

Spirituality, Religion, and Gang Membership:

An Exploratory Analysis

by

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A Thesis Presented in Partial Fulfillment
of the Requirements for the Degree
Master of Science

Approved April 2019 by the
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ARIZONA STATE UNIVERSITY

May 2019

ABSTRACT

Gangs present a wide array of consequences, both for society as a whole and for gang members themselves. Addressing factors that influence gang membership is of critical importance; however, very little research to date has sought to understand the relationship between spirituality, religion, and gang membership, instead focusing on general deviance. The goal of the present study is to bridge this gap by addressing two research questions: 1. what is the relationship between spirituality and gang membership? And 2. what is the relationship between formal religious participation and gang membership? In order to answer these questions, the current study utilizes Pathways to Desistance, a longitudinal study of adjudicated youth and young adults in Philadelphia, Pennsylvania and Phoenix, Arizona. Logistic regression indicates that spirituality, not formal religious participation, is associated with decreased odds of gang membership in the first two years following adjudication. In addition, increased levels of antisocial peer deviance are significantly associated with increased odds of gang membership. Together, these results indicate that reorienting gang members away from their deviant peers, fostering new, prosocial connections, and encouraging spiritual ideas such as personal closeness to a higher power and feelings of spiritual support may help decrease their odds of continuing participation in gang life. These findings support the continuation of faith-based gang treatments, but do not support formal religious practices (such as church services) as a focus of these treatments. Future research should collect original data, including qualitative interviews about gang members' perceptions of and relationship with religion and spirituality, as well as utilize Pathways to Desistance in its full seven-year capacity in order to further understand the nuances of this relationship.

ACKNOWLEDGMENTS

I want to thank my family for your support and encouragement during the course of writing my thesis. Thank you for always fielding my phone calls to remind me of the light at the end of the tunnel and the value of a little pressure.

Thank you to my thesis committee for your feedback and advice. Working with such esteemed and intelligent scholars has been an enlightening and enriching experience. I have gained so much during this process, and I look forward to continuing to learn from your example.

To everyone who read my countless drafts, listened to my practice presentations, and offered wisdom: thank you, thank you, thank you. Your help and endless coffee dates were integral in the creation and execution of this project.

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INTRODUCTION

Interdisciplinary research provides an opportunity to look at one field from the perspective of others. Nothing in the world exists in a vacuum, meaning that in order to gain a better understanding of events, researchers must attempt to view their field from different angles. Some examples of groundbreaking interdisciplinary research include the extensive works of Oliver Sacks and his examination of neuroscience and psychology in books such as *The Man Who Mistook His Wife for a Hat* and *An Anthropologist on Mars*, as well as the field of biological criminology popularized by Adrian Raine's *The Anatomy of Violence*. The idea of interdisciplinary research is what guides the current project, which is an attempt to understand the under-studied relationship between gang membership – a critical aspect of criminological research – and religiosity and spirituality, which have been a focus of much social scientific research to date. To not devote more time to understanding how religion and spirituality influence gang membership is to ignore important factors that influence other group behaviors (e.g., Hirschi & Stark, 1969; Neuberg et al., 2014).

For the purpose of this study, spirituality is defined using Maton's (1989) *Importance of Spirituality* scale, which is built into the data source for this study (see Appendix A for items included in the scale). It is important to note that this scale measures spiritual ideas such as relationships with God and experiencing the love of God. This idea of spirituality is contrasted with the idea of religiosity, which for this project is measured as attendance at or participation in formal religious services, such as church or synagogue. Spirituality is typically thought of as being more personal and informal, while religiosity involves some sort of formal, ritual aspect such as church services

(Worthington & Sandage, 2001). These concepts are analyzed separately in this project due to their differences in definition and operationalization.

The current study utilizes the Pathways to Desistance data to assess the relationship between religion and spirituality on the one hand, and gang membership on the other. Pathways to Desistance (referred to from now on as “Pathways”) is a longitudinal study that follows 1,354 juveniles who were adjudicated in Philadelphia, Pennsylvania’s and Phoenix, Arizona’s justice systems. Research was conducted from November 2000 until the final interviews in April 2010. The participants were surveyed several times over the course of seven years, during which time they were asked questions about their experiences in the justice system, their relationships, values, behavior, and beliefs. The Pathways study is invaluable due to its longitudinal nature and breadth of variables. Longitudinal research is crucial, but beyond the current scope of this project, which instead utilizes lagged models to explore the time-order of the relationship. Future research should attempt to study the relationship between spirituality, religion and gang membership over time in this sample in order to determine if changes in spirituality and religion influence gang leaving.

This project addresses two main research questions: 1. what is the relationship between spirituality and gang membership? And 2. what is the relationship between formal religious participation and gang membership? These questions are an attempt to both understand a relationship that is not studied often, as well as to fill gaps in the literature of an important phenomenon in the United States. The first research question is an attempt to understand spirituality and gang membership, while the second seeks to understand religion and gang membership.

The first reason that this research is important is because of the depth of understanding that interdisciplinary research offers. If religion and spirituality – topics more often studied in psychological and medical fields – can help us better understand the pushes and pulls that influence gang membership, we may gain insight into preventative measures or treatments. Second, it is critical that we utilize a resource such as the Pathways study to its fullest extent. The difficulties in collecting and maintaining longitudinal research make the Pathways study a valuable tool for social scientists.

A third reason why this research is important is because of the implications for understanding the practical basis of faith-based gang treatments, such as Victory Outreach and Homeboy Industries. Research on this topic is promising and indicates that such programs may be helpful in reorienting adult gang member identity and sense of self away from the gang and toward something more prosocial (Flores, 2009, 2016). Several interventions have shown promising results, but it is not clear whether these results are due to religion, spirituality, or a combination of both. Research has shown that spirituality and religion are two distinct concepts (Deuchar, 2018; Worthington & Sandage, 2001), which may mean that they function in different ways, independent of one another. This study seeks to further contribute to this area of research by looking at the relationship between religion, spirituality, and gang membership in juveniles. By assessing whether religion and spirituality have different effects on gang membership, we can possibly develop or alter policies that look to reduce gang membership in the United States. There is no clear indication as to whether policies and interventions work because of *either* spirituality or religion or because of *both* spirituality and religion; therefore, it is important to examine which, if either variable is operating to facilitate gang-leaving.

Lastly, this research is important because gang membership itself is important – both in its impact on the criminal justice system and the individuals involved. According to the National Gang Center’s National Youth Gang Survey (n.d.), the average number of gangs in the United States has been around 27,000 for the past ten years, with the most recent estimate in 2012 totaling 30,700 gangs. Within these gangs, the National Gang Center reports an average of 770,000 individual gang members, with estimates in 2012 totaling approximately 850,000 members (National Gang Center, n.d.). With such large numbers of gangs and gang members being reported in the United States, researching what specific factors impact gang membership is of critical importance.

In addition to affecting lives through sheer numbers, gang membership has many adverse consequences. Gang membership is associated with increased drug use, possession of weapons including firearms, and participation in serious crime (Bjerregaard & Lizotte, 1995; Gordon, Lahey, Kawai, Loeber, Stouthamer-Louber, & Farrington, 2004; Melde, Esbensen, & Taylor, 2009). Gang membership is also associated with both an increase in violent crime involvement and violent crime victimization (Decker & Pyrooz, 2010; Melde & Esbensen, 2013; Melde, Taylor, & Esbensen 2009; Peterson, Taylor, & Esbensen, 2004; Taylor, Freng, Esbensen, & Peterson, 2008). The prevalence of gangs in the United States and the negative consequences on their members mean that any gaps in the literature surrounding gangs need to be filled. The current study seeks to contribute to this effort by examining the relationship between gang membership, spirituality, and religion.

LITERATURE REVIEW

We begin with a broad look at religion and social sciences before attempting to narrow to gangs specifically. This is due to the fact that religion and spirituality have been explored more often and more successfully in social scientific fields (Smith, 2003) other than the study of gangs (Carson & Vecchio, 2015). This provides necessary context that improves our understanding of the relationship.

Spirituality and Religion in Social Sciences

Broadly speaking, spirituality and religion have been of interest in the social sciences since Durkheim saw their potential for promoting social order (Deuchar, 2018). Researchers have looked at their benefits for people who are grieving, suffering from chronic illnesses, abusing narcotics, and experiencing depression (e.g., Balk, 1991; Pardini, Plante, Sherman, & Stump, 2000; Shortz & Worthington, 1994; Wright, Frost, & Wisecarver, 1993). Religion and spirituality have also been shown to influence group behavior by bringing group members together and providing a basis upon which to discriminate against other groups who do not share the same beliefs (e.g., Hirschi & Stark, 1969; Huntington, 1993; Neuberg et al., 2014).

Spirituality and Religion as Coping Mechanisms

One area in which religion and spirituality are being explored is in that of substance abuse. In a study conducted by Pardini, Plante, Sherman, and Stump (2000), religion and spirituality were associated with a better ability to handle stress, reduced feelings of anxiety, and a more optimistic outlook on life among individuals recovering from substance abuse. While religiosity remained an important factor in the recovery of these individuals, more people in this study chose to self-report as spiritual rather than

religious (Pardini, Plante, Sherman, & Stump, 2000). This highlights the important distinction between religiosity and spirituality and underscores the need to evaluate the two concepts separately from one another. While they may at first glance seem interchangeable, there are important distinctions that influence the choice to identify as one or the other (Worthington & Sandage, 2001).

Spirituality is an important factor in the twelve steps of Alcoholics Anonymous, and participation in step eleven in particular – prayer and meditation – has been associated with increased optimism and feelings of life purpose as well as increased time sober in those recovering from alcohol addiction (Carroll, 1993). Continued participation in Alcoholics Anonymous and increased spirituality have also been strongly correlated with increased feelings of contentment with one's life as well as improved ability to handle stressors in life (Corrington, 1989). Though some participants find the spiritual aspects of A.A. to be a barrier or obstacle, often these aspects present a much-needed group to support the person in recovery, who may need the social encouragement and fellowship in order to succeed (Nealon-Woods, Ferrari, & Jason, 1995; Peteet, 1993).

Religion has also been shown to be effective in reducing suicidal ideation and suicide attempts among teenagers in the United States (Donahue & Benson, 1995). Church attendance appears to have a negative relationship with depression among high school students, with those reporting high church attendance and feelings of spiritual support returning the lowest depression scores, regardless of grade level (Wright, Frost, & Wisecarver, 1993). Along the same vein, other studies have demonstrated that religion helps teenagers cope more effectively with death and divorce (Balk, 1991; Shortz & Worthington, 1994).

Chapple, Swift, and Ziebland (2011) examined the effects of spirituality and religion in 40 individuals in the United Kingdom who lost a loved one in a traumatic manner, such as murder, car accidents, or bombings. The results of this qualitative research were important because the authors noted that religion can have a negative or a positive effect depending on how the person viewed their faith in light of the traumatic means of their loved one's death. Some respondents acknowledged that they could not understand how God would let their loved one be killed, some experienced extreme anger at God for allowing the traumatic event to occur, and others simply felt cynical and doubtful about religion and its relevancy in general (Chapple, Swift, & Ziebland, 2011).

Conversely, other respondents in the study felt that religious belief was essential to making it through the difficult grieving process. Many of the individuals who felt that religion was essential pointed out that their faith was the only thing that was always with them, no matter the time of day, and that this constant presence was comforting. A few other participants reported more spiritual beliefs, especially the idea that there was a spirit world or a life after death, and that they were able to see "signs" that indicated to them that the person was still around (Chapple, Swift, & Ziebland, 2011). These types of responses reiterate the distinction between religion and spirituality and once again highlight the importance of measuring these concepts independently. They also inform us that religion can cut both ways – sometimes it is a positive influence and sometimes it causes more frustration and anger.

Religious belief and practice have also been evaluated in relation to depression in general. Murphy et al. (2000) examined the relationship between religion and hopelessness in individuals diagnosed with major depressive disorder or bipolar

depression, the authors reported that religious belief had a significant negative relationship with depression and hopelessness, meaning that people who reported a greater religious belief had reduced feelings of depression and hopelessness. The authors noted that religious practice – such as attending services or practicing a religion privately – was not significantly related to lower depression and hopelessness scores; however, they theorize that this may be due to the lack of energy and motivation that often coincide with depression (Murphy et al., 2000).

Turning to religion and spirituality in times of crisis or fear is rather common. The events that cause people to turn to religion can vary – for example, after the September 11, 2001 terrorist attacks in the United States, 90% of Americans looked to religious services and the Bible in order to cope with the stress; psychiatric patients often use religious practices such as prayer in order to manage their stress; and religious practices appear to reduce symptoms of generalized anxiety disorder more rapidly than secular treatments (Koenig, 2009). The common thread among findings related to religion and spirituality in coping is that religious practices or spiritual beliefs offer feelings of comfort and a sense of meaning to those people who are experiencing stressful life events (Koenig, 2009).

Religion and spirituality as coping mechanisms have been studied consistently in the social sciences. The results tend to indicate that for most people who identify as either religious or spiritual, their participation in religious rituals such as prayer or religious services, and their personal, internal beliefs help them make it through extremely difficult periods in their lives.

Religion and Groups

Religion has also been studied in relation to group processes. It has been found that formal religious systems and practices play a role in reinforcing solidarity and conformity among social groups (Hirschi & Stark, 1969; Neuberg et al., 2014). Practicing religion frequently and publicly – for example, attending religious events or participating in religious discussions – influences group commitment and allows for the group to function more effectively as a whole through increased organization and action (Neuberg et al., 2014). Research has also shown that religion fosters cooperation within groups (Norenzayan & Shariff, 2008) and commitment to the identity of the group (Atran, 2003). These results all seem to indicate that religion is successful at bringing a group together and giving its members a sense of identity and purpose.

Conversely to the seemingly productive consequences of religion in groups, research also suggests that religion may not be such a good thing. For example, Neuberg and colleagues (2014) found that groups with a greater depth of “religious infusion” were more likely to be prejudiced and discriminatory toward groups without the same religious norms and values. Huntington (1993) theorized that religion will remain one of the most salient forms of conflict between groups due to its ideological roots and the fact that religion is “the product of centuries” and therefore not easily changed or disregarded (25).

Of course, any review of religion and groups would be incomplete if it did not mention religious extremism. While too broad of a concept for this review, it is worth noting that while there appears at first glance to be a clear link between religious extremists and acts of terrorism, most terrorist groups are actually not religious

(Iannaccone & Berman, 2006). The term “religious extremism” itself also has negative connotations but can really refer to organizations whose logic and goals are either good or bad. One way to attempt to clarify this negative association is to view religion in light of economics: competition, government regulation, and self-interest are motivations and factors that influence religious organizations just as much as they do other economic groups, which means that the behaviors of these organizations are examples of rational choice (Iannaccone & Berman, 2006; Warner, 1993). This idea that extremists – religious or otherwise – are behaving rationally and reasonably has led some economists to argue that targeting extremism itself as opposed to extremist violence will only encourage further misunderstanding and stereotyping (Iannaccone, 1999; Iannaccone & Berman, 2006).

In all, research on religion and groups consistently shows that religion influences group behavior and identity, whether for good or ill. Research also demonstrates that spirituality and religion function to help people cope with stressful situations. The intersection of these two points leads to the question of how spirituality and religion might function in a group that often experiences stressful life outcomes, such as a gang.

Religion and Crime

Narrowing the focus to crime, prior research has focused on the religious, rather than spiritual, influence. There are conflicting results among research as to whether religion has strong effects on criminality. Hirschi and Stark’s (1969) article, “Hellfire and Delinquency” states that there is no clear relationship between religion and crime or religion and delinquent behavior, and even points out that the results tend to be biased based upon whether the researcher is a criminologist or a religious scholar. Their study

defined religiosity using a measure of church attendance and found that church attendance among high school students did not significantly influence a respondent's moral values regarding exploitation of others or the law. Hirschi and Stark (1969) also noted that church attendance was not significantly associated with either self-report or official reports of delinquent behavior. While this study is dated, being 50 years old now, it is a seminal piece that greatly influenced perceptions of and research on religion and crime.

A 2004 synthesis of religion and crime literature by Roman, Whitby, Zweig, and Rico gathered and reported the findings of religion and crime research. The authors note that there are several contextual factors that appear to influence the relationship between religion and crime. Included in these factors are offense type, community, and denomination (Roman, Whitby, Zweig, & Rico, 2004).

Results are mixed in regard to the first factor, offense type. Some research indicates that religion has a negative impact on "victimless" crimes such as alcohol and drug use but has no effect on other types of crime such as assault or vandalism (Burkett & White, 1974), while other studies show a negative relationship between religion and alcohol use and crime, but no relationship with drug use (Benda, 1997). A study of Mormon juveniles by Albrecht, Chadwick, and Alcorn (1977) reaffirms the idea of victimless crime that Burkett and White discussed in 1974. Albrecht, Chadwick, and Alcorn (1977) note that religious measures, including church attendance, have a strong relationship with the absence of deviant behavior, and that this relationship holds more strongly for non-violent deviance than for violent crime. Conversely, Johnson, Larson,

De Li, and Jang (2000) find that church attendance affects serious crime (e.g., burglary and mugging) just as much as less serious activities such as marijuana use.

The second factor that influences the effect of religion on crime, community, also presents mixed results. For example, Stark, Kent, and Doyle (1982) found in their attempt to replicate Hirschi and Stark's "Hellfire and Delinquency" that religion's ability to control delinquency is dependent upon the social environment in which an individual resides. Stark and colleagues (1982) found that in areas where religion is a private, individual practice, its ability to control behavior is reduced. In areas where religion is an important social factor – referred to by the authors as "moral communities" – the researchers found strong negative relationships between attending church and delinquency. The idea of regional differences in religion's effects is supported in a later article by Stark (1996), in which he acknowledges that region and social context are important variables to include when researching crime. Stark (1996, 164) states that religion is a "social structure," and thus its effects need to be studied through the lens of sociology. When revisiting "Hellfire and Delinquency" and its conclusion that religion does not affect delinquency, Stark (1996) used a more nationally-representative sample to test religion's effects based on area of the country. The findings indicate that the effect of religion does vary by social context, with the Pacific Northwest – which he refers to as the "unchurched belt" – having no correlation between religion and delinquency, but with the South, Midwest, and East reporting a strong negative relationship between the two (169).

Contrary to these findings, Benda (1995) notes that there are few statistically significant relationships between religiosity and a person's social community. For his

measure of religion, Benda (1995, 451-452) used a scale that included measures of church attendance and activity, prayer, Bible study, attempts to convert others, discussion of religion among friends and family, and monetary contributions to the church. In his sample of public high schools in rural and metropolitan Arkansas and Baltimore, Benda (1995) found that the significant relationships between community and religion only accounted for one percent of the variance in his delinquency measures.

The last factor thought to influence religion and crime is religious denomination. Studies here seem to show that there is at least a small effect of denomination on crime, though the denominations, measures of crime and delinquency, and the size and quality of effects all differ (e.g., Ellis, 2002; Grasmick, Kinsey, & Cochran, 1991; Stack & Kanavy, 1983). In regard to alcohol consumption, research consistently finds that there are denominational differences in patterns of alcohol use, in that there is higher use among those belonging to denominations that permit alcohol consumption (e.g., Catholicism, Judaism) and lower use among those belonging to denominations that prohibit drinking alcohol (e.g., Mormonism, Protestantism) (Beeghley, Bock, & Cochran, 1990; Cochran, Beeghley, & Bock, 1988).

Research on religion and crime shows that there is a negative relationship between the two (e.g., Albrecht, Chadwick, & Alcorn, 1977; Benda, 1994; Stack & Kanavy, 1983); however, the exact mechanism at work in this negative relationship is ambiguous (Roman, Whitby, Zweig, & Rico, 2004). It is theorized that the difficulties in defining the exact relationship between religion and crime are due to issues in the methodology of research on religion, including flawed design, spuriousness, and inaccurate operationalization of religion itself (Clear, 2002; Roman, Whitby, Zweig, &

Rico, 2004). These often-unclear results highlight the difficulties in researching religion and underscore the need to develop a reliable framework in order to achieve a better understanding of religion's effects. Given the findings that spirituality helps people handle stressful life situations, and the finding that religion influences group behavior as well as crime, it is not a stretch to theorize that spirituality and religion may impact gangs, groups that often participate in criminal behaviors and are at high risk for stressful life outcomes such as violent victimization.

Spirituality, Religion, and Gangs

Finally, we move on from crime in general to the intersection of religion and gangs specifically. There is still some disagreement as to the nature of the relationship between religion, spirituality, and gang membership; however, the consensus seems to be that religious practice or gang treatments – such as Homeboy Industries and Victory Outreach – serve both to create new social ties and renewed sense of belonging for ex-gang members (Flores, 2009), as well as reshape their identities (Flores, 2016).

Edward Flores (2009, 2016) has studied the nature of gang desistance among members of both Homeboy Industries, a non-profit based on Catholic teachings, and Victory Outreach, a Pentecostal facility. Both of these sites emphasize the need to reshape the hypermasculine identity that gang members present into more productive, nurturing expressions of manhood. These two recovery centers seek to celebrate these new male identities while also stigmatizing and denigrating gang embodiments of masculinity (Flores, 2016) and challenging the perception that being in a gang is the only way to find belonging and meaning in life (Flores, 2009). Flores' (2016) work states that

leaving a gang is not a one-step process; rather, it is a long, difficult, and active journey that these individuals must undertake.

Some disagreement about the relationship between religion, spirituality, and gang membership arises when attempting to study female gang members. Elizabeth Marsal (2009) sought to understand the nature of this relationship in her study of incarcerated females in a minimum-security facility in North Carolina. Marsal (2009) points out that it is important to study female gang members because they make up around one-third of the youth gang population and may be more susceptible to faith-based interventions but have not been studied as extensively as males. In her research, Marsal failed to find a significant relationship between religious belief or spirituality and gang membership. She finds that both gang and non-gang members who are incarcerated report strong beliefs. Though her results may not be generalizable because of the sample's age range (30-49) and small size (N=185, with only 17 participants reporting gang membership), the results are still interesting to consider. This study indicates that there may be some gender difference in the relationship between religion and gang membership, while also pointing out that religious and faith-based programming may be of crucial importance in correctional facilities (Marsal, 2009).

Johnson and Densley (2018) examined the relationship between gang leaving and Pentecostal church in two prisons in Rio de Janeiro, Brazil. Their findings highlight the importance of signaling in transitions out of the gang: the involved and sometimes difficult nature of religious practices and rituals function as “signals” to others that a person is serious about leaving the gang and taking on the new identity of ex-gang member. According to Johnson and Densley (2018), participating in Pentecostalism and

its accompanying rituals in these prisons requires some amount of sacrifice and hard work, and these things function together to not only “prove” a person’s commitment, but also to promote a new identity and the acceptance of the church as a legitimate alternative to gang membership and the social group it offers.

An important finding in literature on gang membership is that gang membership provides social support, identity, and a peer group with which an individual can associate (Young & Gonzalez, 2013). Research has also shown that there may be an indirect relationship between religion and violence among youth, and that this interaction may occur via an individual’s social bonds and peer groups (Salas-Wright, Olate, Vaughn, & Tran, 2013). Since violence is such an integral part of the gang identity (e.g., Decker, 1996; Klein & Maxson, 1989), knowing that religion and social bonds may influence a person’s participation in violence is crucial in the study of gangs.

Overall, the research on spirituality, religion, and gangs is mixed, but it does suggest that redirecting a gang member’s identity and providing them with a new, prosocial group may assist them in making the difficult transition from gang member to former gang member. Basing one’s identity off of the nurturing, caring man rather than “gang member” is important in encouraging gang leaving in men (Flores, 2016), as is providing individuals with prosocial ties and support systems to replace the type of social support provided by gang membership (Young & Gonzalez, 2013). Both of these steps help the person signal their desire and ability to transition out of the gang, which is a difficult and important first step in attempting to distance themselves from gang life (Johnson & Densley, 2018). Since there are promising, though few, results surrounding

the relationship between spirituality, religion, and gang membership, there is cause to continue to study and attempt to clarify this relationship.

CURRENT FOCUS

The current study adds to the body of literature surrounding spirituality, religion, and gang membership by assessing this relationship in a sample of juveniles through young adults. Filling the gap in the literature surrounding spirituality, religion, and gang membership is important because of the prevalence of gang members in the United States. With the National Youth Gang Survey reporting approximately 850,000 gang members in the most recent estimates, there is a clear need to understand the factors that influence gang membership (National Gang Center, n.d.).

The research questions addressed in this study are: 1. what is the relationship between spirituality and gang membership? And 2. what is the relationship between formal religious participation and gang membership? The hypotheses of this study are as follows: 1. as levels of spirituality increase, odds of gang membership will decrease (negative relationship); and 2. as formal participation in a religious institution increases, odds of gang membership will decrease (negative relationship).

These two hypotheses are based on two fundamental theories of criminology – general strain theory and social control theory, respectively. The first hypothesis draws from general strain theory and the idea that stressful or negative life outcomes, called strains, affect a person's decision to participate in delinquency or crime. Strain theory argues that those who participate in crime or delinquency do so because of a pressure that arises from negative emotions and relationships. These negative influences cause a person to seek corrective strategies, which may be criminal or delinquent in nature (Agnew, 1992). According to this theory, there are three major types of strain: the prevention of attaining positive goals, the removal of positive incentives, and the

introduction of negative influences. All three types of strain may cause negative emotions in the individual, most notably anger, which then lead the individual to devise ways of ridding themselves of these negative feelings (Agnew, 1992). Based on this theory, it is hypothesized that spirituality will function to reduce the strain experienced by gang members, thus facilitating their decision to leave the gang.

The second hypothesis is based on social control theory, which broadly states that outside influencers and social institutions such as school, work, and family affect a person's likelihood of participating in antisocial or delinquent lifestyles by controlling deviant behavior (Sampson & Laub, 1993). This theory holds that a person is more likely to commit crime or participate in deviant activities when their bond with their community is weak or nonexistent, and these bonds or connections are increased by participation in social institutions, like work or school (Laub & Sampson, 1993). Another aspect of social control theory that informs the second hypothesis is that of routine activities. Essentially, routine activities theory holds that deviant behavior is directly related to the frequency of exposure to situations allowing for deviant behavior (Bernburg & Thorlindsson, 2001). A major point of this theory is opportunity, and reduced opportunity for deviant behavior will decrease participation in said behavior, which changes rates of deviant behavior or crime (Bernburg & Thorlindsson, 2001; Felson, 1986). Thus, it is hypothesized that a religious institution – regardless of denomination – may function as a social control and serve to prevent deviant behavior both by increasing a person's bond or connection to their community and by decreasing their opportunity to participate in deviant behavior. Since formal religious practice involves rituals and takes time, increased religious attendance is theorized to decrease the likelihood of gang membership.

Using a sample of juveniles and young adults, this study seeks to evaluate the practicality of faith-based gang treatments, fill an important gap in gang literature, and contribute to our understanding of the hypothesized link between spirituality, religion, and gang membership.

METHODOLOGY

Data Source

This project utilizes the Pathways to Desistance (“Pathways”) data. Pathways is a longitudinal study of 1,354 adolescents who were adjudicated in the court systems of Phoenix, Arizona and Philadelphia, Pennsylvania. The participants were between the ages of 14 and 17 when they were committed to the court system in their state, and the crimes eligible for inclusion in the project were misdemeanor sexual assault, weapons charges, and all felony crimes (Schubert et al., 2004).

The sample is primarily black (41.43 percent), Hispanic (33.53 percent), and white (20.24 percent), with 4.80 percent of respondents reporting an “other” ethnicity. Most of the participants are male, with 86.41 percent at baseline; this number varies throughout due to retention issues but remains around 80 percent. The majority of participants were 16 and 17 years old at the time of their baseline interview (30.43 percent and 30.50 percent, respectively); 11.96 percent were 14 years old, 18.83 percent were 15 years old, 8.20 percent were 18 years old, and only one participant (0.07 percent) was 19 years old at the time of their baseline interview. The baseline interviews for all 1,354 participants were extensive, having been conducted in two sessions lasting two hours each, and occurred within 75 days of adjudication for those in the juvenile court system and within 90 days for those in the adult court system (Schubert et al., 2004).

Data collection for the Pathways project began in 2000 and was completed in 2010. Surveys were conducted at 11 time points, which range from the baseline interview to seven years post-adjudication. Its intent was to understand the juvenile justice system and to identify possible trajectories out of this system. The researchers running Pathways

chose Phoenix and Philadelphia as their sites for several reasons, chief among them the diversity in offending and offenders that each site offered. Researchers conducted interviews with the participants after their adjudication in their respective city and followed each participant for seven years. Since retention is often an issue in longitudinal research, participants were offered compensation for each interview. Along with these interviews, researchers assessed official crime data and records. The combination of information from these sources became Pathways to Desistance, a massive attempt to understand juvenile offending and desistance (Mulvey, Schubert, & Piquero, 2014; Schubert et al., 2004).

Variables

Dependent Variable

The dependent variable in the current study is *gang membership*. Gang membership in Pathways is measured at each time point, and the question varies slightly. At baseline, the item asks respondents if they were a member of a gang in the six months before adjudication, and at the other time points, the item asks if the participant is still a member of a gang from the previous interview. This item is dichotomous, with a response of “not in a gang” coded as 0, and a response of “yes” coded as 1. In order to maintain a large enough sample size to have meaningful results, responses of “skipped, not in a gang at last interview” were also coded as 0. While including people who left a gang and people who were not in a gang in the same category puts two different groups together, the decision was made out of the need to keep the sample large enough to be meaningful. Since the project is focused on the odds of gang membership (coded as 1), the specifics of the “no” category (coded as 0) are less practically critical than having a large sample.

The dependent variable is measured at six months, 12 months, 18 months, and 24 months post-adjudication.

Self-nomination of gang membership is a more reliable and valid measure than it may seem at first glance. Research on the subject shows that self-nomination is the strongest measure of gang membership in both current and former gang members, as well as across gender and race/ethnicity lines. Though some are skeptical about whether gang members will tell the truth when asked, results show that self-nomination is a reliable method for assessing gang membership (Decker, Pyrooz, Sweeten, & Moule, 2014).

Independent Variables

There are two independent variables of interest in this study: *spirituality* and *religion*. These variables will be assessed with different operationalizations due to the conceptual differences between spirituality and religion: spirituality is thought of as more personal and internal, without strict rules or definitions, while religion involves ritual and some element of formality (Deuchar, 2018; Worthington & Sandage, 2001).

The first independent variable, spirituality, is measured using Maton's (1989) *Importance of Spirituality* scale. This scale is a combination of three individual items: "I experience God's love and caring on a regular basis;" "I experience a close personal relationship to God;" and "religion helps me to deal with my problems." Higher scores on the five-point Likert scale of this measure (combined means of each of the three individual items) indicate greater levels of spirituality. Responses to the items in this scale are "not at all true," coded as 1; "not very true," coded as 2; "somewhat true," coded as 3; "pretty true," coded as 4; and "completely true," coded as 5. The *Importance*

of Spirituality scale has demonstrated good reliability in this sample, with $\alpha=0.88$ (Importance of Spirituality, n.d.).

The second independent variable, religion, is operationalized with one item regarding a subject's participation in formal religious services. This item simply asks the participant how often they have attended religious services (any denomination) in the past year for baseline assessment or in the previous recall period for the rest of the time points. Since this is the only formal measure of religion in Pathways, it is referred to as "religion" even though it is more specific in its measurement. As with the spirituality variable, this measure is on a five-point Likert scale. Responses are: "never," coded as 1; "several times a year," coded as 2; "once or twice per month," coded as 3; "once a week," coded as 4; and "several times per week," coded as 5. Higher scores indicate greater participation in religious services. This independent variable is included in an attempt to assess whether religious service functions as a social control for the participants, limiting their participation in gang life.

Control Variables

This study includes four control variables: *age*, *gender*, *ethnicity*, and *antisocial peer behavior*. The first control variable, age at time of interview, is measured at each time point and is truncated rather than continuous. The age range at baseline for this sample is 14 to 19 years old. The second control variable, gender, is binary and simply addresses whether the subject is male, originally coded as 1, or female, originally coded as 2. For ease of interpretation, this coding was changed so that male is coded as 0 and female is coded as 1. The third control, ethnicity, includes four options: white, black, Hispanic, and other. These values were originally coded as 1-4, respectively; these values

were recoded as 0-3, respectively. Regressions were run with each ethnicity as a dummy variable to assess their individual effects. Descriptive statistics for this sample can be found in Tables 1-3.

The fourth control, antisocial peer behavior, assesses the subject's friends and their participation in delinquent activities. This variable asks how many of the subject's friends participated in 12 delinquent behaviors within the previous six months and is measured with a five-point Likert scale. Responses are: "none of them," coded as 1; "very few of them," coded as 2; "some of them," coded as 3; "most of them," coded as 4; and "all of them," coded as 5. The variable is comprised of the means of responses to these 12 items and is coded so that a higher score amounts to more friends participating in the delinquent behaviors. The antisocial behavior scale in Pathways has a high reliability, with $\alpha=0.92$ (Peer Delinquency, n.d.).

Using a variable for antisocial peer behavior is important in a study that focuses on gang members. Since gang membership is associated with criminal behaviors and is by nature a social activity, including a variable that measures peer deviance makes logical sense. This variable will help us to understand the effects of the independent variables in the face of antisocial peers. Failing to take the concept of deviant peers into account would neglect an important facet of gang membership.

Analytic Strategy

Due to the dichotomous nature of the dependent variable (gang membership), these data will be analyzed using logistic regression. This analysis will allow for the interpretation of the relationship between the dependent and independent variables in the form of odds ratios. Interpreting the data using odds ratios allows for a clear

understanding of the relationship in terms of increased or decreased odds of gang membership.

In attempting to analyze these data in a way that mimics longitudinal analysis, the logistic regression models will be run in an increasing time-order. This means that each regression will be run in the following manner: baseline independent variables predicting gang membership at six months post-adjudication; six-month independent variables predicting gang membership 12 months post-adjudication; 12-month independent variables predicting gang membership 18 months post-adjudication; and 18-month independent variables predicting gang membership at 24 months post-adjudication. This method of analysis was chosen because it goes beyond simple cross-sectional analysis and begins to take time-order into account.

The current project assesses the relationship between spirituality, religion, and gang membership for the first two years after adjudication because this period is theorized to be extremely important to the participants, as well as to contain many life changes. Also, since most gang membership is short-lived, lasting approximately one to two years (e.g., Esbensen, Huizinga, & Weiher, 1993; Hill, Lui, & Hawkins, 2001; Thornberry et al., 1993), studying gang-leaving trends in the first two years post-adjudication makes logical sense.

RESULTS

By conducting standardized t-tests at all four time points, it was determined that the means of religion and spirituality are not significantly different in the first two years ($t_1=0.023$, $t_2=0.020$, $t_3=0.018$, $t_4=0.003$; $p>0.05$). The results of these t-tests mean that the sample was not significantly different in their levels of religion and spirituality. This was contrary to expectations, given that the measure of religion is based on attendance at a religious institution, while the measure of spirituality is based on ideals and beliefs. In this way, religion is much more rigid and formal, whereas spirituality is something that can be experienced with fewer constraints or requirements; thus, it was predicted that levels of spirituality would be higher in general, though this was not the case. In the first two years post-adjudication, however, the sample's mean levels of both spirituality and religious participation decreased ($p<0.05$). The sample also became less involved in gangs, from 16.89% ($n=228$) self-reporting as gang members at baseline to 7.75% ($n=95$) by the two-year mark. Likewise, their average antisocial peer behavior scores decreased from 2.32 at baseline to 1.72 at two years post-adjudication. See Tables 1-3 for means and standard deviations of each variable.

Tables 4-8 focus on the bivariate correlations of each of the major variables at each time point of interest. It is important to note that Maton's (1989) *Importance of Spirituality* scale and the measure of religious participation are significantly correlated ($p\leq 0.01$) at each time point, but these correlations are small enough to warrant keeping the measures distinct in the logistic regression analyses. Correlations up to 0.4 are considered weak and the highest correlation between the two measures is 0.403, which means that there is further support for separate operationalizations of the two concepts.

Logistic Regression

Logistic regression indicates a negative relationship between spirituality and gang membership and a positive relationship between religion and gang membership, though each variable is only statistically significant at one time point in the first two years. These results support the first hypothesis of this project and reject the second, and they indicate that religious institutions may not be effective social controls for gang membership. The fact that the first hypothesis is supported makes sense given what strain theory predicts. Since prior research shows that spirituality functions as a coping mechanism for those experiencing stressful events, and strain theory posits that negative life events can lead to crime or delinquency, results indicating that increased spirituality reduces the odds of gang membership fit with expectations. Spirituality may be serving the same function in gang members as it does in those who struggle with addiction, death, divorce, or other negative events: feeling support and love from an outside source may reduce feelings of anger or stress that are associated with the difficulties of gang membership. However, the results are contrary to expectations regarding the second hypothesis and social control theory. This theory predicts that social institutions – like church, synagogue, or other formal religious services – decrease the likelihood of deviant behavior both by increasing bond to the community and by decreasing opportunity to participate in deviant activities; but results show that this does not necessarily hold true. This finding is surprising and indicates that strain theory applies to gang membership better than does social control theory. See Tables 9-12 for the detailed results of each regression.

When using baseline variables, two ethnicities (Hispanic and other), antisocial peer behavior, and level of spirituality are all significant predictors of gang membership

at six months (see Table 9). Holding other factors constant, participants who are Hispanic have over eight times higher odds ($p \leq 0.01$) of being gang members compared to whites, while those who are other race have over five times higher odds ($p \leq 0.01$) compared to whites. A one-unit increase in the antisocial peer behavior scale results in 178.0% higher odds of gang membership ($p \leq 0.01$), and a one-unit difference in spirituality is associated with 19.4% lower odds of gang membership at six months post-adjudication ($p \leq 0.05$). A one-year increase in age and being female are both associated with lower odds of gang membership (4.9% and 39.9%, respectively), though these factors are not statistically significant. Being black is associated with around two times higher odds of gang membership, though this is also not statistically significant. A one-unit difference in religious participation at baseline is associated with 4.1% higher odds of gang membership at six months post-adjudication but is not statistically significant. It is important to note in all of the results that higher odds of gang membership for those who are black, Hispanic, and other race are partially due to a low base rate of gang membership among white participants in this sample. White is the reference group and there are comparatively fewer white gang members in the sample ($n=23$ at baseline, $n=4$ at 24 months) compared to the other racial/ethnic groups; thus, large odds ratios are to be expected.

When predicting gang membership at 12 months post-adjudication, ethnicity, antisocial peer behavior, and religion at six months are all significant predictors (see Table 10). Holding other variables constant, those who are black have over three times higher odds of gang membership ($p \leq 0.05$) than whites, those who are Hispanic have over 18 times higher odds of gang membership than whites ($p \leq 0.01$), and those who report

being other race have over 11 times higher odds of gang membership than whites ($p \leq 0.01$). A one-unit increase in antisocial peer behavior results in 103.8% higher odds of gang membership ($p \leq 0.01$). A one-unit difference in participation in religious institutions is associated with 35.6% higher odds of gang membership ($p \leq 0.01$). At this time point, a one-year increase in age is associated with 17.2% higher odds of gang membership and being female is associated with 34.4% lower odds of gang membership, but again, these factors are not statistically significant. Spirituality still has a negative relationship with gang membership at this time point, with a one-unit difference resulting in 14.0% lower odds of gang membership, though this relationship is not statistically significant.

Using 12-month variables to predict gang membership at 18 months post-adjudication, gender, ethnicity, and antisocial peer behavior are significant factors (see Table 11). When holding other factors constant, females have 60.7% lower odds of being gang members ($p \leq 0.10$) than males. Those who are black have over two times higher odds of gang membership ($p \leq 0.10$), those who are Hispanic have over 12 times higher odds of gang membership ($p \leq 0.01$), and those who are other race have over five times higher odds of gang membership ($p \leq 0.05$) than whites. A one-unit increase in antisocial peer behavior score is associated with 85.5% higher odds of gang membership ($p \leq 0.01$). A one-year increase in age results in 8.5% higher odds of gang membership, a one-unit difference in spirituality results in 6.5% lower odds of gang membership, and a one-unit difference in participation in religious services results in 14.6% higher odds of gang membership, though these factors are not statistically significant.

Lastly, when using variables at 18 months to predict gang membership at 24 months, gender, Hispanic ethnicity, and antisocial peer behavior are all significant predictors (see Table 12). Females have 74.5% lower odds of gang membership than males ($p \leq 0.05$), and those who are Hispanic have over 11 times higher odds of gang membership ($p \leq 0.01$) than those who are white, holding other variables constant. A one-unit increase in antisocial peer behavior is associated with 110.5% higher odds of gang membership ($p \leq 0.01$). Though not statistically significant, a one-year increase in age is associated with 12.3% higher odds of gang membership, being black is associated with around two times higher odds of gang membership, and being other race is associated with about three times higher odds of gang membership. A one-unit difference in spirituality is associated with 12.2% lower odds of gang membership, and a one-unit difference in participation in religious services is associated with 16.5% higher odds of gang membership.

Overall, logistic regression indicates that there is a negative relationship between spirituality and gang membership, and a positive relationship between religion and gang membership. Though these relationships are not statistically significant at all of the time points, they are still consistent; greater spirituality is consistently associated with lower odds of gang membership, ranging from 6.5% to 19.4% lower odds, and more frequent religious participation is consistently associated with greater odds of gang membership, ranging from 4.1% to 35.6% higher odds.

Sensitivity Analysis

Additional logistic regressions were run at three time points which added in a variable assessing the proportion of time during which the respondent was in a secure

facility, with no access to the outside community (this variable was not measured at the baseline time point in Pathways, so models were run for the other three time points). This variable was added out of curiosity as to whether it would explain the positive relationship between gang membership and religious participation, since controlling for it would control for those who were incarcerated and possibly attending religious services as part of their carceral experience.

While the effects of being in a secure facility on gang membership were strong, with a one-unit increase in the proportion of time spent in these settings being associated with two to almost three times higher odds of gang membership at each time point ($p \leq 0.01$), the inclusion of this variable did not change the positive effect of religious participation on gang membership.

DISCUSSION

Over the first two years, the levels of spirituality, religious participation, and gang membership all decreased. The results indicate that greater spirituality is associated with decreased odds of gang membership. These results support the first hypothesis of this study – that there is a negative relationship between spirituality and gang membership. However, contrary to the second hypothesis, increased religious participation has a positive relationship with gang membership at all four time points, though the relationship is only significant when predicting gang membership at 12 months post-adjudication.

These two findings seem to indicate that the reduction of stress or negative emotions is a more significant predictor of gang membership than social controls such as religious institutions. The fact that spiritual support has an inverse relationship with gang membership is not surprising given the fact that gangs are groups that participate in and fall victim to stressful and negative life events, and the fact that research shows the benefits of spirituality in dealing with other negative or stressful experiences; however, the positive relationship between the social control of the religious institution and gang membership is contrary to one hypothesis of this project.

These findings indicate that increased religious participation and gang membership actually have a positive relationship. This relationship may be occurring due to the fact that the sample is primarily black and Hispanic – two groups for whom church participation and religious practice are culturally important (e.g., Chatters, Taylor, Bullard & Jackson, 2009; Krause & Chatters, 2005; Maldonado, 1994; Taylor, Chatters, Jayakody & Levin, 1996) – and 16-18 years old on average, much of which time may be

spent living at home and going to religious services with family members. This positive relationship may be confounded by the cultural and familial importance of attending religious services, rather than a direct result of participation in these services. Controlling for time spent in a secure facility – and thus, controlling for religious participation as part of carceral or rehabilitative treatment – did not affect the positive relationship between religious participation and gang membership.

Policy and Practice Implications

The main goal of this project was to evaluate the relationship between spirituality, religion, and gang membership. Results indicate that spirituality and religion do not have the same relationship with gang membership, which reinforces the need to operationalize these concepts differently. The results also imply that the creation of gang treatments or gang policies ought to feature some element of spirituality. Since we know that leaving a gang is a long, difficult process, utilizing any positive influence there is becomes of paramount importance. These spiritual ideas can be incorporated into gang programs within and without carceral facilities since a major feature of spirituality is its fluidity. It does not require formal rules or time-consuming practices, which makes it ideal for integration into existing policies and programs.

Another goal of this study was to assess the practicality of faith-based gang treatments. Based on the results of logistic regression, it appears that gang treatments that are spiritual in nature may be effective in decreasing a person's odds of gang membership. What this means in a practical sense is incorporating feelings of support and fostering personal relationships with God or a higher power. Spirituality is non-denominational, which makes it much easier to incorporate and increases its ability to

affect more people. Since results show that antisocial peer behavior has such a significant effect on gang membership even in the face of controls, gang treatments should focus on the person's social community and providing current and former gang members with prosocial support along with fostering spiritual connections.

Focusing on the social community can mean creating programs that encourage group volunteer work or group meetings, which in turn affect a person's prosocial ties. It can also involve implementing a mentor-mentee relationship to foster prosocial bonds and support. Rather than associating with gang members, those in treatment programs that implement these concepts will find themselves surrounded by people who focus on giving back, being nurturing, and supporting one another. Social support and encouragement have been shown to be positive influences on transitioning out of a gang, so focusing on group-based activities and discussions is an important and relatively simple goal to achieve.

The results of this study indicate that focusing on formal religious practices, such as formal church services, may not be the most effective use of time or funds. Requiring participants to attend services and participate in rituals such as prayer or reading from a religious text would be counter-effective. Rather, the creation of new social ties and incorporation of spiritual support may be more effective in helping people during the difficult transition out of gang membership. Of course, other factors such as race/ethnicity and gender matter, as prior gang literature has shown.

Limitations and Future Research

One limitation of this study is that it utilizes a dataset that is not specifically designed with the research questions in mind. This is a natural side effect of performing

secondary data analysis and does not negate the results and findings of secondary research. However, future research may benefit from original data collection on this subject, both quantitative and qualitative. Asking current and former gang members open-ended questions regarding their spirituality or religious practices may present new themes and allow researchers to gain a better depth of understanding about these factors. It is also important to perform this type of research both within and without carceral settings, since prior literature demonstrates differences between street and prison gangs (e.g., Pyrooz, Decker, & Fleisher, 2011).

A second limitation of this research is that there were only four controls. Since there is not a lot of research in this area, there is not much precedent off of which to base the control variables. This project used standard demographic variables and a variable assessing peer delinquency in order to begin to explore the relationship between spirituality, religion, and gang membership; future research may seek to add more control variables such as family structure, incarceration type, or drug use to test different hypotheses. Since the results indicate a positive relationship between religious participation and gang membership (averaging a 17.2% increase in the odds of gang membership in the first two years post-adjudication) and the sample is primarily black and Hispanic (79.96% combined) and young (16-18 years old on average) future research would also benefit from specifically looking into whether religious participation occurs because the participant is being taken there by their family.

Future research should also make full use of the Pathways data by analyzing them longitudinally. Within-individual changes in spirituality and religion may provide insight as to the temporal order of this relationship. Longitudinal data is costly and difficult to

maintain, which is part of what makes Pathways such a valuable resource for criminologists, psychologists, and sociologists. The data presented span seven years and have numerous areas of interest and measures, so it would be beneficial for researchers to explore the possibilities that these data present.

CONCLUSION

Based on a sample of adjudicated youth and young adults in Philadelphia, Pennsylvania and Phoenix, Arizona, logistic regressions indicate that spirituality, not religious service participation, is associated with decreased odds of gang membership in the first two years after adjudication. These findings support the continuation of faith-based gang treatments and provide one possible route for facilitating gang leaving, a considerably difficult and important process.

Research on gangs and gang membership is critically important both for the field of criminology and for the betterment of society. With recent estimates of gang members in the United States totaling around 850,000 (National Gang Center, n.d.), any gaps in the literature or our understanding of gangs need to be addressed. This study filled one such gap in the literature by evaluating the relationship between spirituality, religion, and gang membership.

The findings of this project – that spirituality is associated with decreased odds of gang membership, while formal religious participation is associated with increased odds of gang membership – are important for a few reasons. First, filling this gap in the gang literature influences our understanding of and responses to gang membership, which is an important facet of criminology. Second, putting into practice the results of this study may help reduce gang membership as a whole by increasing the effectiveness of gang treatments. Results indicate that incorporating aspects of social and spiritual support may facilitate gang-leaving. Third, and related to the second point, these findings support the continuation and funding of faith-based gang treatments. Lastly, these results offer support for the application of general strain theory in the study of gangs, while indicating

that applying social control theory to gangs may not be as effective. This clarification helps advance our understanding of how to study and respond to gangs.

Taken all together, the results of this project reinforce the idea that interdisciplinary research improves our understanding of events and behaviors. These findings also demonstrate that faith-based gang treatments have practical justification and may be able to help in the challenging process of gang leaving. Most importantly for the advancement of the field of criminology, these results indicate that this is a subject worth revisiting and one that warrants further study.

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TABLE 1: Summary Statistics – Control Variables

		Obs.	Mean or Percentage	Std. Dev.	Min	Max
Age	Baseline	1,354	16.044	1.143	14	19
	6 Months	1,265	16.553	1.150	14	20
	12 Months	1,262	17.048	1.154	15	20
	18 Months	1,229	17.519	1.144	15	21
	24 Months	1,231	18.018	1.143	16	21
Ethnicity	White	274	20.24%			
	Black	561	41.43%			
	Hispanic	454	33.53%			
	Other	65	4.80%			
Gender*	Male	1,094	86.26%			
	Female	174.2	13.74%			
Antisocial Peer Behavior	Baseline	1,316	2.321	0.926	1	5
	6 Months	1,221	1.963	0.875	1	5
	12 Months	1,244	1.830	0.835	1	5
	18 Months	1,205	1.777	0.813	1	5
	24 Months	1,215	1.723	0.799	1	5

*Note: gender varies slightly by time point; totals represented here are averages for the first 24 months.

TABLE 2: Summary Statistics – Independent Variables

		Obs.	Mean	Std. Dev.	Min	Max
Importance of Spirituality						
	Baseline	1,349	3.276	1.215	1	5
	6 Months	1,259	3.123	1.266	1	5
	12 Months	1,259	3.019	1.253	1	5
	18 Months	1,225	3.049	1.281	1	5
	24 Months	1,224	2.982	1.272	1	5
Religious Participation						
	Baseline	1,350	2.272	1.307	1	5
	6 Months	1,260	2.061	1.325	1	5
	12 Months	1,260	1.977	1.290	1	5
	18 Months	1,225	1.882	1.286	1	5
	24 Months	1,223	1.840	1.242	1	5

TABLE 3: Summary Statistics – Dependent Variable

		“No” Obs.	“No” Percentage	“Yes” Obs.	“Yes” Percentage	Total
Gang Membership						
	Baseline	1,122	83.11%	228	16.89%	1,350
	6 Months	1,145	90.80%	116	9.20%	1,261
	12 Months	1,148	91.11%	112	8.89%	1,260
	18 Months	1,123	91.52%	104	8.48%	1,227
	24 Months	1,131	92.25%	95	7.75%	1,226

TABLE 4: Cross-Sectional Correlations of Independent and Dependent Variables (BASELINE)

	1. Gang Membership	2. Importance of Spirituality	3. Religious Participation	4. Antisocial Peer Behavior
1. Gang Membership	-			
2. Importance of Spirituality	0.001	-		
3. Religious Participation	0.022	0.319***	-	
4. Antisocial Peer Behavior	0.322***	-0.015	-0.050 [†]	-

p≤0.01***, p≤0.05**, p≤0.10[†]

TABLE 5: Cross-Sectional Correlations of Independent and Dependent Variables (6 MONTHS)

	1. Gang Membership	2. Importance of Spirituality	3. Religious Participation	4. Antisocial Peer Behavior
1. Gang Membership	-			
2. Importance of Spirituality	-0.013	-		
3. Religious Participation	0.085***	0.358***	-	
4. Antisocial Peer Behavior	0.190***	-0.055 [†]	0.020	-

p≤0.01***, p≤0.05**, p≤0.10[†]

TABLE 6: Cross-Sectional Correlations of Independent and Dependent Variables (12 MONTHS)

	1. Gang Membership	2. Importance of Spirituality	3. Religious Participation	4. Antisocial Peer Behavior
1. Gang Membership	-			
2. Importance of Spirituality	-0.018	-		
3. Religious Participation	0.006	0.330***	-	
4. Antisocial Peer Behavior	0.193***	-0.060**	0.011	-

p≤0.01***, p≤0.05**, p≤0.10[†]

TABLE 7: Cross-Sectional Correlations of Independent and Dependent Variables (18 MONTHS)

	1. Gang Membership	2. Importance of Spirituality	3. Religious Participation	4. Antisocial Peer Behavior
1. Gang Membership	-			
2. Importance of Spirituality	-0.076***	-		
3. Religious Participation	0.014	0.358***	-	
4. Antisocial Peer Behavior	0.161***	-0.016	-0.013	-

p≤0.01***, p≤0.05**, p≤0.10[†]

TABLE 8: Cross-Sectional Correlations of Independent and Dependent Variables (24 MONTHS)

	1. Gang Membership	2. Importance of Spirituality	3. Religious Participation	4. Antisocial Peer Behavior
1. Gang Membership	-			
2. Importance of Spirituality	-0.081***	-		
3. Religious Participation	-0.064**	0.403***	-	
4. Antisocial Peer Behavior	0.158***	-0.088***	-0.033	-

p≤0.01***, p≤0.05**, p≤0.10[†]

TABLE 9: Model 1 – Baseline Variables Predicting 6-Month Gang Membership

	Odds Ratio	Standard Error
Age	0.951	0.093
Gender	0.601	0.241
Ethnicity (reference: white)		
Black	2.138	1.041
Hispanic	8.570***	3.866
Other	5.894***	3.561
Spirituality	0.806**	0.077
Religion	1.041	0.093
Antisocial Peer Behavior	2.780***	0.349

p≤0.01***, p≤0.05**, p≤0.10[†]

N=1,227; chi-square=154.92; p≤0.01; pseudo r²: 0.209

TABLE 10: Model 2 – 6-Month Variables Predicting 12-Month Gang Membership

	Odds Ratio	Standard Error
Age	1.172	0.118
Gender	0.656	0.277
Ethnicity (reference: white)		
Black	3.866**	2.459
Hispanic	18.992***	11.425
Other	11.730***	8.496
Spirituality	0.860	0.085
Religion	1.356***	0.117
Antisocial Peer Behavior	2.038***	0.235

p≤0.01***, p≤0.05**, p≤0.10[†]

N=1,176; chi-square=151.31; p≤0.01; pseudo r²: 0.208

TABLE 11: Model 3 – 12-Month Variables Predicting 18-Month Gang Membership

	Odds Ratio	Standard Error
Age	1.085	0.107
Gender	0.393 [†]	0.189
Ethnicity (reference: white)		
Black	2.479 [†]	1.412
Hispanic	12.649***	6.668
Other	5.518**	3.925
Spirituality	0.935	0.094
Religion	1.146	0.104
Antisocial Peer Behavior	1.855***	0.216

p≤0.01***, p≤0.05**, p≤0.10[†]

N=1,179; chi-square=113.76; p≤0.01; pseudo r²: 0.169

TABLE 12: Model 4 – 18-Month Variables Predicting 24-Month Gang Membership

	Odds Ratio	Standard Error
Age	1.123	0.119
Gender	0.255**	0.155
Ethnicity (reference: white)		
Black	2.089	1.210
Hispanic	11.808***	6.278
Other	3.406	2.731
Spirituality	0.878	0.089
Religion	1.165	0.113
Antisocial Peer Behavior	2.105***	0.271

p≤0.01***, p≤0.05**, p≤0.10[†]

N=1,140; chi-square=110.71; p≤0.01; pseudo r²: 0.177

APPENDIX A

MATON'S (1989) *IMPORTANCE OF SPIRITUALITY* SCALE

1. I experience God's love and caring on a regular basis.
2. I experience a close personal relationship with God.
3. Religious faith has not been central to my coping. ^

^Note: the original wording of this item (above) was changed, and in Pathways to Desistance instead reads: Religion helps me to deal with my problems.

This scale demonstrates high reliability in the sample, with $\alpha=0.88$ (Importance of Spirituality, n.d.).