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# The Relationship between Adverse Childhood Experiences (ACEs) and Intrinsic Religiosity in Southern Appalachia

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The Relationship between Adverse Childhood Experiences (*ACEs*) and Intrinsic Religiosity in

Southern Appalachia

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Date

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**Abstract**

The present exploratory study examined adverse childhood experiences and religiosity in a sample of individuals from Southern Appalachia. Self-reports of childhood adversity and intrinsic religion were obtained from 167 individuals. Results showed that fifty-five percent had not experienced a childhood adversity while forty-three percent had experienced one to five episodes. Although a little under half the sample had one or more adverse experiences, there was no significant relationship between *ACEs* and intrinsic religion ( $r = -.037, p = .631$ ). Sex and intrinsic religion were significantly related in that men endorsed the use of intrinsic religiosity more than women ( $t(165) = -2.28, p = .005$ ).

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### The Relationship between Adverse Childhood Experiences (ACEs) and Intrinsic Religiosity in Southern Appalachia

Often times the analogy is made that life is like a game of cards; we cannot change the cards we are dealt, just how we play the game. Some cards are universal and plague all mankind- ones like traumatic experiences and adversities. When studying a particular type of traumatic experience, such as ones occurring within the early stages of one's life (1- 18 years), the Adverse Childhood Experiences (ACEs) Survey is frequently used for assessment. Symptoms of early traumatic experiences may be feelings of helplessness, fear, and lack of control (Smith, 2004). What is intriguing and worth exploring is how people cope with adverse experiences. Emerging literature has shown that religion is a prominent way of coping. Dervic, Grunebaum, Burke, Mann, and Oquendo stated that research suggests that adversity and religion/spirituality have a reciprocal relationship. Religion and spiritual beliefs may buffer the impact of adversity, and adversity experienced during adolescence influences religious beliefs as adults (as cited in Santoro, Suchday, Benkhokha, Ramanayake, & Kapur, 2016).

#### *Adverse Childhood Experiences (ACEs) and the ACE Study*

Unbeknownst to many people, the events that happen in one's childhood may be exceptionally influencing on their subsequent adult years. Some events that could be considered detrimental are those called adverse childhood experiences (ACEs) or traumatic events. ACEs refer to experiences in the realm of abuse (physical, psychological, and sexual), neglect (environmental, physical, emotional), or significant household dysfunction (residing with a member who has a mental illness, abusing substances, or incarcerated) during the developmental years, explicitly before 18 years old (Santoro et. al., 2016). Negative impacts of trauma often

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times manifest in an individual as stress, depression, anxiety, and Post Traumatic Stress Disorder or PTSD (Gerber, Boals, & Schuettler, 2011).

The Adverse Childhood Experiences Questionnaire was first created to show the importance of asking questions about child maltreatment in survey research and how by failing to ask, important predictors of later-life problems may be overlooked. The questionnaire was mailed out to over 30,000 adults, and the response rate was 68% (Edwards, Dube, Felitti, & Anda, 2007). The validated results of the study produce staunch evidence that shows an association between early traumatic experiences and major health problems such as liver disease, reproductive health, heart disease, mental illness, obesity, smoking, and alcoholism (see full list Felitti et. al., 1998).

As noted by Smith (2004), adverse experiences also have the ability to attack and displace an individual's sense of meaning and purpose in life, but many things can offset the unpleasant effects of traumatic events. Some may choose to make meaning and sense of their experiences through religion. This type of religious coping should be noted since the Pew Research Center (2012) estimated that eight out of ten people around the globe affiliate with some sort of religious group (Bryant-Davis & Wong, 2013), but Bryant-Davis et al. (2012), stated that few studies even consider religious coping strategies of child and adolescent trauma victims. This must be remedied by more exploration of the relationship between ACEs and religious coping since the majority of the population claim some form of religious affiliation, and treatment of any form of condition must include the entire person including their values (Smith, 2004).

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### *Religiosity*

Defined by Good and Willoughby (as cited in Bryant-Davis & Wong, 2013), religion is a commitment to the beliefs and practices recognized by a specific sacred organization such as a church, synagogue, or mosque. It is also characterized by attributes such as prayer, service attendance, and reading from a sort of holy script. Smith (2004) stated that religion was also an important predictor of physical and mental health across societies.

### *Key Variable of Religiosity*

Before continuing on to the explanations of the religious coping strategies, another important variable needs to be approached due to its influencing power. This variable is sex. More often than not, women score higher than men on religious/spiritual scales. In the adolescent developmental stages as well, women maintain their faith and practices to a higher degree compared to their counterparts (Santoro et al., 2016). Because most studies regarding religion often focus on women, there are high numbers of replicative findings globally that reinforce the divide between the sexes.

### *Religious Coping*

The use of religion to cope with life stressors is extremely prevalent within societies. Pargament et al. (1998) states that religious coping can be defined simply as religious behaviors or thoughts occurring in response to a specific situation. This act is inherently derived from one's specific religious beliefs, practices, experiences, emotions, and relationships ((Abu-Raiya & Pargament, 2015) as cited by Abu- Raiya & Pargament, 2015)). An individual in a crisis might turn to God and pray for relief, pray to a saint for holy intercession, or blame God for their suffering. These acts can often be intrinsic or extrinsic in their manifestation, but because of the

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ways people utilize their beliefs and have unique perceptions of God, religious coping can be categorized two different ways, positive or negative.

Positive religious coping ultimately considers that God is benevolent (Bryant-Davis & Wong, 2013). Pargament et al. (1998) stated that positive coping activities include a reflection of a secure relationship with God, a belief in a greater meaning, and a sense of a spiritual bond with others (as cited by Abu- Raiya & Pargament, 2015). An example of positive religious coping in an intrinsic way would be an individual carrying their religious beliefs into all areas of their life. An example of an extrinsic way would be an individual donating their time to a non-profit organization for the purpose of receiving praiseful comments about their actions. The effects of using this strategy are those of optimism, happiness, general well-being, greater satisfaction in life, and lower levels of psychological stress.

Much like positive coping is multi-faceted, negative coping is as well. It is based on the belief that God has a condemning nature and is responsible for the traumatic events to use them as punishment against the victim (Bryant-Davis & Wong, 2013). An example of negative religious coping in an intrinsic way would be an individual self-loathing and believing he/she is not worthy of love from God. An example of an extrinsic way would be an individual verbally blaming God for their misfortune. It is associated with lower levels of hope, and higher levels of depression, and anxiety (Abu-Raiya & Pargament, 2015). Users of negative coping also tend to have high levels of PTSD as well (Gerber, Boals, & Schuettler, 2011).

### *Intrinsic Religiosity and ACEs*

Often time's religious beliefs may serve as life stress buffers by influencing the reliance on specific coping strategies (Park, Cohen, & Herb, 1990). Individuals frequently choose to rise above their adversities with a religious coping style that uses positive, intrinsic beliefs regarding

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God. Allport (1960) stated that intrinsic religiousness regards faith as oriented toward a unification of being and tries to transcend all self-centered needs (as cited by Park, Cohen, & Herb, 1990). ACEs may have aversive effects on one's life, but using intrinsic religion in a positive manner could remedy the aftermath as well as improve life quality. A correlational study was conducted that indicated that people who experienced more traumatic events reported higher levels of post-conventional religion (Harris, Leak, Dubke, & Voecks, 2015). Having and using an intrinsic religious belief system could provide meaning, a sense of mastery, and a heightened self-esteem towards the negative events (Park et al., 1990). Not only does intrinsic religiousness empower an individual to rise above the trauma, it contributes to positive mental health because the act of having faith in a Higher Power, which is related to hope and optimism, within itself is beneficial (Bryant-Davis & Wong, 2013).

### *Current Study*

The purpose of the current study was to explore the relationship between adverse childhood experiences (i.e. abuse, neglect, and household dysfunction) and intrinsic religiosity in a sample of people from Southern Appalachia. Religion is a crucial aspect of day-to-day living for this particular geographic location, so it is worthwhile to examine. The primary goal of the exploratory study was to provide insight into ways religion and negative experiences relate as well as provide future support for religious coping mechanisms. The hypotheses were that *ACEs* and Intrinsic Religiosity will have a significant relationship and that a significant gap between men and women exists.



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### Methods

#### *Participants*

Participants included 167 individuals who were affiliated with organizations that were a part of a community crime reduction coalition located in the Northeastern part of Tennessee, also known as Southern Appalachia. The participant sex breakdown indicated a majority of women (129, 77.2%) and a minority of men (38, 22.8%). The demographics leaned toward a majority category of Caucasians and a minority of Black/ African Americans, Hispanics, Asians, Other.

#### *Measures*

The ACE Survey was taken from the original “The Adverse Childhood Experiences (ACE) Study” (Fellitti et al., 1998), and it was used to assess past childhood trauma and stress. It consists of 10 items covering abuse, household dysfunction, mental illness, parental issues, and violence (as mentioned by Santoro et. al., 2016). Total scores on the full ACEs measure range from zero to ten. Some example items for the ACE Survey are “Were your parents ever separated or divorced?” and “Was a household member depressed or mentally ill, or did a household member attempt suicide?” with the answering choices as Yes or No. Cronbach’s alpha for this particular study was .78 (Santoro et al., 2016).

Intrinsic religiosity can easily be evaluated with the use of a single item (Gorsuch & McPherson, 1989). One of the most commonly used ways to measure intrinsic religiousness is the use of one item from the *Brief Multidimensional Measure of Religiousness/Spirituality* (BMMRS) (Fetzer Institute, 1999). This item, “I try to carry my religious beliefs into all areas of my life” is rated on a Likert scale of three options- Very much describes me, Somewhat describes me, and Does not describe me will be pulled from the BMMRS and was be used in the current study as an indicator of intrinsic religion levels.

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### *Procedures*

Emails were sent out with an invitation to complete the survey to the large crime reduction coalition comprised of judicial, corrections, police, mental health, faith-based, medical, and other social service organizations. The purpose of the survey was to understand how well Trauma-Informed Care is understood and how often it is used in Southern Appalachia. The survey items reported include occupation, self-reported intrinsic religiosity, self-reported compassion, and ACE measures. These surveys were administered in October 2015 and April 2016. Those who received the email with the survey invitation link and proceeded to take the survey were considered participants.

### **Results**

Hypotheses were (a) individuals number of experienced traumatic childhood events would be related to level of intrinsic religiosity and (b) that there would be a significant difference in intrinsic religiosity between men and women. To explore the data, a bivariate correlation was conducted. It was followed up by a *t*-test to further explore the differences between men and women regarding intrinsic religiosity.

### *Descriptive Statistics*

Table 1  
*Descriptive Statistics*

Variable	<i>N</i>	Mean ( <i>SD</i> )
ACE Total	167	2.25 (2.35)
Intrinsic Religion	167	1.95 (.87)
Male	38	--
Female	129	--

Descriptive statistics for the key variables of the exploratory study are as noted in Table 1. Each survey participant included an ACE score as well as an Intrinsic Religion score. The

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numbers regarding men and women indicate an unequal representation between the two with women being the majority ( $n=129$ ) of participants.

### *Correlation Analyses*

Table 2  
*Correlations Among Variables*

Variable	1	2	3
ACE Total	--	-.037	-.034
Intrinsic Religion	-.037	--	.214**
Sex	-.034	.214**	--

\*\* $p = .005$

Pearson  $r$  correlations were conducted to assess the relationship between Adverse Childhood Experiences, Intrinsic Religiosity, and sex. As noted in Table 2, analyses of the correlational outputs indicated an insignificant relationship between ACEs and IR ( $r = -.037$ ,  $p = .631$ ) and sex ( $r = -.034$ ,  $p = .664$ ). However, it indicated a significant relationship between IR and sex ( $r = -.21$ ,  $p = .005$ ).

### *Independent T- Tests*

Due to the significant relationship between Intrinsic Religiosity and sex, an independent  $t$ - test was conducted to assess sex differences. Significant differences were found,  $t(165) = -2.28$ ,  $p = .005$ , with men ( $M = 2.29$ ,  $SD = .84$ ) reporting higher levels of intrinsic religiosity than women ( $M = 1.84$ ,  $SD = .86$ ). No significant differences were found between sexes regarding ACEs.

## **Discussion**

Preceding literature has touched heavily on the considerable link between traumatic events and religiosity. The present research explored this in a sample extracted from surveys that were specific to Southern Appalachia. The hypotheses were that there would be a significant relationship between ACEs and IR and that there would be a significant difference between men and women. A bivariate correlation was conducted that indicated an insignificant relationship

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between ACEs and either IR or sex. However, the results pointed to a significant relationship between IR and sex.

The present finding of the insignificant relationship between ACEs and IR are not consistent with the majority of other findings. Note, however, that the sample size is small (N=167) and ethnicity is homogenous in that it was primarily Caucasian. The other finding stating that men report higher levels of intrinsic religiosity is also inconsistent with previous literature. Some literature supports a relationship between adverse experiences and religion, and numerous studies note women having higher levels of intrinsic religion.

### *Sex Differences: Intrinsic Religion*

Sex differences were noted within IR levels. With regard to the differences in intrinsic religiosity among men and women, men in our sample indicated higher levels than women. This could be related to the fact that all of the participants were in human services professions. This could suggest that men higher in IR may be more likely to be employed in helping professions. While this finding is not reflective of previous literature, it could be unique to Southern Appalachia, or more likely unique to this area of professions. Future studies should examine whether other Appalachian populations share similar results.

### *Considerations*

There are several aspects of the exploratory study that warrant further investigation. One consideration is sample characteristics. The exclusively Southern Appalachian participants restricts the generalizability of the findings. Another challenging detail of the sample is size- due to the small sample size and large proportion of women, in-depth evaluations of sex differences was limited. Another aspect of the sample is that it was predominately Caucasian. These features may limit generalizability to males and other race groups.

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Another consideration is in regard to data from the survey. Due to the self-reporting nature of the survey, the derived measures could be skewed since some questions could be perceived as profoundly personal and people may not want to disclose truthful information. These measures included all limitations related to self-reported data. Another concern is that there was no control nor record of the number of times an individual submitted the survey.

### *Conclusion*

Worldwide, adverse childhood experiences are relentless and suffered by many. A highly recognized way that individuals may offset these events often includes religion. An examination of this relationship ensued with a unique sample from Southern Appalachia. To the best of our knowledge, this is the first look into this particular population regarding ACEs and IR. Findings from this exploration should be contemplated with caution, yet they have contributed to the pool of other literature. The data derived from this exploratory study indicated a link only between intrinsic religion and sex, specifically with men reporting higher levels than women. In this culture and compared with other literature, this finding is distinctive. Future research is needed to better understand the connections between types of religion and sex. Identifying these connections among ACEs, IR, and sex could inform areas such as counseling, education, and religious organizations.

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