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# Effects of Religious Participation on Negative Mental Health Symptoms among Low-Income, Urban African American Adolescents

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Effects of Religious Participation on Negative Mental Health Symptoms among  
Low-Income, Urban African American Adolescents

A Thesis

Presented in

Partial Fulfillment of the

Requirements of the Degree of

Master of Science in General Psychology

By

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**Thesis Committee**

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I would like to thank Dr. Grant and Dr. Quinn for their support, guidance, and patience with me throughout this process. I would also like to extend my gratitude to those family members and friends who have supported me through my academic journey.

## **Biography**

The author was born in Dayton, Ohio on January 5, 1984. He graduated from Walnut Hills High School in 2002 and received a Bachelor of Arts degree in psychology in 2006 from The Ohio State University in Columbus, Ohio.

## Table of Contents

Thesis Committee.....	ii
Acknowledgments.....	iii
Vita.....	iv
Abstract.....	1
Introduction.....	2
Effects of Low-income Urban Neighborhoods on African American Adolescents.....	3
Effects of Religious Participation on African American Adolescents.....	5
Rationale.....	9
Statement of Hypotheses.....	9
Method.....	10
Research Participants.....	10
Procedure.....	11
Measures.....	12
Results.....	14
Preliminary Analysis.....	15
Hypothesis I.....	17
Hypothesis II.....	18
Hypothesis IIIa.....	21
Hypothesis IIIb.....	22
Discussion.....	25

References.....	34
Appendix	
Urban Adolescent Life Experiences Scale.....	44
Religious Participation Items.....	59

### **Abstract**

African American adolescents living in low-income, urban neighborhoods are at high risk for developing psychological problems due to increased exposure to urban stressors. Given the complexity and chronic nature of these stressors, protective factors such as involvement in one's religious institution may protect adolescents from harmful stressors associated with living in urban, low-income neighborhoods. This thesis sought to examine whether religious participation is an effective moderator of the relation between urban stressful life experiences and internalizing/externalizing psychological outcomes among low-income, urban African American adolescents. Two dimensions of religious participation, organizational and non-organizational, were examined as potential moderators of the effect of religious participation on the stress and internalizing/externalizing psychological outcomes. Participants included 1238 low-income, urban African American adolescents from three Chicago Public Schools who completed self-report measures assessing urban adolescent life experiences, religious participation, and internalizing/externalizing behaviors. Results of this study showed that although urban stress significantly predicted both internalizing and externalizing outcomes in low-income, urban African American adolescents, neither frequency of youth church attendance, public and private religious participation moderated the relation between urban stress and internalizing and externalizing behaviors. Overall, the findings suggested that religious participation for early-age, low-income, urban African American adolescents may



not provide the protective barriers against urban stressors and the development of negative psychological outcomes as expected.

## **Effects of Low-Income Urban Neighborhoods on African American Adolescents**

African Americans have historically been overrepresented among the urban poor due to a long history of racism and segregation. African Americans have experienced disparities in income, unemployment, college attendance and graduation, racial profiling, arrest, incarceration, and housing, making them three times more likely than Whites to be poor, six times more likely to be incarcerated, and half as likely to graduate from college (Harris & Lieberman, 2015). Moreover, the median wealth of White households in the U.S. is between 13 and 20 times that of Black and Hispanic households (Harris & Lieberman, 2015). Because of the reduced opportunities available to racially oppressed African Americans, many families find themselves vulnerable to living in urban areas that have greater concentrations of poverty (McLoyd, 1998; Small & Newman, 2001). Additionally, African American youth experience disproportionate rates of poverty, as children younger than 18 years of age make up 25% of the U.S. population, but represent 78% of people in poverty and low-income families (Cheng & Goodman, 2014; Hoynes, Page, & Stevens, 2006). Furthermore, African American youth are more likely to live in female-headed families, as well as have higher rates of out-of-wedlock births (Small & Newman, 2001). Subsequently, these disparities have led African American youth to become exposed to disadvantages resulting from living in low-income, urban neighborhoods.

Low-income, urban neighborhoods bring about several unique and inherent challenges that are potentially difficult for African American youth to navigate (Grant et al., 2000; Attar, Guerra, & Tolan, 1994). Urban neighborhoods are likely to include limited access to neighborhood resources, more segregated housing, low-quality neighborhood parks and schools, increased exposure to deviant peer groups, and reduced or inadequate social support (Diez Roux, 2001; Elgar, Arlett, & Groves, 2003; Massey, 1996). These factors place youth at a greater risk of becoming unemployed, engaging in criminal activity, having an out-of-wedlock pregnancy, and dropping out of school (Small & Newman, 2001). Furthermore, urban youth are often victims of generational poverty rather than brief periods of economic hardship, which has been associated with the worst outcomes for youth (Anthony, King, & Austin, 2011). As a result, urban youth are exposed to numerous severe and chronic stressors, which may lead to multiple negative outcomes.

Chronic exposure to stressors in low-income neighborhoods is likely to result in problems related to psychological, emotional, physical, and academic development, particularly among youth. Studies show that factors such as reduced access to health and social services, the hazardous physical environments, drugs, crime, violence, and unemployment, are associated with increased rates of risk-taking behaviors, sleeping problems, diabetes, respiratory disease, smoking-related cancer, and mortality and morbidity (Kliewer & Lepore, 2015; Mays, Cochran, & Barnes, 2007; Schneiderman, Kools, Negriff, Smith, & Trickett, 2014; Small & Newman, 2001; Umlauf, Bolland, Bolland, Tomek, & Bolland,

2014;). Among youth, constant exposure to urban stressors may lead to problems in academic performance, aggression, peer rejection, delinquency, and lower IQ scores (Gonzales, Tein, Sandler, & Friedman, 2001; Levanthal & Brooks-Dunn, 2000; McLoyd, 1998). Additionally, youth exposed to negative stressors in low-income urban neighborhoods report higher rates of internalizing (e.g., anxiety, depression) and externalizing (e.g., oppositional defiance, aggression) psychological problems (Cole, Michel, & O'Donnell-Teti, 1994; Grant et al., 2000). Given the high rates of stressors and negative outcomes affecting urban African American youth, it is especially important to identify naturally occurring protective factors that could serve as the basis for the development of effective interventions for this population. One such protective factor is spirituality or religiosity.

### **Effects of Religious Participation on African American Adolescents**

In the U.S., 9 in every 10 Americans report a belief in God; however, those rates have been gradually declining (Smith, Denton, Faris, & Regnerus, 2002). Among adolescents, 95% of teens age 13-17 report having a belief in God, and 69% consider themselves to be religious (George Gallup International Institute, 1999). Studies have shown that African Americans engage in higher rates of spiritual and religious practices compared with other racial and ethnic groups (Chatters, Taylor, Bullard, & Jackson, 2008; Donahue & Benson, 1995; Smith, Denton, Faris, & Regnerus; Hayward & Krause, 2015;). One reason for this is that the Black church is viewed as an institution in African American communities that offers therapeutic support by addressing the psychological,

emotional, and social needs of individuals within those communities (Harley & Hunn, 2014; McRae, Carey, & Anderson-Scott, 1998;).

Religious participation has been defined as the institutional participation and outward expression of one's beliefs in God or a higher power, (Cotton, Larkin, Hoopes, Cromer, & Rosenthal, 2005; Haight, 1998; Perez, Little, & Henrich, 2009). Religious participation has been explored mostly as a singular, comprehensive construct; however, it may be more accurate to conceptualize its use by way of separate dimensions: private and public religious participation (Chatters, Levin, & Taylor, 1992; Fowler, Ahmed, Tompsett, Jozefowicz-Simbeni, & Toro, 2008; Pearce, Little, & Perez, 2003). Private religious participation refers to the inner expression of one's religious beliefs, through personal prayer, meditation, scripture reading, and listening to religious music and content (Fezter & National Institute on Aging Work Group, 1999; Fowler et al., 2008). Public religious participation refers to the outward engagement with and expression of one's religious beliefs, such as church attendance and participation, involvement in youth groups, and observance of one's religious holidays.

Although many studies have demonstrated high rates of religiosity and spirituality among African American youth (Jeynes, 2005; Pearce, Little, & Perez, 2010; Perez, Little, & Henrich, 2009; Rodriguez, McKay, & Bannon, 2008; Steward & Jo, 1998; Van Dyke, Glenwick, Cecero, & Kim, 2009), few have tested whether spirituality/religious participation can buffer the effects of stress exposure on low income, urban African American youth. Studies on religious participation, as both unidimensional and multidimensional construct, have shown

religious participation to be associated with positive youth outcomes such as greater educational achievement, higher self-esteem, and reduced reports of substance abuse and depressive symptoms (Ellison, 1993; Perez, 2001; Marler & Hadaway, 2002; Zimmerman & Maton, 1992). Although most studies show a direct association between religious participation and positive mental health outcomes among youth, it is unknown whether religious participation is effective in protecting youth who experience increased amounts of adversity—such as that associated with living in urban, low-income neighborhoods.

To date, only two studies have tested general spirituality/religious participation as a moderator of the relationship between stress effects on mental health outcomes of low-income urban African American youth. Carleton, Esparza, Thaxter, and Grant (2008) found that among girls, the relation between urban stress and depressive symptoms was moderated by religious support, such that low levels of stress and high use of religious coping were protective against the development of depressive symptoms; however, this relation was not observed when stress was high. Grant et al. (2000) found that greater religious involvement was protective against symptoms of depression, anxiety, and social withdrawal for girls when urban stress levels were high. Results of these studies suggest that religious involvement may serve as a moderator for low-income urban youth against internalizing symptoms; however, these relations were not found among urban African American boys. Furthermore, these studies examined religious involvement as a single, comprehensive measure rather than exploring the separate dimensions of religious involvement, which may provide a more accurate

representation of youth's religious experience (Pearce, Jones, Schwab-Stone, & Ruchkin, 2003).

Only two studies have tested specific dimensions of spirituality/religious participation as moderators of the relationship between stress effects on mental health outcomes of low-income urban African American youth. Pearce et al. (2003) found that private religious participation (e.g., praying and reading religious materials) was protective against the development of conduct problems for urban youth exposed to higher levels of community violence. Fowler, Ahmed, Tompsett, Jozefowicz-Simbeni, and Toro (2008) found both private and public religious participation to be moderators of the relationship between community violence exposure and externalizing problems. Specifically, Fowler and colleagues (2008) found public religious participation to moderate the relation between community violence and substance abuse, and private religious participation to moderate the relation between community violence and deviant behaviors among African American adolescents. Both studies, however, were specific to later adolescence/emerging adulthood samples, e.g., community violence, and externalizing psychological outcomes only (e.g., conduct problems, substance abuse, deviant behaviors). Thus, the effects of these dimensions of religious participation on early adolescents exposed to multiple types of stressors in the context of urban poverty and both internalizing and externalizing types of symptoms remain unknown.

## **Rationale**

The following gaps in the literature remain: first, it is unclear whether religious participation moderates the relation between urban stressors and both internalizing and externalizing psychological symptoms. Second, studies on spirituality/religion have mostly examined singular factors, such as frequency of church attendance, as indicators of youth religious participation, thereby excluding the possible effects of other dimensions of religious participation. Third, early-aged adolescents are more likely to be required to attend church services with parents, other factors associated with spiritual/religious expression may have an association with psychological outcomes and with varying degrees of strength. Finally, it remains unclear whether the separate dimensions of religious participation are more or less effective for urban, low-income boys and girls, who may participate in varying amounts of religious activities. The purpose of this study is to address these gaps in the literature with a group of African American urban adolescents.

## **Statement of Hypotheses**

**Hypothesis I.** Urban stressful life experiences will predict more negative psychological outcomes among low-income, urban adolescents.

*Hypothesis Ia.* Urban stressful life experiences will predict more internalizing outcomes among low-income, urban adolescents.

*Hypothesis Ib.* Urban stressful life experiences will predict more externalizing outcomes among low-income, urban adolescents.



**Hypothesis II.** Frequency of church attendance will moderate the relation between urban stressful life experiences and internalizing and externalizing outcomes, such that adolescents exposed to higher levels of urban neighborhood stress will report fewer internalizing and externalizing outcomes when also reporting greater frequencies of church attendance.

**Hypothesis III.** Religious participation will moderate the effects of urban stress on psychological outcomes.

*Hypothesis IIIa.* Public religious participation will moderate the effects of urban stress on internalizing and externalizing outcomes, such that adolescents exposed to higher levels of urban neighborhood stress will report fewer internalizing and externalizing outcomes when reporting higher levels of public religious participation.

*Hypothesis IIIb.* Private religious participation will moderate the effects of urban stress on internalizing and externalizing outcomes, such that adolescents exposed to higher levels of urban neighborhood stress will report fewer internalizing and externalizing outcomes when reporting higher levels of private religious participation.

## **Method**

### **Participants**

This study is part of a larger study examining the effects of stress on psychological problems among inner city adolescents. Participants were recruited from three Chicago Public Schools with each school consisting of a student

population with at least 75% of the students coming from low income families, as identified by a student's eligibility for free or reduced lunch.

Only those early adolescent participants who identified as African American in the larger study were selected for the current study ( $n = 1238$ ). Among those who participated in the study, 47.1% ( $n = 583$ ) identified as male, 52.3% ( $n = 648$ ) as female, and 0.6% ( $n = 7$ ) did not report gender. Participants ranged in age from 10 to 15 years, with a mean age of 12.86 years.

Sample size was determined a priori based on the effect size calculation from a previously published study linking religiosity to psychological adjustment (Hackney & Sanders, 2003;  $d = .11$ ). The analysis was conducted using G\*Power 3.1 (Faul, Erdfelder, Lang, & Buchner, 2007). The minimum acceptable total sample size needed to achieve a power level of .80 was determined to be 129. Because we expected an interaction effect, we doubled the minimum estimate, yielding a total sample size needed of 259. Our sample of 1238 participants clearly exceeded this estimate.

### **Procedure**

Schools that met the criteria for this study were selected after consent was obtained from the principal of each school. Once each school agreed to participate in the study, the details of the project were discussed with both teachers and students at the respective schools. Students were given a consent form to have completed by their parents and returned in order to participate in the study. After additional assent was obtained from interested students, research assistants discussed confidentiality with the students before administering the survey.

Participants allotted three hour time periods to administer the larger study to individual classes, which averaged between 25 and 30 students. Within the larger study, measures assessing urban stress, religion, and psychological outcomes were administered to the students. Upon completion of the study, students were debriefed on additional information about the purpose of the study and were given the opportunity to ask questions to the researchers.

### **Measures**

Three measures were taken from a larger data set.

**Urban stress.** The Urban Adolescent Life Experiences Scale (UALES; developed by Allison, 1995; Cronbach's  $\alpha = .90$  in the current study) is a 113-item scale measuring stressful life experiences for urban adolescents. Stressful life experiences examined in this measure included stressful experiences in school, family, community, peer and personal areas. Participants selected the frequency of occurrence of the life event on a five point Likert-like scale, which included selections of Never, Hardly Ever, Sometimes, Often, and Always. Sample items include, "Someone in my family goes to jail," "I see or hear about crime in my neighborhood," and "I change my schools." This measure was developed for the use of assessing stressors unique to urban, minority adolescents with higher scores associated with greater levels of life stress. The complete measure may be found in the Appendix.

**Religious participation.** Items chosen to represent religious participation in the current study were selected from a 10-item measure developed by O'Koon (1997) to determine the frequency of active participation in religious institutions

and activities associated with one's religious affiliations both within the institution and privately. For the current study, one item examined the *frequency of youth church attendance*. This item is rated on a scale of scores between 1 indicating "at least once a week," to 6 indicating, "I don't go to church."

A second item in this measure, in a checklist format, contained religious behaviors that an individual may engage in, including both public and private religious participation items based on research supporting the possibility of two religious dimensions having different effects on adolescents (Pearce, Little, & Perez, 2003; Fowler et al., 2008). Four behaviors in this section were selected to represent *public religious participation* (Cronbach's alpha = .64 in the current study). Scores were calculated by summing across the four options, such that a score of 0 indicated that the participant did not select any of the four options, and a score of 4 indicated that the participant selected all four options. Sample choices from public religious participation included "Go to a prayer meeting or Bible study" and "Play sports at church or belong to a youth group." An additional four choices in the religious experience item were selected to represent *private religious participation* (Cronbach's alpha = .72 in the current study). Scores were calculated by summing across the four options, such that a score of 0 indicated that the participant did not select any of the four options, and a score of 4 indicated that the participant selected all four options. Sample choices for private religious participation included "Pray to yourself" and "Listen to religious music." The items used for this study may be found in the Appendix.

**Psychological adjustment.** The Youth Self Report (YSR; Achenbach & Edelbrock, 1987; Cronbach's alpha internalizing outcomes = .89; externalizing outcomes = .87 in the current study) was used in this study to measure psychological adjustment. The YSR measures both internalizing and externalizing behavioral scores as self-reported by youth that are administered the measure. The total YSR consists of 119 items assessing individual behavior on a three point Likert-like scale of (1) not true, (2) somewhat or sometimes true, or (3) very true or often true. Items representing internalizing outcomes include "I feel worthless or inferior," "I am unhappy, sad, or depressed," and externalizing outcomes include "I get in many fights," and "I try to get a lot of attention."

## **Results**

Analyses for this study were conducted using a simple linear regression and moderation analyses. Simple linear regressions were computed to determine whether urban stressful life experiences predicted internalizing symptoms and externalizing symptoms in low-income, urban African American adolescents in this study.

Moderation analyses as recommended by Baron and Kenney (1986) were conducted to assess the association between the predictor and moderator variables on the outcome variables. First, frequency of church attendance was tested as a potential moderator of the relation between urban stressful life experiences and both internalizing symptoms and externalizing symptoms. Next, public religious participation was tested as a potential moderator of the relation between the same

predictor and outcome variables. Finally, private religious participation was tested as the last potential moderator of the same variables.

These analyses assessed the direct effects of the predictor (i.e., urban stress), potential moderators (i.e., frequency of church attendance, public and private religious participation), and the interaction product of the predictor and moderators (i.e., urban stress  $\times$  church attendance, urban stress  $\times$  public religion, urban stress  $\times$  private religion). The moderation hypotheses were supported if the interaction terms were significant and the pattern indicated that adolescents exposed to higher levels of urban stressful life experiences reported fewer internalizing and externalizing outcomes when they reported higher levels of both public and private religious participation, as well as higher frequencies in church attendance. Although possible main effects between the predictor and moderators may be significant, they were not directly relevant to testing the moderator hypotheses.

To account for missing data among study participants, a means substitution was used for all regression analyses in order to establish an appropriate level of power. All descriptive, correlation, simple regression, and moderation analyses were performed using the Statistical Package for the Social Sciences (SPSS) Version 22.

### **Preliminary Analyses**

In the present study, descriptive statistics were computed for the predictor, outcome and moderator variables. The mean and standard deviation scores for the UALES, YSR (internalizing symptoms and externalizing symptoms), and CDI

religious participation items are presented in Table 1. Additionally, zero-order correlational analyses using a Pearson product-moment bivariate correlation were computed to determine the specific associations between the predictor and proposed moderating, and outcome variables for each of the hypothesized models for the selected sample of participants. Specifically, intercorrelations between the independent and proposed moderating variables (i.e., urban stress and frequency of church attendance, public religious participation, and private religious participation) were computed to assess simple associations. As expected, urban stress was positively correlated with both internalizing ( $r = .43, p < .001$ ) and externalizing ( $r = .62, p < .001$ ) outcomes. Frequency of church attendance was positively correlated with public ( $r = .40, p < .05$ ), but not private religion, indicating that higher frequencies of church attendance was associated with more public religious participation. Correlations tables for all study variables are presented in Table 2.

Table 1

*Descriptive Statistics of All Study Variables*

Variable	N	Range	Minimum	Maximum	Mean	SD
UALES Total	1095	207.82	117.27	388.09	201.82	36.22
Stress						
Frequency of Church Attendance	436	4.00	1.00	5.00	2.40	1.68
Public Religion	439	4.00	.00	4.00	1.41	1.06
Private Religion	409	4.00	.00	4.00	1.06	1.46
YSR Internalizing Outcomes	318	47.00	.00	47.00	13.99	9.04
YSR Externalizing	346	43.45	.00	43.45	13.85	9.04

## Outcomes

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*Note.* SD = standard deviation.

**Table 2: Correlations among all study variables**

<b>Variables</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
UALES Total Stress (1)	-					
Church Attendance (2)	.09	-				
Public Religion (3)	.02	-.40**	-			
Private Religion (4)	.01	-.09	.20**	-		
YSR Internalizing Symptoms (5)	.43**	.31	-.25	-.24	-	
YSR Externalizing Symptoms (6)	.62**	.27	-.28	-.35	.65**	-

\*\*Correlation is significant at  $p < .01$  level.

\* Correlation is significant at  $p < .05$  level.

**Hypothesis I**

*Urban stressful life experiences will predict more negative psychological outcomes among low-income, urban African American adolescents.*

**Hypothesis Ia.** *Urban stressful life experiences will predict more internalizing outcomes among low-income, urban African American adolescents.*

A simple linear regression was computed to predict YSR internalizing symptom outcomes based on UALES (i.e., urban stress) for low-income, urban African American adolescents. Preliminary analyses were performed to ensure there was no violation of the assumption of normality and linearity. Urban stress scores ( $M = 201.82$ ,  $SD = 35.77$ ) significantly predicted internalizing symptom outcomes ( $M = 13.99$ ,  $SD = 5.14$ ),  $F(1, 1121) = 42.49$ ,  $p < .001$ , adjusted  $R^2 = .04$ . The beta weights, presented in Table 3, indicated that when the number of



UALES scores increases by one unit, YSR internalizing outcome scores increase by .03 units.

**Hypothesis Ib.** *Urban stressful life experiences will predict more externalizing outcomes among low-income, urban African American adolescents.*

A simple linear regression was also computed to predict YSR externalizing symptom outcomes based on UALES (i.e., urban stress) for low-income, urban African American adolescents. Urban stress scores ( $M = 201.82$ ,  $SD = 36.22$ ) significantly predicted externalizing symptom outcomes ( $M = 13.85$ ,  $SD = 5.01$ ),  $F(1, 1123) = 106.82$ ,  $p < .001$ , adjusted  $R^2 = .09$ . The beta weights, presented in Table 4, indicated that when the number of UALES scores increase by one unit, YSR externalizing outcome scores increase by .04 units. These results supported the hypothesis that urban stressful experiences predict more internalizing outcomes and externalizing outcomes among low-income, urban African American adolescents.

## **Hypothesis II**

*Frequency of church attendance will moderate the relation between urban stressful life experiences and internalizing and externalizing outcomes, such that adolescents exposed to higher levels of urban neighborhood stress will report fewer internalizing and externalizing outcomes when also reporting greater frequencies of church attendance.*

To establish moderation, Baron and Kenny (1986) recommend the regression of the dependent variable on the proposed independent variable and moderator, plus the interaction term of the independent variable and moderator.

To avoid potentially problematic high multicollinearity with the interaction term, the variables were centered and an interaction term between urban stress and frequency of church attendance was created (Aiken, West, & Reno, 1991).

Moderation is considered to be established if the interaction term is a significant predictor of the dependent variable in the regression model.

To test the hypothesis that the frequency of church attendance moderates the relation between urban stress and internalizing and externalizing outcomes, two regression equations were created according to Baron and Kenny (1986). For the first regression equation, internalizing symptoms scores were entered as the dependent variable, and scores on the UALES, scores from frequency of church attendance, and the interaction of the two were entered as predictor variables. For the second regression equation, externalizing symptom scores were entered as the dependent variables, and scores on the UALES, scores from frequency of church attendance, and the interaction of the two were entered as predictor variables.

First, the hypothesis that frequency of church attendance moderates the relation between urban stress and internalizing outcomes was tested.

Multicollinearity was not violated and results indicated that the interaction term was not significant in the model ( $b = -0.11$ ,  $SE = .20$ ,  $\beta = -.02$ ,  $p > .05$ ).

Next, the hypothesis that frequency of church attendance moderates the relation between urban stress and externalizing outcomes was tested.

Multicollinearity was not violated and results indicated that the interaction term was not significant in this model ( $b = -0.16$ ,  $SE = .19$ ,  $\beta = -.03$ ,  $p > .05$ ).

These results suggest that in the overall sample, frequency of church attendance did not moderate the relation between urban stress and internalizing and externalizing outcomes among low-income, urban African American adolescents. The beta weights for both internalizing and externalizing outcome analyses are presented in Tables 3 and 4, respectively.

**Table 3: Frequency of Church Attendance as a Moderator (Internalizing Outcomes)**

Variable	<i>B</i>	<i>SE (B)</i>	$\beta$	<i>t</i>	Sig. ( <i>p</i> )
(Constant)	8.14	.91		8.96	
UALES Total	.03	.00	.19	6.72	.001
Stress	.18	.14	.02	.83	.41
Frequency of Church Attendance	-.11	.19	-.02	-.59	.56
Stress*Church Attendance					

Note.  $R^2 = .04, p < .05$

**Table 4: Frequency of Church Attendance as a Moderator (Externalizing Outcomes)**

Variable	<i>B</i>	<i>SE (B)</i>	$\beta$	<i>t</i>	Sig. ( <i>p</i> )
(Constant)	5.29	.86		6.12	
UALES Total	.04	.00	.30	10.65	.001
Stress					
Frequency of Church Attendance	.08	.13	.02	.56	.57
Stress*Church Attendance	-.17	.18	-.03	-.93	.35

Note.  $R^2 = .09, p < .05$

### Hypothesis III

Religious participation will moderate the effects of urban stress on psychological outcomes.

**Hypothesis IIIa.** *Public religious participation will moderate the effects of urban stress on internalizing and externalizing outcomes, such that adolescents exposed to higher levels of urban neighborhood stress will report fewer internalizing and externalizing outcomes when reporting higher levels of public religious participation.*

To test the hypothesis that public religious participation moderates the relation between urban stress and internalizing and externalizing outcomes, two regression equations were created according to Baron and Kenny (1986). For the first regression equation, internalizing symptoms scores were entered as the dependent variable, and scores on the UALES, scores from CDI public religious participation items, and the interaction of the two were entered as predictor variables. For the second regression equation, externalizing symptom scores were entered as the dependent variables, and scores on the UALES, scores from CDI public religious participation items, and the interaction of the two were entered as predictor variables.

First, the hypothesis that public religious participation moderates the relation between urban stress and internalizing outcomes was tested. Multicollinearity was not violated, and results indicated that the interaction term was not significant in this model ( $b = -0.20$ ,  $SE = .25$ ,  $\beta = -0.02$ ,  $p > .05$ ).

Next, the hypothesis that public religious participation moderates the relation between urban stress and externalizing outcomes was tested. for Multicollinearity were not violated, and results indicated that the interaction term was not significant in this model ( $b = -0.13$ ,  $SE = .24$ ,  $\beta = -0.02$ ,  $p > .05$ ).

These results suggest that in the overall sample, public religious participation did not moderate the relation between urban stress and internalizing and externalizing outcomes among low-income, urban African American adolescents. The beta weights for both internalizing and externalizing outcome analyses are presented in Tables 5 and 6, respectively.

**Table 5: Public Religious Participation as a Moderator (Internalizing Outcomes)**

Variable	<i>B</i>	<i>SE (B)</i>	$\beta$	<i>t</i>	Sig. ( <i>p</i> )
(Constant)	8.56	.86		9.57	
UALES Total	.03	.00	.19	6.74	.001
Stress					
Public	-.10	.22	-.01	-.45	.65
Religious					
Participation	-.20	.25	-.02	-.82	.41
Stress*Public					
Religion					

Note.  $R^2 = .04, p < .05$

**Table 6: Public Religious Participation as a Moderator (Externalizing Outcomes)**

Variable	<i>B</i>	<i>SE (B)</i>	$\beta$	<i>t</i>	Sig. ( <i>p</i> )
(Constant)	5.60	.85		6.59	
UALES Total	.04	.00	.30	10.63	.001
Stress	-.09	.21	-.01	-.40	.68
Public Religious					
Participation	-.13	.24	-.02	-.56	.58
Stress*Public					
Religion					

Note.  $R^2 = .09, p < .05$

**Hypothesis IIIb.** *Private religious participation will moderate the effects of urban stress on internalizing and externalizing outcomes, such that adolescents exposed to higher levels of urban neighborhood stress will report fewer*

*internalizing and externalizing outcomes when reporting higher levels of private religious participation.*

To test the hypothesis that private religious participation moderates the relation between urban stress and internalizing and externalizing outcomes, two regression equations were created according to Baron and Kenny (1986). For the first regression equation, internalizing symptoms scores were entered as the dependent variable, and scores on the UALES, scores from CDI private religious participation items, and the interaction of the two were entered as predictor variables. For the second regression equation, externalizing symptom scores were entered as the dependent variables, and scores on the UALES, scores from CDI private religious participation items, and the interaction of the two were entered as predictor variables.

First, the hypothesis that private religious participation moderates the relation between urban stress and internalizing outcomes was tested. Multicollinearity was not violated and results indicated that the interaction term was not significant in this model ( $b = -0.07$ ,  $SE = .24$ ,  $\beta = -0.01$ ,  $p > .05$ ).

Next, the hypothesis that private religious participation moderates the relation between urban stress and externalizing outcomes was tested. Multicollinearity was not violated and results indicated that the interaction term was not significant in this model ( $b = -0.12$ ,  $SE = .23$ ,  $\beta = -0.02$ ,  $p > .05$ ).

These results suggest that in the overall sample, private religious participation did not moderate the relation between urban stress and internalizing and externalizing outcomes among low-income, urban African American

adolescents. The beta weights for both internalizing and externalizing outcome analyses are presented in Tables 7 and 8, respectively.

**Table 7: Private Religious Participation as a Moderator (Internalizing Outcomes)**

Variable	<i>B</i>	<i>SE (B)</i>	$\beta$	<i>t</i>	<i>Sig. (p)</i>
(Constant)	8.47	.86		9.82	
UALES Total	.03	.00	.19	6.68	.001
Stress	-.04	.17	-.01	-.23	.82
Private Religious Participation	-.07	.24	-.01	-.30	.76
Stress*Private Religion					

*Note.*  $R^2 = .03, p < .05$

**Table 8: Private Religious Participation as a Moderator (Externalizing Outcomes)**

Variable	<i>B</i>	<i>SE (B)</i>	$\beta$	<i>t</i>	<i>Sig. (p)</i>
(Constant)	5.56	.82		6.79	
UALES Total	.04	.00	.30	10.59	.001
Stress	-.09	.16	-.02	-.55	.58
Private Religious Participation	-.12	.23	-.02	-.54	.59
Stress*Private Religion					

*Note.*  $R^2 = .09, p < .05$

### Post hoc power analysis

In light of the non-significant findings, I conducted a post hoc power analysis using G\*Power 3.1 (Faul, Erdfelder, Lang, & Buchner, 2007) to probe the weakness of the main effects of religious participation—specifically, the effect of frequency of youth church attendance, public and private religious participation on reported internalizing and externalizing symptoms. With  $n =$

1238 and  $d = .11$ , the analysis yielded a large power estimate of .96 (Cohen, 1977) and suggesting that the study sufficiently was powered to detect effects.

### **Discussion**

Overall, the findings of this study did not provide support for the hypotheses that frequency of church attendance, or public or private religious participation serve as moderators of the relation between urban stress and internalizing and externalizing problems among low-income, urban African American adolescents. As expected, higher self-reports of urban stress predicted higher self-reports of both internalizing and externalizing problems for adolescents in this study. However, contrary to predictions, the items selected to represent ways in which these adolescents may actively participate in their religious communities did not reflect any protective effects of religious institutions against psychological problems. Furthermore, this study was unable to adequately support the claim that two domains of religious participation, public and private religious involvement, are protective against psychological problems among low-income, urban African American adolescents. Additionally, the study was unable to conclude that increased church attendance among low-income, urban African American adolescents would predict fewer psychological problems for these participants.

Results did support the preliminary hypothesis, which stated that increased levels of urban stressful life experiences would significantly predict more internalizing and externalizing outcomes in this sample. These findings were



consistent with the findings of previous studies that suggested that increased stress levels caused by living in urban and impoverished environments lead to more psychological problems among youth. In particular, a wide range of stressful life events, including stress related to family, community, peer, and personal areas, that represented uncontrollable events, chronic situations, and major episodes were associated with adolescents' reports of higher internalizing and externalizing psychological outcomes in this sample. The measure of stress used in this study (Allison et al., 1999) was developed and normed on a sample of low-income, urban adolescents, and thus is likely to be an accurate and representative measure of the various types of stressors experienced by urban youth.

The association between urban stress and psychological problems is well-established. Within the context of urban communities, stressors such as poverty, unemployment, community violence, and lack of social support have been associated with increased likelihood to develop psychological problems for urban adolescents (Jaffee, Liu, Cauty-Mitchell, Qi, Austin, & Swigonski, 2005; McMahon, Felix, Hapert, & Petropoulos, 2009). Also, the combination of chronic exposure to stressful life events and the lack of appropriate resources to address these adversities place adolescents at a greater risk for developing internalizing and externalizing psychological problems (Carleton et al., 2008; Cole, Michel, & O'Donnell-Teti, 1994; Grant et al., 2000). In addition, low-income urban adolescents who are at a greater risk to experiencing more psychological problems are also less likely to obtain mental health services. Unfortunately,

adolescents from minority groups (e.g., African Americans) are more likely to experience stressful life events associated with chronic poverty and neighborhood disadvantage (Samaan, 2000). The results of the present study are consistent with previous findings that increased exposure to urban stressors negatively affects the mental health of adolescents living in low-income, urban environments. Given the limited access to effective interventions and positive resources available in these communities, adolescents in stressful environments may continue to act out in adverse ways.

The findings from Hypothesis II, IIIa and IIIb, in addition to the lack of evidence to support direct effects of church attendance, public and private religious participation on internalizing and externalizing outcomes, did not support the claim that adolescents who have higher frequencies of church attendance or engage in more public or private religious participation report fewer internalizing and externalizing outcomes when exposed to higher levels of urban neighborhood stress. This could mean that for inner-city adolescents who experience high levels of urban stress, frequent or regular church attendance or participating in religious activities may not be enough of a protective barrier against the effects of stress on both internalizing and externalizing outcomes. The items in this study selected to represent public and private domains of religious participation (e.g., attending church service, participating in youth group at church, etc.) were parallel with previous research on those domains of religious participation (Fowler et al., 2008; Pearce et al., 2003). However, the findings from the current study were inconsistent with previous literature, as neither public nor

private religious participation served as protective barriers against the effects of urban stress and psychological problems for low-income, urban African American adolescents in this study.

There are potential conceptual and methodological reasons for these unexpected effects. At the conceptual level, churches may be compromised by the stressors of urban poverty just as other systems (e.g., families, schools) are, and the opportunities provided by churches that typically benefit youth (e.g., safe after-school and summer programming, adult support, positive peer modeling, meaning-making) may not be present or may be compromised by urban poverty (Harley & Hunn, 2014). Freeman (1986) suggested that adolescents who attend church regularly have lower levels of externalizing symptoms due to the church's ability to provide prosocial activities that were alternative to deviant ones available in urban settings. For some adolescents, however, particularly those living in low-income, urban communities, neighborhood churches may lack necessary resources to provide youth with positive activities.

Another mechanism hypothesized to explain the typically positive effects of religious involvement on adolescents has been social support. Although it has been suggested that the presence of positive social supports may help explain the positive relation between religious participation and psychological well-being among adolescents, the benefits of social support may be compromised within the context of urban poverty such that opportunities for positive social experiences that may protect adolescents against mental health problems may be reduced or not present (Pearce et al., 2003; Rook, 1998; Samaan, 2000). Adolescents may be

limited in opportunities to receive positive support due to the paucity of positive adult or youth figures in churches in low-income, urban religious settings (Samaan, 2000). Adults in impoverished communities may have other competing demands, which limits their availability to youth, which includes finances, community violence, and lack of opportunity to connect with youth. Because many of the adults and youth in urban areas are dealing with similar stress-related issues, they may not be effective in providing positive support within the church for urban youth. Moreover, churches in low-income, urban communities are likely to experience the same financial constraints as members of these communities and thus, be limited in their ability to provide the level of social support necessary to impact the psychological well-being of the youth. It is plausible that there will be low levels of religious participation among youth if churches do not offer programs that interest youth. Given the limited resources of the churches in relation to what they can offer, youth are likely to spend less time there and thus have less influence from positive peer and adult experiences.

A third mechanism hypothesized to explain the typically positive effects of religious participation on adolescents has been meaning-making. Wright et al. (1993) suggested that adolescents who are unable to view their religious experiences as meaningful may be less likely to benefit from those religious experiences. For adolescents living in impoverished, urban communities, it may be difficult for them to understand why they may be experiencing hardships associated with poverty (e.g., financial constraints of the family, poor housing, living in neighborhoods of high crime and violence) if they engage in religious

practices regularly (e.g., attending church, praying every night, scripture reading, etc.), yet find themselves in the same living situation. Additionally, the inability to make meaningful experiences of religious engagement may also be related to the absence of positive supports within low-income, urban churches such that churches may lack positive adults or youth who can help guide urban youth through the process of making sense of their stressful life events. Furthermore, the absence of positive supports within these institutions may result in the lack of positive adult figures to help youth understand the meaning of religious experiences that are engendered through frequent engagement in religious participation. The absence of these three mechanisms (e.g., lack of church resources, social support, meaning-making) may lead urban adolescents who experience high levels of stressful life events to become overwhelmed by their circumstances, thus making efforts to mitigate the stress futile. Unfortunately, the measures in the present study did not assess these mechanisms. Future research should explore the proposed mechanisms influencing the lack of effect of religious participation for urban youth. In addition, other limitations of this study may explain the lack of expected effects.

### **Limitations**

In relying on archival data, the current study was limited to a select number of items representing public and private religious participation, thus limiting selections from which adolescents could choose. Each domain of religious participation consisted of four items which broadly represented activities that youth could participate in while at church. It is possible that youth may

actively engage in other ways of religious participation other than those items which were selected for this study. For example, youth in this study were limited to options, such as “sing in a choir at church,” for public religious participation. However, it is possible that a youth may not have selected this item if he/she played an instrument in the church’s choir. Similar explanations could apply to other activities not listed in this study, such as serving as an usher during church services. Future studies should consider a comprehensive list of activities offered by religious institutions, as well as activities that may be offered outside of the religious setting that still reflect one’s religious expressions.

In addition to the previously suggested limitations of the public and private religious participation items, the religious participation measure was unable to account for varying degrees of religious participation. Adolescents were limited to dichotomous responses for those items (i.e., religious items marked by an affirmative checkmark indicated a “yes” response, whereas the absence of check marked responses indicated a “no” response), thus limiting the ability of the measure to accurately reflect degrees of participation. Furthermore, religious participation items were developed to coincide with the Congregational Development Questionnaire, which was developed primarily with a sample of adults, and thus may not reflect the behaviors of adolescents. For the present study, only two items were selected from the larger 10-item adaptation developed by O’Koon (1997), which may not fully represent the possible religious beliefs and ways of engagement of the adolescents in this study. Therefore, the

psychometrics of the selected items of religious participation are unknown and may serve a threat to the validity and of the results of this study.

### **Conclusion**

Overall, the findings in the present study suggest that religious participation for early-age, low-income, urban African American adolescents may not provide the protective barrier against urban stress and the development of internalizing and externalizing psychological outcomes as expected. Future research should explore the role of social support found in religious communities and its impact on religious youth. It may be that youths who engage in public and private religious practices are more likely to report better mental health outcomes when receiving greater social supports from peers and adults within their religious communities. Additionally, future studies should explore the effectiveness of positive activities offered within church institutions, and whether youth are fully engaged in these programs. Furthermore, future research may wish to explore whether low-income, urban youth perceive their religious experiences as meaningful. Urban adolescents who encounter higher levels of stressful experiences associated with low-income and impoverished urban neighborhoods may perceive their situations as insurmountable, and any efforts made to alleviate the stress may be ineffective. Additionally, an adolescent may perceive his or her adverse situation as a punishment from God/Higher Power and reduce his/her engagement in religious activities as a result. Future research should test these hypotheses. If found to be true, it can be important for religious communities to develop religious practices and appropriate religious engagement activities that

provide adolescents with social supports and/or a purpose for living within the context of urban poverty. This could be done by creating more beneficial partnerships between highly resourced religious institutions and those within low-income, urban communities that may have fewer resources and more youth members who experience more urban stress.



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## **Appendix: Study Measures**

**Urban Adolescent Life Experiences Scale**

**We want to know about things that may or may not have happened to you.**

**Please read each of the sentences below and circle HOW OFTEN it has happened to you.**

I get good grades.

Always      Often      Sometimes      Hardly Ever      Never

I get bad grades.

Always      Often      Sometimes      Hardly Ever      Never

I study.

Always      Often      Sometimes      Hardly Ever      Never

I think about college.

Always      Often      Sometimes      Hardly Ever      Never

I change schools.

Always      Often      Sometimes      Hardly Ever      Never

Teachers push me to work harder.

Always      Often      Sometimes      Hardly Ever      Never

I don't understand classwork.

Always      Often      Sometimes      Hardly Ever      Never

I have good school supplies.

Always      Often      Sometimes      Hardly Ever      Never

I have bad teachers.

Always      Often      Sometimes      Hardly Ever      Never

I have good teachers.

Always      Often      Sometimes      Hardly Ever      Never

I get in trouble at school.

Always      Often      Sometimes      Hardly Ever      Never

I skip school or am late.

Always      Often      Sometimes      Hardly Ever      Never

School is in the way.

Always      Often      Sometimes      Hardly Ever      Never

I've flunked a grade.

Always      Often      Sometimes      Hardly Ever      Never

I don't do as well at school as my parents would like.

Always      Often      Sometimes      Hardly Ever      Never

I hang out with friends.

Always      Often      Sometimes      Hardly Ever      Never

I have a pregnant friend.

Always      Often      Sometimes      Hardly Ever      Never

I have a friend who got someone pregnant.

Always      Often      Sometimes      Hardly Ever      Never

A friend has died.

Always      Often      Sometimes      Hardly Ever      Never

Friends get in trouble.

Always      Often      Sometimes      Hardly Ever      Never

I'm lonely.

Always      Often      Sometimes      Hardly Ever      Never

Friends get drunk.

Always      Often      Sometimes      Hardly Ever      Never

Friends use drugs.

Always      Often      Sometimes      Hardly Ever      Never

I have problems getting dates.

Always      Often      Sometimes      Hardly Ever      Never

I break up with a boyfriend or girlfriend.

Always      Often      Sometimes      Hardly Ever      Never

I fight with a boyfriend or girlfriend.

Always      Often      Sometimes      Hardly Ever      Never

A boyfriend or girlfriend cheats on me.

Always      Often      Sometimes      Hardly Ever      Never

A boyfriend or girlfriend uses drugs.

Always      Often      Sometimes      Hardly Ever      Never

A boyfriend or girlfriend sells drugs.

Always      Often      Sometimes      Hardly Ever      Never

A friend goes to jail.

Always      Often      Sometimes      Hardly Ever      Never

I see friends using drugs.

Always      Often      Sometimes      Hardly Ever      Never

I get beat up by a boyfriend or girlfriend.

Always      Often      Sometimes      Hardly Ever      Never

I have chores at home.

Always      Often      Sometimes      Hardly Ever      Never

Parent or family member is sick.

Always      Often      Sometimes      Hardly Ever      Never

I take care of younger family members.

Always      Often      Sometimes      Hardly Ever      Never

My parents get upset or worried.

Always      Often      Sometimes      Hardly Ever      Never

A parent or family member has died.

Always      Often      Sometimes      Hardly Ever      Never

Family gets on my nerves.

Always      Often      Sometimes      Hardly Ever      Never

Family doesn't get along.

Always      Often      Sometimes      Hardly Ever      Never

A family member gets pregnant.

Always      Often      Sometimes      Hardly Ever      Never

A parent dates someone new.

Always      Often      Sometimes      Hardly Ever      Never

I dislike who my parent dates.

Always      Often      Sometimes      Hardly Ever      Never

I see or have contact with a parent.

Always      Often      Sometimes      Hardly Ever      Never

A parent gets beat up, attacked, or injured.

Always      Often      Sometimes      Hardly Ever      Never



Someone in my family goes to jail.

Always      Often      Sometimes      Hardly Ever      Never

I get along with my parent or parents.

Always      Often      Sometimes      Hardly Ever      Never

My parents break up or divorce.

Always      Often      Sometimes      Hardly Ever      Never

A parent leaves home.

Always      Often      Sometimes      Hardly Ever      Never

I leave home.

Always      Often      Sometimes      Hardly Ever      Never

My parents fight with each other.

Always      Often      Sometimes      Hardly Ever      Never

I get punished.

Always      Often      Sometimes      Hardly Ever      Never

I get pressure from parents or family to do better at school.

Always      Often      Sometimes      Hardly Ever      Never

I have parent who uses drugs.

Always      Often      Sometimes      Hardly Ever      Never

I have a parent who drinks alcohol.

Always      Often      Sometimes      Hardly Ever      Never

Children are taken away from home.

Always      Often      Sometimes      Hardly Ever      Never

I worry about a family member.

Always      Often      Sometimes      Hardly Ever      Never

Family members get in trouble.

Always      Often      Sometimes      Hardly Ever      Never

My neighborhood is noisy.

Always      Often      Sometimes      Hardly Ever      Never

I see or hear about crime in my neighborhood.

Always      Often      Sometimes      Hardly Ever      Never

I move to a new neighborhood.

Always      Often      Sometimes      Hardly Ever      Never

I live in a crowded house or apartment.

Always      Often      Sometimes      Hardly Ever      Never

A parent loses a job.

Always      Often      Sometimes      Hardly Ever      Never

A parent remarries.

Always      Often      Sometimes      Hardly Ever      Never

Someone new moves into my house.

Always      Often      Sometimes      Hardly Ever      Never

I lost my home in a fire.

Always      Often      Sometimes      Hardly Ever      Never

I visit a parent that doesn't live with me.

Always      Often      Sometimes      Hardly Ever      Never

A family member has an emotional problem.

Always      Often      Sometimes      Hardly Ever      Never

I have a bad reputation.

Always      Often      Sometimes      Hardly Ever      Never

I don't have any place to go.

Always      Often      Sometimes      Hardly Ever      Never

I get into fights.

Always      Often      Sometimes      Hardly Ever      Never

I lose a fight.

Always      Often      Sometimes      Hardly Ever      Never

I am not able to do what I want to do.

Always      Often      Sometimes      Hardly Ever      Never

I get into fights.

Always      Often      Sometimes      Hardly Ever      Never

I think about my future.

Always      Often      Sometimes      Hardly Ever      Never

I get a new job.

Always      Often      Sometimes      Hardly Ever      Never

I lose a job.

Always      Often      Sometimes      Hardly Ever      Never

I have trouble getting a job.

Always      Often      Sometimes      Hardly Ever      Never

I am treated different because of my race.

Always      Often      Sometimes      Hardly Ever      Never

I put off or wait to have sex.

Always      Often      Sometimes      Hardly Ever      Never

I am pressured into sex.

Always      Often      Sometimes      Hardly Ever      Never

I have sex for the first time.

Always      Often      Sometimes      Hardly Ever      Never

I am forced to have sex.

Always	Often	Sometimes	Hardly Ever	Never
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I am touched in a way I do not like.

Always	Often	Sometimes	Hardly Ever	Never
--------	-------	-----------	-------------	-------

I use birth control.

Always	Often	Sometimes	Hardly Ever	Never
--------	-------	-----------	-------------	-------

I start or stop using birth control.

Always	Often	Sometimes	Hardly Ever	Never
--------	-------	-----------	-------------	-------

I find out that I'm pregnant.

Always	Often	Sometimes	Hardly Ever	Never
--------	-------	-----------	-------------	-------

I find out that I got someone else pregnant.

Always	Often	Sometimes	Hardly Ever	Never
--------	-------	-----------	-------------	-------

I had a miscarriage.

Always	Often	Sometimes	Hardly Ever	Never
--------	-------	-----------	-------------	-------

I had an abortion.

Always	Often	Sometimes	Hardly Ever	Never
--------	-------	-----------	-------------	-------

I have a girlfriend who had a miscarriage.

Always      Often      Sometimes      Hardly Ever      Never

I have a girlfriend who had an abortion.

Always      Often      Sometimes      Hardly Ever      Never

I am concerned about getting AIDS.

Always      Often      Sometimes      Hardly Ever      Never

I'm asked to sell drugs.

Always      Often      Sometimes      Hardly Ever      Never

People think I sell drugs.

Always      Often      Sometimes      Hardly Ever      Never

I am pressured to sell drugs.

Always      Often      Sometimes      Hardly Ever      Never

People lie about me.

Always      Often      Sometimes      Hardly Ever      Never

I'm taken advantage of.

Always      Often      Sometimes      Hardly Ever      Never

I'm arrested or in trouble with the police.

Always      Often      Sometimes      Hardly Ever      Never

I go to jail.

Always      Often      Sometimes      Hardly Ever      Never

I am placed on probation.

Always      Often      Sometimes      Hardly Ever      Never

I feel tired.

Always      Often      Sometimes      Hardly Ever      Never

I don't have enough money.

Always      Often      Sometimes      Hardly Ever      Never

I don't have the things I need (food, clothes, etc.).

Always      Often      Sometimes      Hardly Ever      Never

Friends and family ask me for money.

Always      Often      Sometimes      Hardly Ever      Never



I don't have transportation.

Always      Often      Sometimes      Hardly Ever      Never

I go to the hospital.

Always      Often      Sometimes      Hardly Ever      Never

I have or make money.

Always      Often      Sometimes      Hardly Ever      Never

I don't get enough sleep.

Always      Often      Sometimes      Hardly Ever      Never

I use drugs.

Always      Often      Sometimes      Hardly Ever      Never

I drink alcohol.

Always      Often      Sometimes      Hardly Ever      Never

I get hurt or injured.

Always      Often      Sometimes      Hardly Ever      Never

I get robbed.

Always      Often      Sometimes      Hardly Ever      Never

**Congregation Development Questionnaire (Religious Participation Items)**

**The next few questions have to do with going to church. Please answer the questions below about your CHURCH or the CHURCH you know best (or MOSQUE or OTHER PRAYER SERVICE).**

How often do you go to a **church service**?

1. At least once a week \_\_\_\_\_
2. At least once a month \_\_\_\_\_
3. A few times a year \_\_\_\_\_
4. Not very often \_\_\_\_\_
5. Never/I don't go to church \_\_\_\_\_

Do you... (check all the things that you do).

**Private Religious Participation:**

1. Listen to religious services on TV

or over the radio \_\_\_\_\_

2. Pray to yourself \_\_\_\_\_

3. Pray with your family at home \_\_\_\_\_

4. Listen to religious music \_\_\_\_\_

**Public Religious Participation:**

1. Go to a prayer meeting  
or Bible study \_\_\_\_\_

2. Play sports at church  
or belong to a youth group \_\_\_\_\_

3. Sing in a choir at church \_\_\_\_\_

4. I go to a church service \_\_\_\_\_