<ATL> Church and family support networks and depressive symptoms among African Americans: Findings from the national survey of American life </ATL>

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Abstract <zaq;2>

<P> Depression, with a lifetime prevalence rate of 18.6% and 12-month prevalence rate of 8.1% (González, Tarraf, Whitfield, & Vega, 2010), is the most prevalent and one of the most burdensome mental health problems in the United States. Clinical depression is associated with chronic health problems, early mortality, diminished role functioning (e.g., low marital functioning and work performance), difficulties with role transitions, functional impairments, and increased healthcare utilization (Kessler, 2012; Pratt & Brody, 2014; World Health Organization, 2017). Further, the financial cost of depression in the United States is immense, totaling $210.5 billion per year (Greenberg, Fournier, Sisitsky, Pike, & Kessler, 2015). Depressive symptoms, even in the absence of a depression diagnosis, are associated with significant health and social problems including psychosocial dysfunction, substance use disorders, functional impairments, and poor self-rated health, as well as the onset of clinical depression (Hybels, Blazer, & Pieper, 2001; Lewinsohn, Solomon, Seeley, & Zeiss, 2000). An estimated 6.6% of the general U.S. population experiences moderate to severe depressive symptoms (Pratt & Brody, 2014).

<P> It would be expected that African Americans would have higher levels of depression, given that they are more likely to experience life circumstances (poverty) and events (life stressors) that represent risk factors for the development of depression. Compared to the general population, however, African Americans have both lower lifetime (10.4%) and 12-month (5.9%) prevalence rates for diagnosed depression (Williams et al., 2007). This has been recognized as a paradox in the mental health field (Mezuk et al., 2010; Mouzon, 2013). Explanations for the paradox

of high risk factors for depression but lower prevalence rates include psychosocial factors, such as social supports and coping resources from family and religious communities that limit exposure to and/or mitigate the adverse impact of stressful life circumstances (Chatters, 2000; Ellison, DeAngelis, & Güven, 2017; Taylor, Chatters, & Levine, 2004).

<P> The goal of this study is to investigate the relationships between church and family support networks and depressive symptoms among a national sample of African American adults. To date, the vast majority of research on church support and mental health focuses on older adults who, as a group, have higher levels of service attendance and overall religious involvement. Relatively little research examines involvement in church support networks and mental health among the general adult population and even less focuses on church support and mental health while simultaneously controlling for social support received from family. Thus, this research seeks to determine the independent associations between both church support and family support and mental health and whether controlling for social support from family members eliminates any significant relationship between church support and mental health.

<P> The literature review begins with a discussion of family relationships and mental health and well-being. This is followed by research on African American religious involvement, church-based support networks and mental health, and negative interactions (e.g., criticisms, gossip) with networks members and mental health. The section concludes with a discussion of the focus and goals of the study.
<H2> Family Relationships and Mental Health

<P> Numerous studies indicate that strong family support networks are protective of mental health (Fuller-Iglesias, Webster, & Antonucci, 2015; Lee &

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Szinovacz, 2016; Nguyen, Taylor, et al., 2016). For instance, research by Turvey et al. (2002) found that having fewer family members as confidants, poor self-rated health, and more depressive symptoms were risk factors for suicide completion among older adults in community-based prospective study of aging. Although the vast majority of this research focuses on non-Hispanic Whites, there is an emerging body of research on this issue among African Americans. For instance, emotional support from family members is associated with decreased odds of experiencing suicidal thoughts and suicide attempts (Lincoln, Taylor, Chatters, & Joe, 2012). Subjective closeness to family members and more frequent contact with family are also associated with decreased odds of suicidal ideation and attempts (Nguyen, Taylor, et al., 2016).

<P> Moreover, African Americans who receive more support from relatives report lower levels of psychological distress (Lincoln, Chatters, & Taylor, 2003). Finally, among African Americans, various features of family relationships are also associated with subjective well-being (e.g., life satisfaction, happiness). Family support, in particular, is associated with greater levels of life satisfaction and well-being, while subjective closeness to family is associated with greater life satisfaction and happiness (Taylor, Chatters, Hardison, & Riley, 2001; Walls, 1992).

<P> With respect to depression and depressive symptoms, family social support is recognized as an important protective factor among African Americans; that is, African Americans who receive more support from their families are less likely to meet criteria for depression (Lincoln & Chae, 2012) and experience fewer depressive symptoms (Lincoln, Chatters, & Taylor, 2005). In addition to family social support, positive features of family relationships (e.g., contact, subjective closeness) also appear to protect against depression. For example, people who experienced

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positive social interactions with family members reported fewer depressive symptoms (Okun & Keith, 1998). Similarly, Taylor, Chae, Lincoln, and Chatters (2015) found that African Americans who were subjectively close to their family were less likely to meet criteria for both lifetime and 12-month depression. In sum, prior research indicates that positive family relationships and supports are associated with positive mental health and emotional well-being among African Americans.

<H2> African American Religious Involvement

<P> Churches play an integral institutional role in the narratives of African American communities (Brodsky, 2000; Taylor et al., 2004). Not only do churches function as religious organizations, but also they are key institutions for providing important civic, educational, health, and social resources to church members and nonparticipants alike (Chatters et al., 2017; Mammana-Lupo, Todd, & Houston, 2014). As a group, African Americans demonstrate high levels of religious involvement, with 90% attending religious services (outside of weddings and funerals), and among attendees about 70% attend services at least a few times a month (Taylor et al., 2004). African Americans also have frequent contact and particularly close relationships with church members (Krause, 2008), with a majority (69%) reporting that they are in contact with church members at least once a month, and an even greater proportion (85%) indicating that they are *very close* or *fairly close* in their feelings towards fellow congregants (Taylor et al., 2004).

<P> Church members are an important source of informal support for African Americans (Krause, 2008; Taylor et al., 2004; Taylor, Chatters, Lincoln, & Woodward, 2017). Church support is distinct from support from family and friends because it is a social resource that is available only to people who are socially embedded within a religious setting and involves interactions within a community that

shares common beliefs, values, and norms that reinforce and encourage prosocial behaviors and attitudes (Krause, 2008; Mattis & Jagers, 2001; Taylor et al., 2004).

<P> Further, given that connections to one's faith community are often lifelong (Taylor et al., 2004), church-based networks and relationships are more likely to be of long duration in comparison to other nonkin (e.g., co-workers) relationships (Krause & Hayward, 2015). Church-based support is considerable for African Americans—national survey data indicates that 45% of African Americans report that they receive help from church members *often* or *sometimes* (Taylor et al., 2004). Furthermore, almost 3 out of 4 African Americans surveyed reported that church members were either *a lot of help* or *some help* to them (Taylor et al., 2004). Common types of support exchanged between African American congregants include advice, encouragement, companionship, financial assistance, prayers, and help during illness (Taylor et al., 2004; Taylor, Hernandez, Nicklett, Taylor, & Chatters, 2014).

<P> Finally, recent evidence indicates that church support complements and supplements family support, providing an additional layer of benefit for recipients. For example, longitudinal evidence suggests that church members increase their provision of emotional support to adults as they age while family members increase their provision of tangible support to aging adults (Krause & Hayward, 2015).

<H2> Church-Based Networks and Mental Health

<P> A tradition of research in community psychology, sociology, and public health explores the functions, mechanisms, and pathways by which religion and faith communities influence individual health outcomes (Chatters, 2000; Ellison & Levin, 1998; Koenig, King, & Carson, 2012; Maton, 1989, 2000; McMahon, Singh, Garner, & Benhorin, 2004). Prior research suggests that various types of involvement in

religious congregations (e.g., attendance, social support, network participation) foster feelings of belonging and community (Obrst & Tham, 2009) that are important in promoting positive psychological and emotional health (Krause & Wulff, 2005a,b). This work confirms that religious service attendance is associated with better physical health and emotional well-being (see review by Koenig et al., 2012) as well as decreased risk for depression (Taylor, Chatters, & Abelson, 2012) and suicide (Taylor, Chatters & Joe, 2011).

<P> Current research exploring this connection increasingly focuses on the nature of social networks and relationships within religious institutions (e.g., church-based social networks) and their possible protective effects on mental health and emotional well-being (Brodsky, 2000; Chatters, 2000; Krause, 2008; Maton, 1989). Research among older adults, which is a typical population for studies of church support, documents that church relationships are critical for health and well-being and are associated with lower rates of mental and physical health problems. For example, older adults who receive support from congregants and those with at least one close friend in their congregation report less depression and fewer depressive symptoms (Krause & Wulff, 2005b; Nooney & Woodrum, 2002).

<P> Friendships with fellow congregants are also associated with better physical health and fewer doctor's visits (Krause, 2010). Among older persons experiencing financial strain, those who receive more emotional support from church members have lower mortality rates (Krause, 2006a). Finally, with respect to subjective well-being, greater life satisfaction is associated with having friends within one's congregation and receiving more emotional support from congregants (Krause, 2004; Lim & Putnam, 2010; Obrst & Tham, 2009).

<P> Research on church relationships among older African Americans indicates that emotional support from church members protects against depressive symptoms and serious psychological distress. Further, church support has independent protective effects on depressive symptoms and psychological distress, even in the presence of social supports from other sources, such as family members (Chatters, Taylor, Woodward, & Nicklett, 2015). Among older African Americans, social support from congregants is associated with higher levels of psychological well-being (Walls, 1992; Walls & Zarit, 1991), self-rated health (Krause, 2006b) and lower rates of frailty (Bowles et al., 2000). Chatters, Taylor, Lincoln, Nguyen, and Joe (2011) found that subjective closeness to church members was negatively associated with suicidal ideation among African Americans across the adult age range.

<P> Interestingly, African American respondents in this study who had more frequent contact with church members were also more likely to have previously attempted suicide. This suggests a pathway of effects called resource mobilization whereby persons experiencing distress tend to reach out to church members as a coping strategy. In essence, social interaction and contact with church members leads to the mobilization of social resources for individuals who are at known risk for future suicide attempts.

<H2> Negative Interactions

<P> Negative interactions are an often overlooked aspect of social relationships, including those that occur within church settings (Brodsky, 2000; Mammana-Lupo et al., 2014). Negative interactions (i.e., arguments, criticisms, and excessive demands), while fairly common features of social relationships, are less frequent than positive aspects of relationships (e.g., supportive exchanges). When

negative interactions are perceived and reacted to as stressors, they can erode perceptions of self-worth and competence and interfere with individuals' ability to use cognitive and social resources to effectively manage stressors (Krause, 2005; Rook, 1984). Thus, these negative interactions can adversely affect mental and physical health.

<P> Research on African Americans indicates that negative interaction with family members is a risk factor for depression (Lincoln & Chae, 2012; Taylor et al., 2015), depressive symptoms (Lincoln, 2007; Lincoln, Chatters, Taylor, & Jackson, 2007), and suicidal ideation and attempts (Lincoln et al., 2012). With respect to psychiatric disorders, persons reporting more negative interactions with family met criteria for a greater number of psychiatric disorders, particularly mood and anxiety disorders (Lincoln et al., 2010). Negative interactions can also influence one's sense of well-being and competency, such that more frequent negative interaction with family members is associated with lower feelings of mastery (Lincoln, 2007).

<P> Studies focusing on negative interactions with church members indicate similar associations with health outcomes. Negative interaction with church members is predictive of heart disease (Krause, 2005), decreased satisfaction with health (Krause & Wulff, 2005a), psychological distress (Ellison, Zhang, Krause, & Marcum, 2009), and depressed affect (Krause, Ellison, & Wulff, 1998). Moreover, people who report conflict and frequent negative interactions with congregants report disaffection with the church and its members (Brodsky, 2000), decreases in congregational support (Ellison, Krause, Shepherd, & Chaves, 2009), and lower levels of feelings of belonging to the church (Mammana-Lupo et al., 2014) and are less likely to feel satisfied with support received from congregants (Krause, 1995). Emerging evidence specific to older African Americans indicates that negative interaction with church

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members is linked to elevated depressive symptoms and serious psychological distress (Chatters et al., 2015).

<H2> Focus of the Present Study

<P> The majority of research on the associations between church support and mental health focuses on older adults within the general population (i.e., predominately non-Hispanic White older adults). This prior work, while useful, provides limited information on church support and mental health across the entire adult age range and within racial and ethnic minority groups. This shortcoming is particularly significant given the suggestion (Krause, 2008; Krause & Chatters, 2005) that the influence of religious factors on mental health outcomes may be differentially impactful for specific population groups (e.g., older adults). To understand the unique and independent associations between church relationships and mental health, other important social relationships (e.g., family) and behaviors (e.g., religious service attendance) that have known associations with and are consequential for mental health must be taken into account (i.e., controlled for) in analyses utilizing the entire adult age range.

<P> To address these limitations, we examine the associations between church relationships and an especially prevalent and important mental health indicator—depressive symptoms—within a national probability sample of African American adults ranging in age from 18 to 93 years. Our study bridges research on the association between family relationships and mental health, studies on church involvement and mental health, and research on religious service attendance and physical and mental health status. Thus, this analysis seeks to clarify the unique contributions of church relationships (i.e., emotional support, frequency of contact, and negative interaction) to depressive symptoms, by controlling for family emotional

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support, family contact, family negative interactions, and religious service attendance, which all have known associations with mental health status.

<P> Based on prior literature, we anticipate that church emotional support and frequency of contact with church members will be associated with fewer depressive symptoms, while church negative interaction will be associated with more depressive symptoms. We further anticipate that these relationships will be maintained even after controls for family factors and religious service attendance.

<H1> METHOD

<H2> Sample

<P> Data from the National Survey of American Life: Coping with Stress in the 21st Century (NSAL) was used for the current analysis. The NSAL was collected by the University of Michigan's Institute for Social Research from 2001 to 2003 and has a national multistage probability design consisting of 64 primary sampling units. Fifty-six of these primary areas overlap substantially with existing Survey Research Center's National Sample primary areas. The remaining eight primary areas were chosen from the South in order for the sample to represent African Americans in the proportion in which they are distributed nationally. A total of 6,082 interviews were conducted including 3,570 African Americans. The overall response rate was 72.3%.

<P> It is important to note that consistent with research in this field, the church support network questions were asked of only respondents who indicated that they attend religious services at least a few times a year. Respondents who attended religious services less than once a year were not asked the church support network questions. Consequently, the analytic sample for this study is African Americans who attend religious services at least a few times a year (n=2991).

Design and sample characteristics of the NSAL are described in more detail

elsewhere (see Jackson et al. 2004). The NSAL data collection was approved by the

University of Michigan Institutional Review Board.

<H2> Measures

<H3> Dependent variable. <P> The dependent variable in this analysis,

depressive symptoms, was assessed using the 12-item version of the Center for

Epidemiological Studies-Depression Scale (CES-D; Radloff, 1977). This abbreviated

CES-D has acceptable reliability and a similar factor structure compared to the

original version (Liang, Tran, Krause, & Markides, 1989). Responses for the 12 items

are coded 0 ("rarely or none of the time") to 3 ("most or all of the time") and assess

the extent to which in the last 30 days respondents: had trouble keeping their mind

on tasks, enjoyed life, had crying spells, could not get going, felt depressed, hopeful,

restless, happy, as good as other people, that everything was an effort, that people

were unfriendly, and that people dislike them. Positive valence items were reverse

coded and summed resulting in a continuous measure; a high score indicates a

greater number of depressive symptoms (Cronbach's alpha = 0.78).

<H3> Church and family social support measures. <P> Three characteristics of

church-based support networks are assessed: (a) frequency of contact with church

members, (b) frequency of emotional support from church members, and (c)

frequency of negative interactions with church members.

<P> Emotional support from church members is measured by an index of

three items in which respondents were asked "how often do people in your church:

(a) make you feel loved and cared for, (b) listen to you talk about your private

problems and concerns, and (c) express interest and concern in your well-being?"

The response categories for these questions were "very often," "fairly often," "not too

often" and "never." Higher values on this index indicate higher levels of emotional support received (Cronbach's alpha = 0.69).

<P> Negative interaction with church members is measured by an index of three items. Respondents were asked "How often do your church members: (a) make too many demands on you? (b) criticize you and the things you do? and (c) try to take advantage of you?" The response categories for these questions were "very often," "fairly often," "not too often" and "never." Higher values on this index indicate higher levels of negative interaction with church members (Cronbach's alpha =0.71).

<P> The same measures of extended family support networks are assessed in this study: (a) frequency of contact with family members, (b) frequency of emotional support from family members, and (c) frequency of negative interactions with family members. Frequency of contact with family members is measured by the question: "How often do you see, write or talk on the telephone with family or relatives who do not live with you? Would you say nearly every day, at least once a week, a few times a month, at least once a month, a few times a year, hardly ever or never?"

<P> Emotional support from family members is measured by an index of three items in which respondents were asked "Other than your (spouse/partner) how often do your family members: (a) make you feel loved and cared for, (b) listen to you talk about your private problems and concerns, and (c) express interest and concern in your well-being?" The response categories for these questions were "very often," "fairly often," "not too often" and "never." Higher values on this index indicate higher levels of emotional support received (Cronbach's alpha =0.72).

<P> Negative interaction with extended family members is also measured by an index of three items. Respondents were asked "Other than your (spouse/partner)

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how often do your family members: (a) make too many demands on you? (b) criticize you and the things you do? and (c) try to take advantage of you?" The response categories for these questions were "very often," "fairly often," "not too often" and "never." Higher values on this index indicate higher levels of negative interaction with family members (Cronbach's alpha =0.74).

<P> The demographic variables used in this analysis include age, gender, marital status (married, unmarried), education, and family income. Physical health (i.e., respondents' reports of number of doctor-diagnosed physical health conditions) and religious service attendance are potential confounders in these relationships and are included as covariates in multivariate analyses. Frequency of religious service attendance is measured by the question: "How often do you usually attend religious services?" The categories for this variable are: attend nearly every day=6, attend at least once a week=5, a few times a month=4, and a few times a year=3. The distribution of the study variables is presented in Table 1.

<H2> Analysis Strategy

<P> The distribution of basic demographic characteristics, weighted internal consistency and reliability (Cronbach's alpha) analyses, and weighted multivariate analyses were conducted using Stata 12.1. An examination of the univariate distribution of our dependent variables indicated that they were not normally distributed. In particular, the variance exceeded the mean, which indicated overdispersion. Consequently, instead of linear regression, we used negative binomial regression. This is the appropriate technique for this type of nonnormal distribution. Incidence rate ratio estimates and 95% confidence intervals are presented with statistical significance determined using the design-corrected F-statistic. All statistical analyses adjust for the complex multistage clustered design of

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the NSAL sample as well as nonresponse, unequal probabilities of selection, and poststratification. All findings are generalizable to the African American population.

<H1> RESULTS

<P> Percentages and means for demographic and study variables (Table 1) indicated that respondents were on average 43 years of age, women comprised 58% of the sample, and 56% of respondents were not married. The mean education level was 12 years of schooling and the average income was $38,000. With respect to health, respondents reported 1.3 chronic health conditions and had an average score of 6.48 for the CES-D scale. Respective to study variables for service attendance and church-based relationships, respondents attended religious services roughly a few times a month, on average, contacted church members a few times a month, received fairly high levels of emotional support from church members, and reported fairly low levels of negative interaction with church members. Regarding family relationships, respondents indicated high levels of contact and emotional support with family and very low levels of negative interaction.

<P> The weighted negative binomial regression of depressive symptoms on church and family support is presented in Table 2. Analysis presented in Model 1 on frequency of service attendance indicates that attending religious services more frequently was associated with fewer depressive symptoms. The addition of the three church variables in Model 2 indicates that frequency of contact with church members was inversely associated with depressive symptoms and negative interaction was positively associated with depressive symptoms. Respondents who had more frequent contact with church members reported fewer depressive symptoms, whereas those who experienced negative interaction with church members reported more depressive symptoms.

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<P> Further, emotional support from church members was unrelated to depressive symptoms and service attendance was no longer significant. With the addition of the three family variables in Model 3, the significant relationships for church variables (in Model 2) were maintained. In addition, frequency of contact and emotional support from extended family members were negatively associated with depressive symptoms, while negative interaction with family members was positively associated with depressive symptoms.

<H1> DISCUSSION

<P> The present study investigated the association between involvement with church members and family members (e.g., contact, emotional support, negative interaction) and depressive symptoms among African Americans. The study builds on prior research documenting the protective role of religious service attendance in health and the importance of family relationships for mental well-being (Lincoln, Taylor, Chatters, & Joe, 2012; Taylor et al., 2015). We extended this line of investigation by exploring the independent associations between church relationships and depressive symptoms within a national sample of African Americans. We also accounted for the influence of support from family members and found that aspects of both church and family support networks were protective of depressive symptoms.

<P> Consistent with prior research, our findings indicate that positive relationship qualities (e.g., emotional support, contact) are associated with better mental health outcomes, while negative interactions are associated with poorer mental health. Our initial analysis in Model 1 (without including church relationship factors) confirmed well-documented findings that persons who attend religious

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services more frequently are less likely to report mental health problems such as depression and depressive symptoms (Chatters et al., 2015; Ellison, Boardman, Williams, & Jackson, 2001; Taylor, Chatters, & Nguyen, 2013). However, with the addition of variables representing church relationships, service attendance was no longer associated with depressive symptoms, suggesting that church support factors mediate the protective qualities of church attendance. Frequent service attendees may experience higher levels of social integration into church networks, including more frequent interactions with church members. Thus, they have increased opportunities to receive church-based support and other advantages that translate to greater mental health benefits and protections.

 <P> Looking specifically at the association between church relationships and depressive symptoms, respondents with more frequent contact with church members reported fewer depressive symptoms, consistent with prior research indicating that interpersonal relationships within the church are important predictors of well-being (Obrst & Tham, 2009). Conversely, negative interaction with church members (e.g., criticisms, excessive demands, being taken advantage of) was associated with more depressive symptoms.

 <P> Similar to previous studies on church relationships documenting a connection between negative interactions and depressive symptoms (Chatters et al., 2015; Krause & Hayward, 2012), this finding contributes to a growing body of research on the adverse impact of negative interactions for physical and mental health and emotional well-being. Several mechanisms and pathways of effects have been proposed for negative interactions including their role in undermining self-assessments of efficacy and competence and reducing self-esteem. Consequently, the ability to use cognitive and social resources to effectively manage stressors may

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be impaired (Krause, 2005; Rook, 1984). Further, negative interactions with church members may be particularly upsetting for several reasons. Negative interactions can be used as a form of social control to punish behaviors and attitudes that are frowned upon.

<P> Further, because negative interactions may embody implicit authority and value judgments regarding the moral validity of particular behaviors, they may arouse feelings of guilt, shame, and stigma. Negative interactions, while often couched in terms of religious injunctions, may simultaneously violate a professed set of religious values, norms and expectations concerning compassion for others and forbearance (Chatters, 2000; Ellison & Levin, 2000). These apparent contradictions and paradoxes may be viewed as religious hypocrisy that subsequently generate feelings of disillusionment with co-religionists, clergy leadership, and one's faith community (Brodsky et al., 2000; Mammana-Lupo et al., 2014).

<P> Last, negative interactions may generate additional health-relevant stressors in the form of religious doubts and spiritual struggles (Krause, 2008; Krause & Wulff, 2004) that have a negative impact on well-being. It is particularly notable in the present analysis that negative interactions with church members and with family were both independently associated with greater depressive symptoms.

<P> Interestingly, our findings indicated that emotional support from congregants was not associated with depressive symptoms. Previous studies among specifically older adults indicate that emotional support from fellow congregants protects against a number of mental disorders, promotes subjective well-being, and is associated with fewer depressive symptoms and lower levels of serious psychological distress (Chatters et al., 2015), as well as higher levels of life satisfaction (Krause, 2004). However, it is important to note that research

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documenting the mental health benefits of church support focuses primarily on older adults, an age group in which religious service attendance and other religious behaviors and sentiments (e.g., the importance of religion) are more pronounced (Krause & Wulff, 2005b; Levin, Taylor, & Chatters, 1994; Taylor et al., 2004).

<P> Given the heightened importance of religion and church involvement for older adults, relationships within religious settings may be more meaningful and social support more impactful for health among older adults, as compared to younger adults. Taken together, the absence of a relationship between church support and depressive symptoms for adults across the entire adult life span (aged 18 years and older) may reflect age group differences in the centrality of religion.

<P> The analysis in Model 3 revealed that family contact and emotional support from family were protective of depressive symptoms. This finding is consistent with previous research indicating that African American family networks protect against depressive symptoms (Taylor et al., 2015), suicidal ideation and attempts (Nguyen, Taylor, et al., 2016), and social anxiety disorder (Levine, Taylor, Nguyen, Chatters, & Himle, 2015). Conversely, negative interaction with family members was associated with greater levels of depressive symptoms. This finding is consistent with research indicating that negative interaction is associated with a variety of mental illnesses including suicidality, depression, depressive symptoms, psychological distress, and posttraumatic stress disorder (Chatters et al., 2015; Lincoln & Chae, 2012; Nguyen, Chatters, Taylor, Levine, & Himle, 2016; Nguyen, Taylor, et al., 2016).

<P> A particular strength of this analysis is its focus on both church and family networks. The vast majority of research investigates family support networks only, thus implicitly assuming that individuals are involved with only one support network.

Further, as noted earlier, in analyses of both family and church support networks, it is assumed that controlling for family support networks will eliminate the impact of church support networks. Our analysis found that select features of church support networks were protective of depressive symptoms among African Americans even when controlling for family support. Overall, our findings bolster results from previous studies verifying the importance of social support and the potentially deleterious effects of negative interactions from family as well as church support networks.

<H2> Limitations

<P> As is the case with all studies, several limitations should be noted. First, study findings are not generalizable to institutionalized and homeless individuals who were not represented in the sample. Second, with cross-sectional designs, it is not possible to ascertain the direction of effects to determine the temporal ordering of the church relationship variables and depressive symptoms. At question is whether interaction with church members prevents depressive symptoms, while negative interaction with church members causes depressive symptoms. It could be that individuals experiencing depressive symptoms tend not to interact with church members. For those with depressive symptoms, perceptions of social interactions may be distorted and social interactions may be interpreted as criticisms, demands, and being taken advantage of by others. Future studies should explore these issues using nationally representative longitudinal panel datasets.

<H2> Conclusion

<P> This investigation of depressive symptoms within the African American population was motivated by several factors: (a) interest in culturally-relevant social supports and coping resources from family and faith communities that may be important in relation to depressive symptoms; (b) the limited amount of research on

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church-based social support networks; and (c) the dearth of information on the impact of both church and family networks on depressive symptoms. Current findings clarified the association between church-based relationships and depressive symptoms among African American adults and confirmed that frequency of contact is protective, while negative interaction is detrimental for depressive symptoms.

<P> Further, these associations were independent of family relationship factors, religious service attendance, and demographic factors. Future work exploring associations among religious and family factors, and mental health and emotional well-being should pursue several related lines of inquiry. Specifically, research should explore variability in these associations with respect to (a) sample differences in terms of age and life course position and (b) different types of religious and family factors.

<P> Although findings for contact and negative interaction with church members were consistent with research among elderly African Americans (Chatters et al., 2015), church emotional support was not related to depressive symptoms within this sample of adults aged 18 years and older. This difference underscores the importance of exploring age variability in these relationships. Studies among adolescents and emerging adults may uncover different patterns of effects for family and religious factors than those observed for middle age and older adults.

<P> Hope, Assari, Cole-Lewis, and Caldwell (2017) explored relationships among different types of religious social support, experiences of discrimination, and psychiatric disorders among African American and Caribbean Black adolescents. As anticipated, discrimination was associated with higher likelihood of a psychiatric disorder. However, emotional religious support (but not instrumental support) was associated with lower odds of meeting criteria for any lifetime psychiatric disorder.

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These and other recent studies (Hardie, Pearce, & Denton, 2016; Salas-Wright, Lombe, Vaughn, & Maynard, 2016) suggest that developmental stage (e.g., adolescence, emerging adulthood, and middle and late adulthood), life course transitions (e.g., parenting), and social context (e.g., educational settings, employment) are important factors that shape relationships between family and religious engagement factors and specific health and social outcomes.

<P> Work by Obrst and Tham (2009) suggests that religious factors that emphasize engagement in the life of the faith community (e.g., contact, support, and network participation) generate feelings of inclusion within religious congregations that promote better health and well-being. Our findings confirmed that contact with church members was associated with lower likelihood of depressive symptoms. Further work can examine whether these types of religious engagement factors are unique in fostering well-being or whether other forms of religious expression bear similar relationships. Focusing on outcomes, other relevant mental health and well-being indicators should be examined including psychiatric conditions (e.g., anxiety disorders, mood disorders) and measures of overall well-being and quality of life (e.g., life satisfaction, happiness, self-esteem).

<P> Additional sources of demographic variability, such as gender, region, race/ethnicity, and socioeconomic position, are also potentially important for understanding how family and religious factors and mental and emotional health outcomes are related. Studies of race differences indicate that African Americans, as compared to non-Hispanic Whites, have higher levels of investment in religious pursuits, use religious resources to a greater extent (e.g., clergy), and derive greater social and well-being benefits from religious engagement (Assari, 2017; Chatters et al., 2017; Taylor, Chatters, Woodward, & Brown, 2013<zaq;3>; Krause, 2008).

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Similarly, women's greater investment in religious concerns may shape differential patterns of religious engagement and derived health benefits.

<P> Finally, the pervasive association between family and church negative interactions and poorer mental and physical health status and the factors (e.g., family contact and emotional support) that potentially offset these adverse effects bear closer scrutiny. This includes exploring whether conflict and negative interactions erode personal feelings of belonging to the faith community (Mammana-Lupo et al., 2014), which then negatively affects self-esteem and well-being (Obrst & Tham, 2009). In sum, future research on these issues should explore how, in what ways, and for whom different forms of family and religious engagement factors (i.e., emotional supports and connections, negative interactions) are important for physical and mental health. Taken together, this work can provide a better understanding of how involvement in religious and family networks is associated with the health and well-being of African Americans.

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the correct one, as there is another Taylor+ 2013 citation.

{TBL1}<TC>TABLE 1. Demographic characteristics of the sample and distribution of study variables[a].

<TH>	%	N	Mean	SD	Range
<TB>Service attendance		2991	4.29	0.80	3-6
Frequency of contact with church members		2990	3.69	1.61	1-6
Emotional support from church members		2981	8.86	2.10	2-12
Negative interaction with church members		2980	4.49	1.65	2-12
Frequency of contact with extended family members		2965	6.16	1.07	1-7
Emotional support from extended family members		2964	3.28	0.61	1-4
Negative interaction with family members		2965	1.83	0.67	1-4
Age		2991	43.10	14.25	18-93
Gender					
··Male	41.69	999			
··Female	58.31	1992			
Education		2991	12.55	2.21	0-17
Income		2991	38126	33239	0-520,000
Marital status					
··Married/partnered	43.57	1057			
··Not married	56.43	1918			
No. Of chronic health conditions		2883	1.30	1.39	0-13
CES-D		2859	6.48	4.96	0-33

<TF>*Note.* SD = standard deviation; CES-D = Center for Epidemiological Studies-Depression Scale.

[a]Data are given as weighted means and weighted standard deviations for continuous variables and unweighted frequencies and weighted percentages for categorical variables.

{TBL2}<TC>TABLE 2. Negative binomial regression analysis of church and family support on depressive symptoms (CES-D) among African Americans

| | <TH>Depressive Symptoms (CES-D)[a] | | |
Independent Variables	Mode 1 IRR[95%CI]	Model 2 IRR[95%CI]	Model 3 IRR[95%CI]
<TB>Service attendance	0.95 [.91, .98]**	0.98 [.94, 1.03]	0.99 [.95, 1.04]
Frequency of contact with church members	--	0.95 [.93, .98]**	0.96 [.93, .99]**
Emotional support from church members	--	1.00 [.99, 1.02]	1.01 [.99, 1.02]
Negative interaction with church members	--	1.08 [1.06, 1.10]***	1.05 [1.03, 1.07]***
Frequency of contact with family members	--	--	0.97 [0.94, .99]*
Emotional support from extended family	--	--	0.92 [.87, .96]**
Negative interaction with extended family	--	--	1.20 [1.13, 1.27]***
F	51.19***	49.17***	46.84***
N	2982	2971	2955

<TF>*Note*. CES-D = Center for Epidemiological Studies-Depression Scale; IRR = incidence rate ratio; CI = confidence interval. Significance test of the individual parameter estimates were based on a complex design-corrected t-test.

[a]Negative Binomial Regression models controlled for age, gender, income, education, marital status, and number of chronic health conditions.

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