Personality and Individual Differences 47 (2009) 583–589

Contents lists available at ScienceDirect

Personality and Individual Differences

journal homepage: www.elsevier.com/locate/paid

The impact of family functioning on anxiety symptoms in African American and European American young adults

L. Kevin Chapman *, Janet Woodruff-Borden

Department of Psychological and Brain Sciences, University of Louisville, Louisville, KY 40292, United States

ARTICLE INFO

Article history:
Received 21 November 2008
Received in revised form 11 May 2009
Accepted 13 May 2009
Available online 11 June 2009

Keywords:
Family functioning
African Americans
Anxiety disorders
Ethnic differences

ABSTRACT

The current study aimed to investigate reported family functioning and its impact on anxiety symptoms in a sample of African American and European American young adults. One hundred African American and one hundred twenty one European American young adults completed the Beck Anxiety Inventory (BAI), the State Trait Anxiety Inventory (STAI), and a retrospective version of the McMaster Family Assessment Device (FAD). Results indicated that the African Americans reported significantly less anxiety as measured by the BAI and the STAI Trait subscale. Significant differences did not exist on the FAD subscales. A structural equation model was posed to test measurement model invariance and subsequent prediction of anxiety from a latent factor of family functioning created from the FAD subscales. Results indicated that the family functioning factor loadings were significantly different between African Americans and European Americans. Further analyses revealed that family functioning significantly predicted anxiety symptoms in the European American sample, but not the African American sample. Implications of familial functioning, anxiety, and ethnicity are discussed.

1. Introduction

The familial linkage of anxiety is evident in the empirical literature (for review, see Fyer, Mannuzza, Chapman, Martin, & Klein, 1995; Torgenson, 1983) with children of anxious parents being approximately three to seven times more likely to develop an anxiety disorder than children with a non-anxious parent (Turner, Beidel, & Costello, 1987). Parental behaviors have also been underscored as important factors in the expression of anxiety in offspring. For instance, retrospective reports of parental behaviors have indicated that both parents of anxious children and anxious parents have demonstrated low warmth and high control toward their child (see Gerlsma, Emmelkamp, & Arrindell, 1990; Laraia, Stuart, Frye, Lydiard, & Ballenger, 1994; Parker, 1993). These findings are corroborated by self-reports of anxious children (Bernstein, Svingen, & Garfinkel, 1990; Ginsburg, Silverman, & Kurtines, 1995; Last & Strauss, 1990; Messer & Beidel, 1994; Stark, Humphrey, Crook, & Lewis, 1990) and have been observed in parent-child interactions (see Dumas, Serketich, & LaFreniere, 1995; Siqueland, Kendall, & Steinberg, 1996; Turner, Beidel, Roberson-Nay, & Tervo, 2003; Woodruff-Borden, Morrow, Bourland, & Cambron, 2002). These studies indicate that specific patterns of family *dysfunction* have emerged as contributors to negative child outcomes particularly anxiety symptoms. Although family dysfunction seems to be related to maladaptive child outcomes, family *functioning* has been associated with various positive child outcomes including post-divorce adjustment (Johnson & McNeil, 1998), academic achievement (Heiss, 1996), as well as emotional and social adjustment (Taylor & Wang, 1997). Given that families are undeniably heterogeneous due to a plethora of factors (i.e., historical, racial, socio-cultural influences) researchers would be remiss to ignore potentially differential impact of family functioning on anxiety symptoms in diverse populations. Since there remains a current paucity in the literature pertaining to anxiety disorders in African Americans (see Chapman, Kertz, Zurlage, & Woodruff-Borden, 2008; Lewis-Hall, 1994; Neal & Brown, 1994; Neal & Turner, 1991; Smith, Friedman, & Nevid, 1999; Williams & Turkheimer, 2008), it is important to examine family functioning and anxiety symptoms in African Americans in comparison to their European American counterparts. Structural equation modeling would allow the modeling of relations among latent factors (i.e., family functioning and anxiety) and their specific indicators to provide a precise measurement of relationships among variables. The current study aims to investigate the role of retrospectively reported family functioning on current anxiety symptoms in a sample of African American and European American young adults.

The importance of family in African Americans is salient in the empirical literature (see Boyd-Franklin, 2003; Caldwell & Koski, 1997; Hatchet & Jackson, 1992; Mandara & Murray, 2002; McCabe, Clark, & Barnett, 1999). Most notably, authoritarian parenting has been consistently linked to problem behaviors in European

* Corresponding author. Tel.: +1 502 852 3017; fax: +1 502 852 8904.
E-mail address: kevin.chapman@louisville.edu (L.K. Chapman).

0191-8869/$ - see front matter © 2009 Elsevier Ltd. All rights reserved.
doi:10.1016/j.paid.2009.05.012

American families which is similar to "affectionless control" as described in anxious European American families (see Harvison, Chapman, Ballash, & Woodruff-Borden, 2008; Leon & Leon, 1990). Furthermore, sociocultural factors may greatly influence the perception of parenting behaviors that are deemed as functional, adaptive, and necessary for family functioning in African Americans which may be disparate from the perceptions of European Americans. For instance, Lamborn, Dornbusch, and Steinberg (1996) contend that high parental control in African American families may be viewed positively by African American children since more environmental stressors may be present, such as violence and drugs, and this control may be perceived as protection against potentially harmful events. An examination of familial functioning in relation to anxiety symptoms in a sample of African American and European American young adults would significantly enhance our understanding of anxiety and related constructs across ethnic groups. Given the existing need to clearly delineate the role that family functioning potentially plays in African American anxiety, the current study had four specific aims. First, the current study aimed to examine the psychological construct of family functioning through a structural equation model analysis across African American and European American young adults. Second, the current study aimed to examine the impact of reported family functioning on current anxiety symptoms in African American and European American young adults. Based on the existing literature, it was hypothesized that African Americans and European Americans would significantly differ on self-reported family functioning, thus, resulting in differences in indicators related to a family functioning factor. Last, it was hypothesized that the construct of family functioning would differentially predict anxiety symptoms in the African American and European American samples.

2. Method

2.1. Participants

The sample was comprised of 221 undergraduate students from a mid-to-large sized public Midwestern university. Students were recruited from an introductory psychology course ($N = 130$) and an introductory level Pan African Study course ($N = 91$). All participants were given class credit for participating in the study and informed consent was obtained individually by either the principal investigator or by IRB approved key personnel. The sample included 71 males and 150 females with a mean age of 20 years (see Table 1). Fifty-five percent of the sample was European American while the remaining 45% were African American. Participants completed the McMaster Family Assessment Device (FAD; Epstein, Baldwin, & Bishop, 1983), The Beck Anxiety Inventory (BAI; Beck & Steer, 1990), and the State Trait Anxiety Inventory (STAI; Spielberger, Gorsuch, Lushene, Vagg, & Jacobs, 1983) in a group setting as a part of a larger study measuring racial differences in anxiety. Table 1 presents demographics for the sample.

Table 1
Demographics.

Variable	African American	Caucasian American	*t*/Chi-square
Gender			.106
Male	31	40	
Female	69	81	
Age			−4.03***
M	21.7	19.14	
SD	5.81	3.52	
Living arrangements			3.352
On campus, alone		57	54
Off campus, alone	43	62	
Family income			25.21***
<$29,999	26	17	
$30,000–59,999	44	27	
>$60,000	29	76	

*** $p < .001$.

2.2. Model indicators

Responses from the self-report questionnaires served as model indicators in both the measurement and structural models. The Latent factors were psychological constructs conceptually related to the model indicators (e.g., family functioning, anxiety).

2.2.1. The McMaster Family Assessment Device (FAD; Epstein et al., 1983)

The FAD is a 53-item self-report questionnaire assessing family functioning from a structural and organizational perspective based on the patterns of transactions from family groups (Epstein et al., 1983). Responses from the FAD subsequently yield seven subscales related to the families' ability to function in specific domains endemic to family interactions. The subscales include problem solving, communication, affect, affective involvement, behavioral control, roles, and general functioning. Lower scores on the FAD indicate healthier family functioning. Means on the FAD subscales in non-clinical samples have ranged from 1.96 to 2.23 (Epstein et al., 1983). A retrospective version of the FAD was created in which the participants were required to report past family functioning based on past living arrangements with parents. Examples of specific items from the retrospective FAD are presented in Table 2. Examples of specific items from the retrospective FAD are presented in Table 2. Internal consistency for the FAD was low to moderate in the overall sample ($\alpha = .47$) as well as the European American ($\alpha = .44$) and African American samples, respectively ($\alpha = .49$). The seven subscales from the FAD were utilized as indicators for the latent factor, family functioning, in the measurement and structural models.

2.2.2. Beck anxiety inventory (BAI; Beck & Steer, 1990)

The BAI is a widely utilized measure of both cognitive and somatic symptoms of anxiety experienced over the past week. The BAI is comprised of 21 items rated on a scale ranging from 0 to 3 with total scores ranging from 0 to 63. The overall internal consistencies for the BAI items in the current sample were excellent overall ($\alpha = .88$), the European American sample ($\alpha = .86$), and the African American sample ($\alpha = .88$). Total scores on the BAI were used as an indicator for the latent factor, anxiety, in the structural equation model.

2.2.3. State trait anxiety inventory (STAI; Spielberger et al., 1983)

The STAI is a 40-item, well-established self-report questionnaire that assesses "state" and "trait" anxiety as separate, dimen-

Table 2
Items from the retrospective version of the FAD.

Item	Subscale
1. We usually acted on our decisions regarding problems.	Problem solving
17. When we didn't like what someone did, we told them	Communication
21. We made sure members met their family responsibilities.	Roles
22. We didn't show our love for each other.	Affect
19. Even though we meant well, we intruded too much into each other's lives	Affective involvement
33. If the rules were broken, we didn't know what to expect.	Behavioral control
51. We avoided discussing our fears and concerns.	General functioning

Table 3
Partial correlations of age and income with model indicators.

	1	2	3	4	5	6	7	8	9	10	11	12
1. Age	–	−.105	.036	−.086	−.030	.030	.017	−.042	.030	.071	−.061	−.085
2. Income	–	–	−.140	-.061	−.292	−.033	−.032	−.134	−.117	−.029	−.091	−.106
3. Problem	–	–	–	.624	.568	.605	.370	.287	.645	.199	.178	.318
4. Comm	–	–	–	–	.524	.542	.402	.243	.608	.047	.091	.212
5. Roles	–	–	–	–	–	.562	.550	.414	.675	.154	.197	.276
6. Affect	–	–	–	–	–	–	.578	.335	.692	.182	.109	.278
7. Affect involve	–	–	–	–	–	–	–	.338	.618	.089	.133	.229
8. Behav control	–	–	–	–	–	–	–	–	.384	.076	.072	.101
9. Gen function	–	–	–	–	–	–	–	–	–	.150	.209	.326
10. BAI	–	–	–	–	–	–	–	–	–	–	.533	.581
11. STATE	–	–	–	–	–	–	–	–	–	–	–	.778
12. TRAIT	–	–	–	–	–	–	–	–	–	–	–	–

sional scales. Both scales range from 0 to 4 with increasing intensity. The internal consistency for the STAI was moderate in the overall sample ($\alpha = .61$), in the European American ($\alpha = .56$), and the African American sample ($\alpha = .68$). The state and trait subscales were used as indicators for the latent variable, anxiety.

2.3. Criterion variable

The latent construct, family functioning, was used to predict anxiety symptoms in the current sample. The BAI and the STAI were used as indicators for the latent factor *Anxiety* which served as the criterion variable.

2.4. Approach to structural equation modeling

The sample variance–covariance matrix was estimated using a maximum-likelihood solution with an analysis of moment structure program (AMOS; Arbuckle, 2006). One latent variable (family functioning) was created from the seven FAD subscales and a latent factor of self-reported anxiety symptoms (anxiety). These latent factors were created in order to correct for measurement unreliability and allows for maximum flexibility while modeling the relations among constructs of interests (Hoyle & Smith, 1994). The comparative fit index (CFI; Bentler, 1990), the root mean square error of approximation (RMSEA), and the incremental fit index (IFI; Bollen, 1989) were utilized as measures of global fit. Global fit was also measured by the chi-square goodness-of-fit test. Acceptable fit values for the global fit indices are close to 1.0 (Hoyle & Smith, 1994; Hu & Bentler, 1999) with acceptable RMSEA cutoff values being close to .06 (Hu & Bentler, 1999). Measurement invariance was initially tested across both groups with the family functioning measurement model to determine whether similar patterns emerged for both the African American and European American samples; constraints were employed following testing of measurement invariance across groups. A structural equation model was subsequently posed with anxiety as the criterion to determine whether similar patterns (i.e., family functioning and anxiety) would emerge across groups.

3. Results

3.1. Demographic comparisons

The reliability of the FAD was low to moderate for the overall sample ($\alpha = .47$), the African American sample ($\alpha = .49$), and the European American sample ($\alpha = .44$). Demographic comparisons are illustrated in Table 1. The African American and European American participants significantly differed with respect to age and income. The two groups did not significantly differ on living arrangements and gender. Partial correlations were conducted with each indicator along with participant age and income while controlling for race. The correlations are presented in Table 3.

3.2. Racial comparisons of model indicators

The means on the FAD scales were slightly lower than the original, nonclincial sample of the FAD ranging from 1.55 to 2.13 and other samples (Kabacoff, Miller, Bishop, Epstein, & Keitner, 1990). Mean differences were also compared between the African American and European American participants on model indicators. The results are presented in Table 4. As shown in Table 4, the African Americans and European Americans in the current sample significantly differed on the BAI and the STAI Trait anxiety subscale with European Americans endorsing more anxiety symptoms than the African Americans. Although non-significant, the African Americans had lower means on the seven subscales of the FAD than the European Americans in the current sample.

Table 4
Mean differences in model indicators.

Indicators	African Americans	European Americans	*t*
BAI			
M	8.9	11	2.00*
SD	8.2	7.7	
STATE			
M	38.1	40.2	1.2
SD	12.8	12.3	
TRAIT			
M	40	44	2.31*
SD	11.3	12.2	
Problem solving			
M	2.13	2.17	.531
SD	.58	.58	
Communication			
M	2.04	2.14	1.45
SD	.43	.47	
Roles			
M	2.11	2.21	1.53
SD	.511	.488	
Affect			
M	2.02	2.02	.020
SD	.553	.617	
Affective involvement			
M	1.95	2.02	.921
SD			
Behavioral control			
M	1.55	1.71	1.73
SD	.937	.436	
General functioning			
M	1.83	1.89	.761
SD	.545	.715	

*$P < .05$.

3.3. Bivariate correlations of model indicators

Bivariate correlations were conducted with the utilized model indicators to examine the association between variables. The correlations are presented in Tables 5 and 6 for the European Americans and African Americans respectively. Interestingly, the model indicators utilized for family functioning were all significantly correlated with anxiety, albeit communication, in the European American sample. However, the problem solving and trait anxiety were the only significant correlations in the African American sample. As such, the model indicators were utilized to create latent constructs for the subsequent structural equation model.

3.4. Measurement model invariance testing of family functioning

Measurement invariance was initially tested by examining the measurement model of the latent construct of family functioning across both groups. The global fit indices for the model indicated excellent fit as measured by global fit indices $\chi^2(28, N = 221) = 59$, $p = .001$; CFI = .96, IFI = .96, RMSEA = .072. These results suggest that family functioning is measured the same across groups. It should be noted that the modification indices revealed an improvement in model fit, as measured by the chi-square test, if the error terms of certain indicators (i.e., problem solving-affective involvement; problem-solving-communication; communication-affective involvement; roles-affect) were allowed to be correlated. Since there was not theoretical justification for such manipulation as well as the evidence of model fit provided by the accompanying global fit indices, these modifications were not made.

3.5. Constrained loadings of family functioning

A nested model was tested to determine if the latent factor of family functioning as measured by the FAD indicators contributed equivalently across groups. The paths from the family functioning latent factor to the seven indicators were constrained to equality and compared to the baseline model. A chi-square difference test was conducted against the baseline model (without equality constraints). Results indicated a significant change in chi square when the indicators of family functioning were constrained across groups $\chi 2\Delta\ (1, N = 221) = 72$, $p = .036$. These results indicate that although the latent factor of family functioning may be comprised of similar indicators across groups, family functioning is measured differently (i.e., the FAD indicators contribute differently) in the African Americans and the European Americans in the current sample.

3.6. Structural equation model of family functioning and anxiety

A structural equation model was estimated to determine whether family functioning predicted anxiety simultaneously in both groups. The results are presented in Figs. 1 and 2. The accompanying global fit indices for the model indicated excellent fit with the observed data $\chi^2\ (66, N = 221) = 102$, $p = .005$; CFI = .97, IFI = .97, RMSEA = .049. Although the proposed set of relations fit the data implied in the variance-covariance matrix, regression weights for the proposed model indicated that family functioning significantly predicted anxiety in the European American sample ($p < .001$), but not in the African American sample ($p = .274$). As such, an additional, nested model was subsequently tested.

3.7. Constrained model to test model invariance

An additional nested model was tested to determine if family functioning contributed similarly to anxiety across the two groups. The path from family functioning was constrained to equality across groups to determine if there was a unique contribution to anxiety. A chi-square difference test was conducted against the baseline model (without equality constraints) with results indicating a trend toward a significant change in chi square when the path

Table 5
Bivariate Pearson correlations of model indicators in European American sample.

	1	2	3	4	5	6	7	8	9	10
1. BAI	–	.542**	.606**	.314**	.128	.288**	.358**	.288**	.330**	.306**
2. STATE	–	–	.791**	.234**	.098	.248**	.240**	.300**	.254**	.342**
3. TRAIT	–	–	–	.385**	.259**	.373**	.383**	.400**	.334**	.436**
4. Problem solving	–	–	–	–	.656**	.619**	.760**	.531**	.639**	.689**
5. Comm.	–	–	–	–	–	.435**	.584**	.412**	.465**	.600**
6. Roles	–	–	–	–	–	–	.587**	.605**	.631**	.616**
7. Affect	–	–	–	–	–	–	–	.672**	.631**	.726**
8. Affective involvement	–	–	–	–	–	–	–	–	.584**	.667**
9. Behavioral control	–	–	–	–	–	–	–	–	–	.634**
10. General functioning	–	–	–	–	–	–	–	–	–	–

** $p < .01$.

Table 6
Bivariate Pearson correlations of model indicators in African American sample.

	1	2	3	4	5	6	7	8	9	10
1. BAI	–	.563**	.589**	.085	−.050	−.014	−.002	−.099	−025	−.034
2. STATE	–	–	.775**	.112	.083	.142	−.055	−.043	−.005	−.037
3. TRAIT	–	–	–	.213**	.118	.131	.129	.021	−.002	−.037
4. Problem solving	–	–	–	–	.560**	.489**	.383**	.156	.118	.589**
5. Comm.	–	–	–	–	–	.630**	.475**	.363**	.149	.622**
6. Roles	–	–	–	–	–	–	.534**	.499**	.331**	.796**
7. Affect	–	–	–	–	–	–	–	.445**	.202	.647**
8. Affective involvement	–	–	–	–	–	–	–	–	.584**	.667**
9. Behavioral control	–	–	–	–	–	–	–	–	–	.296**
10. General functioning	–	–	–	–	–	–	–	–	–	–

** $p < .05$.

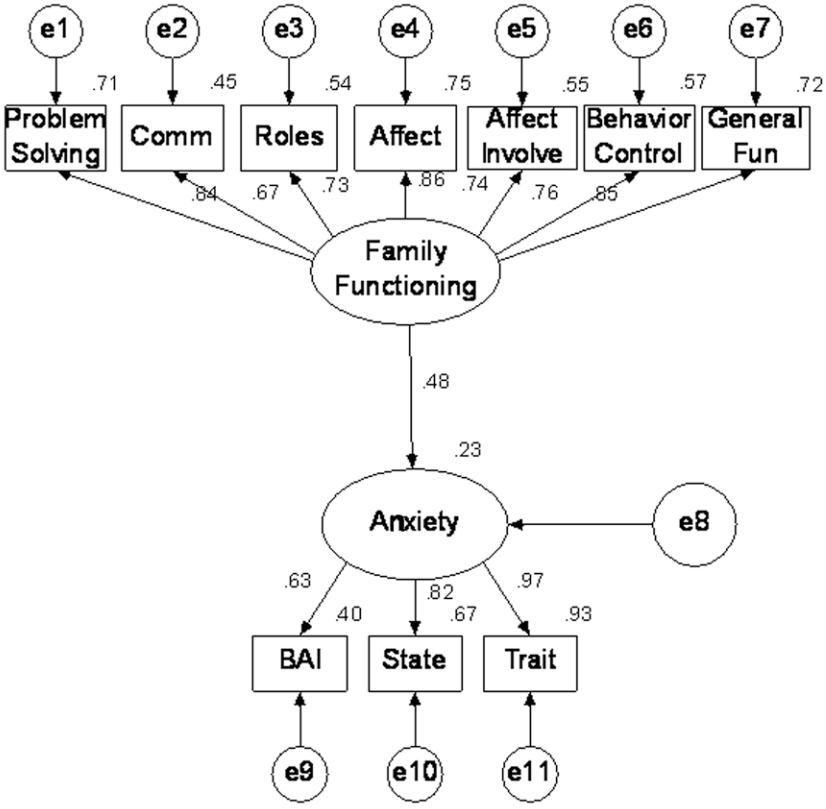

Fig. 1. Structural equation model of family functioning on anxiety symptoms in European American sample.

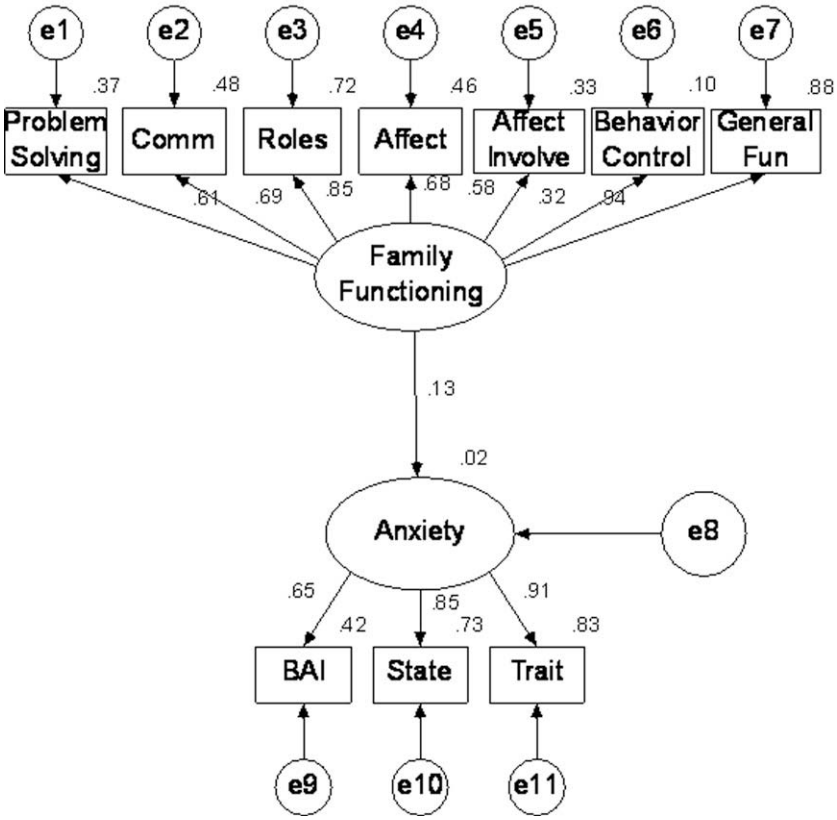

Fig. 2. Structural equation model of family functioning on anxiety symptoms in African American sample.

from family functioning to anxiety was constrained across groups $\chi 2\Delta$ (1, N = 221) = 105, p = .070. This result indicates that although the overall pattern of family functioning predicting anxiety appears similar across groups, the factor loadings of family functioning, as previously noted, were different suggesting a differential contribution to anxiety in the African Americans and European Americans in the current sample.

4. Discussion

Preliminary analyses in the current study indicated that the African Americans and the European Americans in the current sample significantly differed on the BAI and the STAI Trait subscale with European Americans endorsing more symptoms of anxiety. No significant differences were found between the African Americans and European Americans on family functioning as measured by the FAD. Perhaps most interestingly, subsequent analyses revealed similar patterns in both groups related to the measurement of the latent factor of family functioning although the factor loadings of family functioning were not equivalent across groups. These findings indicate that although family functioning appears to be measured the same in both the African Americans and European Americans, that specific subscales encompassing family functioning are disparate in the African Americans and the European Americans in the current sample. Furthermore, family functioning as measured by the FAD appears to have a stronger impact on reported anxiety symptoms in European Americans than in African Americans.

Results from the current study have several implications worth noting. First, the African Americans in the current sample reported significantly less anxiety on the BAI and the STAI Trait subscale. Given that these measures were reliable in both samples, it may be that African Americans in the current sample experience less anxiety symptoms as measured by these instruments than the European Americans in the current sample. Further exploration with these measures is needed to definitively draw conclusions. Second, the factor loadings of family functioning were different in the African Americans and the European Americans in the current sample. This finding is important to note for several reasons. To date, the current study is one of the first to explore patterns of the factor structure of the FAD across African Americans and European Americans. As previously noted, the patterns were similar across groups which suggests that the subscales yielded from the FAD are appropriate for the measurement of family functioning in African Americans. However, certain subscales on the FAD seem to be more indicative of family functioning in the African American sample than in the European American sample. As displayed in Figs. 1 and 2, six of the seven indicators seem to be disparate between the two groups with the exception of the roles subscale. For example, behavioral control as measured by the FAD is conceptualized as the extent to which families express and maintain family standards (Epstein et al., 1983). The results may suggest that African Americans may engage in more behavioral control than European Americans and that this control serves a *functional* purpose in African American families. Similarly, psychological control has been consistently shown to impede a child's psychological development (Mason, Cauce, Gonzales, & Hiraga, 1996; Smetana & Daddis, 2002) and is related to internalizing difficulties such as anxiety (Barber, 1996). The affective involvement subscale of the FAD, the extent to which families value and are involved in family matters, appears to be similar to psychological control in that too much affective involvement may be viewed as intrusive by the recipient. Again, the factor loading for affective involvement was relatively higher in the European Americans (i.e., .58) than in the African Americans (i.e., .09) particularly when paths were constrained to equality. Consistent with the contention of Epstein and colleagues (1983) that neither too much nor too little affective involvement is optimal, Mason et al. (1996) found that this was also true for the construct of psychological control in African American families. Studies further examining the factor structure of the FAD would enhance our understanding of psychosocial constructs related to family functioning in African Americans. In sum, the two groups did not significantly differ on the FAD subscales, however, other familial factors not assessed by the FAD likely encompass overall family functioning in African Americans.

Moreover, family functioning was significantly related to reported anxiety symptoms in the European American sample, but not in the African American sample. Furthermore, several of indicators endemic to family functioning as measured by the FAD may be implicated in anxiety across both groups, however, the African Americans and European Americans differ in which specific facet of family functioning is related to anxiety. Based on the results from the current study, these findings suggest that further exploration of family functioning is needed in order to determine what specific facets of family functioning are essential not only to the conceptualization of family functioning/dysfunction in African Americans, but also which facets of family functioning are related to anxiety symptoms. These results provide evidence suggesting the need for further exploration of familial factors related to outcome in African Americans.

4.1. Limitations

There are several limitations worth noting in the current study. First, the reliability of the FAD was low to moderate in both groups. The inconsistency in reliability of the FAD has been found in previous work (Kabacoff et al., 1990). This seems to indicate that the potential unreliability of the FAD is not endemic to ethnic minority samples, rather, the measure overall. Second, the FAD was a retrospective version for which participants recalled past family functioning. Presumably, it would be difficult for many participants to accurately recall past familial environments. Further, it is plausible to assert that the relationship between family functioning and anxiety is bidirectional in nature. Future investigators may consider this notion for work in this area. An additional limitation is that the current sample was comprised of an undergraduate sample, which limits the generalizability of the current findings. Community-based samples would be ideal for future work in this area. Finally, more reliable measures of family functioning in ethnically diverse samples are warranted. The reliability of the FAD was relatively low indicating that indicators of reported family functioning in ethnically diverse samples may not be adequately encompassed by the FAD.

References

Arbuckle, J. L. (2006). *Amos (Version 7.0) [Computer program]*. Chicago: SPSS.
Barber, B. K. (1996). Parental psychological control: Revisiting a neglected construct. *Child Development, 67*, 3296–3319.
Beck, A. T., & Steer, R. A. (1990). *Manual for the beck anxiety inventory*. San Antonio, TX: Psychological Corporation.
Bentler, P. M. (1990). Comparative fit indexes in structural models. *Quantitative Methods in Psychology Bulletin, 107*(2), 238–246.
Bernstein, G. A., Svingen, P. H., & Garfinkel, B. D. (1990). School phobia: Patterns of family functioning. *Journal of Abnormal Child Psychology, 11*, 463–486.
Bollen, K. A. (1989). A new incremental fit index for general structural equation models. *Sociological Methods and Research, 17*, 303–316.
Boyd-Franklin, N. (2003). *Black families in therapy: Understanding the African American experience* (2nd ed.). New York, NY: Sage Publications.
Caldwell, C. H., & Koski, L. R. (1997). Child rearing, social support, and perceptions of parental competence among African American mothers. In R. J. Taylor, J. S. Jackson, & L. M. Chatters (Eds.). *Family life in African American America* (Vol. 4, pp. 185–200). Thousand Oaks, CA: Sage Publications, Inc..
Chapman, L. K., Kertz, S. J., Zurlage, M. M., & Woodruff-Borden, J. (2008). A confirmatory factor analysis of specific phobia domains in African American

and Caucasian American young adults. *Journal of Anxiety Disorders, 22*(5), 763–771.
Dumas, J. E., Serketich, W. J., & LaFreniere, P. J. (1995). Balance of power: A transactional analysis of control in mother-child dyads involving socially competent, aggressive, and anxious children. *Journal of Abnormal Psychology, 104*(1), 104–113.
Epstein, N. B., Baldwin, L. M., & Bishop, D. S. (1983). The McMaster family assessment device. *Journal of Marital and Family Therapy, 9*(2), 171–180.
Fyer, A. J., Mannuzza, S., Chapman, T., Martin, L., & Klein, D. F. (1995). Specificity in familial aggregation of phobic disorders. *Archives of General Psychiatry, 52*(7), 564–573.
Gerlsma, C., Emmelkamp, P. M. G., & Arrindell, W. A. (1990). Anxiety, depression, and perception of early parenting: A meta-analysis. *Clinical Psychology Review, 10*, 251–277.
Ginsburg, G. S., Silverman, W. K., & Kurtines, W. K. (1995). Family involvement in treating children with phobic and anxiety disorders: A look ahead. *Clinical Psychology Review, 15*, 457–473.
Harvison, K. W., Chapman, L. K., Ballash, N. G., & Woodruff-Borden, J. (2008). Anxiogenic patterns in mother-child interactions. *Child and Family Behavior Therapy, 30*(2), 137–152.
Hatchet, J. S., & Jackson, J. S. (1992). African American extended kin systems. In A. Billingsley (Ed.), *Climbing Jacob's ladder: The enduring legacy of African American families*. New York, NY: Simon & Schuster.
Heiss, J. (1996). Effects of African American family structure on school attitudes and performance. *Social Problems, 43*, 246–265.
Hoyle, R. H., & Smith, G. T. (1994). Formulating clinical research hypotheses as structural equation models: A conceptual overview. *Journal of Consulting and Clinical Psychology, 62*(3), 429–440.
Hu, L., & Bentler, P. M. (1999). Cut off criteria for fit indices in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling, 6*(1), 1–55.
Johnson, P., & McNeil, K. (1998). Predictors of developmental task attainment for young adults from divorced families. *Contemporary Family Therapy: An International Journal, 20*, 237–250.
Kabacoff, R. I., Miller, I. W., Bishop, D. S., Epstein, N. B., & Keitner, G. I. (1990). A psychometric study of the McMaster Family Assessment Device in psychiatric, medical, and nonclinical samples. *Journal of Family Psychology, 3*(4), 431–439.
Lamborn, S. D., Dornbusch, S. M., & Steinberg, L. (1996). Ethnicity and community context as moderators of the relations between family decision making and adolescent adjustment. *Child Development, 67*, 283–301.
Laraia, M. T., Stuart, G. W., Frye, L. H., Lydiard, R. B., & Ballenger, J. C. (1994). Childhood environment of women having panic disorder with agoraphobia. *Journal of Anxiety Disorders, 8*, 1–17.
Last, C. G., & Strauss, C. C. (1990). School refusal in anxiety-disordered children and adolescents. *Journal of the American Academy of Child and Adolescent Psychiatry, 29*, 31–35.
Leon, C. A., & Leon, A. (1990). Panic disorder and parental bonding. *Psychiatric Annals, 20*, 503–508.
Lewis-Hall, F. C. (1994). Use of the DSM in the diagnosis of panic disorder and obsessive-compulsive disorder. In S. Friedman (Ed.), *Anxiety Disorders in African Americans* (pp. 102–116). New York: Springer.
Mandara, J., & Murray, C. B. (2002). Development of an empirical typology of African American family functioning. *Journal of Family Psychology, 16*(3), 318–337.
Mason, C. A., Cauce, A., Gonzales, N., & Hiraga, Y. (1996). Neither too sweet nor too sour: Problem peers, maternal control, and problem behavior in African American adolescents. *Child Development, 67*, 2115–2130.
McCabe, K. M., Clark, R., & Barnett, D. (1999). Family protective factors among urban African American youth. *Journal of Clinical Child Psychology, 28*(2), 137–150.
Messer, S. C., & Beidel, D. C. (1994). Psychosocial correlates of childhood anxiety disorders. *Journal of the American Academy of Child and Adolescent Psychiatry, 33*, 975–983.
Neal, A. M., & Brown, J. W. (1994). Fears and anxiety disorders in African American children. In S. Friedman (Ed.), *Anxiety Disorders in African Americans* (pp. 65–75). New York: Springer.
Neal, A. M., & Turner, S. M. (1991). Anxiety disorders research with African Americans: Current status. *Psychological Bulletin, 109*(3), 400–410.
Parker, G. (1993). *Parental overprotection: A risk factor in psychosocial development*. New York: Grune & Stratton.
Siqueland, L., Kendall, P. C., & Steinberg, L. (1996). Anxiety in children: Perceived family environments and observed family interaction. *Journal of Clinical Child Psychology, 25*(2), 225–237.
Smetana, J. G., & Daddis, C. (2002). Domain-specific antecedents of parental psychological control and monitoring: The role of parenting beliefs and practices. *Child Development, 73*(2), 563–580.
Smith, L. C., Friedman, S., & Nevid, J. (1999). Clinical and sociocultural differences in African American and European American patients with panic disorder and agoraphobia. *The Journal of Nervous and Mental Disease, 187*(9), 549–560.
Spielberger, C. D., Gorsuch, R. L., Lushene, R., Vagg, P. R., & Jacobs, G. A. (1983). *Manual for the State-Trait Anxiety Inventory (Form Y)*. Palo Alto, CA: Mind Garden.
Stark, K. D., Humphrey, L. L., Crook, K., & Lewis, K. (1990). Perceived family environments of depressed and anxious children: Child's and maternal figure's perspectives. *Journal of Abnormal Child Psychology, 18*, 527–547.
Taylor, R. D., & Wang, M. C. (1997). *Social and emotional adjustment and family relations in ethnic minority families*. Mahwah, NJ: Erlbaum.
Torgenson, S. (1983). Genetic factors in anxiety disorders. *Archives of General Psychiatry, 40*, 1085–1089.
Turner, S. M., Beidel, D. C., & Costello, A. (1987). Psychopathology in the offspring of anxiety disorders patients. *Journal of Consulting and Clinical Psychology, 55*(2), 229–235.
Turner, S. M., Beidel, D. C., Roberson-Nay, R., & Tervo, K. (2003). Parenting behaviors in parents with anxiety disorders. *Behaviour Research and Therapy, 41*, 541–554.
Williams, M., & Turkheimer, E. (2008). The effects of interviewer race on anxiety in African Americans. In L. V. Sebeki (Ed.), *Leading-edge health education issues*. Berlin: Springer.
Woodruff-Borden, J., Morrow, C., Bourland, S., & Cambron, S. (2002). The behavior of anxious parents: Examining mechanisms of transmission of anxiety from parent to child. *Journal of Clinical Child and Adolescent Psychology, 31*(3), 364–374.