.** We used the Beck Depression Inventory (BDI; Beck, Steer, and Brown, 1996) to assess each participant's level of depressive symptoms. The BDI consists of 21 self-report questions that capture depressive symptomatology. Scores for each item range from 0 to 3. Higher scores reflect greater severity of depression symptomatology and a greater likelihood of major depression. The BDI is one of the most widely used instruments to screen for depression, and scores from this instrument have been shown to have good reliability and validity. Consistent with stability coefficients in other studies (Beck et al., 1996; Hooper, Qu, Crusto, & Huffman, 2012), the obtained reliability coefficient from the BDI score was .91 in the current study. Alpha for the Black American study sample was $\alpha = .90$; alpha for the White American study sample was $\alpha = .92$.

**Alcohol-related symptoms and behavior.** The Alcohol Use Disorders Identification Test (AUDIT; Babor, Higgins-Biddle, Saunders, and Monteiro, 2001) is a widely used 10-item self-report instrument that measures excessive, problematic patterns of alcohol use and harmful alcohol consumption. Participants rate how true the statements are on a five-point Likert scale, from 0 (never) to 4 (daily or almost daily). Higher scores reflect greater problematic behavior and patterns related to alcohol. Scores from this instrument have been shown to have good validity and test-retest reliability in a range of racially and culturally diverse samples and college samples (Donovan, Kivlahan, Doyle, Longabaugh, and Greenfield, 2006; Fleming, Barry, and MacDonald, 1991; Isaacs, Butler, Zacharek, and Tzelepis, 1994). Cronbach's alpha for AUDIT was .78 for the current study sample. Alpha for the Black American study sample was $\alpha = .70$; alpha for the White American study sample was $\alpha = .79$.

**Eating symptoms and behaviors.** Eating behaviors and symptoms were assessed by means of the Eating Attitudes Test (EAT-26; Garner, Olmsted, Bohr, and Garfinkel, 1982). EAT-26 is a 26-item self-report questionnaire developed to assess patterns of problematic eating and risk for an eating disorder. Participants respond to the questionnaire using a six-point Likert scale from 1 (always) to 6 (never). Responses for each item are weighted from 0 to 3. Higher scores on the EAT-26 reflect a greater degree of disordered eating behaviors and symptomatology and a greater likelihood of a diagnosis of an eating disorder. Evidence for strong validity and reliability of the EAT-26 scores has been established (Garner et al., 1982). Cronbach's alpha for the EAT-26 total score was .83 for the study sample. Cronbach alpha values for the Black American and White American samples were $\alpha = .83$ and $\alpha = .84$, respectively.
Data Analysis Plan

We employed the following analytic procedures to examine the data. First, descriptive data (means and standard deviations) for all study variables were examined. To examine the extent to which differences exist between levels of parentification of Black American and White American college students, mean scores of the PI were examined with independent sample t tests (hypothesis 1).

Second, for hypothesis 2 we used item response theory (IRT) modeling to assess differential item functioning (DIF) among PI items. IRT describes a broad class of models used to estimate the relation between individual characteristics, item characteristics, and research participants' response patterns (Ostini and Nering, 2006). Because the Parentification Inventory is a polytomous instrument in which items are measured on a five-point Likert-type scale, the graded response model (GRM) is the most appropriate method of IRT parameter estimation (Samejima, 1969). The GRM estimates for each item (i) a slope parameter (a,) and a threshold parameter for each between-category threshold (β,). For the five-item Likert-type scale, there are four between-category threshold parameters. The threshold parameters are the points along the latent trait continuum where respondents have a .50 probability of responding above a threshold. Using the estimated parameters, category response curves can be plotted that describe the probability that a respondent with a certain trait level (θ) will endorse or agree with a statement (i.e., item) at each point using the Likert-type scale. Differential item functioning analysis in IRT is used to assess differences between different groups of respondents with regard to the difficulty of item endorsement. Each item has an estimated difficulty location measured on the same scale as the trait level (θ). Items with positive location estimates are harder to endorse, and those with negative location estimates are easier to endorse. Items are considered to be displaying DIF if the item location estimates for two or more groups of respondents are significantly different when all other parameters are held constant.

As a third analytic procedure, Pearson product-moment correlation coefficients were computed to determine the strength of the relations between the study variables (hypothesis 3). Finally, regression analyses were performed to assess the contribution of the predictor variables, taken separately and together, to psychological health (hypothesis 4).

RESULTS

Table 1
Comparison of Parentification Inventory (PI) Scores by Self-Reported Race

<table>
<thead>
<tr>
<th>Variable</th>
<th>Black American Sample</th>
<th>White American Sample</th>
<th>t-test statistic</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(n = 157)</td>
<td>(n = 157)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PI Total</td>
<td>2.119</td>
<td>2.113</td>
<td>0.12</td>
<td>0.90</td>
</tr>
<tr>
<td>PI (PFP)</td>
<td>1.912</td>
<td>1.929</td>
<td>-0.25</td>
<td>0.80</td>
</tr>
<tr>
<td>PI (SFP)</td>
<td>1.657</td>
<td>1.571</td>
<td>1.34</td>
<td>0.18</td>
</tr>
<tr>
<td>PI (PBP)</td>
<td>4.022</td>
<td>4.115</td>
<td>-0.91</td>
<td>0.36</td>
</tr>
</tbody>
</table>

Note. PI = Parentification Inventory (Hooper, 2009); PFP = parent-focused parentification; SFP = sibling-focused parentification; PBP = perceived benefits of parentification. All between-group differences were nonsignificant.
Hypothesis 1

We examined the differences between mean parentification scores for the Black American sample and the White American sample. To compare parentification scores between the two samples, we ran four independent sample t-tests by race: one test to compare overall mean scores and one test for each of the three subscales. As illustrated in Table 1, no significant differences were found in mean PI scores based on race. Thus, there was no support for hypothesis 1, which stated that significant differences exist between mean parentification scores of Black American college students and White American college students.

Hypothesis 2

To compare parentification responses across the two samples, individual items on the PI were assessed for DIF using the PARSCALE program (Muraki and Bock, 1993, 2005). PARSCALE uses maximum likelihood estimation to evaluate the significance of item location differences between groups. All parameters except the location parameter were held constant for Black American and White American respondents. A chi-square statistic for the contrast between Black American and White American item locations was used to test for significance of the contrast. Items with chi-square values above the critical value at a .05 alpha level with one degree of freedom are considered to be displaying DIF.

As illustrated in Table 2, most items on the PI displayed DIF in relation to Black American and White American respondents. Items 2, 5, 12, 14, 15, 16, 18, and 19 were more easily endorsed by Black American respondents. Items 3, 4, 6, 8, 9, 10, 11, 13, and 22 were more easily endorsed by White American respondents (Table 2). The easiest items for participants in either group to endorse were item 7 ("I felt appreciated by my family"), item 15 ("I really enjoyed my role in my family"), and item 20 ("I felt our family was a team and worked well together").

As illustrated in Table 2, significant differences were found in the item-level responses to the PI based on race in the current study. Thus, there was support for hypothesis 2, which stated that significant differences exist between item responses for parentification given by Black American college students and those given by White American college students.

Hypothesis 3

As seen in Tables 3 and 4, some differences were found in the correlation results based on race. Using Cohen's (1992) conventions for effect sizes, the magnitude of the effect sizes of the study bivariate correlations can be described as primarily small (|R| > .10) to medium (|R| > .40). Small to medium effect sizes were evidenced in the relations between parentification subscales and study variables: parent-focused parentification subscale scores (PFP) were positively related to BDI scores (r = .26). Sibling-focused parentification subscale scores (SFP) were positively related to BDI scores (r = .15). Perceived benefits of parentification subscale scores (PBP) were negatively related to EBEL scores (r = -.23), OEGO scores (r = -.244), BDI scores (r = -.34), and EAT-26 scores (r = -.22) in the Black American sample (see Table 3).

In the White American sample, small to medium effect sizes were evidenced in the relations between parentification subscales and study variables: parent-focused parentification subscale scores (PFP) were positively related to BDI scores (r = .17) and EBEL scores (r = .36) and were negatively associated with EI scores (r = .22). Sibling-focused
Table 2
Differential Item Functioning Analysis of Parentification Inventory (PI) Items

<table>
<thead>
<tr>
<th>PI Item</th>
<th>Location (SE) White American (n = 157)</th>
<th>Location (SE) Black American (n = 157)</th>
<th>Contrast (SE)</th>
<th>$\chi^2$ (df=1)</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Expected to comfort siblings</td>
<td>0.283 (0.04)</td>
<td>0.196 (0.04)</td>
<td>-0.087 (0.06)</td>
<td>2.26</td>
<td>.128</td>
</tr>
<tr>
<td>2. Parents shared secrets with me</td>
<td>-0.308 (0.03)</td>
<td>-0.458 (0.04)</td>
<td>-0.150 (0.05)</td>
<td>9.42</td>
<td>.002*</td>
</tr>
<tr>
<td>3. Children in community contributed to family finances</td>
<td>1.228 (0.04)</td>
<td>1.626 (0.04)</td>
<td>0.398 (0.06)</td>
<td>51.91</td>
<td>&lt;.001*</td>
</tr>
<tr>
<td>4. Time to be happy or sad due to family member care</td>
<td>0.571 (0.02)</td>
<td>0.662 (0.02)</td>
<td>0.091 (0.03)</td>
<td>9.30</td>
<td>.002*</td>
</tr>
<tr>
<td>5. Helped parents make important decisions</td>
<td>0.133 (0.03)</td>
<td>-0.125 (0.04)</td>
<td>-0.258 (0.05)</td>
<td>28.07</td>
<td>&lt;.001*</td>
</tr>
<tr>
<td>6. Made sure siblings went to bed</td>
<td>0.540 (0.02)</td>
<td>0.633 (0.02)</td>
<td>0.093 (0.03)</td>
<td>7.27</td>
<td>.007*</td>
</tr>
<tr>
<td>7. Felt appreciated by my family</td>
<td>-3.563 (0.07)</td>
<td>-3.627 (0.08)</td>
<td>-0.064 (0.10)</td>
<td>0.38</td>
<td>.548</td>
</tr>
<tr>
<td>8. Other children my age had fewer responsibilities</td>
<td>-0.274 (0.03)</td>
<td>-0.165 (0.03)</td>
<td>0.109 (0.04)</td>
<td>7.81</td>
<td>.005*</td>
</tr>
<tr>
<td>9. Time for play/school because of responsibilities</td>
<td>0.665 (0.02)</td>
<td>0.778 (0.02)</td>
<td>0.113 (0.03)</td>
<td>12.06</td>
<td>.001*</td>
</tr>
<tr>
<td>10. Worked to contribute to family finances</td>
<td>0.383 (0.02)</td>
<td>0.635 (0.03)</td>
<td>0.252 (0.03)</td>
<td>55.43</td>
<td>&lt;.001*</td>
</tr>
<tr>
<td>11. Responsible for helping siblings with homework</td>
<td>0.142 (0.02)</td>
<td>0.366 (0.03)</td>
<td>0.224 (0.04)</td>
<td>38.38</td>
<td>&lt;.001*</td>
</tr>
<tr>
<td>12. Family members asked me for help with disagreements</td>
<td>0.244 (0.02)</td>
<td>0.048 (0.02)</td>
<td>-0.196 (0.03)</td>
<td>59.87</td>
<td>&lt;.001*</td>
</tr>
<tr>
<td>13. Primary person who disciplined siblings</td>
<td>0.519 (0.02)</td>
<td>0.769 (0.02)</td>
<td>0.251 (0.03)</td>
<td>60.22</td>
<td>&lt;.001*</td>
</tr>
<tr>
<td>14. Helped solve problems between parents</td>
<td>0.422 (0.02)</td>
<td>0.220 (0.02)</td>
<td>-0.202 (0.03)</td>
<td>63.94</td>
<td>&lt;.001*</td>
</tr>
<tr>
<td>15. Really enjoyed my role in the family</td>
<td>-2.922 (0.07)</td>
<td>-3.145 (0.07)</td>
<td>-0.223 (0.09)</td>
<td>5.68</td>
<td>.016*</td>
</tr>
<tr>
<td>16. Expected to comfort parents when they were sad</td>
<td>0.216 (0.02)</td>
<td>-0.106 (0.02)</td>
<td>-0.323 (0.03)</td>
<td>133.22</td>
<td>&lt;.001*</td>
</tr>
</tbody>
</table>
Table 2 (contd.)

<table>
<thead>
<tr>
<th>PI Item</th>
<th>Location</th>
<th>Location</th>
<th>Contrast</th>
<th>( \chi^2 )</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>White American (n = 157)</td>
<td>Black American (n = 157)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17. In charge of doing laundry for the family</td>
<td>0.553 (0.03)</td>
<td>0.541 (0.03)</td>
<td>-0.11 (0.05)</td>
<td>0.06</td>
<td>.793</td>
</tr>
<tr>
<td>18. Served in the role of referee for my family</td>
<td>0.298 (0.02)</td>
<td>0.124 (0.02)</td>
<td>-0.175 (0.03)</td>
<td>41.67</td>
<td>&lt;.001*</td>
</tr>
<tr>
<td>19. Family members shared secrets with me</td>
<td>-0.102 (0.02)</td>
<td>-0.178 (0.03)</td>
<td>-0.076 (0.04)</td>
<td>4.36</td>
<td>.035*</td>
</tr>
<tr>
<td>20. Felt our family was a team and worked well together</td>
<td>-2.148 (0.06)</td>
<td>-2.198 (0.06)</td>
<td>-0.050 (0.09)</td>
<td>0.33</td>
<td>.573</td>
</tr>
<tr>
<td>21. Asked to complete the grocery shopping</td>
<td>0.450 (0.02)</td>
<td>0.486 (0.03)</td>
<td>0.036 (0.04)</td>
<td>1.02</td>
<td>.313</td>
</tr>
<tr>
<td>22. Served in the role of translator for family members</td>
<td>0.995 (0.04)</td>
<td>1.244 (0.04)</td>
<td>0.249 (0.05)</td>
<td>21.00</td>
<td>&lt;.001*</td>
</tr>
</tbody>
</table>

* DIF is present.

Table 3

Bivariate Correlation Matrix for Study Measures for Black American College Sample (n = 157)

<table>
<thead>
<tr>
<th>Study Variables</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. PI (PFP)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. PI (SFP)</td>
<td>PED3***</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. PI (PBP)</td>
<td>-.329***</td>
<td>-.386***</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. MEIM (EI)</td>
<td>-.088</td>
<td>.025</td>
<td>-.130</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. MEIM (EBEL)</td>
<td>.096</td>
<td>-.011</td>
<td>-.233**</td>
<td>.328**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. MEIM (OEGO)</td>
<td>-.031</td>
<td>.106</td>
<td>-.244**</td>
<td>.134</td>
<td>.058</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. BDI</td>
<td>.263***</td>
<td>.159*</td>
<td>-.342***</td>
<td>-.045</td>
<td>.228**</td>
<td>.165*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. EAT-26</td>
<td>.086</td>
<td>.085</td>
<td>-.220**</td>
<td>-.149</td>
<td>.011</td>
<td>.100</td>
<td>.258***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. AUDIT</td>
<td>.074</td>
<td>.160*</td>
<td>-.058</td>
<td>-.040</td>
<td>.044</td>
<td>.030</td>
<td>.241**</td>
<td>.195*</td>
<td></td>
</tr>
</tbody>
</table>

Note. PI = Parentification Inventory; PFP = parent-focused parentification; SFP = sibling-focused parentification; PBP = perceived benefits of parentification; MEIM = Multigroup Ethnic Identity Measure; EI = ethnic identity; EBELE = ethnic belonging; OEGO = other ethnic group orientation; BDI = Beck Depression Inventory; EAT-26 = Eating Attitudes Test; AUDIT = Alcohol Use Disorders Identification Test.

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

Parentification subscale scores (SFP) were positively related to BDI scores (r = .21) and EBELE scores (r = .42). Finally, as illustrated in Table 4, perceived benefits of parentification subscale scores (PBP) were negatively related to EBELE scores (r = -.31) and BDI scores (r = -.32) in the White American sample.

Thus, we accept hypothesis 3: Significant differences in the magnitude of the relations...
Table 4

Bivariate Correlation Matrix for Study Measures
for White American College Sample (n = 157)

<table>
<thead>
<tr>
<th>Study Variables</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. PI (PFP)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. PI (SFP)</td>
<td>.682***</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. PI (PBP)</td>
<td>-.368***</td>
<td>.411***</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. MEIM (EI)</td>
<td>-.221**</td>
<td>-.118</td>
<td>.030</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. MEIM (EBEL)</td>
<td>.363***</td>
<td>.420***</td>
<td>-.316***</td>
<td>.254**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. MEIM (OEGO)</td>
<td>.011</td>
<td>.021</td>
<td>-.058</td>
<td>-.074</td>
<td>-.114</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. BDI</td>
<td>.171*</td>
<td>.213**</td>
<td>-.324***</td>
<td>.023</td>
<td>.270***</td>
<td>-.069</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. EAT-26</td>
<td>.002</td>
<td>.007</td>
<td>-.053</td>
<td>-.224**</td>
<td>-.056</td>
<td>.049</td>
<td>.401***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. AUDIT</td>
<td>.092</td>
<td>.093</td>
<td>-.051</td>
<td>-.049</td>
<td>.076</td>
<td>.206**</td>
<td>.251**</td>
<td>.195*</td>
<td></td>
</tr>
</tbody>
</table>

Note. PI = Parentification Inventory; PFP = parent-focused parentification; SFP = sibling-focused parentification; PBP = perceived benefits of parentification; MEIM = Multigroup Ethnic Identity Measure; EI = ethnic identity; EBEL = ethnic belonging; OEGO = other ethnic group orientation; BDI = Beck Depression Inventory; EAT-26 = Eating Attitudes Test; AUDIT = Alcohol Use Disorders Identification Test.

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

between predictor variables and outcome variables exist between Black American college students' responses and White American college students' responses.

Hypothesis 4

Three separate regression analyses were performed in the Black American sample and White American sample to examine the predictive ability of the parentification and ethnic identity measures for psychological health (i.e., BDI, EAT-26, and AUDIT). Because of the exploratory nature of this study, all variables were entered simultaneously. The multiple correlation squared ($R^2$) and standardized regression coefficients were used to measure effect size (see Tables 5 and 6).

**BDI.** For the overall regression model, data provided by the Black American participants established the existence of a significant relationship between the six predictor variables (PFP, SFP, PBP, EI, EBEL, and OEGO) and the criterion variable of depression (BDI): $F(6, 150) = 6.004, p < .001$. The $R^2$ value reveals that 19% of the variance observed in the criterion variable, BDI, was explained by the model. Examination of the $t$ tests on each individual predictor variables showed that PFP, PBP, and EBEL scores made a significant, unique contribution above and beyond the other variables: $\beta = .174, t(1, 150) = 1.94, p < .05$; $\beta = .241, t(1, 150) = 2.81, p < .005$; and $\beta = .193, t(1, 150) = 2.40, p < .017$, respectively.

Data provided for the regression model by the White American sample established the existence of a significant relationship between the same six predictor variables and the same criterion variable: $F(6, 150) = 4.14, p < .001$. The $R^2$ value for this model reveals that 14% of the variance observed in the criterion variable, BDI, was explained by the model. Examination of the $t$ tests on each beta weight showed that PBP and EBEL scores made a significant, unique contribution above and beyond the other variables: $\beta = .264, t(1, 150) = $
Table 5
Regression Analysis Summary for Predictor Variables and Psychological Health in Black American Sample

<table>
<thead>
<tr>
<th>STUDY VARIABLE</th>
<th>UNSTANDARDIZED</th>
<th>STANDARDIZED</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>( \beta )</td>
<td>( SE \beta )</td>
</tr>
<tr>
<td><strong>PSYCHOLOGICAL HEALTH: BDI</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PI (PFP)</td>
<td>2.26</td>
<td>1.16</td>
</tr>
<tr>
<td>PI (SFP)</td>
<td>.42</td>
<td>1.17</td>
</tr>
<tr>
<td>PI (PBP)</td>
<td>1.95</td>
<td>.69</td>
</tr>
<tr>
<td>MEIM (EI)</td>
<td>1.91</td>
<td>1.08</td>
</tr>
<tr>
<td>MEIM (EBEL)</td>
<td>3.27</td>
<td>1.36</td>
</tr>
<tr>
<td>MEIM (OEGO)</td>
<td>1.82</td>
<td>1.14</td>
</tr>
<tr>
<td><strong>PSYCHOLOGICAL HEALTH: EAT-26</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PI (PFP)</td>
<td>.051</td>
<td>1.47</td>
</tr>
<tr>
<td>PI (SFP)</td>
<td>.047</td>
<td>1.48</td>
</tr>
<tr>
<td>PI (PBP)</td>
<td>2.18</td>
<td>.87</td>
</tr>
<tr>
<td>MEIM (EI)</td>
<td>3.14</td>
<td>1.37</td>
</tr>
<tr>
<td>MEIM (EBEL)</td>
<td>.35</td>
<td>1.71</td>
</tr>
<tr>
<td>MEIM (OEGO)</td>
<td>1.22</td>
<td>1.44</td>
</tr>
<tr>
<td><strong>PSYCHOLOGICAL HEALTH: AUDIT</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PI (PFP)</td>
<td>.173</td>
<td>.571</td>
</tr>
<tr>
<td>PI (SFP)</td>
<td>1.05</td>
<td>.577</td>
</tr>
<tr>
<td>PI (PBP)</td>
<td>.056</td>
<td>.339</td>
</tr>
<tr>
<td>MEIM (EI)</td>
<td>.446</td>
<td>.532</td>
</tr>
<tr>
<td>MEIM (EBEL)</td>
<td>.567</td>
<td>.667</td>
</tr>
<tr>
<td>MEIM (OEGO)</td>
<td>.124</td>
<td>.559</td>
</tr>
</tbody>
</table>

Note. Boldfaced values reflect a significant, unique contribution of the individual variables on psychological health (i.e., BDI, EAT-26, AUDIT). PI = Parentification Inventory (Hooper, 2009); MEIM = Multigroup Ethnic Identity Measure (Phinney, 1992); BDI = Beck Depression Inventory (Beck et al., 1996); EAT-26 = Eating Attitudes Test (Garner et al., 1982); AUDIT = Alcohol Use Disorders Identification Test (Babor et al., 2001).

Model 1 (BDI): \( R^2 = .194 (n = 150, p < .0001) \).
Model 2 (EAT-26): \( R^2 = .085 (n = 150, p < .036) \).
Model 3 (AUDIT): \( R^2 = .033 (n = 150, p < ns) \).

3.09, \( p < .002 \); and \( \beta = .179, t(1, 150) = 1.94, p < .05 \), respectively.

**EAT-26.** Data provided by the Black American participants for the overall regression model established the existence of a significant relationship between the six predictor variables and the criterion variable of eating behaviors and symptoms (EAT-26): \( F(6, 150) = 2.32, p = .036 \). The \( R^2 \) value reveals that 8% of the variance observed in the criterion variable, EAT-26, was explained by the model. Examination of the \( t \) tests on each individual predictor variables showed that again PBP and EBEL scores made a significant, unique contribution above and beyond the other variables: \( \beta = .226, t(1, 150) = 2.48, p = .014 \); and \( \beta = .193, t(1, 150) = 2.28, p = .023 \), respectively. As seen in Table 6, data provided by the White American sample failed to establish the existence of a significant relationship between the six predictor variables and the criterion variable, EAT-26: \( F(1, 150) = 1.61, p = .146 \).
AUDIT. In two separate regression tests, the AUDIT outcome scores were regressed on the six predictor variables (PFP, SFP, PBP, EI, EBEL, and OEGO) (see Tables 5 and 6). Data provided by the Black American sample for the overall regression model failed to establish the existence of a significant relationship between the six predictor variables and the criterion variable of alcohol-related symptoms and behaviors (AUDIT): $F(6, 150) = .850, p = .534$. Similarly, as seen in Table 6, data provided by the White American sample for the overall regression model failed to establish the existence of a significant relationship between the six predictor variables and the criterion variable, AUDIT: $F(6, 150) = 1.53, p = .171$.

Thus, there was partial support for hypothesis 4: the degree to which ethnic identity and parentification predict psychological health is statistically significantly different for Black American college students and White American college students.

Table 6

Regression Analysis Summary for Predictor Variables and Psychological Health in White American Sample

<table>
<thead>
<tr>
<th>STUDY VARIABLE</th>
<th>UNSTANDARDIZED</th>
<th>STANDARDIZED</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$\beta$</td>
<td>$SE \beta$</td>
</tr>
<tr>
<td><strong>PSYCHOLOGICAL HEALTH: BDI</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PI (PFP)</td>
<td>.476</td>
<td>1.65</td>
</tr>
<tr>
<td>PI (SFP)</td>
<td>.792</td>
<td>1.80</td>
</tr>
<tr>
<td>PI (PBP)</td>
<td>2.72</td>
<td>.880</td>
</tr>
<tr>
<td>MEIM (EI)</td>
<td>.629</td>
<td>1.45</td>
</tr>
<tr>
<td>MEIM (EBEL)</td>
<td>3.04</td>
<td>1.56</td>
</tr>
<tr>
<td>MEIM (OEGO)</td>
<td>.835</td>
<td>.956</td>
</tr>
<tr>
<td><strong>PSYCHOLOGICAL HEALTH: EAT-26</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PI (PFP)</td>
<td>1.47</td>
<td>1.88</td>
</tr>
<tr>
<td>PI (SFP)</td>
<td>.966</td>
<td>2.04</td>
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<tr>
<td>PI (PBP)</td>
<td>.996</td>
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<td>MEIM (EI)</td>
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<tr>
<td>MEIM (EBEL)</td>
<td>.307</td>
<td>1.77</td>
</tr>
<tr>
<td>MEIM (OEGO)</td>
<td>.379</td>
<td>1.08</td>
</tr>
<tr>
<td><strong>PSYCHOLOGICAL HEALTH: AUDIT</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PI (PFP)</td>
<td>.288</td>
<td>1.05</td>
</tr>
<tr>
<td>PI (SFP)</td>
<td>.284</td>
<td>1.14</td>
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<tr>
<td>PI (PBP)</td>
<td>.080</td>
<td>.559</td>
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<tr>
<td>MEIM (EI)</td>
<td>.484</td>
<td>.927</td>
</tr>
<tr>
<td>MEIM (EBEL)</td>
<td>.951</td>
<td>.991</td>
</tr>
<tr>
<td>MEIM (OEGO)</td>
<td>1.60</td>
<td>.608</td>
</tr>
</tbody>
</table>

Note: Boldfaced values reflect a significant, unique contribution of the individual variables on psychological health (i.e., BDI, EAT-26, AUDIT). PI = Parentification Inventory (Hooper, 2009); MEIM = Multigroup Ethnic Identity Measure (Phinney, 1992); BDI = Beck Depression Inventory (Beck et al., 1996); EAT-26 = Eating Attitudes Test (Garner et al., 1982); AUDIT = Alcohol Use Disorders Identification Test (Babor et al., 2001).

Model 1 (BDI): $R^2 = .142 (n = 150, p < .001)$.
Model 2 (EAT-26): $R^2 = .061 (n = 150, p < ns)$.
Model 3 (AUDIT): $R^2 = .058 (n = 150, p < ns)$. 

DISCUSSION

This study used a convenience sample of 314 American college students (157 Black American, 157 White American) to test four hypotheses: (1) Significant differences exist between mean parentification scores of Black American college students and those of White American college students; (2) Significant differences exist between item responses for parentification given by Black American college students and those given by White American college students. (3) Significant differences in the magnitude of the relations between predictor variables and outcome variables exist between Black American college students' responses and White American college students' responses. And (4) the degree to which ethnic identity and parentification predict psychological health is statistically significantly different for Black American college students and White American college students. The data from our samples led to four main findings. We discuss the results in terms of hypotheses proposed and the key study constructs: parentification and ethnic identity.

Parentification

First, we found no support for hypothesis 1; no differences were found in the level (i.e., overall score and subscale scores) of parentification between Black American and White American college student participants. The absence of significant differences suggests that parentification (as measured by the overall score and subscale scores) functioned similarly in the Black American and White American college student samples. Although our significant findings are related to college student participants, they shed light on theories and empirical reports that Black Americans have greater rates of parentification than their White American counterparts (Anderson, 1999; Hooper, Decoster, et al., 2011; Jurkovic et al., 2001). For example, Jurkovic and colleagues (2001) found a significant difference in level of parentification based on race, with Black American college students reporting higher levels of parentification than White American college students. On the other hand, and consistent with our results, Castro et al. (2004) found no difference in the level of retrospective, self-reported parentification and later self-worth in a college student sample. From a methodological standpoint, these findings related to the PI overall score and subscale scores—with two racially diverse college student samples—also relate to the measure and suggest further evidence for its stability.

In our second main finding, derived from the DIF analyses, 77% (17) of the individual items on the PI showed scale differences between Black and White American responses; five items showed no differences between responses, which indicates that these items functioned similarly or equivalently. These results are important and point to the need to further explore the meaning of parentification across racial groups and also the measurement equivalence of the individual items that compose the PI.

The meaning of these results can be interpreted in the following way. In the present study, Black American college students were more likely to endorse items that are often referred to as emotionally focused parentification roles and responsibilities (e.g., comforting others, keeping family secrets, solving family disagreements) in their family; White American college students were more likely to endorse items related to instrumentally focused parentification roles and responsibilities (e.g., caring for siblings, working to contribute financially to the family). Additionally, White American college students tended to carry out these behaviors for their siblings, whereas the items that Black American college students were more likely to endorse were carried out for their parents. These differences point to a possible cultural underpinning in how parentification functions or is carried out in Black
American and White American families.

From a methodological standpoint, these findings are important as well. These results taken together with results evidenced from the tests for hypothesis 1 suggest there are culturally-comparable (overall score and subscale scores) and cultural-specific elements (individual items) related to parentification, although this conclusion is preliminary and needs to be investigated in many more cross-cultural studies.

In our third major finding, study predictor variables in general correlated with psychological health in Black American and White American college students in slightly different ways, although some similarities in the relations between the study variables were uncovered as well. Moreover, these results offer some support consistent with the parentification literature: Higher scores on parentification related to higher scores on depressive symptoms (Carroll and Robinson, 2000; Hooper, Decoster, et al., 2011). In our samples, parentification was significantly related to depressive symptomatology. Additionally, perceived benefits of parentification related to levels of psychological health in theoretically expected ways; participants with a more favorable view of the parentification process reported lower levels of poor psychological health. We also found differences between the two samples in the associations between parentification, disordered eating, and substance use symptoms. In the Black American sample, there was a significant positive relation between parentification and alcohol use and a significant negative relation between perceived benefits of parentification and disordered eating behaviors, attitudes, and symptoms. In comparison, no significant associations between these study variables emerged in the White American sample.

The current study also establishes an empirical association between parentification and perception of ethnic identity in our college student samples. There were slight differences in the relations between parentification and ethnic identity. More specifically, the salience of the three aspects of ethnic identity (i.e., positive ethnic attitudes, ethnic identity achievement, and ethnic belonging) that were measured in the current study appeared to be different for the two racial groups. For example, ethnic belonging and other ethnic group orientation produced the most significant associations with parentification in the Black American sample, whereas ethnic identity and ethnic belonging produced the most significant associations in the White American sample. Our results represent the multidimensional nature of ethnic identity.

In sum, bivariate relations between parentification and psychological health are comparable—in part—to those evinced in the literature. Additionally, as posited, the significant bivariate relations were slightly different for Black American and White American students. These findings, although preliminary in nature, suggest that researchers and practitioners should consider investigating the relevance of ethnic identity in college student populations.

**Parentification and Ethnic Identity: Regression Models**

In our fourth finding, related to the predictive ability of parentification and ethnic identity for psychological health, the results revealed slight differences in the findings between our study samples. In general, we found that the overall model comprising parentification and ethnic identity was able to predict depressive symptoms in both samples. However, for the Black American sample, these factors explained 19% of the variance in depressive symptoms; in the White American sample, these factors explained 14% of the variance. Another difference between the two samples was that three of the predictor variables
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made a unique contribution in depressive symptoms for the Black American sample, but only two predictor variables (perceived benefits of parentification and ethnic belonging) made a unique contribution in depressive symptoms for the White American sample.

Consistent with the literature regarding the differential effects of racial and cultural factors such as ethnic identity on disordered eating behaviors, symptoms, and attitudes (Sabik, Cole, and Ward, 2010; Shuttlesworth and Zotter, 2011), two of our subscales (perceived benefits of parentification and ethnic identity) explained 8% percent of the variance in disordered eating symptoms and behaviors in the Black American sample. Conversely, our study variables were not useful in explaining eating symptoms and behaviors in the White American sample.

Finally, for both samples our overall regression models related to alcohol use and behaviors were not significant. Therefore, we found partial support for hypothesis 4. Our conceptual two-factor model comprising parentification and ethnic identity was able to predict depressive symptoms in both samples, but it was not useful in understanding drinking-related symptoms and behaviors in our Black American and White American college student samples.

In summary, with the exception of hypothesis 1, we found slight differences between the samples in items endorsed on the PI (hypothesis 2), slight differences in the strength of bivariate correlations between predictor variables and outcome variables (hypothesis 3), and slight differences in the predictive strength of the predictor variables for the study outcome variables based on racial groups (hypothesis 4).

Limitations of the Study

In the current cross-sectional study, all study constructs—parentification, ethnic identity, and mental health—were self-reported. Thus, a limitation of the study is the single-informant method, which could have had an impact on the relations between the study constructs. The current study used a cross-sectional design and thus cannot establish causality or the direction of the hypothesized relations evidenced in the current study. Longitudinal designs might allow researchers to discern the ways in which long-term outcomes of parentification change over time and to identify the factors most associated with those changes. The results of the current study are based on a small, low-risk, high-functioning sample, so the generalizability of the study is limited by the college student sample. Finally, given that this study was conducted in the United States, findings may not be generalizable to global and international populations (see Ungar, Theron, and Didkowsky, 2011, for a recent discussion of parentification in international populations).

Implications for Culturally Focused Research

Findings from the current study have implications for future culturally focused research. Parentification research has often focused on White American college students (East, 2010; Fitzgerald et al., 2008) or White American youth (Chase, 1999; Galambos and Tilton-Weaver, 2000). Future research should be conducted with larger study samples with additional racially diverse, understudied, community-based populations (Latino/Latina Americans, Asian Americans, Indian Americans, and so forth). The study of parentification in international, racial minority populations—coupled with a focus on both negative and positive outcomes—would extend our knowledge about prevention, intervention, and treatment efforts (Hooper, 2011). Research questions are needed that consider ethnic identity
and the intersection of race, gender, acculturation, immigration status, and parentification, for example.

What is also currently needed is more scientific investigations to uncover when cultural factors (such as ethnic identity) are protective (i.e., depathologizing the effects of family psychology) for individuals who are parentified, both during and after the parentification process (East, 2010; Hooper, Doehler, et al., 2012). Moreover, research that purposefully includes cultural factors could help explain the extent to which, for whom, and under what conditions cultural factors serve as buffers, mediators, or risk factors for the effects of parentification (Chao and Otsuki-Clutter, 2011; Fitzgerald et al., 2008; Hooper, 2011; Jankowski, Hooper, Sandage, and Hannah, in press; Norcross and Wampold, 2011).

Although some researchers have examined the moderating and mediating effects of cultural factors on parentification (Diaz, Siskowski, and Connors, 2007; Jankowski et al., in press; Kuperminc et al., 2009; National Institute of Mental Health, 2010; Siskowski, 2006; Telzer and Fuligni, 2009), much more research is needed. Qualitative research studies may also help uncover and privilege the voices of racial and cultural minority groups and determine for whom the parentification process may be considered normative and culturally relevant (Buriel, Perez, De Ment, Chavez, and Moran, 1998; Dodson and Dickert, 2004; Gilford and Reynolds, 2011; Goddall et al., 2004). Qualitative research studies would help further clarify the meaning of parentification and the items that appear on the PI (Hooper, 2009). It may be that the Parentification Inventory needs to be further revised to be more culturally and linguistically relevant to a range of racial and cultural populations.

The proposition that ethnic identity factors may have buffering, exacerbating, or mediating properties is not new (Phinney, 1992), although it has not been studied in the context of parentification before the current study. Our study found that perceived benefits of parentification and perceived levels of ethnic belonging are associated with psychological health. Therefore, family counselors, psychologists, and researchers should further explore how ethnic identity can serve as a salient factor after family-of-origin adversity as well as a relevant factor associated with current psychological health. The meaning, significance, and salience of ethnic identity and its relation to childhood parentification and adult outcomes needs to be further explored. Such research could thereby inform culturally tailored assessments and treatments in general and culturally tailored family systems assessments and treatments in particular (Chao and Otsuki-Clutter, 2011; Hooper and Wallace, 2010; Norcross and Wampold, 2011; Szapocznik, Hervis, and Schwartz, 2003). Given that the strength, as well as the meaning, of one's ethnic identity varies among racial groups and racial group members, patient-centered practice requires thoughtful explorations (Phinney and Ong, 2007). This recommended approach to patient-centered care and research is consistent with ethical and culturally competent mental health and medical practice (American Psychological Association, 2003; Cooper, Beach, Johnson, and Inui, 2006; Gozu et al., 2007; Sperry, 2010).

Implications for Culturally Tailored Practice

The negative sequelae related to parentification that are often seen in clinical practice and empirical research cannot be ignored. However, evidence-based practice must be balanced with or situated in the cultural context in which these sequelae exist (Chao and Otsuki-Clutter, 2011). Family counselors, psychologists, and other mental health care providers must ensure that mental health treatments and services consider cultural and linguistic factors when providing care to patients (National Institutes of Health, 2002; Sperry, 2010).
This consideration is an ethical obligation described by the American Psychological Association (2003), among other helping associations (e.g., American Association of Marriage and Family Therapy, American Counseling Association, National Social Work Association, American Medical Association, and so forth). Moreover, considering patients' ethnic identity and how it may relate to both wellness and psychopathology is a critical part of best practices (American Medical Association. (n.d.). Institute of Medicine, 2001; National Institutes of Health, 2002; Satcher, 2001) and may directly relate to quality and optimal mental health care for family members who have experienced parentification.

Our society continues to become more culturally and linguistically diverse. It is important that evidence-based best practices take into account cultural factors in the development of treatments, evaluation of, and interventions for adults who have been parentified (i.e., assessments, diagnostics, and treatments; National Institutes of Health, 2002; Yancey, Ortega, and Kumanyika, 2006). Szapocznik and colleagues' (2003) brief strategic family therapy is one example of an efficacious evidence-based model designed to be culturally tailored and culturally responsive. Posttraumatic growth theory (Hooper, 2007a; Tedeschi and Calhoun, 1998) is another framework that can be used and possibly culturally tailored to empirically investigate the potential negative and positive outcomes of parentification among all emerging adults in general, and among racially and linguistically diverse populations in particular (e.g., Bellizzi et al., 2010; Hooper, 2007b; Hooper et al., 2009; Smith, Rodriguez, and Bernal, 2011; Weiss and Berger, 2010). Currently, many assessment and treatment practices view cultural factors as deficits and recognize them as factors that put some individuals at risk for parentification (Godsall et al., 2004; Hooper, 2007a, 2007b; Jin-kovic et al., 2001; McMahon and Luthar, 2007). Careful consideration of how cultural factors such as ethnic identity may be helpful is an important area with relevance for clinicians and researchers alike.

CONCLUSION

The current study uncovered how Black American and White American college students' ethnic identity relates to parentification and psychological health. The extent to which ethnic identity is a salient factor for racial minority participants was substantiated as well. Studies typically demonstrate that parentification can be linked to a range of psychological outcomes in White American participants. The current study adds to the literature base regarding the extent to which parentification can be linked to a range of psychological outcomes in Black American college students as well. Until recently, the failure to include more culturally diverse participants in research studies has limited clinicians and researchers' understanding of the sequelae of, and intervention points for, parentification in diverse populations. Because of the complex nature of parentification, it is imperative that researchers aim to include racially diverse participants in their studies (National Institute of Mental Health, 2010; National Institutes of Health, 2002; Paniagua, 1994; Sperry, 2010) and consider culturally relevant factors that may relate to constructs such as parentification (Winton, 2002). Thus, although this study was cross-sectional in nature, it adds to the literature on parentification by examining the relations among culturally focused variables.

REFERENCES


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