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Is There a Relationship Between Religiosity and Infidelity?

A Meta-Analysis

Meghan Maddock

A dissertation submitted to the faculty of Brigham Young University in partial fulfillment of the requirements for the degree of

Doctor of Philosophy

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#### ABSTRACT

# Is There a Relationship Between Religiosity and Infidelity? A Meta-Analysis

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Infidelity in romantic relationships is common and has been associated with relationship dissolution and strain on individuals. Most religions teach that infidelity is harmful, and some researchers have suggested that, in the aggregate, more religious people might be less likely to report infidelity. However, research has been mixed, with some studies finding that more religious people are less likely to report infidelity, other studies finding that more religious people are more likely to report infidelity, and other studies finding no relationship. To clarify seemingly contradictory findings, I conducted a meta-analysis of the infidelity-religiosity relationship with 38 studies and a total sample size of over 35,000. A random-effects analysis found a small, statistically significant, inverse relationship between religiosity and infidelity (r = -.07, 95% CI [-.12, -.03]).

However, a large degree of heterogeneity (Q = 1878.75.52, p < 0.001;  $l^2 = 96.86$ ) existed in this analysis, suggesting that effect sizes varied greatly between studies. In planned grouped comparisons, the relationship between religiosity and physical infidelity was not significantly different from the relationship between religiosity and emotional infidelity. Attendance at religious services and other measures of religiosity had similar relationships with infidelity, and spirituality and religiosity were equally protective against infidelity. Meta-regressions found that sample characteristics, such as race and gender, did not have a statistically significant relationship with the religiosity-infidelity effect size (p > .05), while publication status predicted effect size (p < .05). Findings are discussed through the lens of cognitive dissonance theory and intrinsic religious theory.

Keywords: religiosity, spirituality, infidelity, relationships, meta-analysis

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# Is There a Relationship Between Religiosity and Infidelity?

# A Meta-Analysis

Most people consider monogamy the norm; nearly 99% of participants in a large, nationally representative sample expected their spouse to be sexually monogamous and 99% of participants believed that their partners expected sexual exclusivity (Treas & Giesen, 2000). Expectations of sexual exclusivity in marriage or cohabitation rarely change; less than 1% of heterosexual couples reported that their partner or spouse had changed beliefs about sexual exclusivity (Treas & Giesen, 2000). In addition to sexual monogamy being the norm, most people view infidelity negatively. According to a Gallup (2017) poll, 88% of Americans believe that it is morally unacceptable for married men and women to have an affair.

Despite the pervasive negative view of infidelity, infidelity is common. A nationally representative study found that 22.7% of men and 11.6% of women overall, and up to 34% of men and 19% of women in older cohorts, report having ever had extramarital sex (Wiederman, 1997). According to a more recent survey, 17% of adults reported engaging in sexual relations with someone other than their spouse while they were married (Burdette et al., 2007). The annual prevalence of extramarital sex has been estimated to be 2.3%, with rates around 4% among men and 1.7% among women (Whisman et al., 2007; Wiederman, 1997).

Infidelity is associated with negative consequences for relationships, individual psychological health, and individual physical health. Multiple studies have found that infidelity is a significant, independent predictor of divorce and relationship dissolution (Amato & Rogers, 1997; Negash et al., 2014; Previti & Amato, 2004). A study of a large, representative U.S. sample found that more than half of people who have extramarital sex separate from or divorce their spouse or partner, and that having had extramarital sex raised the likelihood of being

currently divorced but remarried (OR = 2.6), divorced and not remarried (OR = 4.1), and separated (OR = 5.8; Allen & Atkins, 2012). In at least 25% of divorces, at least one spouse had become involved with another person before the marriage ended (South & Lloyd, 1995). The odds of divorce were twice as high for people who reported extramarital sex as for people who reported not engaging in extramarital sex, even when controlling for marital happiness and divorce proneness (Previti & Amato, 2004). Infidelity has been associated with a nearly five-fold increase in relationship dissolution for college students in dating relationships (Negash et al., 2014).

Infidelity has also been associated with relationship difficulties other than divorce and relationship dissolution. Infidelity is longitudinally associated with a decrease in marital happiness (by <sup>2</sup>/<sub>3</sub> of a standard deviation) and an increase in divorce proneness (by <sup>3</sup>/<sub>4</sub> of a standard deviation), even when controlling for pre-infidelity marital happiness and divorce proneness (Previti & Amato, 2004). Couples therapists have rated infidelity as the third most difficult problem for couples in therapy, as well as the second most damaging problem to couples' relationships, only behind physical abuse (Whisman et al., 1997).

Infidelity has also been associated with psychological consequences for individual partners. The discovery of a husband's infidelity or initiation of marital separation is associated with an increased risk of major depressive episodes in women, even when marital discord and personal and family history of major depressive episodes are controlled for (F(1, 47) = 7.51, p < .01; Cano & O'Leary, 2000). Partners who engage in infidelity are also likely to experience psychological distress. Hall and Fincham (2009) found that college students in dating relationships who had engaged in infidelity had higher psychological distress (i.e., depression, shame, and guilt) than those who did not engage in infidelity. However, a prospective study suggested that

psychological distress is more likely to be a cause, rather than a consequence, of infidelity (Hall & Fincham, 2009).

Infidelity has also been associated with negative consequences for physical health. Extramarital sexual activity is associated with low rates of condom use, with only 8-12% of people who engage in extramarital sex being consistent condom users (Choi et al., 1994). Individuals who engage in extradyadic sexual involvement are less likely to engage in protective sexual health behaviors in both their primary and extradyadic sexual relationships, compared to openly non-monogamous individuals (Conley, Moors, Ziegler et al., 2012). Extradyadic sexual involvement was also associated with a lower likelihood of STI testing and discussions of safe sex with new partners than was consensual non-monogamy, which suggests that infidelity is associated with increased sexual risk behaviors beyond those associated with having multiple concurrent sexual partners (Conley, Moors, Ziegler et al., 2012).

#### **Measurement of Infidelity**

Researchers have used multiple terms to describe infidelity, sometimes synonymously, such as: infidelity, cheating, affair, unfaithfulness, extramarital or extradyadic sex, and extradyadic involvement. Behavioral definitions of infidelity vary widely in the relationship literature and can include anything from "sexual intercourse," to "oral sex," to "kissing" to "emotional connections" outside of a monogamous relationship (Blow & Hartnett, 2005; Fincham & May, 2017). Although which behaviors are considered infidelity can vary, infidelity can be broadly conceptualized as behaviors with an extradyadic partner that, should the primary partner learn of them, are likely to cause distress to the primary partner or damage to the primary relationship.

#### **Physical and Emotional Infidelity**

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Recently, infidelity has been conceptualized as being "physical" or "emotional," with physical infidelity involving intercourse, sex, kissing, or other physical acts, and emotional infidelity involving romantic feelings, dating, giving of gifts, and other acts that do not involve physical intimacy (Negash et al., 2014). Some people define infidelity exclusively as physical behaviors with someone other than a partner, such as intercourse, oral sex, anal sex, or kissing. Over the course of the study of infidelity, definitions and conceptualizations of infidelity have changed. Early studies of infidelity tended to emphasize physical infidelity by conceptualizing infidelity as extramarital sexual intercourse (e.g., Bell, 1974; Edwards & Booth, 1976).

Even with respect to physical behaviors, which behaviors constitute infidelity are unclear. Some physical behaviors, such as hugging, can be considered "ambiguous"—some people perceive hugging as infidelity, while others do not (Kruger et al., 2013; Mattingly et al., 2010). Generally, extradyadic sexual behaviors are considered the most universally indicative of infidelity, followed by romantic behaviors (e.g., holding hands and spending significant time together), followed by casual social interactions (Kruger et al., 2013). Whether a behavior is perceived to be infidelity may depend on the individuals involved and on the situation. On some occasions, partners disagree on what constitutes infidelity. One partner may believe that he or she has not cheated, while the other might perceive that infidelity has occurred. People are more likely to label their partner's behavior as infidelity, and less likely to label their own behavior as infidelity (Thompson & O'Sullivan, 2016).

In theory, an individual may engage in emotional infidelity by falling in love with, going out to dinner with, or giving gifts to someone outside their relationship, while never engaging in physical intimacy with this person. Emotional infidelity, especially romantic behaviors, and financial support can be more ambiguous than physical infidelity, with opinions more divided on what constitutes infidelity (Kruger et al., 2013; Thompson & O'Sullivan, 2015). Not only are the specific acts that comprise emotional infidelity ambiguous, but people also judge whether a behavior is emotionally unfaithful differently based on whether they or their partner did that behavior. People judge their potentially emotionally unfaithful behaviors less harshly than they do their partner's, with religious people in particular, being more likely to believe that an act by their partner constitutes emotional infidelity, while that same act by themselves does not (Thompson & O'Sullivan, 2016).

The distinction between physical and emotional infidelity may be gendered. According to evolutionary theory, men are more upset at their partner's physical infidelity, while women are more upset at their partner's emotional infidelity. This difference is thought to be driven by the differential reproductive and resource threats that physical and emotional infidelity pose. Theoretically, a man would be more fearful of physical infidelity by a female partner because this could result in her giving birth to a child that is not biologically his, which may then result in him expending valuable resources on a child that does not have any of his DNA. A woman would be more fearful of emotional infidelity by a male partner because this could lead to hum being less likely to share resources with her and her children. This difference is supported by multiple studies finding that, when forced to choose, women generally consider emotional infidelity in a partner more upsetting, while men generally consider physical infidelity in a partner more upsetting (see Buss, 2018 for a review).

# Definitions of Infidelity in Studies of Religiosity and Infidelity

Within studies of religiosity and infidelity, definitions of infidelity vary, with some studies defining infidelity as extradyadic sexual involvement with someone other than one's partner (e.g., Vail-Smith et al., 2010), and others as either physical and/or emotional involvement (e.g., Norona et al., 2016). How researchers define infidelity and how participants understand infidelity may influence study outcomes because research suggests that people define "unfaithful" as including sexual behaviors that they do not include in their definitions of "having sex" or having a "sexual partner" (Randall & Byers, 2003). Some behaviors, such as hugging, talking on the phone, or receiving gifts, are ambiguous and may be considered unfaithful by some people, but not by others (Mattingly et al., 2010; Wilson et al., 2011). Definitions of infidelity may be especially important in studies involving religion because Mattingly (2010) and colleagues found that highly religious people were more likely to perceive ambiguous behaviors, such as hugging, dancing, and talking on the phone, as constituting infidelity, which suggests that religious individuals' reporting of infidelity may differ from nonreligious individuals' reporting of infidelity. In addition, religious people are more likely than non-religious people to believe that ambiguous acts by their partners constitute emotional

Additionally, religious people are more likely to believe that pornography use is always morally wrong, and some may perceive pornography use as infidelity (Perry, 2018; Zitzman & Butler, 2009). This difference in definitions of infidelity could be problematic because studies of the religiosity-infidelity relationship generally do not explicitly include or exclude pornography use in their definitions of infidelity. In studies where "infidelity" or "cheating" are not behaviorally defined (e.g., Mahambrey, 2018; McAllister et al., 2020) differences in reported infidelity by religiosity may be especially likely to be due to systematic religious differences in perceptions of what constitutes infidelity, rather than a difference in events that actually occurred.

infidelity, while those same acts done by themselves do not (Thompson & O'Sullivan, 2016).

It is important to distinguish between consensual non-monogamy and infidelity. In order for infidelity to occur, both partners must have an expectation of monogamy in the primary relationship. Some people do not expect or prefer sexual and/or emotional monogamy and arrange with their consenting partners to have a non-monogamous relationship, such as a polyamorous relationship or an "open" relationship (Barker, 2005; Conley, Moors, Matsick et al., 2012; Klesse, 2006). Some recent studies of infidelity have distinguished between consensual non-monogamy and infidelity (e.g., Demaris, 2009; Mark et al., 2011), while older studies of infidelity have not generally differentiated between the two (e.g., Bell, 1974; Forste & Tanfer, 1986; Spanier & Margolis, 1983).

#### Religiosity

The study of religiosity has a long and rich history. Generally, religiosity is considered a complex construct that involves cognitive, emotional, behavioral, interpersonal, and physiological dimensions (Hill & Pargament, 2003). Religiosity may be conceptualized as the degree to which someone adheres to beliefs, doctrines, rituals, and practices related to some higher power and an associated group (Hood et al., 2018). Religiosity has been defined in various ways but most include multiple domains, such as religious service attendance, religious beliefs, affiliation with a particular religion, and other religious behaviors such as prayer.

Religion is an important part of many people's lives and identities. About 70% of Americans identify as members of a specific religion and the majority consider religion to be important to them (Gallup, 2017; Pew Research Center, 2014; Pew Research Center, 2021). Despite the importance of religiosity to the majority of the population, relatively few studies include religiosity in their analyses. Only 2.5% of the quantitative studies published from 1978 to 1982 in four major psychiatric journals included a religion or spirituality measure, and only three of these studies included religion or spirituality as part of the central research question (Larson et al., 1986). Of the quantitative studies published in seven American Psychological Association journals between 1991 and 1994, only 2.7% included religion and spirituality variables (Weaver et al., 1998).

Religiosity has generally been associated with positive relationship outcomes (Mahoney, et al., 2008). More religious people have higher relationship quality (Ellison et al., 2010; Lichter & Carmalt, 2009; Wolfinger & Wilcox, 2008) and a lower likelihood of divorce (Brown et al., 2008; Kunz & Albrecht, 1977). However, there is some evidence that couples in which partners adhere to different religions have higher odds of divorce (Kalmijn et al., 2005).

## Spirituality

More recent conceptualizations of religiosity have distinguished it from the newer construct of spirituality, as religiosity is considered institutional, formal, and outwardly focused, while spirituality is considered individual, emotional, and inwardly focused (Koenig et al., 2001). Some have criticized this dichotomization of religiosity and spirituality as artificial because many people experience spirituality within the context of organized religion and therefore do not experience spirituality as separate from religiosity (Marler & Hadaway, 2002). However, around 23% of Americans report not being affiliated with any particular religion, and 40% of Americans who do not affiliate with any particular religion report feeling a sense of spiritual peace and well-being at least once a week (Pew Research Center, 2014). As more people, particularly younger adults, move from religion to spirituality, it is important to consider the relationship between spirituality and infidelity.

Sanctification has recently emerged as a psychospiritual construct related to, but distinct from, religiosity and spirituality. While religiosity describes external facets of religious

observance, sanctification is an internal process "through which aspects of life are perceived as having divine character and significance" (Pargament & Mahoney, 2005, p. 183). Sanctification can be considered a more specific form of spirituality, as sanctification involves the belief that aspects of one's life are sacred, while spirituality is a more general term (Mahoney et al., 2001). Like spirituality, sanctification can concern both theistic and nontheistic areas of life. Sanctification of romantic relationships has been associated with greater marital satisfaction and dyadic well-being (Rusu et al., 2015; Stafford, 2016). Couples who sanctify their relationship experience less marital conflict, less verbal aggression, higher marital quality, and more verbal collaboration (Mahoney et al., 1999; Stafford, 2016; Stafford et al., 2014).

# Measurement of Religiosity in Studies of Religiosity and Infidelity

In studies of infidelity, researchers have defined religiosity in many ways, including global measures of religious behavior (Tuttle & Davis, 2015), affiliation with particular religions (Burdette et al., 2007), church attendance (Atkins & Kessel, 2008; Treas & Giesen, 2000), specific religious beliefs (Burdette et al., 2007), and intrinsic religious motivation (Norona et al., 2016). However, the distinction between religiosity and spirituality has not been widely applied to the infidelity literature.

Some findings of no relationship between religiosity and infidelity may be due to poor or narrow measurement of religiosity, such as Edwards and Booth's (1976) defining religiosity as a dichotomous variable of membership in the Catholic Church. Most studies of religiosity and infidelity do not cover the full breadth and depth of the construct of religiosity. Narrow measurement of religiosity is not limited to the infidelity literature, as 85% of studies on religiosity and delinquency measure religiosity as church attendance (Johnson et al., 2000). Other meta-analyses have found that different aspects of religiosity have different relationships with other constructs, such as mental health (Hackney & Sanders, 2003), subjective well-being (Witter et al., 1985), and marital functioning (Mahoney et al., 2008). It is possible that this metaanalysis may find that different aspects of religiosity have different relationships with infidelity, as research by Atkins and Kessel (2008) suggests that some components of religiosity (e.g., religious service attendance) are better predictors of infidelity than others (e.g., prayer, faith, perceived closeness to God, viewing religion as a problem, and viewing God as punitive). Because some aspects of religiosity may be related to infidelity, while others may not, the heterogeneity in definitions of religiosity and generally weak measurement of religiosity likely leads to the conflation of distinct elements of religiosity and lack of clarity in the relationship between religiosity and infidelity.

#### The Relationship Between Religiosity and Infidelity

Religions generally teach that infidelity is morally wrong, and religious people are more likely to believe that infidelity is morally wrong. Also, more religious people are more likely to be involved in religious social networks and experience strong sanctions against infidelity in their religious communities. Therefore, it is possible that religiosity is negatively associated with infidelity.

### **Religious Teachings Against Infidelity**

Most religions teach through scripture and through leaders that infidelity is morally wrong. Religious texts that are foundational to Judaism, Christianity, Islam, Buddhism, and Hinduism contain passages condemning infidelity. The Hebrew Bible proclaims in its Ten Commandments, "you shall not commit adultery" (Exodus 20:14, New Revised Standard Version). The New Testament teaches against both physical and emotional infidelity, with Jesus's saying, "everyone who looks at a woman with lust has already committed adultery with her in his heart" (Matthew 5:28, New Revised Standard Version) and Paul's teaching that "fornicators ... adulterers—none of these will inherit the kingdom of God" (1 Corinthians 6:9-10, New Revised Standard Version). The word "infidelity" is used 25 times in the Qur'an (Ksasbeh et al., 2009), which urges, "do not approach adultery, for verily it is a great sin and an evil way" (17:32). Gautama Buddha said, as quoted in the Parabhava Sutta, "not to be contented with one's own wife, and to be seen with harlots and the wives of others -- this is a cause of one's downfall". In the Sigalovada Sutta, Gautama Buddha taught, "a wife ... [should] be ministered to by a husband: ... by being faithful to her," and "the wife thus ministered ... by her husband shows her compassion to her husband ... she is faithful". The Vishnu Purana, a sacred text of Hinduism, states, "he who commits adultery is punished both here and hereafter; for his days in this world are cut short, and when dead he falls into hell" (3:11). Multiple religious texts that many religious people consider to be sacred, even the word of God, command against and decree eternal punishment for infidelity.

Most religious texts also teach that marriage is important, even sacred. The Hebrew Bible teaches, "therefore a man leaves his father and his mother and clings to his wife, and they become one flesh" (Genesis 2:24, New Revised Standard Version). In the New Testament, Jesus taught that after marriage, spouses are "no longer two, but one flesh. Therefore what God has joined together, let no one separate" (Matthew 19:6, New Revised Standard Version). Paul taught, "let marriage be held in honor by all" (Hebrews 13:4, New Revised Standard Version). Likewise, the Qur'an teaches the importance of marriage, saying, "among His signs is this, that He created for you mates from among yourselves, that you may dwell in peace and tranquility with them, and He has put love and mercy between your (hearts): Verily in that are signs for those who reflect" (Qur'an 30:21). According to religious texts from multiple faith traditions,

marriage relationships are sacred, and having extramarital sex is a grave error. Given the importance of marriage in many sacred texts, I suspect that the religiosity-infidelity relationship will be stronger in married samples compared to unmarried samples. Most religious texts contain less information about infidelity in the context of non-marriage relationships, but it is likely that this kind of infidelity would be condemned as well.

In addition to scriptural teachings against infidelity and in favor of committed marriages, religious leaders generally publicly teach against infidelity. Religious people thus receive messages against infidelity from multiple sources and on multiple occasions. However, different religious denominations vary in the degree to which they condemn infidelity. For example, conservative religions, such as Catholicism and sectarian Protestantism, generally teach strongly against infidelity and have strong cultural norms against infidelity, while more liberal religions, such as Unitarianism, have weaker cultural norms against infidelity (Gay et al., 1996; Hoffmann & Miller, 1997). Leaders of conservative Protestant and Catholic churches often publicly emphasize a traditional view of marriage in their teachings, and members of these religions are less likely than members of other religions to marry someone of another religion (Sherkat, 2004; Sherkat & Wilson, 1995).

Given official teachings against infidelity both in scripture and from modern leaders, we might expect that religious people are more likely than non-religious people to believe that infidelity is morally wrong, and this is borne out in survey data (Gay et al., 1996). A greater proportion of religious people believe that infidelity is morally wrong; 60 to 81% of members of Christian religions and 50% of Jewish people believe that extramarital sex is always wrong, while only 44% of the non-affiliated believe that extramarital sex is always wrong (Cochran & Beeghley, 1991). Moreover, nationally representative surveys of attitudes have found that

religious people as a group tend to have less variance in their views on extramarital relationships than those who are not religious (Gay et al., 1996). Given religious people's general belief that infidelity is morally wrong, religious social systems are likely to be comprised of people who believe that infidelity is wrong and to play an important role in discouraging infidelity.

#### **Social Functions of Religiosity**

People who attend religious services generally have larger social networks and report more satisfaction with the quality of their social relationships than people who do not attend religious services (Ellison & George, 1994). In addition to having relatively large social networks, people who are more religious are more likely to have friends and acquaintances who are also religious. Having a social circle comprised largely of other religious people, who are also likely to have strong moral beliefs against infidelity, may be protective against infidelity. Religious participation is often a family activity, with many religious people reporting that they usually attend religious services with their families (Myers, 1996; Stolzenberg et al., 1995). Attending religious services together may increase marital satisfaction, which seems likely to decrease the odds of infidelity (Call & Heaton, 1997; Lichter & Carmalt, 2009). In addition, couples who attend the same religious services together may simply have fewer opportunities to develop relationships with other adults which might lead to infidelity because they are busy with religious commitments and because many of their friends and acquaintances who might be potential extramarital partners are likely to be religious and to believe that infidelity is wrong.

Given the strong moral stance of most religions against infidelity, people who are discovered to have cheated might be more likely to be shamed and ostracized by religious communities than non-religious communities. Potential social consequences of infidelity, such as stigma and loss of friendships, may be particularly salient for religious people (Ebaugh, 2006; Iannaccone, 1992). Given the salience of infidelity among religious communities, we might expect religious service attendance to be a powerful protective factor against infidelity. In addition, some religious denominations impose specific disciplinary consequences for infidelity that non-religious people are unlikely to experience. The Hebrew Bible prescribes, "if a man is caught lying with the wife of another man, both of them shall die" (Deuteronomy 22:22, New Revised Standard Version). The Hadith contains multiple accounts of Muhammad commanding that adulterers be stoned to death (Korbatieh, 2018). In modern times, for example, church members who are found to have had extramarital sex may have certain religious privileges taken away or may even be excommunicated or otherwise prevented from participating in their religious groups. Discipline from leaders and social consequences may be powerful incentives against infidelity.

Given that most religious texts and religious leaders teach against infidelity, that religious people tend to have stronger moral beliefs against infidelity than non-religious people, and that powerful religious and social consequences exist for religious people found to have committed infidelity, it is logical that higher religiosity might be associated with a decreased likelihood of infidelity.

### Studies on the Relationship Between Religiosity and Infidelity

Multiple studies suggest that greater religiosity is associated with a decreased likelihood of infidelity. In a nine-year longitudinal study of couples married for twelve or more years, religiosity decreased the odds of infidelity (Tuttle & Davis, 2015). College students who selfidentified as not being religious were more likely to engage in infidelity (Vail-Smith et al., 2010). However, other studies suggest that religiosity is not a significant predictor of infidelity. A measure of religiosity that included elements about the importance of religion to life, the importance of religion in making decisions, and the number of church services attended per year found that religiosity was not a significant predictor of infidelity among college-aged dating couples (Wiederman & Hurd, 1999). In a nationally representative sample, religiosity as measured by religious service attendance and self-described religiosity was not a significant predictor of extramarital sexual involvement (Maddox et al., 2013). Multiple studies have found that religiosity as measured by a self-report of the importance of religion to an individual was not a statistically significant predictor of infidelity in young adults in dating relationships (Mark et al., 2011; Negash et al., 2019).

Religiosity as measured by religious identity or affiliation is associated with decreased likelihood of infidelity. Members of conservative religions, Catholics, moderate Protestants, and liberal Protestants reported less infidelity than those who did not have a religious affiliation (Burdette et al., 2007). Members of non-Christian faiths or nontraditional conservative Christian faiths (i.e., The Church of Jesus Christ of Latter-day Saints or Jehovah's Witness) did not have reduced rates of marital infidelity (Burdette et al., 2007). Edwards and Booth (1976) found that affiliation with the Roman Catholic Church was not a statistically significant predictor of infidelity.

For most religions, people who identify as "strong" members of their religion report significantly lower rates of infidelity than those who identify as "weak" members of their religion, even when church attendance and biblical beliefs are included in the model (Burdette et al., 2007). The only exceptions were members of liberal Protestant faiths and nontraditional conservative Christian faiths, who did not significantly differ in their rates of infidelity based on identifying as "strong" or "weak" members of their faith (Burdette et al., 2007).

Other studies have measured religiosity as religious service attendance (e.g., church, mosque, and synagogue). Multiple studies have found that religious service attendance is a statistically significant predictor of infidelity, with those who attend services more frequently being less likely to engage in infidelity than those who attend services rarely (Atkins et al., 2001; Atkins & Kessel, 2008; Burdette et al., 2007). In a national survey, people who never attended religious services were 2.5 times more likely than people who attended religious services more than once a week to have had extramarital sex (Atkins et al., 2001). Atkins and Kessel (2008) took a multidimensional approach to religiosity by including religious service attendance, prayer, faith, perceived closeness to God, viewing religion as a problem, viewing God as punitive, and other domains in their scale of religiosity. Of these many domains of religiosity, religious service attendance was the only statistically significant predictor of infidelity; specifically, individuals who rarely attended religious services were four times more likely to report infidelity than individuals who attended religious services very frequently (Atkins & Kessel, 2008). Burdette and colleagues (2007) also found that service attendance was a significant predictor of infidelity; individuals who reported attending church several times a week had 66% lower odds of engaging in infidelity than those who never attended services. They also found that attendance mediated denominational patterns in infidelity (Burdette et al., 2007); meaning, denominations that had higher rates of attendance had lower rates of infidelity.

However, a study by Treas and Giesen (2000) found that religious service attendance was not a statistically significant predictor of lifetime incidence of extradyadic sex in married or cohabiting heterosexual couples, although religious service attendance was a statistically significant predictor of extradyadic sex in the previous 12 months. This finding suggests that religious service attendance may be protective against infidelity in the short-term, but not in the long-term. Possibly, religious service attendance's protective effect against infidelity, whether it is from hearing frequent anti-infidelity messages or from involvement in a religious community, does not last a long time, meaning that more religious people are only less likely to engage in infidelity as long as they attend church frequently.

Some studies define religiosity by behaviors other than church attendance, such as prayer. In a six-week longitudinal study, individuals who reported praying for their partner were less likely to engage in extradyadic sexual activity (Fincham et al., 2010). Praying for one's partner remained a significant predictor of infidelity even when relationship satisfaction was included in the model. Participants who were randomly assigned to pray for their partners were less likely to engage in emotional and physical infidelity, compared to participants who were randomly assigned to pray without direction and participants who were randomly assigned to think positive thoughts about their partners (Fincham et al., 2010). This suggests that praying for one's partner may be more predictive of infidelity than merely praying or thinking positively about one's partner.

Other researchers have defined religiosity by specific religious beliefs or values. Dollahite and Lambert (2007) proposed a model in which sanctified marriage, relational commitment, moral values, and relationship with God positively influence marital fidelity. According to this model, moral or religious values and beliefs about the sacredness of one's relationship decrease the likelihood of infidelity. Participants who reported religious congruence, as measured by both feelings of nearness to God and regular service attendance, had decreased odds of having an affair (Atkins & Kessel, 2008). Participants who reported religious incongruence, defined by reported feelings of nearness to God and rare service attendance, had intrinsic religious motivation was a predictor of an increased likelihood of engaging in emotional and physical infidelity (Norona et al., 2016). This seemingly counterintuitive finding may be explained by Norona (2016) and colleagues' broad definition of infidelity, as they included feelings of attraction and sharing of personal information or feelings in their measure of infidelity. Another possibility is that people with intrinsic religious motivation feel nearness to God, but rarely attend religious services, which has been associated with increased odds of infidelity (Atkins & Kessel, 2008).

Religiously based marital formation, or religion having a large impact on the decision of whether to marry and whom to marry, did not have a significant relationship with infidelity (Esselmont & Bierman, 2014). However, the relationship between religiously based marital formation and infidelity varies by self-reported importance of religion (Esselmont & Bierman, 2014). Among individuals who had high religiously-based marital formation, those who reported that religion was important to them were less likely to engage in infidelity than those for whom religion was not important (Esselmont & Bierman, 2014).

Other specific beliefs related to religiosity may be related to likelihood of infidelity. People who believed that the Bible is the literal Word of God were less likely to engage in infidelity than people who believed that the Bible is not a divine text (Burdette et al., 2007). People who believed that the Bible is the inspired Word of God, but should not necessarily be taken literally word-for-word, reported rates of infidelity greater than those who believe the Bible is the literal Word of God, but less than those who do not believe the Bible has divine origins (Burdette et al., 2007). These differences were significant even when religious affiliation and frequency of religious service attendance were included in the model (Burdette et al., 2007). Some research suggests that the religiosity-infidelity relationship may be moderated by demographic characteristics such as gender or race. With respect to age of partners, to the best of my knowledge no study examines age as a possible moderator of the religiosity-infidelity relationship. In a longitudinal study of recently married couples, women's religiosity had negligible effects on likelihood of infidelity, while men's religiosity had a moderate but statistically insignificant effect on their own likelihood of infidelity (Allen et al., 2008). Other studies, however, have found that the relationship between religiosity and infidelity is not significant different for men and women (Hansen, 1987; Liu, 2000; Vail-Smith et al., 2010). With respect to race, in a large and nationally representative sample, Choi and colleagues (1994) found that religiosity and infidelity were more strongly related for Black and Hispanic participants than for white participants. They attributed this difference to the traditionally strong social role of religion and church attendance in Black and Hispanic communities compared to white communities. To the best of my knowledge, this finding has yet to be replicated. Whether gender and race moderate the religiosity-infidelity relationship remains unclear.

#### **Rationale for Meta-Analysis**

Divergent findings exist on the relationship between religiosity and infidelity. Some studies have found a positive relationship (e.g., Fincham et al., 2010; Vail-Smith et al., 2010), some studies have found no statistically significant relationship (e.g., Edwards & Booth, 1976; Maddox Shaw et al., 2013; Mark et al., 2011; Wiederman & Hurd, 1999), and some have found an inverse relationship (Norona et al., 2016). This meta-analysis may clarify the differences in research findings on the religiosity-infidelity relationship, particularly by examining various moderators. Additionally, this meta-analysis fills in a gap in the literature. A search of Google Scholar, PsycINFO, PubMed, and EBSCOhost found no previous meta-analysis of the relationship between religiosity and infidelity.

# Hypotheses

Because of the preponderance of evidence that suggests that religiosity has an inverse relationship with infidelity, I hypothesize that meta-analytic techniques will suggest an inverse relationship between religiosity and infidelity. However, given the weakness of some of these effects, I also hypothesize that this effect will be small.

The following are my hypothesis for possible moderators of the relationship between religiosity and infidelity:

- 1. The relationship between religiosity and infidelity will be stronger when religiosity is measured by religious service attendance than other measurements of religiosity.
- 2. The relationship between religiosity and infidelity will be stronger for physical infidelity than for emotional infidelity.
- 3. The relationship between religiosity and infidelity will be stronger for married individuals than for unmarried individuals.
- 4. Gender will not significantly moderate the strength of the religiosity-infidelity relationship.
- The relationship between religiosity and infidelity will be stronger for samples with more BIPOC.
- 6. Effect sizes will be smaller for studies that are nationally representative than for studies that are not nationally representative.
- 7. Cross-sectional studies will have larger effect sizes than longitudinal studies.

8. Studies that were published in peer-reviewed journals will have smaller effect sizes than studies that were not published.

#### Method

The present study followed PRISMA guidelines (Moher et al., 2009). Before data analysis, I pre-registered this meta-analysis, including hypotheses and methods, with the Open Science Framework (OSF). The pre-registration, coding form, and CMA spreadsheet can be found at <u>https://osf.io/7h6p2/</u>.

# Literature Search

The literature search was conducted from October 2017 to April 2018, from April to May 2019, in October 2020, and in February 2021. Databases searched include the following: Google Scholar, PsycINFO, Scopus, Web of Science, and ProQuest (for dissertations). I used the following search terms: "religiosity and infidelity"; "religiosity and extradyadic sex"; "religion and extradyadic involvement"; "predictors of infidelity"; "(religiosity OR religion OR church OR spirituality OR spiritual) AND (infidelity OR cheating OR extradyadic OR extramarital OR monogam\*)." I also searched the reference lists of articles found with these search terms for relevant articles.

To be included in the quantitative analyses, studies needed to meet the following criteria: 1) measure religiosity and infidelity; 2) include a statistical analysis of the relationship between religiosity and infidelity; 3) data collected from 1948-2020; and 4) sufficient information is included in the study to calculate an effect size for the relationship between religiosity and infidelity, or an author of the study provides this information upon request. I excluded studies from the quantitative analyses if their unit of analysis was not a person or a couple. For example, Chohaney and Panozzo (2018) analyzed the frequency of paid subscriptions to and the amount of money spent on Ashley Madison, a website designed to facilitate marital affairs, but their measure of religiosity was the number of churches per 1,000 people. Because the unit of analysis was geographic area and not individual or couple, the study was not included in the quantitative analysis.

In conducting the above-described search, I found 81 studies that, based on their titles and/or abstracts, appeared to be relevant to this meta-analysis and meet inclusion criteria.

# Studies for Which I Could Not Find the Full Text

I found five studies that might, according to their abstracts, meet inclusion criteria, but for which I could not find the full text in Google Scholar, PsycINFO, Scopus, Web of Science, or ProQuest. I submitted Interlibrary Loan Requests to the Brigham Young University Harold B. Lee Library for all five articles. Four of the five of my requests were returned with the notification that the article was not available. I acquired the full-text article for Idele (2002) through interlibrary loan. Upon examination of the full text, I concluded Idele (2002) measured only "risky sexual behavior" (e.g., sex with multiple partners without condom use), not infidelity specifically. I, therefore, excluded Idele (2002) from analysis.

My next step was to attempt to contact the authors directly to request full-text copies. For one of the studies (Greeley, 1994), I was unable to find contact information for the author through a Google search. I emailed the first author for Peek (2001) to request a full-text copy of the article and received no reply in four weeks. I attempted to email the authors of Haversath and Kröger (2014) and Plack (2010) using the emails associated with the abstracts, but I received automated notifications that both emails could not be delivered. A Google search of the authors' names did not produce updated email addresses; therefore, I was unable to contact these authors to request the full text.

# Non-English Studies

I found three studies published in a language other than English that, based on their English abstracts, may meet inclusion criteria. One study by Galarza (2009) was in Spanish. Because I do not speak Spanish, I had another graduate student who is fluent in Spanish read Galarza (2009). She confirmed that, though Galarza (2009) meets inclusion criteria one through three, they did not include an effect size for the religiosity-infidelity relationship. I therefore considered Galarza (2009) as a study for which I needed to contact the authors. Two studies (Martins et al., 2014; Scheeren & Wagner, 2019) were published in Portuguese and met inclusion criteria one through three based on their English abstracts. I had professional native translators translate the methods and results sections of both articles through translated.com and included the studies in my analysis, treating them as any other study from this time forward.

#### **Contacting Authors**

For each of the studies that did not contain sufficient information to calculate an effect size for the relationship between religiosity and infidelity, I attempted to contact at least one author through email to request additional information. For each of these studies, I emailed the author again two weeks after the initial e-mail if they had not responded by that point. I considered authors to have not responded if they did not respond within two weeks of the followup email, four weeks total from the first email.

Twelve studies met inclusion criteria one through three but did not include an effect size for the religiosity-infidelity relationship. I was able to find email addresses for four of these authors and attempted to contact them through email (Allen et al., 2008; Galarza, 2009; Spanier & Margolis, 1983; Tuttle & Davis, 2015). Of these four authors, two responded within four weeks of the initial email, but neither was able to provide the data I needed. I attempted to contact one author (Behar, 2018) through *Psychology Today* but received no reply.

I was not able to contact the authors of seven studies, for varying reasons. The first author of the Janus Report (1983) is dead, and I was unable to find contact information for the second author. Likewise, the authors of both Kinsey studies (1948) are dead. For the rest of the studies, emails were not included in the original studies and a Google and *Psychology Today* search of the authors' names did not reveal contact information (Bell, 1974; Fair, 1978; Huey, 2002; Williams, 2010).

# **Overlapping Samples**

I reviewed the reported source of all study samples to determine which studies had overlapping samples. Using more than one effect size from the same sample in the same analysis violates the statistical assumption of independence, which would compromise my ability to make accurate interpretations of the results (Lipsey & Wilson, 2001).

#### **General Social Surveys**

Seven studies (Atkins et al., 2001; Atkins & Kessel, 2008; Brooks & Monaco, 2013; Burdette et al., 2007; Cochran et al., 2004; Elmslie & Tebaldi, 2008; Smith, 2012) used samples drawn from the National Opinion Research Center's General Social Surveys (GSS). Though these studies used data from somewhat different time periods of the GSS, none of these studies sampled from a completely different time period as all of the others. In other words, none of these studies' samples are completely independent.

I considered three options to address these overlapping samples, namely: 1) download original data, which is publicly available on the GSS website, and calculate an effect size myself;

2) average the effect sizes from the seven GSS studies into one effect size; 3) pick the GSS study that is the most representative and use that study alone.

I decided against option one because I believe it to be beyond the scope of a metaanalysis. The purpose of meta-analysis is to synthesize and analyze the results of existing studies, not to conduct new studies (Borenstein et al., 2013; Lipsey & Wilson, 2001). In my view, option one would require conducting my own study as part of a meta-analysis. In addition, my methods for calculating an effect size from original GSS data would not be subject to peer review, unlike the methods of the seven studies listed above.

I decided against option two because the GSS studies used different inclusion criteria for their GSS samples. For example, Atkins and colleagues (2001) only included currently married individuals in their sample, while Burdette and colleagues (2007) included currently or previously married individuals, and Smith (2012) put no restrictions on relationship status. If I averaged the effect sizes from these studies, I would be unable to include the effect size in most of my moderation analyses, as the "average" composition of the average GSS sample would be difficult to obtain. Given the large and nationally representative nature of GSS samples, I chose against an option that would make including GSS data in my moderation analyses difficult.

Ultimately, I decided on option three. In my view, option three is more methodologically sound than either option one or option two because it is within the scope of meta-analysis and allows me to include GSS data in my moderation analyses. I concluded that Smith (2012) is the most representative of the seven GSS studies. Smith (2012) includes data from by far the longest time range of the GSS studies (1991-2010) and has by far the largest sample size (n = 12,878). In addition, they use the same question for infidelity that the other GSS studies do ("Have you ever

had sex with someone other than your spouse while you were married?"), making their measurement of infidelity representative of the seven GSS studies.

# Demographic and Health Surveys

Seven studies (Abalos, 2003; Adamczyk & Hayes, 2012; Ali & Cleland, 2001; Hill et al., 2004; Kongnyuy & Wiysonge, 2007; Mitsunaga et al., 2005; Oyediran et al., 2010) used samples drawn from Demographic and Health Surveys (DHS). The DHS are nationally representative surveys of adults in various nations. Four studies used samples from a single nation each (Abalos et al., 2003, the Philippines; Ali & Cleland, 2001, Cote d'Ivoire; Hill et al., 2004, Brazil; Kongnyuy & Wiysonge, 2007, Cameroon), so I considered them independent samples. Two studies (Mitsunaga et al., 2005; Oyediran et al., 2010) used data from the 2003 Nigeria DHS, so they had duplicate samples. Therefore, I only used the effect size once and coded demographic information from both studies in order to gain as much information as possible.

One study (Adamczyk & Hayes, 2012) used data from DHS in 31 countries, namely: Nambia, Moldova, Haiti, Swaziland, Zambia, Zimbabwe, Ukraine, Brazzaville, Madagascar, Cambodia, Congo Democratic, Rwanda, Nepal, the Philippines, Liberia, Uganda, Kenya, India, Malawi, Cameroon, Ghana, Mozambique, Benin, Ethiopia, Nigeria, Chad, Guinea, Mali, Senegal, Niger, and Azerbaijan. All DHS data that Adamczyks and Hayes (2012) used was collected in 2012. Though Abalos and colleagues (2003) also used a DHS sample from the Philippines, they used DHS data from 2003, instead of 2012. Likewise, Hill and colleagues (2004) used DHS data from Brazil, but their data was from the year 1996, instead of Adamczyk's 2012 Brazil DHS data. Because DHS data is cross-sectional, not longitudinal (Corsi et al., 2012), DHS from the same country, but different years, are independent samples. I considered Adamcyzk and Hayes' (2012) study to have an independent sample from Abalos (2003) and from Hill (2004).

### **Other Duplicate Samples**

Two studies (Demaris, 2009; Tuttle & Davis, 2015) used data drawn from Marital Instability Over the Life Course study; therefore, I considered them to have duplicate samples. I only used the effect size once between them and gathered demographic information from both of them.

Two other studies, both by Negash (2016; 2019) had an identical sample size and effect size. Upon further examination, it was clear that Negash used the same sample in both studies. I considered the Negash (2016; 2019) studies to be duplicates of each other, so only included the effect size once and gathered demographic information from both studies.

Treas and Giesen (2000) and Huey (2002) both used data from the National Health and Social Life Survey (NHSLS). Because the NHSLS was conducted at one time, I consider these studies duplicate samples. However, the studies used slightly different inclusion criteria for participants, resulting in different sample sizes. I used the data from Huey (2002) because they used a larger sample size (n = 3,432) than Treas and Giesen (2000; n = 2,598). Therefore, I did not use the data from Treas and Giesen (2000).

Once all inclusion and exclusion criteria were taken into account, 34 studies were included in this meta-analysis. See Figure 1 for a visual representation of article selection and inclusion.

### Coding

Studies that meet inclusion and exclusion criteria were coded by the first author, using an Excel spreadsheet. Then, articles were assigned to undergraduate coders. I trained undergraduate

coders in the use of a Google Form created specifically for this study, which I have uploaded to the OSF website listed above. The undergraduate coders coded all the studies included in the analyses. I resolved coding inconsistencies by directly examining the respective studies and

# Figure 1

# Article Selection and Inclusion in Religiosity-Infidelity Meta-Analysis



Note. The work of Page and colleagues (2021) was a template for this figure.

making the final decision. The following information was coded: study characteristics, sample characteristics, measurement characteristics, design characteristics, and effect sizes.

# **Study Characteristics**

Study characteristics coded include the year of publication, year of data collection, source of study (i.e. journal title), whether the study had been published in a peer-reviewed journal, sources of funding, and method of sample selection (snowball sampling, random digit dialing, cluster sampling, probability sample, convenience sample). Because the percentage of people who identify as religious (Pew Research Center, 2014) has changed over time, the year of study publication (or the year of data collection if older archival data was used), might moderate the relationship between religiosity and infidelity. Given that rates of infidelity and religiosity differ by demographic characteristics such as gender (Whisman et al., 2007; Wiederman, 1997), nationally representative samples are more likely to be generalizable to the population than convenience samples.

# Sample Characteristics

Sample characteristics coded included total sample size, sample size for women, sample size for men, mean age and standard deviation of age for men and women separately, relationship status of sample (single, dating, cohabiting, married), percentage sexual minority, country where sample was obtained, percentage racial minority, average combined family income, average years of education, percentage of couples with children, average length of relationship, and whether the sample was recruited from a college population.

All studies reported on the relationship status of their samples. I dummy coded studies based on whether the sample was married, with "0" indicating "not married" and "1" indicating

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"married". Fifteen studies had married samples, while nine studies had samples that were not married. Complicating matters, ten studies had samples that were "mixed" with respect to marriage (i.e., some participants were married, some were not). I ran two grouped comparisons by relationship status: one analysis using only two categories (i.e., "married" and "not married," with mixed relationship status studies excluded) and one analysis using three categories (i.e., "married," "not married," and "mixed"). Additionally, one study (Spanier, 1983) only included divorced or separated participants, and so was excluded from the relationship status moderation analysis.

## **Measurement Characteristics**

Measurement characteristics that were coded include measurement of religiosity and measurement of infidelity. Measurement of religiosity in the included studies is heterogeneous. Studies were coded based on how they measure religiosity, including any specific measures of religiosity used, the number of questions asked about religiosity, and the specific wording of the question(s) about religiosity. I'm specifically interested in whether studies define religiosity as religious service attendance, as Atkins (2008) found that religious service attendance had a stronger relationship with infidelity than did other measures of religiosity, such as religious affiliation and belief in specific religious tenets. I dummy coded all effect sizes for whether they measured religiosity as religious service attendance (coded as "1") or whether they measured religiosity some other way (e.g., religious affiliation, importance of religion, coded as "0"). I chose this method of coding religiosity to test my hypothesis that, in line with the research by Atkins (2008), the religiosity-infidelity relationship will be stronger for religious service attendance than for other measures of religiosity. Additionally, I dummy coded all effect sizes for whether they measure religiosity (coded as "0") or whether they measure spirituality or sanctification (coded as "1").

Measurement of infidelity in the included studies is also heterogeneous. As Blow and Hartnett (2005) noted, few studies of infidelity use the same measures of infidelity. Many studies use a single question (e.g., Atkins & Kessel, 2008; Esselmont & Bierman, 2004), while few use established measures (e.g., The Infidelity Scale [TIS; Drigotas et al. 1999]). I coded each effect size for whether it measures physical infidelity (coded as "0") or emotional infidelity (coded as "1").

# **Design Characteristics**

Design characteristics that were coded included study design (longitudinal, experimental, or cross-sectional) and whether the data was collected in-person or not in-person (e.g., through the internet, through mail). Studies about the relationship between religiosity and infidelity have used multiple methods of obtaining information from participants, such as in-person interviews (e.g., Adamczyk & Hayes, 2012; Atkins & Kessel, 2008; Burdette et al., 2007), mail-in questionnaires (e.g., Tuttle & Davis, 2015), and online surveys (e.g., Fincham et al., 2010; Norona et al., 2016).

#### Statistical Information

Statistical information that was coded includes effect sizes and standard errors of the relationship between religiosity and infidelity. Of the 34 studies included in the statistical analysis, 10 studies report Pearson's *r*, 7 report odds ratios, 5 report Chi Square, 4 report t values, 4 report means and standard deviations of infidelity by religious groups, 3 report log odds ratios, 1 reports Cohen's *d*, 1 reports risk ratios, 1 reports number of infidelity events per religious group, and 1 reports a log hazard ratio. In the appendix, see Table 1 for a description of the

characteristics of the 34 studies, Table 2 for a description of study effect sizes, Table 3 for a more detailed description of the measurement of religiosity, and Table 4 for a more detailed description of the measurement of infidelity.

#### **Statistical Analysis**

#### **Publication Bias**

To test for publication bias, I used Duval and Tweedie's *Trim and Fill* (2000) procedure to estimate an unbiased effect size by trimming the most extreme small studies of a funnel plot and re-computing the effect size until the funnel plot is symmetrical. I used Comprehensive Meta-Analysis Version III and selected the options: look for missing studies "to left of mean" and look for missing studies using "random-effects model."

## **Overall Religiosity and Infidelity Relationship**

I used Comprehensive Meta-Analysis (CMA) to run an analysis of the relationship between religiosity and infidelity in general, using pooled effect sizes for both religiosity and infidelity. I represented effect sizes as Pearson correlations (*r*). Because included studies vary in their statistical procedures and reported effect sizes, I used CMA to convert other effect sizes (e.g., Cohen's *d*, odds ratios) to *r* to include as many studies as possible (Borenstein et al., 2013). I consider mean effect sizes significant if the 95% confidence intervals do not include zero.

Many studies included multiple effect sizes for the religiosity-infidelity relationship. Using more than one effect size from the same sample is problematic because it leads to studies with a greater number of reported effect sizes being weighted more highly than studies with fewer effect sizes (Borenstein et al., 2013). In addition, including multiple effect sizes from the same sample in the same study violates the statistical assumption of independence of observations, leading to an underestimation of the error of the summary effect if effect sizes from the same sample are correlated (Borenstein et al., 2013; Lipsey & Wilson, 2001). Lipsey and Wison (2001) outline two options when one study reports more than one relevant effect size: 1) select a single effect size from among them, either randomly or based on some criteria; 2) average all relevant study effect sizes into a single effect size for the study.

For my first analysis, I was interested in creating an average effect size for the religiosityinfidelity relationship overall, including as much information as possible. Therefore, I chose the second option outlined by Lipsey and Wilson (2001), averaging the study effect sizes to create a single average effect size per study. To do so, I created a table in CMA listing all religiosityinfidelity effect sizes, by study, and selected the "use study as the unit of analysis" and "use the mean of the selected comparisons" (while selecting all studies and all comparisons) options in the "select by" window in the analysis module.

#### Multiple Samples Within Studies

For studies where multiple effect sizes are reported, but the effect sizes are from entirely different samples (e.g., one effect size from "Study 1" and another from "Study 2" as in Fincham, 2010; one effect size from a US sample and another effect size from a German sample as in Smith, 2012), I included all effect sizes and treated them as independent samples. After I accounted for independent samples within studies, the total k (i.e., number of independent samples analyzed) for this meta-analysis was 37.

Averaging the within-study effect sizes of studies that used odds ratios proved challenging because studies used different reference categories. Of the 12 studies that reported their religiosity-infidelity effect sizes only as odds ratios, 3 used reference categories indicating less religiosity (e.g., no religion, never attending religious services) while 6 used reference categories indicating more religiosity (e.g., identifying with a specific religion, attending religious services more often). For averaged effect sizes to be interpretable, I chose to use the category indicating less religiosity (e.g., "no religion,") as the reference category for all studies. I only selected odds ratios that resulted from comparisons of more religious individuals to less religious individuals; therefore, effect sizes that compared one religious affiliation to another (e.g., Muslims and Christians) were not included. This decision resulted in the elimination of three studies that only reported on the religiosity-infidelity relationship as compared between different religious affiliations (Isiugo-Abanihe, 1994; Kongnuy, 2007; Mitsunaga, 2005).

For my subsequent analyses of how the measurement of infidelity and the measurement of religiosity affect the strength of the religiosity-infidelity effect size, I was interested in examining whether differences in measurement affected the strength of the effect size. Therefore, I chose one effect size per study, based on criteria that I describe in the relevant sections below.

### **Religiosity and Infidelity Relationship by Religiosity Measurement**

To analyze whether different measures of religiosity are differently related to infidelity, I conducted a planned grouped comparison by dummy coded religious service attendance vs. other measures of religiosity.

Multiple studies differentiated between religiosity and spirituality or sanctification (e.g., McAllister et al., 2020; Rayesh, 2018). To test whether the relationship between religiosity and infidelity differs from the relationship between spirituality and infidelity, I conducted a grouped comparison by dummy coded religiosity vs. spirituality.

#### **Physical Versus Emotional Infidelity**

Finally, in order to analyze whether emotional and physical infidelity are differently related to religiosity, I conducted a planned grouped comparison by dummy coded emotional vs. physical infidelity.

## **Power Analysis**

I conducted a post hoc power analysis, using the methods for power analysis in metaanalysis outlined by Valetine and colleagues (2010) and imputed into an excel spreadsheet by Quintana and Tiebel (2019).

## Missingness

For each moderator variable that had any missing data, I created a "missingness" variable, dummy coded as "0" indicating "not missing" and "1" indicating "missing". I then conducted a sensitivity analysis for all types of missing data by conducting pairwise correlations of missingness and precalculated effect size using the pwcorr command in Stata.

### Results

## **Descriptive Characteristics**

I used data and effect sizes from 34 studies that examined the relationship between religiosity and infidelity. The combined sample size of all 34 studies included 60,952 individuals. Twenty-six of the 34 studies measured only physical infidelity, while four studies measured both physical and emotional infidelity, and four studies did not clearly differentiate between physical and emotional infidelity. No study measured emotional infidelity only. Nine of the 34 studies defined religiosity as religious service attendance, while 25 studies defined religiosity otherwise (e.g., affiliation, the importance of religion, specific religious beliefs). The average gender composition of the samples was 49% men and 51% women. Eleven studies had samples from outside of the United States. Of the studies conducted with samples from the United States and other majority-white nations, the average percentage of white participants in studies was 88%. Twenty-nine of the studies were published in peer-review journals, while five studies were dissertations or theses (none of which were repeated in journal articles). See Table 1 in the appendix for a summary of study characteristics.

# **Overall Religiosity and Infidelity Relationship**

The random-effects weighted average of the relationship between religiosity and infidelity was r = -.07 (95% CI [-.13, -.005]; see Figure 2 for a forest plot). Because the confidence interval does not include zero, this is a statistically significant effect but is considered small using Cohen's criteria (1977, 1988). However, a large degree of heterogeneity (Q = 2485.52, p < 0.001;  $I^2 = 98.55$ ) existed in this analysis, suggesting that effect sizes varied greatly between studies. To attempt to explain the large amount of variance between the effect sizes of different studies, I conducted several meta-regressions and grouped comparisons.

# Figure 2

Study name	s	Statistics for each study			
	Correlation	Lower limit	Upper limit	Z-Value	p-Value
Abelos (2004)	-0.578	-0.597	-0.558	-44.340	0000
Adampaulau (2013	-0.062	-0.089	-0.035	-4.469	0.000
Ali (2001)	-0.075	-0.198	0.049	-1.187	0.235
Allen (2008)	-0.094	-0.182	-0.005	-2080	0.038
Behar (2018)	-0.387	-0.515	-0242	-4965	0.000
Chai (1994)	0.382	0.189	0.547	3738	0.000
Covart (2018)	-0.031	-0.156	0.095	-0.480	0.631
Edwards (1976)	-0.052	-0.139	0.035	-1.173	0.241
Esselment (2014)	0.250	0.227	0.272	20,701	0000
Findhem(2010) Study1	-0.100	-0.199	0.001	-1995	0053
Finchem(2010) Study2	-0,403	-0.615	-0.136	-2886	0.004
Gonzalez (2013)	0003	-0025	0000	0.196	0845
Hansen (1987)	-0.196	-0.322	-0.063	-2866	0.004
HII (2004)	0398	0.158	0.586	3178	0.001
. Idonston (1997)	-0.363	-0503	-0204	-4303	000
Khesmakhi (2018)	000	-0109	0109	0000	1000
Liu(200)	-0028	-0053	-0075	-2219	0.026
Matthy Shaw (2013)	-0.065	-0105	-0025	-3175	0001
Mahammar (2018)	-0082	-0098	_0025	-3313	0001
Mark(2011)	_0.02	_0171	-0.042	-3268	0001
Martine (201/1)	-0.150	-0008	0300	1967	0082
Martine (2016)	00/12	-0037	0121	1050	0.002
McAllictor (2000)	0002	-0.0071	0.076	0.070	00/0
Norman (2016 2010)	0000	-0.07	0,007	0502	0612
Neyddi 1(2010, 2019) Newdan (2016)	0.040	-0.007	0.400	0005	0000
NUU B(2010)	0.243		0.406	2000	uuus
Haller (2011)	-0.148	-0239	-0,000	-3060	
Hayesh (2018)	-01/0	-0259	-00/8	-3593	0000
Scheeren (2019)	-0.323	-0.572	-0.020	-2081	0.037
Smith (2012): German	-0.029	-0.063	0006	-1.625	0.104
Smith (2012): UK	-0.074	-0.102	-0.045	-5.052	0.000
Smith (2012): US	-0.060	-0.077	-0.042	-6.766	0.000
Spanier (1983)	-0.162	-0.293	-0.026	-2327	0.020
Trinitapoli (2006)	0.051	0.019	0.082	3.157	0.002
Vail-Smith (2010)	-0.075	-0.163	0.015	-1.642	0.101
Whisman (2007)	-0.055	-0.075	-0.035	-5.440	0.000
Whisman (2007): married	-0.177	-0.284	-0.067	-3.120	0.002
Williams (2010)	-0.101	-0.148	-0.053	-4.086	0.000
	-0.068	-0.131	-0.005	-2128	0.033

## Forest Plot for the Overall Relationship Between Religiosity and Infidelity

Of note, the Abalos (2004) study had the largest effect of all the studies, as well as a large sample size. The Abalos (2004) study also has unique characteristics compared to other studies included in this meta-analysis; it is the only study conducted with a sample from the Philippines, and one of few studies with an entirely male sample. Additionally, it asked only 2 questions about infidelity and 1 question about religiosity, with no reported psychometric information about either. Due to the large effect size, unique characteristics, and poor measurement of the study, I conducted a sensitivity analysis by excluding Abalos (2004) using the "one study removed" option on CMA. The sensitivity analysis found a lower effect size that remained

statistically significant (r = -.05, 95% CI [-.09, -.01]). Though the Abalos (2004) study has a noteworthy effect on the overall religiosity-infidelity effect size, the religiosity-infidelity relationship remains inverse and statistically significant when it is excluded.

I conducted a post hoc power analysis using the formulas outlined by Valentine (2010) imputed into an Excel spreadsheet by Quintana and Tiebel (2017). I imputed the observed correlation for the overall religiosity-infidelity relationship (r = .07), the number of effect sizes (37) and the average sample size per study (n = 1,741). According to this power analysis, with either high, medium, or low degrees of heterogeneity, the  $1 - \beta$  error probability is 1.0. In other words, this meta-analysis had full power to detect the small effect size in the religiosity-infidelity relationship. The overall religiosity-infidelity relationship was inverse, small according to Cohen's criteria (1977, 1988), and statistically significant, though effect sizes varied widely between studies.

#### **Publication Bias**

According to a random effect model of Duval and Tweedle's (2000) Trim and Fill, the adjusted point estimate was r = -0.14 (95% CI [-.21, -.08]), which is a small effect size according to Cohen's (1977, 1988) criteria and is statistically significant. This adjusted point estimate was larger in magnitude than the point estimate for observed values (r = -.07, 95% CI [-.13, -.003]), suggesting some bias as a result of potentially missing studies.

## Figure 3



Funnel Plot of Standard Error by Fisher's Z



## Measurement of Religiosity as a Moderator

To test my hypothesis that effect sizes for the religiosity-infidelity relationship would be larger for studies that measured religiosity as religious service attendance, I conducted a randomeffects analysis, with effect sizes grouped by measurement of religiosity. Studies whose measure of religiosity included both religious service attendance and other domains of religiosity (e.g., affiliation, importance of religion), but did not disaggregate the two, were not included in this analysis. Nine studies did not clearly differentiate between religious service attendance and other forms of religiosity, and so were treated as missing data. Missingness in whether studies measured religious service attendance was not significantly correlated with religiosity-infidelity effect size (r = -.14, p = .17). A random-effects analysis grouped by religiosity measurement found that studies that defined religiosity as religious service attendance had a small effect size that was statistically significant (r = -.05, 95% CI [-.08, -.03]), while studies that defined religiosity otherwise had a small effect size that was not statistically significant because it had a wider confidence interval (r = -.09, 95% CI [-.23, .06]). A Z-test found that studies that measured religious service attendance had a significantly different effect size than studies that measured religion in other ways (Z = -4.36 p < .01). In summary, and contrary to my hypothesis, both religious service attendance and other measures of religiosity were inversely related to infidelity, and the relationship between non-attendance measures of religiosity (though not statistically significant) was larger than the relationship between religious service attendance and religiosity.

I next conducted an exploratory random-effects grouped comparison of studies that measured the religiosity-infidelity relationship to studies that measured the spirituality/sanctification-infidelity relationship. I added a dummy coded variable of religiosity versus spirituality (effect sizes in which religiosity was measured were coded as "0," while effect sizes in which spirituality or sanctification was measured were coded as "1"). Three studies did not clearly differentiate between religiosity and spirituality/sanctification, and so were treated as missing data. The religiosity-infidelity relationship was small and not statistically significant (r = -.05, 95% CI [-.12, .02]). The spirituality/sanctification-infidelity relationship, in contrast, was statistically significant and approached medium effect (r = -.18, 95% CI [-.28, -.06]). A Z-test found that the two groups did *not* significantly differ from each other in effect size (Z = -1.67, p = .09). Missingness in the religiosity versus spirituality variable was not significantly correlated with religiosity-infidelity effect size (r = -.12, p = .22). In summary, though the spirituality-infidelity effect size, the relationship

between sanctification/spirituality and infidelity was not significantly different from the relationship between religiosity and infidelity.

## **Physical Versus Emotional Infidelity**

I dummy coded the measurement of infidelity, with effect sizes that measured physical infidelity coded as "0" and effect sizes that measured emotional infidelity coded as "1". I left the seven studies that did not clearly differentiate between physical and emotional infidelity "blank" and treated them as missing data. I conducted a random-effects model, grouped by infidelity measurement. The pooled effect size for physical infidelity was negative, small, and not statistically significant (r = -.08, 95% CI [-.18, .03]). The pooled effect size for emotional infidelity was positive, small, and not statistically significant (r = .03, 95% CI [-.01, .07]). A *Z*-test found that the pooled effect sizes for physical infidelity and emotional infidelity were not significantly different from each other (Z = -0.57, p > .05). Missingness in physical versus emotional infidelity was not significantly correlated with religiosity-infidelity effect size (r = -.13, p > .05). In summary, the relationship between religiosity and emotional infidelity was not statistically significantly different from the relationship between religiosity and physical infidelity.

#### **Other Moderators**

Because measurement characteristics explained little of the heterogeneity in effect sizes, I examined whether demographic characteristics of the samples better explained heterogeneity.

## **Relationship Status**

I conducted a mixed-effects grouped comparison of the religiosity-infidelity relationship by dummy coded relationship status (i.e., married versus not married). Studies with both unmarried (r = -.02, 95% CI [-.08, .04]) and married (r = -.06, 95% CI [-.13, .02]) participants had a small and inverse, but not statistically significant, religiosity-infidelity relationship. A *Z*test found that the two groups were not significantly different from one another (Z = -1.56, p >.05). I also conducted a three-level mixed-effects grouped comparison of the religiosity-infidelity relationship by sample relationship status (i.e., married, unmarried, versus mixed). This threelevel analysis found that mixed relationship status samples had a larger relationship between religiosity and infidelity (r = -.11, 95% CI [-.24, .03]) than married samples (r = -.06, 95% [-.14, .02]) or unmarried samples (r = -.03, 95% CI [-.09, .04]; Z = -1.99, p < .05), though none of the correlations were statistically significant. Contrary to my hypothesis, relationship status (as defined by whether participants were married) did not appear to have a significant effect on the religiosity-infidelity relationship.

#### Gender

I had hypothesized that the gender composition of the samples would not significantly moderate the religiosity-infidelity relationship. To test this, I coded each effect size for the proportion of women represented in that sample (a decimal from 0 to 1) and conducted a meta-regression of the religiosity-infidelity effect size on the proportion of women. The percentage of women in the samples ranged from 0 to 100. This meta-regression found that the gender makeup of samples was not a statistically significant predictor of the religiosity-infidelity effect size ( $\beta$  = -.08, 95% CI [-.21, .04]). Data on the gender composition of the samples was missing for two studies and missingness in gender data was not significantly correlated with religiosity-infidelity effect size (r = .16, p = .11). The gender composition of samples was not significantly related to the strength of the religiosity-infidelity relationship.

Race

I had hypothesized that samples with larger proportions of BIPOC would have a stronger relationship between religiosity and infidelity. To test this, I coded each effect size for which the sample came from a majority-white country for the proportion of the sample who is a racial or ethnic minority, represented as a decimal from 0 to 1. I then conducted a meta-regression of the religiosity-infidelity effect size on the racial makeup of the samples. This meta-regression found that the racial makeup of the samples was not a statistically significant predictor of the religiosity-infidelity effect size (p > .05). However, only 17 of the 34 studies reported the racial makeup of their sample, meaning that data on race was missing for over half of the studies. Missingness in reporting the racial composition of the sample was not significantly correlated with religiosity-infidelity effect size (r = ..06, p = .57). At the sample level, race does not appear to be a predictor of the strength of the religiosity-infidelity relationship.

## Nationally Representative

I had hypothesized that the religiosity-infidelity effect size would be smaller for studies with nationally representative samples than for studies that did not have nationally representative samples. To test this, I dummy-coded each effect size for whether the sample was nationally representative, with "0" indicating "not nationally representative," and "1" indicating "nationally representative." I conducted a mixed-effects analysis grouped by whether samples were nationally representative. The religiosity-infidelity relationship was small for both nationally representative (r = -.051, 95% CI [-.20, .10]) and unrepresentative studies (r = -.064, 95% CI [-.10, -0.03]). A Z-test found that the two groups were statistically significantly different from one another (Z = -3.59, p > .001). The relationship between religiosity and infidelity was slightly weaker for studies that had nationally representative samples, compared to studies that had unrepresentative samples.

# Study Design

I had hypothesized that cross-sectional studies would have larger effect sizes than longitudinal studies. To test this, I dummy coded each effect size for whether studies were correlational (coded as "0") or longitudinal (coded as "1"). Twenty-nine studies used a correlational design, while five studies used a longitudinal design. One study by Fincham (2010) used an experimental design, which I chose not to include in this analysis due to the strong conceptual differences between an experimental design (i.e., controlling and manipulating variables through random assignment to examine the question of causation) and correlational and non-experimental longitudinal designs (i.e., observing relationships as they occur without random assignment).

I conducted a mixed-effects analysis grouped by study type (correlational or longitudinal). Both cross-sectional (r = -.058, 95% CI [-.13, .02]) and longitudinal studies (r = -.063, 95% CI [-.09, -.04]) had small effect sizes for the religiosity-infidelity relationship, though only the effect size for longitudinal studies was statistically significant. A Z-test found that the two groups were different from one another (Z = -6.09, p < .001). In other words, correlational studies had a stronger relationship between religiosity and infidelity than longitudinal studies.

#### **Peer-Reviewed**

I hypothesized that studies that were published in peer-reviewed journals would have smaller effect sizes than studies that were not published. To test this, I dummy coded each effect size for whether the study it came from was published in a peer-reviewed journal (coded as "1") or whether it was *not* published in a peer-reviewed journal (coded as "0"). No studies were

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missing data on peer-reviewed status. I conducted a mixed-effects analysis grouped by peerreviewed status. Studies that had been peer-reviewed (r = -.05, 95% CI [-.12, .02]) and studies that had not been peer-reviewed (r = -.14, 95% CI [-.26, -.03]) had a small effect size for the religiosity-infidelity relationship, though the relationship among peer-reviewed studies was not statistically significant. A Z-test found that the two groups (peer-reviewed and not peerreviewed) were different from one another (Z = -2.48, p = .01). In other words, studies that had been peer reviewed had smaller effect sizes than studies that had not been peer reviewed.

#### **Exploratory Analysis**

Though I had not initially made a hypothesis about study location, I noted that the samples for the studies included in this meta-analysis came from a variety of nations. As culture can have an influence on religiosity, infidelity, and expectations about relationships broadly, I conducted an exploratory analysis of the influence of study location on the religiosity-infidelity effect size. To do so, I coded each effect size for the location from which the sample was taken. I used a simplified version of the cultural and political framework of Huntington (1993), who postulated that a "clash of civilizations" would result from profound cultural differences between different regions of the world. Huntington divided the world into ten cultural regions (i.e., Western, Latin American, Orthodox, Eastern, Islamic, Buddhist, Hindu, African, Sinic, Japanese). Huntington's (1993) framework has been criticized for its oversimplification of diverse regions and lack of focus on conflict within civilizations (Fox, 2002; Huntington, 2000); however, given the relatively few nations represented in these studies, a simple model seemed best. Indeed, only seven of the 34 studies included in this meta-analysis were from countries outside of the "Western" classification. Due to small cell sizes using Huntington's (1993) original framework, I collapsed all non-Western civilizations into one category. I then dummy

coded each effect size for whether it came from a Western (coded as "1") or non-Western sample (coded as "0"). I was able to acquire location information for all studies.

I then conducted a mixed-effects analysis grouped by study location (i.e., Western or non-Western). Studies that drew their samples from non-Western civilizations had a small effect that was not statistically significant (r = -.11, 95% CI [-.42, .22]), while studies that drew their samples from Western civilizations had a small and statistically significant effect (r = -.05, 95% CI [-.09, -.01]). A Z-test found that the two groups were different from one another (Z = -2.50, p < .05). In other words, the relationship between religiosity and infidelity was stronger in studies with participants from non-Western countries than in studies with participants from Western countries.

#### **Creating a Model**

To explain the heterogeneity in this meta-analysis, I conducted a meta-regression using the variables that had been significantly related to effect size in previous analyses, namely: measurement of religion as service attendance, nationally representative samples, study location, study design, and publication in a peer-reviewed journal. In this meta-regression, nationally representative samples ( $\beta = -.09$ , 95% CI [-.20, .02]), study design ( $\beta = -.09$ , 95% CI [-.20, .02]), and measurement of religion as service attendance ( $\beta = .07$ , 95% CI [-.04, .18]) were no longer significantly related to the religiosity-infidelity effect size. Study location was a statistically significant predictor of effect size ( $\beta = .17$ , 95% CI [.02, .32]), suggesting that the religiosityinfidelity relationship was larger in countries that are considered part of Western civilization. Publication in a peer-reviewed journal was also a statistically significant predictor of the religiosity-infidelity effect size ( $\beta = .18$ , 95% CI [.03, .32]), suggesting that the religiosityinfidelity relationship was larger in published studies. Overall model fit was somewhat poor, explaining just over 7% of the variance in religiosity-infidelity effect sizes (residual  $l^2 = 7.29\%$ ).

## Discussion

My hypothesis for the overall religiosity-infidelity relationship was that religiosity and infidelity would be inversely related, but that the relationship would be small. In agreement with my hypothesis, the overall religiosity-infidelity relationship was inverse and small according to Cohen's criteria (1977, 1988). In other words, individuals who report that they are more religious are slightly less likely to report infidelity.

Though the relationship between religiosity and infidelity is small in terms of its correlation, it may have a larger practical effect on a systemic level. According to Funder and Ozer (2019), when sample size is large, effects considered "small" under Cohen's criteria (1977, 1988) can accumulate to have a large impact. For example, the correlation between a Major League baseball player's performance in one at-bat and his batting average is only .056, considered small under Cohen's criteria (1977, 1988). However, the cumulative effect of that correlation in many "at-bat's" (about 550 per baseball season) leads to a large difference in outcomes for the individual player and for the entire team. According to this line of thinking, an effect of r = .05, though small in impact on a specific individual's behavior in a specific instance, may be "potentially consequential in the not-very-long-run" (Funder & Ozer, 2019, p. 166).

Similarly, the -.06 correlation between religiosity and infidelity in this large sample size may be "potentially consequential in the not-very-long-run" (Funder & Ozer, 2019, p. 166). Infidelity is relatively common, with up to 34% of men and 19% of women in older age cohorts reporting lifetime incidence of extramarital sex (Wiederman, 1997), and up to 4% of men and nearly 2% of women reporting infidelity each year (Whisman et al., 2007; Wiederman, 1997).

Infidelity has been associated with depression (Cano & O'Leary, 2000; Hall & Fincham, 2009), relationship distress (Previti & Amato, 2004), relationship dissolution (Amato & Rogers, 1997; Negash et al., 2014; Previti & Amato, 2004), and physical health problems due to unsafe sex practices (Choi et al., 1994; Conley, Moors, Ziegler et al., 2012). If we consider infidelity as a public mental, physical, and relational health problem, even small effects are important on a community, national, and global scale. Over thousands, millions, even billions of "at-bats" (i.e., individuals) on this planet, the religiosity-infidelity relationship may lead to material differences in the lives of individuals, couples, and families.

If we treat infidelity as a public mental, physical, and relationship health problem, and if we recognize that, in the aggregate, religiosity and infidelity are inversely correlated, what is to be done? Certainly, it is not ethical to impose religion or spirituality on others, whatever the putative benefits could be. Religion and spirituality are complex constructs, and individuals' reasons for being religious or not are complex and often deeply rooted in their values and culture. Further research might explore the mechanisms behind the relationship between religiosity and infidelity. Regardless, it may be helpful for people to be aware of the association between religiosity and infidelity as they think about and navigate committed relationships.

#### Measurement

I hypothesized that, given the variety of operationalizations of religiosity and infidelity in the literature, how these constructs are measured would explain a significant degree of the variance in study effect sizes. Specifically, I hypothesized that studies that measured religiosity as religious service attendance would have larger effect sizes than studies that measured other domains of religiosity. I also hypothesized that the relationship between religiosity and infidelity would be stronger for physical infidelity than for emotional infidelity.

## Measurement of Religiosity

In this meta-analysis, studies that measured religiosity as religious service attendance had smaller effect sizes than studies that measured religiosity otherwise. In other words, and contrary to my hypothesis and the findings of Atkins and Kessel (2008), the relationship between religiosity and infidelity was *weaker* when "religiosity" was measured as church attendance.

It is unclear why religious service attendance was less strongly related to infidelity than were other measures of religiosity. I had hypothesized that attendance at religious services might lead to individuals tending to be more involved in their religious community (which is composed of individuals who are religious and who are therefore more likely to believe that infidelity is morally wrong), leading them to be more committed to religious beliefs against infidelity and to have fewer opportunities to find an infidelity partner. This effect against infidelity, I believed, would be greater than the effect of merely identifying as religious or affiliating with a particular religion. However, it is possible that the effects of religious service attendance on infidelity are not as strong as I had supposed. Perhaps individuals who attend religious services more often might also tend to be more socially connected, extroverted, and socially experienced than people who are otherwise religious but attend services less often (Bradley, 1995; Bradley et al., 2020). This tendency towards extroversion and social connectedness could logically enable infidelity, as infidelity involves relationships. In other words, those who attend religious services more frequently may also tend to have a larger social network, which may provide more opportunities for finding an extradyadic partner.

Alternatively, domains of religiosity other than service attendance may simply be more strongly related to infidelity. For example, many of the studies included in the non-attendance group measured religiosity as a person's rating of the importance of religion in their life, or how religious they perceive themselves to be. These measurements of religiosity may tap into more intrinsic components of religiosity, that is, being religious for the sake of being religious (Allport, 1963). The difference between intrinsic and extrinsic religiosity is considered to be one of motivation, with extrinsic religiosity being instrumental, involving being motivated by some external punishment or reward, such as fear of the afterlife or desire for acceptance in a religious community (Hunt & King, 1971). It could be that service attendance may be more closely associated with extrinsic religiosity than with intrinsic religiosity, and intrinsic religiosity more strongly protects against infidelity. Testing this hypothesis in this meta-analysis was not feasible, due to only one study using measures that clearly differentiated between intrinsic and extrinsic religiosity (Norona et al., 2016). Interestingly, this study was one of the few in this sample to find that higher religiosity, measured as intrinsic religiosity, was associated with higher infidelity, further muddying the waters. The field could benefit from further research into the possible differences in the relationships between intrinsic religiosity and infidelity and extrinsic religiosity and infidelity.

## **Spirituality**

The relationship between spirituality/sanctification and infidelity approached medium effect and the relationship between religiosity and infidelity had a small effect that was not statistically significant; however, a *Z*-test found that the religiosity-infidelity and spirituality-infidelity groups were not statistically different from one another. This analysis was exploratory, and results must be interpreted with caution, especially since only four studies reported information on the spirituality/sanctification-infidelity relationship (Cowart, 2018; Fincham et al., 2010; McAllister et al., 2020; Rayesh, 2018). Though this finding is interesting and may

point to possible differences between the religiosity-infidelity relationship and the spiritualityinfidelity relationship, it should be interpreted with caution.

Compared to religiosity, which tends to focus on affiliation with and participation in an organized religious group, spirituality and sanctification are considered internal and personal constructs (Koenig et al., 2001). Sanctification is considered a more specific aspect of spirituality and is the belief that an aspect of one's life, in this case one's relationship, is sacred (Mahoney et al., 2001; Pargament & Mahoney, 2005). The belief that one's relationship is sacred would logically lead one to highly value one's relationship and avoid threats to relationship quality. Infidelity can be a threat to the quality and even the existence of romantic relationships (Amato & Rogers, 1997; Negash et al., 2014; Previti & Amato, 2004); therefore, someone who considers their relationship sacred may be likely to avoid infidelity. Perhaps one's specific beliefs about the sacredness of one's relationship are more strongly connected to avoidance of infidelity than religiosity is.

It is also important to note that I did not distinguish between spirituality and sanctification in this meta-analysis because there were too few studies to provide adequate power. Because of this aggregation of spirituality and sanctification, it is unclear what, if any, the difference might be between the sanctification-infidelity relationship and the spiritualityinfidelity relationship. Conceptually, it is logical that sanctification of relationships might be more strongly related to infidelity than spirituality and infidelity, given that sanctification of relationships is clearly conceptually related to one's views of relationships, whereas general spirituality may not be directly related to one's views of relationships. For example, one could identify as spiritual and perceive no moral issue with infidelity, while it seems more unlikely that someone who identifies their relationship as sacred would perceive no moral issue with infidelity. Further studies on the relationship between sanctification of relationships and infidelity, and whether this is different from the relationship between spirituality more generally and infidelity, may be helpful.

# **Physical Versus Emotional Infidelity**

I had hypothesized that the relationship between religiosity and infidelity would be stronger for physical infidelity than for emotional infidelity. I hypothesized this due to most religious texts' clearer focus on physical infidelity compared to emotional infidelity. For example, the Hebrew Bible commands against "lying with the wife of another man," (Deuteronomy 22:22, New Revised Standard Version), and multiple religious texts use the word "adultery," (e.g., Qur'an 17:32; Vishnu Purana 3:11; 1 Corinthians 6:9-10), widely understood to mean sexual relations with an extramarital partner (Abasili, 2016; Korbatieh, 2018). Given that religious texts generally tend to advocate against physical infidelity more strongly than against emotional infidelity, I expected that religiosity would have a stronger effect on physical infidelity than on emotional infidelity.

Contrary to my hypothesis, this meta-analysis found that the relationship between religiosity and physical infidelity was not statistically significantly different from the relationship between religiosity and emotional infidelity. This is interesting given research on more religious people being more likely than less religious people to perceive ambiguous behaviors as emotional infidelity (Mattingly et al., 2010; Nagurney et al., 2019). Given that all studies included in this meta-analysis used self-report measures of infidelity and many do not clearly and behaviorally define emotional infidelity, it could be that the relationship between religiosity and emotional infidelity is artificially inflated. In other words, without clear definitions of emotional

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infidelity, more religious people might be more likely to report emotional infidelity for the same behavior than non-religious people would be.

It is also possible that the relationship between religiosity and emotional infidelity is similarly strong to the relationship between religiosity and physical infidelity. Though many ancient religious texts focus more clearly on teaching against physical infidelity, some also include messages against emotional infidelity. For example, Jesus taught, "everyone who looks at a woman with lust has already committed adultery with her in his heart" (Matthew 5:28, New Revised Standard Version). Indeed, religious people may tend to rate more behaviors as constituting emotional infidelity, which seems unlikely to indicate a lack of taking emotional infidelity seriously (Mattingly et al., 2010; Nagurney et al., 2019). Perhaps, in modern religious circles, emotional infidelity and physical infidelity are both considered problematic. This current meta-analysis shows no difference in the religiosity-physical infidelity and the religiosityemotional infidelity relationship, insofar as these constructs are measured by ambiguous selfreport. More studies examining possible differences between the religiosity-physical infidelity and the religiosity-emotional infidelity relationship may be beneficial.

### **Other Moderators**

#### **Relationship Status**

I had hypothesized that the religiosity-infidelity relationship would be stronger in married samples than in unmarried samples. I had believed the religiosity-infidelity relationship would be stronger among married samples due to strong religious messages surrounding the importance, even sacredness, of marriage, while many religious texts say less about the importance of nonmarriage romantic relationships. Contrary to my hypothesis, married samples and unmarried samples were not significantly different from each other with respect to the strength of the religiosity-infidelity relationship. It is possible that marriage has a selection effect based on religion. More religious people are more likely to believe that marriage is important and to choose to get married (Liefbroer & Rijken, 2019; Rendon et al., 2014), and getting married is associated with increased religiosity (Thornton et al., 1992). It could be that the on-average higher religiosity among married individuals leads to a somewhat restricted range of religiosity, making differences in the religiosity-infidelity relationship by marital status difficult to detect.

Additionally, my decision to make sample marital status a dichotomy resulted in the exclusion of ten studies with samples that were partially married, partially unmarried. Removing nearly a third of the studies likely resulted in decreased power and ability to detect a small difference, if it existed. Overall, the religiosity-infidelity relationship does not appear to be significantly different based on marital status, though this may be in part an artifact of the relationship between religiosity and marriage.

## Gender

I hypothesized that the gender composition of the samples would not be related to religiosity-infidelity effect sizes, and my findings were consistent with this hypothesis. Samples with more women were no more or less likely than samples with more men to have a strong religiosity-infidelity relationship. In many religions, infidelity has been a gendered topic. The Hebrew Bible prescribes, "if a man is caught lying with the wife of another man, both of them shall die" (Deuteronomy 22:22, New Revised Standard Version), with no direct proscription again a woman "lying with the husband of another" woman, or against a married man "lying with" an unmarried woman. In other words, according to a strict interpretation, married men may "lie with" another woman, as long as she is not married. In the New Testament, Jesus' teachings against infidelity focus on discouraging men from infidelity with women (Matthew 5:28).

Likewise, Gautama Buddha, as quoted in the Parabhava Sutta, focused on urging against infidelity with female partners; "not to be contented with one's own wife, and to be seen with harlots and the wives of others -- this is a cause of one's downfall". Due to these gendered religious descriptions of infidelity, it would be logical to suspect that the religiosity-infidelity relationship might be moderated by gender.

Despite the gendered nature of many scriptural comments surrounding infidelity, overall gender composition of the sample was not significantly related to the strength of the religiosity-infidelity relationship. It could be that gendered descriptions of infidelity in religious texts have not affected the sexual and relationship scripts of religious people in a gendered way. Perhaps sources other than religion—including media, family, school, and secular cultures—have a larger influence on sexual scripts than religious texts do. It is also possible that modern religious messages against infidelity are less gendered than religious texts (many of which were written hundreds or thousands of years ago) would indicate. Indeed, some religious scholars of multiple faiths have argued for feminist interpretations of sacred texts, in which individuals of all genders are equally responsible for their own infidelity (e.g., Mernissi, 1991; Ruether, 1998). Whatever the reason, on a meta-analytic level, gender does not moderate the religiosity infidelity relationship.

## Race

I hypothesized that the relationship between religiosity and infidelity would be stronger for samples with a higher proportion of BIPOC+. Contrary to my hypothesis, the racial makeup of the samples was not statistically significantly related to the strength of the religiosity-infidelity relationship. This result is surprising, given findings that race was a significant moderating variable of the religiosity-infidelity relationship (e.g., Choi et al., 1994). In a nationally representative and large sample, Choi (1994) and colleagues found that the religiosity-infidelity relationship, as measured by church attendance, was inversely related to infidelity for Black and Hispanic people, but not for white people. They attributed this difference to the importance of religious institutions in Black and Hispanic cultures and communities. Overall, in this metaanalysis, the religiosity-infidelity relationship was not significantly moderated by the racial composition of the samples. Admittedly, my operationalization of race (i.e., in majority-white countries, the percent of the sample that was BIPOC+) is crude, and more than half of the studies included did not report the racial makeup of their samples. Due to the small number of studies that disaggregated the religiosity-infidelity relationship by race, I was unable to do paired comparisons of different racial groups. Further research is necessary to examine whether the religiosity-infidelity relationship is moderated by race.

#### Nationally Representative

I hypothesized that effect sizes would be smaller for studies that are not nationally representative, compared to studies that are nationally representative. In theory, samples that are nationally representative are more characteristic of the populations from which they are drawn than samples that are not, meaning that nationally representative samples might be considered to more accurately reflect the population country than samples that are not representative (Elfil & Negida, 2017). In accordance with my hypothesis, the religiosity-infidelity relationship was smaller in magnitude for nationally representative studies. This suggests that non-representative sample characteristics of studies that were not representative may have artificially inflated the religiosity-infidelity relationship.

Interestingly, the gender and racial composition of studies were not statistically significantly related to the strength of the religiosity-infidelity relationship, suggesting that other

sample characteristics might explain the difference in the religiosity-infidelity relationship by sample representativeness. Unfortunately, I was unable to examine whether other sample characteristics, such as mean age, socioeconomic status, and whether couples have children, are related to the religiosity-infidelity effect size, due to few studies reporting this information. Ultimately, it is unclear why the religiosity-infidelity relationship was weaker in nationally representative studies.

## **Cross-Sectional Versus Longitudinal**

I also hypothesized that cross-sectional studies would have larger effect sizes, compared to longitudinal studies. Results were consistent with this hypothesis; cross-sectional studies had a smaller effect size compared to longitudinal studies. This suggests that, though religiosity and infidelity are related both cross-sectionally and longitudinally, the religiosity-infidelity relationship is smaller longitudinally. Though higher baseline religiosity is related to a lower likelihood of infidelity over time, the smaller relationship for longitudinal studies suggests that some of the cross-sectional correlation in religiosity and infidelity may be due to the effect of infidelity on religiosity. In other words, it is possible that having engaged in infidelity may also decrease religiosity.

The possibility of infidelity leading to decreased religiosity, and not just religiosity predicting infidelity, is consistent with cognitive dissonance theory. Cognitive dissonance theory, as proposed by Festinger (1957), suggests that two cognitions that are related to one another can either be consonant (meaning they are logically compatible) or dissonant (meaning that they cannot both be true). Cognitive dissonance results in psychological discomfort, which people generally try to reduce through avoidance or changing one of the two cognitions (Harmon-Jones & Mills, 2019). In other words, beliefs often change to conform to behavior, rather than behavior

following beliefs. Applied to the religiosity-infidelity relationship, cognitive dissonance theory suggests that individuals who engage in infidelity, but who also believe that infidelity is wrong, would be faced with dissonance discomfort due to the incompatibility of their beliefs about infidelity (which may be religiously driven) and their knowledge of their own infidelity. To reduce dissonance discomfort, individuals may, even unintentionally, change their beliefs about infidelity, which may also involve changing their beliefs about religion. In other words, it may be that infidelity predicts decreased religiosity over time. However, this is speculation, and I could not test this hypothesis in this meta-analysis, as most longitudinal studies I included focused on religiosity being a predictor of infidelity, instead of vice versa. However, one study examined both: Fincham (2010) found that prayer for one's partner longitudinally predicted a decreased likelihood of infidelity. Interestingly, the baseline report of infidelity in the previous month was significantly and inversely correlated with the subsequent frequency of prayer for one's partner, though this relationship was no longer significant in a cross-lagged stability model.

Though the current meta-analysis lends some support to the temporal precedence of high religiosity over decreased likelihood of infidelity, it does not even nearly establish a causal relationship between religiosity and infidelity. This meta-analysis offers some support for a relationship between religiosity and infidelity, less support for temporal precedence of religiosity on infidelity, and little to no evidence of causation. According to the scientific method, experimental studies of the religiosity-infidelity relationship are necessary to establish causation (Cook et al., 2002). The difficulty and ethical challenges of studying the religiosity-infidelity relationship experimentally are evident—randomly assigning participants to either engage in or not engage in infidelity would likely cause considerable harm to individuals and relationships, and randomly assigning participants to, for example, affiliate with a certain religion, attend

religious services, or not, especially long-term, may also cause harm and would certainly violate participants' autonomy.

Only one of the included studies was experimental (Fincham et al., 2010). Fincham (2010) randomly assigned participants to either pray for their partners, pray in general, and control conditions, and found that those who were randomly assigned to pray for their partners (once the fact that some who were assigned to pray also prayed for their partners, without prompting, was accounted for) were less likely to report infidelity. Though this finding is compelling, it is the only experimental study of the effect of religiosity on infidelity that I found in my literature search, and, to the best of my knowledge, has not been replicated. Further experimental study of the relationship between religiosity and infidelity, using methods similar to Fincham's (2010), may be helpful.

#### **Peer-Reviewed**

I hypothesized that studies that were published in peer-reviewed journals would have smaller effect sizes than studies that were not published in peer-reviewed journals. In accordance with my hypothesis, studies that were not published in peer-reviewed journals (i.e., theses and dissertations) had larger effect sizes for the religiosity-infidelity relationship than studies that were published in peer-reviewed journals. Indeed, in a meta-regression including all moderators that had been significant in Z-tests, publication status was the only statistically significant predictor of the religiosity-infidelity relationship. It is possible that, even unintentionally, publication bias exists in infidelity research. Though publication bias typically refers to a bias towards publishing studies with statistically significant effect sizes, while studies with null findings remain in "the file drawer" (Rosenthal, 1991), publication bias in this instance may suggest a bias towards null findings on the relationship between religiosity and infidelity. The reasons for the moderating role of publication status on the religiosity-infidelity relationship are unclear. It may be that peer-reviewed journals are more likely to exclude from publication studies that find that religiosity is inversely related to infidelity. Peer review is an important part of the scientific process that allows experienced researchers to give valuable feedback to their colleagues and to serve a gatekeeping role in terms of research quality. However, peer reviewers are human, and as such are subject to their own biases, as all humans are (Suls & Martin, 2009). Though religiosity is important to the majority of Americans (Gallup, 2017; Pew Research Center, 2014) and to many individuals around the world (Norris & Inglehart, 2011), psychologists are less likely than the general population to be religious (Delaney et al., 2007; Ragan et al., 1980). This may affect the research that psychologists choose to conduct and that peer reviewers and editors choose to accept for publication.

Religiosity remains frequently unconsidered in psychological research. For example, fewer than 3% of the quantitative studies published in seven American Psychological Association journals from 1991 to 1994 (Weaver et al., 1998) and in four major psychiatric journals from 1978 to 1982 (Larson et al., 1986) included religion measures. However, there is some evidence that psychologists who include religion in their research are more likely to be religious than psychologists who do not, suggesting that researchers who study religiosity and infidelity may in fact tend to be biased towards religiosity (Ragan et al., 1980). The effects of bias on the field are likely complex and remain to be further examined.

It is also possible that the smaller religiosity-infidelity effect sizes in peer-reviewed studies are due to factors other than bias. Theses and dissertations are not subject to peer review and may tend to be of lower quality than peer-reviewed studies. Of the five unpublished studies included in this meta-analysis, none had representative samples (Behar, 2018; Cowart, 2018; Gonzalez, 2013; Johnston, 1997; Williams, 2010). Sample size tended to be small, ranging from 28 to 821, with a median sample size of 123. No unpublished study reported psychometric information for both their religiosity and infidelity measures or used validated measures of both. The effect of publication status on religiosity-infidelity effect size may be an artifact of study quality, particularly related to samples and measures.

#### Limitations

A common criticism of meta-analysis is "garbage in, garbage out" (Borenstein et al., 2013). In other words, averaging effect sizes to create a summary effect size does nothing to fix the methodological errors and imperfections in original studies. Additionally, the errors of original studies may be more difficult to identify in a meta-analysis. According to this point of view, if original studies are "garbage," the results of a meta-analytic synthesis of the studies will also be "garbage". In psychology, results are only as good as the measures that studies use. Religiosity and infidelity are complex constructs whose definitions are somewhat subjective.

# Religiosity

Most of the studies included in this meta-analysis measured religiosity using only one question that was not part of a validated measure. Only seven of the 34 studies included in this meta-analysis used validated measures of religiosity. Of the 34 studies included in this meta-analysis, only eleven made any mention of the psychometric properties of their religiosity measure. Most of these studies reported only measures of internal consistency, such as Cronbach's alpha (e.g., McAllister et al., 2020; Norona et al., 2016) or the correlation between the items that composed the religiosity measure (e.g., Esselmont, 2014). Internal consistency is important in establishing that items "belong together" (i.e., that responses to one item are strongly related to responses on another, Streiner, 2003). Several studies note the internal

consistency of their religiosity measures as originally tested in other samples; however, very few report on the internal consistency of the religiosity measure in the study's sample (e.g., Esselmont, 2014; Rayesh, 2018). This is problematic because the internal consistency of a measure is not fixed, but can vary based on the sample being tested (Streiner, 2003).

The internal consistency of a measure reveals only that a measure is internally consistentit says nothing about the validity of that measure. Additionally, higher internal consistency is not necessarily better, especially when constructs are multifactorial (Streiner, 2003). Given that religiosity is multi-dimensional and can include such varying domains as religious service attendance, affiliation, and belief, internal consistency may be a poorly suited evaluation of religiosity measures. Perhaps it is unsurprising that some studies found their measure of religiosity to have somewhat low internal consistency, such as r = .62 between one item about service attendance and one item about importance of religion in Whisman (2007) and a religiosity alpha of .62 in Rayesh (2018). Indeed, religiosity as a construct may be multifactorial (Lemos et al., 2019). Future studies of religiosity and infidelity should look beyond internal consistency of religiosity measures, and focus on the validity of their religiosity measures, with particular attention to what kind of religiosity is being measured. I recommend future studies follow similar measurement to Atkins and colleagues (2008), who measured different domains of religiosity.

A few studies included in this meta-analysis report information on the validity of their religiosity measures. Cowart (2018) used the Assessment of Spirituality and Religious Sentiments (ASPIRES; Piedmont et al., 2008). As Cowart (2018) noted, the ASPIRES has demonstrated convergent correlations for self-report and observer-report ranging from .27 to .77, and construct validity with measures or self-actualization, affect, self-esteem, hope, life

satisfaction, and optimism ranging from r of .45 to .49 (Piedmont et al., 2008). Multiple studies (Cowart, 2018; Rayesh, 2018) used the prayer behavior questionnaire originated by Fincham (2010). However, as Cowart (2018) noted, the prayer scale has yet to be validated.

In summary, most studies did not report any information whatsoever about the psychometric properties of their religiosity measure(s). Of those studies that did report psychometric properties, almost none reported any information beyond internal consistency, which may not be relevant for multidimensional measures of religiosity and is certainly insufficient to establish measure validity. In other words, though studies' measures of religiosity often lack sophistication, have not been validated, and few studies consider multiple domains of religiosity.

## Infidelity

Measurement of infidelity in the studies included in this meta-analysis is similarly flawed. Only six of the 34 studies included in this analysis described specific psychometric properties of their infidelity measure. I reiterate: nearly 83% of the studies included in this metaanalysis did not report any psychometric information of the infidelity measure. Of the six studies that did describe psychometric information of their infidelity measure, five reported only a measure of internal consistency such as Cronbach's alpha (Behar, 2018; Martins et al., 2016; Norona et al., 2016; Rayesh, 2018) or the correlation between infidelity items (Fincham et al., 2010). Reported internal consistency of infidelity measures ranged from .73 to .95, suggesting a high degree of internal consistency for infidelity. Conceptually, a high degree of internal consistency for infidelity makes sense—if the core of "infidelity" is engaging in behavior or emotional investment with an extradyadic partner that one knows or suspects would cause damage to one's primary relationship, items that tap into this core construct might be strongly correlated with one another.

Though internal consistency might be important for measures of infidelity, it is certainly not sufficient to establish the psychometric properties of a measure. No study used in this metaanalysis provided information about the validity of the infidelity measure. In fact, few studies used validated measures of infidelity, most using questions from archival data or questions that they had written themselves without providing evidence of psychometrics.

Three studies (Fincham et al., 2010; McAllister et al., 2020; Norona et al., 2016) used the Infidelity Scale by Drigotas and colleagues (1999), an 11-item scale that asks participants to think of the person, other than their partner, whom they are most attracted to, then rate their degree of attraction to and physical and emotional intimacy with this person on an eight-point Likert-type scale. The Infidelity Scale was originally created using factor analysis in a sample of 84 college students at a religious university, and had a Cronbach's alpha of .93 (Drigotas et al., 1999) and similarly high internal consistency in Fincham's (2010) sample ( $\alpha = .96$ ). Of note, Drigotas (1999) intended for The Infidelity Scale to be sensitive to social desirability, by normalizing being attracted to individuals other than their partners in the introductory paragraph of the measure and by ordering the questions so that they gradually move from questions about attraction to extradyadic emotional involvement and extradyadic physical behavior.

A lack of conceptual clarity on what, exactly, infidelity is may also make these results difficult to interpret. "Infidelity" is in many ways a subjective term, with some behaviors considered by some to indicate infidelity, while others do not consider those same behaviors unfaithful (Kruger et al., 2013; Mattingly et al., 2010; Thompson & O'Sullivan, 2016). Additionally, whether a behavior is considered "infidelity" may depend on who is deciding; people consistently rate their own behavior as less likely to be "infidelity" than they rate their partner's objectively similar behavior (Thompson & O'Sullivan, 2016). This discrepancy appears to be even higher for religious people (Thompson & O'Sullivan, 2016), who are also more likely than non-religious people to perceive ambiguous behaviors as infidelity (Mattingly et al., 2010). Given that more religious people are more likely to perceive their own behaviors as *not* infidelity, it could be that the inverse relationship between religiosity and infidelity is, at least in part, an artifact of more religious people being less likely to perceive their own behavior as infidelity.

Given that infidelity is a somewhat ambiguous category that is certainly subjective, and that perceptions of behaviors that constitute infidelity may differ by religiosity, defining infidelity clearly to research participants is necessary to interpret the results clearly. Of the 34 studies included in this meta-analysis, only 17 clearly and behaviorally defined infidelity to their participants. Most studies merely asked participants if they had engaged in infidelity, or if they had cheated, without defining those terms. It is noteworthy that some researchers report leaving "infidelity" open-ended intentionally, to let participants define for themselves what they consider infidelity, rather than merely agreeing with the authors' definition (e.g., McAllister et al., 2020). Though this open-endedness acknowledges the subjective nature of what constitutes infidelity, it also makes standardizing "objective" (i.e., behavioral) measures of infidelity impossible. Simply put, this meta-analysis measures individuals' perceptions of infidelity, more than standardized behavioral measures. Since more religious people are more likely to perceive ambiguous behaviors as infidelity (Mattingly et al., 2010), religious people tend to "over-report" infidelity compared to their less religious counterparts, meaning that the inverse relationship between
religiosity and infidelity seen in this meta-analysis may actually be artificially deflated as an artifact of systematic differences in perceptions of infidelity by religion.

All of these limitations in measurement taken together, this meta-analysis does not necessarily suggest a small and inverse relationship between religiosity and infidelity; it suggests that people who say that they are religious are slightly less likely to say they have engaged in infidelity (whatever "infidelity" means to them). One question might be why the relationship between religiosity and infidelity is small, explaining about one-third of one percent of the variance in infidelity. After all, it is logical to think that, since more religious people are more likely to believe that infidelity is morally wrong (Cochran & Beeghley, 1991), they would also be much less likely to report infidelity.

A strong inverse relationship between religiosity and infidelity makes sense conceptually; however, this conceptual approach ignores the many other factors that influence infidelity on both an individual and societal level. As reviewed by Hergert (2016), recent empirical research on infidelity tends to focus on one of the following categories of explanations: biological, including genetic and hormonal influences; evolutionary, including naturally selected sexual differences in parental investment that theoretically explain different male and female patterns of sexual infidelity; deficit model, focusing on problems in the primary relationship accounting for infidelity; dispositional approaches, focusing on individual differences in personality traits as an explanation for infidelity; situational approach, focusing on situational effects; and the sociocultural approach, focusing on the effects of socio-cultural constructs on infidelity. Religiosity as an explanation for infidelity falls under the socio-cultural approach.

Hergert (2016) noted that most scientific articles attempting to predict infidelity focus on only one of the previous categories, which inevitably leads to a fragmented and incomplete

approach to understanding infidelity. Indeed, Hergert (2016) aptly notes that socio-cultural variables, such as religiosity, are unlikely to be directly causally related to infidelity, but are best considered control variables to the study of infidelity. In this case, it is unlikely that religiosity (or lack thereof) directly causes someone to engage in or not engage in infidelity; rather, a third variable, such as belief in infidelity being morally wrong or commitment to the relationship, likely mediates the relationship between religiosity and infidelity. Hergert (2016) proposes an integrative model of infidelity, the (Biological)-Opportunity-Disposition-Deficit Model of Sexual Infidelity ([B]ODD-model), which attempts to unify different theories of sexual infidelity into a person-situation-interaction perspective.

Religiosity is a small, though important, piece of the puzzle of why someone chooses to engage or not engage in infidelity. On a global scale, religiosity may have "potentially consequential in the not-very-long-run" effects on infidelity (Funder & Ozer, 2019, p. 166), with consequences for individual health and relationship quality. However, poor measurement of both religiosity and infidelity, as well as high heterogeneity in the religiosity-infidelity relationship, limit what we know and the conclusions that we can draw from this finding. Ultimately, more research and better research is needed to understand the relationship between religiosity and infidelity.

#### References

- \*Abalos, J. B. (2011). Determinants of men's extramarital sexual experience in the Philippines. *Population Review*, 10(2), 51-74. https://tinyurl.com/25yrcna6
- Abasili, A. I. (2016). *The understanding of adultery in the Hebrew Bible: A critical survey*. Xlibris Corporation.
- Adamczyk, A., & Hayes, B. (2012). Religion and sexual behaviors: Understanding the influence of Islamic cultures and religious affiliation for explaining sex outside of marriage. *American Sociological Review*, 77(5), 723-746. https://doi.org/10.1177/0003122412458672
- \*Adamopoulou, E. (2013). New facts on infidelity. *Economics Letters*, *121*(3), 458-462. https://doi.org/10.1016/j.econlet.2013.09.025
- \*Ali, M. M., & Cleland, J. G. (2001). The link between postnatal abstinence and extramarital sex in Côte d'Ivoire. *Studies in Family Planning*, 32(3), 214–219. <u>https://doiorg.erl.lib.byu.edu/10.1111/j.1728-4465.2001.00214.x</u>
- Allen, E. S., & Atkins, D. C. (2012). The association of divorce and extramarital sex in a representative US sample. *Journal of Family Issues*, 33(11), 1477-1493. https://doi.org/10.1177/0192513X12439692
- \*Allen, E. S., Rhoades, G. K., Stanley, S. M., Markman, H. J., Williams, T., Melton, J., & Clements, M. L. (2008). Premarital precursors of marital infidelity. *Family Process*, 47(2), 243-259. <u>https://doi.org/10.1111/j.1545-5300.2008.00251.x</u>
- Allport, G. W. (1963). Behavioral science, religion, and mental health. *Journal of Religion and Health, 2*(3), 187-197. <u>https://www.jstor.org/stable/27504566</u>

- Amato, P. R., & Rogers, S. J. (1997). A longitudinal study of marital problems and subsequent divorce. *Journal of Marriage and the Family*, 59(1), 612-624. https://doi.org/10.2307/353949
- Atkins, D. C., Baucom, D. H., & Jacobson, N. S. (2001). Understanding infidelity: Correlates in a national random sample. *Journal of Family Psychology*, 15(1), 735–749. https://doi.org/10.1037/0893-3200.15.4.735
- Atkins, D. C., & Kessel, D. E. (2008). Religiousness and infidelity: Attendance, but not faith and prayer, predict marital fidelity. *Journal Of Marriage and Family*, 70(2), 407-418. <u>https://doi.org/10.1111/j.1741-3737.2008.00490.x</u>
- Barker, M. (2005). This is my partner and this is my partner's partner: Constructing a polyamorous identity in a monogamous world. *Journal of Constructivist Psychology*, 18(1), 75–88. <u>https://doi.org/10.1080/10720530590523107</u>
- \*Behar, M. (2018). Personality and Sexual Predictors of Infidelity in Marital Relationships (Order No. 10616577). Available from ProQuest Dissertations & Theses A&I. (1945942581).

https://ezproxy.uvu.edu/login?url=https://www.proquest.com/dissertationstheses/personality-sexual-predictors-infidelity-marital/docview/1945942581/se-2?accountid=14779

Bell, R. R. (1974). Religious involvement and marital sex in Australia and the United States. *Journal of Comparative Family Studies*, 5(2), 109-116. https://doi.org/10.3138/jcfs.5.2.109

- Blow, A. J., & Hartnett, K. (2005). Infidelity in committed relationships I: A methodological review. *Journal Of Marital and Family Therapy*, 31(2), 183-216. <u>https://doi.org/10.1111/j.1752-0606.2005.tb01555.x</u>
- Borenstein, M., Hedges, L. V., Higgins, J. P., & Rothstein, H. R. (2013). *Introduction to metaanalysis*. John Wiley & Sons.
- Bradley, E. (1995). Religious involvement and social resources: Evidence from the data set "Americans' changing lives". *Journal for the Scientific Study of Religion*, 34(2), 259-267. <u>https://doi.org/10.2307/1386771</u>
- Bradley, C. S., Hill, T. D., Burdette, A. M., Mossakowski, K. N., & Johnson, R. J. (2020). Religious attendance and social support: Integration or selection? *Review of Religious Research*, 62(1), 83-99. <u>https://doi.org/10.1007/s13644-019-00392-z</u>
- Brooks, T. J., & Monaco, K. (2013). Your cheatin' heart: Joint production, joint consumption and the likelihood of extramarital sex. *Applied Economics Letters*, 20(3), 272. <u>https://doi.org/10.1080/13504851.2012.690845</u>
- Brown, E., Orbuch, T. L., & Bauermeister, J. A. (2008). Religiosity and marital stability among Black American and White American couples. *Family Relations*, 57(2), 186-197. https://doi.org/10.1111/j.1741-3729.2008.00493.x
- Burdette, A. M., Ellison, C. G., Sherkat, D. E., & Gore, K. A. (2007). Are there religious variations in marital infidelity? *Journal Of Family Issues*, 28(12), 1553-1581. <u>https://doi.org/10.1177/0192513X07304269</u>
- Buss, D. M. (2018). Sexual and emotional infidelity: Evolved gender differences in jealousy prove robust and replicable. *Perspectives on Psychological Science*, 13(2), 155-160. <u>https://doi.org/10.1177/1745691617698225</u>

- Call, V. R., & Heaton, T. B. (1997). Religious influence on marital stability. *Journal for the Scientific Study of Religion, 36*(3), 382-392. <u>https://doi.org/10.2307/1387856</u>
- Cano, A., & O'leary, K. D. (2000). Infidelity and separations precipitate major depressive episodes and symptoms of nonspecific depression and anxiety. *Journal of Consulting and Clinical Psychology*, 68(5), 774. <u>https://psycnet.apa.org/doi/10.1037/0022-006X.68.5.774</u>
- Chohaney, M. L., & Panozzo, K. A. (2018). Infidelity and the Internet: The geography of Ashley Madison usership in the United States. *Geographical Review*, 108(1), 69-91. https://doi.org/10.1111/gere.12225
- \*Choi, K. H., Catania, J. A., & Dolcini, M. M. (1994). Extramarital sex and HIV risk behavior among American adults: Results from the National AIDS Behavioral Survey. *American Journal of Public Health*, 84(1), 2003-2007. <u>https://doi.org/10.2105/AJPH.84.12.2003</u>
- Cochran, J. K., & Beeghley, L. (1991). The influence of religion on attitudes toward nonmarital sexuality: A preliminary assessment of reference group theory. *Journal for the Scientific Study of Religion*, 30(1), 45-62. <u>https://doi.org/10.2307/1387148</u>
- Cochran, J. K., Chamlin, M. B., Beeghley, L. & Fenwick, M. (2004). Religion, religiosity, and nonmarital sexual conduct: An application of reference group theory. *Sociological Inquiry*, 74(1), 70–101. <u>https://doi.org/10.1111/j.1475-682X.2004.00081.x</u>
- Cohen, J. (1969). *Statistical power analysis for the behavioral sciences*. New York, NY: Academic Press. <u>https://doi.org/10.4324/9780203771587</u>
- Conley, T. D., Moors, A. C., Ziegler, A., & Karathanasis, C. (2012). Unfaithful individuals are less likely to practice safer sex than openly nonmonogamous individuals. *The Journal of Sexual Medicine*, 9(6), 1559-1565. <u>https://doi.org/10.1111/j.1743-6109.2012.02712.x</u>

- Conley, T. D., Moors, A. C., Matsick, J. L., & Ziegler, A. (2012). The fewer the merrier?
  Assessing stigma surrounding consensually nonmonogamous romantic relationships. *Analyses of Social Issues and Public Policy*, 13(1), 1–30. <u>https://doi.org/10.1111/j.1530-</u>2415.2012.01286.x
- Cook, T. D., Campbell, D. T., & Shadish, W. (2002). *Experimental and quasi-experimental designs for generalized causal inference*. Boston, MA: Houghton Mifflin.
- Corsi, D. J., Neuman, M., Finlay, J. E., & Subramanian, S. V. (2012). Demographic and health surveys: a profile. *International Journal of Epidemiology*, 41(6), 1602-1613. <u>https://doi.org/10.1093/ije/dys184</u>
- \*Cowart, E. J. (2018). The Predictive Relationship of Prayer Behavior, Spirituality, Religiosity, Demographics, and Marital Fidelity with Marital Satisfaction (Order No. 10282776). Available from ProQuest Dissertations & Theses A&I. (1915984005). https://ezproxy.uvu.edu/login?url=https://www.proquest.com/dissertationstheses/predictive-relationship-prayer-behavior/docview/1915984005/se-2?accountid=14779
- Delaney, H. D., Miller, W. R., & Bisonó, A. M. (2007). Religiosity and spirituality among psychologists: A survey of clinician members of the American Psychological Association. *Professional Psychology: Research and Practice, 38*(5), 538.
   https://doi.org/10.1037/0735-7028.38.5.538
- DeMaris, A. (2009). Distal and proximal influences on the risk of extramarital sex: A prospective study of longer duration marriages. *Journal of Sex Research*, 46(6), 597-607. <u>https://doi.org/10.1080/00224490902915993</u>

- Dollahite, D. C., & Lambert, N. M. (2007). Forsaking all others: How religious involvement promotes marital fidelity in Christian, Jewish and Muslim couples. *Review of Religious Research*, 48(1), 290-307. <u>https://www.jstor.org/stable/20447445</u>
- Drigotas, S. M., Safstrom, C. A., & Gentilia, T. (1999). An investment model prediction of dating infidelity. *Journal of Personality and Social Psychology*, 77(3), 509. <u>http://dx.doi.org/10.1037/0022-3514.77.3.509</u>
- Duval, S., & Tweedie, R. (2000). Trim and fill: a simple funnel-plot–based method of testing and adjusting for publication bias in meta-analysis. *Biometrics*, 56(2), 455-463. <u>https://doi.org/10.1111/j.0006-341X.2000.00455.x</u>
- Ebaugh, H. R. (Ed.). (2006). *Handbook of religion and social institutions*. Springer Science & Business Media.

\*Edwards, J. N., & Booth, A. (1976). Sexual behavior in and out of marriage: An assessment of correlates. *Journal of Marriage and the Family, 38*(1), 73-81.

https://doi.org/10.2307/350551

- Elfil, M., & Negida, A. (2017). Sampling methods in clinical research: An educational review. *Emergency*, 5(1). <u>https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5325924/</u>
- Ellison, C. G., Burdette, A. M., & Bradford Wilcox, W. (2010). The couple that prays together:
  Race and ethnicity, religion, and relationship quality among working-age adults. *Journal of Marriage and Family*, 72(4), 963-975. <u>https://doi.org/10.1111/j.1741-</u>3737.2010.00742.x
- Ellison, C. G., & George, L. K. (1994). Religious involvement, social ties, and social support in a southeastern community. *Journal for the Scientific Study of Religion*, 33(1), 46-61. <u>https://doi.org/10.2307/1386636</u>

- Elmslie, B., & Tebaldi, E. (2008). So, what did you do last night? The economics of infidelity. *Kyklos, 61*(3), 391-410. <u>https://doi.org/10.1111/j.1467-6435.2008.00408.x</u>
- \*Esselmont, C., & Bierman, A. (2014). Marital formation and infidelity: An examination of the multiple roles of religious factors. *Sociology of Religion*, 75(3), 463-487. https://doi.org/10.1093/socrel/sru036
- Fair, R. C. (1978). A theory of extramarital affairs. *Journal of Political Economy*, 86(1), 45-61. https://www.journals.uchicago.edu/doi/abs/10.1086/260646

Festinger, L. (1957). A theory of cognitive dissonance. Evanston, IL: Row, Peterson.

- \*Fincham, F. D., Lambert, N. M., & Beach, S. R. H. (2010). Faith and unfaithfulness: Can praying for your partner reduce infidelity? *Journal of Personality and Social Psychology*, 99(4), 649-659. <u>https://doi.org/10.1037/a0019628</u>
- Fincham, F. D., & May, R. W. (2017). Infidelity in romantic relationships. *Current Opinion in Psychology*, 13(1), 70-74. <u>https://doi.org/10.1016/j.copsyc.2016.03.008</u>
- Forste, R., & Tanfer, K. (1996). Sexual exclusivity among dating, cohabiting, and married women. *Journal of Marriage and the Family*, *58*(1), 33-47.

https://doi.org/10.2307/353375

- Fox, J. (2002). Ethnic minorities and the clash of civilizations: A quantitative analysis of Huntington's thesis. *British Journal of Political Science*, 32(3), 415-434. https://doi.org/10.1017/S0007123402000170
- Funder, D. C., & Ozer, D. J. (2019). Evaluating effect size in psychological research: Sense and nonsense. Advances in Methods and Practices in Psychological Science, 2(2), 156-168. <u>https://doi.org/10.1177%2F2515245919847202</u>

- Galarza, J. G., Martínez-Taboas, A., & Ortiz, D. M. (2009). Factores psicológicos asociados a la infidelidad sexual y/o emocional y su relación a la búsqueda de sensaciones en parejas puertorriqueñas. *Revista Puertorriqueña de Psicología*, 20(1), 59-81.
  http://www.redalyc.org/articulo.oa?id=233216361004
- Gallup. (2017). *Gallup poll: Moral issues*. Retrieved from <a href="http://www.gallup.com/poll/1681/MoralIssues.aspx">http://www.gallup.com/poll/1681/MoralIssues.aspx</a>.
- Gay, D. A., Ellison, C. G., & Powers, D. A. (1996). In search of denominational subcultures:
   Religious affiliation and "pro-family" issues revisited. *Review of Religious Research*, 38(1), 3-17. <u>https://doi.org/10.2307/3512537</u>
- \*Gonzalez, E. (2013). Corazón espinado: Intersections of infidelity and cultural constructs in married Mexican Americans (Order No. 3518603). Available from ProQuest Dissertations & Theses Global. (1034439509). Retrieved from <u>https://search-proquestcom.erl.lib.byu.edu/docview/1034439509?accountid=4488</u>

Greeley, A. (1994). Marital infidelity. Society, 31(4), 9-13. https://doi.org/10.1007/BF02693241

- Hackney, C. H., & Sanders, G. S. (2003). Religiosity and mental health: A meta–analysis of recent studies. *Journal for the Scientific Study of Religion*, 42(1), 43-55. https://doi.org/10.1111/1468-5906.t01-1-00160
- Hall, J. H., & Fincham, F. D. (2009). Psychological distress: Precursor or consequence of dating infidelity? *Personality and Social Psychology Bulletin*, 35(2), 143–159. https://doi.org/10.1177%2F0146167208327189
- \*Hansen, G. L. (1987). Extradyadic relations during courtship. *Journal of Sex Research*, 23(3), 382-390. <u>https://doi.org/10.1080/00224498709551376</u>

- Harmon-Jones, E., & Mills, J. (2019). An introduction to cognitive dissonance theory and an overview of current perspectives on the theory. In E. Harmon-Jones (Ed.), *Cognitive dissonance: Reexamining a pivotal theory in psychology* (pp. 3–24). American Psychological Association. <u>https://doi.org/10.1037/0000135-001</u>
- Haversath, J., & Kröger, C. (2014). Extradyadic sex and its predictors in homo- and heterosexuals. *Psychotherapie, Psychosomatik, Medizinische Psychologie, 64*(12), 458-464. <u>https://doi.org/10.1055/s-0034-1390423</u>
- Hergert, J. (2016). Antecedents of sexual infidelity in romantic relationships: A literature review of the latest empirical results, prevailing explanatory models, and proposal of a new model. *Kultur-und Sozialwissen-schaften*, 1(1), 61-201. https://d-nb.info/111489026X/34#page=62
- \*Hill, Z. E., Cleland, J., & Ali, M. M. (2004). Religious affiliation and extramarital sex among men in Brazil. *International Family Planning Perspectives*, 30(1), 20-26. <u>https://www.jstor.org/stable/3181012</u>
- Hill, P. C., & Pargament, K. I. (2003). Advances in the conceptualization and measurement of religion and spirituality: Implications for physical and mental health research. *American Psychologist*, 58(1), 64–74. https://doi.org/10.1037/0003-066X.58.1.64
- Hoffmann, J. P., & Miller, A. S. (1997). Social and political attitudes among religious groups:
  Convergence and divergence over time. *Journal for the Scientific Study of Religion*, 36(1), 52-70. <u>https://doi.org/10.2307/1387882</u>
- Hoge, R. (1972). A validated intrinsic religious motivation scale. *Journal for the Scientific Study* of Religion, 11(4), 369-376. <u>https://doi.org/10.2307/1384677</u>

- Hood Jr., R. W., Hill, P. C., & Spilka, B. (2018). The psychology of religion: An empirical approach. Guilford Publications.
- Huey, K. M. (2002). Who is screwing around here? The relationship between religiosity, pornography, and extramarital sex (Order No. 3099798). Available from ProQuest Dissertations & Theses A&I. (305552356).

https://ezproxy.uvu.edu/login?url=https://www.proquest.com/dissertations-theses/who-isscrewing-around-here-relationship-between/docview/305552356/se-2?accountid=14779

Huntington, S. (1993). The clash of civilizations? Foreign Affairs, 72(3), 22-49.

https://tinyurl.com/bdfnwjpa

- Huntington, S. P. (2000). The clash of civilizations? In *Culture and Politics* (pp. 99-118). Palgrave Macmillan, New York.
- Hunt, R. A., & King, M. (1971). The intrinsic-extrinsic concept: A review and evaluation. Journal for the Scientific Study of Religion, 10(4), 339-356. https://doi.org/10.2307/1384780
- Iannaccone, L. R. (1992). Sacrifice and stigma: Reducing free-riding in cults, communes, and other collectives. *Journal of Political Economy*, 100(2), 271-291. https://www.journals.uchicago.edu/doi/abs/10.1086/261818
- Idele, P. A. (2002). Perception of AIDS risk and sexual behaviour in Kenya (Doctoral dissertation, University of Southampton).

https://ethos.bl.uk/OrderDetails.do?uin=uk.bl.ethos.249671

Isiugo-Abanihe, U. (1994). Extramarital relations and perceptions of HIV/AIDS in Nigeria. *Health Transition Review: The Cultural, Social, and Behavioural Determinants of Health, 4*(2), 111-125. <u>https://www.jstor.org/stable/40652127</u> Janus, S. S., & Janus, C. L. (1993). The Janus report on sexual behavior. John Wiley & Sons.

- Johnson, B. R., Li, S. D., Larson, D. B., & McCullough, M. (2000). A systematic review of the religiosity and delinquency literature. *Journal of Contemporary Criminal Justice*, 16(1), 32–52. <u>https://doi.org/10.1177%2F1043986200016001003</u>
- \*Johnston, J. E. (1997). Predictive factors regarding extra-marital relationships in ministers (Order No. 9714460). Available from ProQuest Dissertations & Theses A&I. (304260301). <u>https://ezproxy.uvu.edu/login?url=https://www.proquest.com/dissertations-theses/predictive-factors-regarding-extra-marital/docview/304260301/se-2?accountid=14779</u>
- Kalmijn, M., De Graaf, P. M., & Janssen, J. P. (2005). Intermarriage and the risk of divorce in the Netherlands: The effects of differences in religion and in nationality, 1974–94. *Population Studies*, *59*(1), 71-85. <u>https://doi.org/10.1080/0032472052000332719</u>
- \*Khasmakhi, S. E., & Salahin, A. (2018). Relationship between religious orientation, emotional maturity and identity styles with marital infidelity. *European Scientific Journal*, 14(29), 129. <u>http://dx.doi.org/10.19044/esj.2018.v14n29p129</u>
- Kinsey, A. C., Pomeroy, W. B., Martin, C. E., & Sloan, S. (1948). Sexual behavior in the human male (Vol. 1). Philadelphia: Saunders.

https://ajph.aphapublications.org/doi/full/10.2105/AJPH.93.6.894

- Kinsey, A. C., Pomeroy, W. B., Martin, C. E., & Gebhard, P. H. (1948). Sexual behavior in the human female. Indiana University Press.
- Klesse, C. (2006). Polyamory and its 'others': Contesting the terms of non-monogamy. *Sexualities*, *9*(5), 565–583. https://doi.org/10.1177%2F1363460706069986

- Koenig, H. G., McCullough, M. E., & Larson, D. B. (2001). *Handbook of religion and health*. New York: Oxford University Press.
- Kongnyuy, E. J., & Wiysonge, C. S. (2007). Alcohol use and extramarital sex among men in Cameroon. BMC International Health and Human Rights, 7(6), 1-7. https://doi.org/10.1186/1472-698X-7-6
- Korbatieh, S. (2018). Adultery laws in Islam and stoning in the modern world. *Australian Journal of Islamic Studies*, 3(2), 1-20. https://doi.org/10.55831/ajis.v3i2.121
- Kruger, D. J., Fisher, M. L., Edelstein, R. S., Chopik, W. J., Fitzgerald, C. J., & Strout, S. L. (2013). Was that cheating? Perceptions vary by sex, attachment anxiety, and behavior. *Evolutionary Psychology*, *11*(1), 159-171. https://doi.org/10.1177%2F147470491301100115
- Ksasbeh, M. Z. A., Abdullah, M. S., Osman, W. R. S., & Elyana, F. (2009, June). Using Ontology to Define the Structure of the Holy Quran. In *The 4th International Conference* on Information Technology, AL-Zaytoonah University, Amman, Jordan. <u>https://tinyurl.com/mr79wj53</u>
- Kunz, P. R., & Albrecht, S. L. (1977). Religion, marital happiness, and divorce. *International Journal of Sociology of the Family*, 7(2), 227-232. https://www.jstor.org/stable/23027992
- Larson, D. B., Mansell, E., Pattison, M. D., Blazer, D. G., Omran, A. R., & Kaplan, B. H. (1986). Systematic analysis of research on religious variables. *American Journal of Psychiatry*, 1(43), 329. <u>https://doi.org/10.1176/ajp.143.3.329</u>
- Lemos, C. M., Gore, R. J., Puga-Gonzalez, I., & Shults, F. L. (2019). Dimensionality and factorial invariance of religiosity among Christians and the religiously unaffiliated: A

cross-cultural analysis based on the International Social Survey Programme. *PloS One, 14*(5), e0216352. <u>https://doi.org/10.1371/journal.pone.0216352</u>

Lichter, D. T., & Carmalt, J. H. (2009). Religion and marital quality among low-income couples. *Social Science Research*, *38*(1), 168-187.

https://doi.org/10.1016/j.ssresearch.2008.07.003

- Liefbroer, A. C., & Rijken, A. J. (2019). The association between Christianity and marriage attitudes in Europe. Does religious context matter? *European Sociological Review*, 35(3), 363-379. <u>https://doi.org/10.1093/esr/jcz014</u>
- Lipsey, M. W., & Wilson, D. B. (2001). Practical meta-analysis. SAGE publications, Inc.
- \*Liu, C. (2000). A theory of marital sexual life. *Journal of Marriage and Family, 62*(2), 363– 374. <u>https://doi.org/10.1111/j.1741-3737.2000.00363.x</u>
- Luo, S., Cartun, M. A., & Snider, A. G. (2010). Assessing extradyadic behavior: A review, a new measure, and two new models. *Personality and Individual Differences*, 49(3), 155-163. <u>https://doi.org/10.1016/j.paid.2010.03.033</u>
- \*Maddox Shaw, A. M., Rhoades, G. K., Allen, E. S., Stanley, S. M., & Markman, H. J. (2013).
   Predictors of extradyadic sexual involvement in unmarried opposite-sex relationships.
   *Journal of Sex Research*, 50(6), 598-610. https://doi.org/10.1080/00224499.2012.666816
- \*Mahambrey, M. (2018). Infidelity: Is it really black and white? Characteristics of the uninvolved partner in relationships with extradyadic involvement (Doctoral dissertation, The Ohio State University).

http://rave.ohiolink.edu/etdc/view?acc\_num=osu1531920825322479

Mahoney, A., Pargament, K. I., Jewell, T., Swank, A. B., Scott, E., Emery, E., & Rye, M. (1999). Marriage and the spiritual realm: The role of proximal and distal religious

constructs in marriage functioning. *Journal of Family Psychology*, *13*(3), 321-338. http://dx.doi.org/10.1037/0893-3200.13.3.321

- Mahoney, A., Pargament, K. I., Murray-Swank, A., & Murray-Swank, N. (2001). Religion and the sanctification of family relationships. *Review of Religious Research*, 44(3), 220–236. https://doi.org/10.2307/3512384
- Mahoney, A., Pargament, K. I., Tarakeshwar, N., & Swank, A. B. (2008). Religion in the home in the 1980s and 1990s: A meta-analytic review and conceptual analysis of links between religion, marriage, and parenting. *Psychology of Religion and Spirituality, S*(1), 63-101. https://doi.org/10.1037//0893-3200.15.4.559
- \*Mark, K. P., Janssen, E., & Milhausen, R. R. (2011). Infidelity in heterosexual couples: Demographic, interpersonal, and personality-related predictors of extradyadic sex. *Archives of Sexual Behavior, 40*(5), 971-982.

https://doi.org/10.1007/s10508-011-9771-z

- Marler, P. L., & Hadaway, C. K. (2002). "Being religious" or "being spiritual" in America: A zero-sum proposition? *Journal for the Scientific Study of Religion*, 41(2), 289–300. https://doi.org/10.1111/1468-5906.00117
- \*Martins, A., Pereira, M.,& Canavarro, M.C. (2014). Comportamentos extra-diádicos nas relações de namoro: Diferenças de sexo na prevalência e correlatos [Extradyadic behaviors in dating relationships: Sex differences in prevalence and correlates]. *Analise Psicologica*, 32(1), 45–62. <u>https://doi.org/10.14417/ap.740</u>
- \*Martins, A., Pereira, M., Andrade, R., Dattilio, F. M., Narciso, I., & Canavarro, M. C. (2016). Infidelity in dating relationships: Gender-specific correlates of face-to-face and online

extradyadic involvement. Archives of Sexual Behavior, 45(1), 193-205.

https://doi.org/10.1007/s10508-015-0576-3

Mattingly, B. A., Wilson, K., Clark, E. M., Bequette, A. W., & Weidler, D. J. (2010). Foggy faithfulness: Relationship quality, religiosity, and the Perceptions of Dating Infidelity Scale in an adult sample. *Journal of Family Issues, 31*(11), 1465-1480.

https://doi.org/10.1177/0192513X10362348

- \*McAllister, P., Henderson, E., Maddock, M., Dowdle, K., Fincham, F. D., & Braithwaite, S. R. (2020). Sanctification and cheating among emerging adults. *Archives of Sexual Behavior*, 49(4), 1177-1188. <u>https://doi.org/10.1007/s10508-020-01657-3</u>
- Mernissi, F. (1991). The veil and the male elite: A feminist interpretation of women's rights in Islam. Addison-Wesley.
- Mitsunaga, T. M., Powell, A. M., Heard, N. J., & Larsen, U. M. (2005). Extramarital sex among Nigerian men: Polygyny and other risk factors. *Journal of Acquired Immune Deficiency Syndromes*, 39(4), 478-488. <u>https://doi.org/10.1097/01.qai.0000152396.60014.69</u>
- Moher, D., Liberati, A., Tetzlaff, J., Altman, D. G., & Prisma Group. (2009). Preferred reporting items for systematic reviews and meta-analyses: The PRISMA statement. *PLoS Medicine*, 6(7), e1000097. https://doi.org/10.7326/0003-4819-151-4-200908180-00135
- Myers, S. M. (1996). An interactive model of religiosity inheritance: The importance of family context. *American Sociological Review*, 61(5), 858-866. <u>https://doi.org/10.2307/2096457</u>
- Nagurney, A. J., Staats, K. J., & Pack, A. A. (2019). The effects of biological sex, religiosity, and past experiences with cheating on perceptions of infidelity. *North American Journal of Psychology*, *21*(1), 111–123.

https://link.gale.com/apps/doc/A576378119/HRCA?u=salt60366&sid=googleScholar&xi d=c4a512ee

- \*Negash, S., Cui, M., Fincham, F.D., & Pasley, K. (2014). Extradyadic involvement and relationship dissolution in heterosexual women university students. *Archives of Sexual Behavior, 43*(1), 531-539. <u>https://doi.org/10.1007/s10508-013-0213-y</u>
- Negash, S., Veldorale-Brogan, A., Kimber, S. B., & Fincham, F. D. (2019). Predictors of extradyadic sex among young adults in heterosexual dating relationships: A multivariate approach. *Sexual and Relationship Therapy*, 34(2), 153-172. https://doi.org/10.1080/14681994.2016.1219334
- \*Norona, J., Pollock, B., Welsh, D., & Bolden, J. (2016). Religiosity and intimacy with an extradyadic partner in emerging adulthood: A developmental perspective. *Journal of Adult Development*, 23(1), 45-50. <u>https://doi.org/10.1007/s10804-015-9220-7</u>
- Norris, P., & Inglehart, R. (2011). Sacred and secular: Religion and politics worldwide. Cambridge University Press.
- Oyediran, K., Isiugo-Abanihe, U. C., Feyisetan, B. J., & Ishola, G. P. (2010). Prevalence of and factors associated with extramarital sex among Nigerian men. *American Journal of Men's Health*, *4*(2), 124-134. <u>https://doi.org/10.1177%2F1557988308330772</u>
- Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., ... & Moher, D. (2021). The PRISMA 2020 statement: An updated guideline for reporting systematic reviews. *International Journal of Surgery*, 88(1), 105906.

https://doi.org/10.1016/j.ijsu.2021.105906

- Pargament, K. I., & Mahoney, A. (2005). Sacred matters: Sanctification as a vital topic for the psychology of religion. *International Journal for the Psychology of Religion*, 15(1), 179– 198. <u>https://doi.org/10.1207/s15327582ijpr1503\_1</u>
- Peek, C. W., Carter, B., & Taylor, L. (2001). *The life course, religion and extramarital sex*. [Conference paper]. Southern Sociological Society. <u>https://search-proquest-com.erl.lib.byu.edu/docview/61779384?accountid=4488</u>
- Perry, S. L. (2018). Pornography use and depressive symptoms: Examining the role of moral incongruence. *Society and Mental Health*, 8(3), 195-213. https://doi.org/10.1177%2F2156869317728373
- Pew Research Center. (2014). Religious Landscape Study. Retrieved from <a href="http://www.pewforum.org/religious-landscape-study/">http://www.pewforum.org/religious-landscape-study/</a>
- Pew Research Center. (2021). About three-in-ten U.S. adults are now religiously unaffiliated. Retrieved from <u>https://www.pewresearch.org/religion/2021/12/14/about-three-in-ten-u-s-adults-are-now-religiously-unaffiliated/</u>
- Piedmont, R. L., Kennedy, M. C., Sherman, M. F., Sherman, N. C., & Williams, J. E. (2008). A psychometric evaluation of the Assessment of Spirituality and Religious Sentiments (ASPIRES) Scale: Short form. *Research in the Social Scientific Study of Religion, 19*(1), 163-181. <u>https://doi.org/10.1163/ej.9789004166462.i-299.55</u>
- Plack, K., Kroeger, C., Allen, E. S., Baucom, D. H., & Hahlweg, K. (2010). Risk factors for infidelity-why do we have affairs? *Zeitschrift Fur Klinische Psychologie Und Psychotherapie*, 39(3), 189-199. https://doi.org/10.1026/1616-3443/a000037
- \*Potter, J. (2011). Reexamining the economics of marital infidelity. *Economics Bulletin, 31*(1), 41-52. <u>https://econpapers.repec.org/RePEc:ebl:ecbull:eb-10-00563</u>

- Previti, D., & Amato, P. R. (2004). Is infidelity a cause or a consequence of poor marital quality? Journal of Social and Personal Relationships, 21(2), 217-230. <u>https://doi.org/10.1177%2F0265407504041384</u>
- Quintana, D. S., & Tiebel, J. (2019, August 20). How to calculate statistical power for your meta-analysis. <u>https://doi.org/10.17605/OSF.IO/5C7UZ</u>
- Ragan, C., Malony, H. N., & Beit-Hallahmi, B. (1980). Psychologists and religion: Professional factors and personal belief. *Review of Religious Research*, 21(2), 208-217. <u>https://doi.org/10.2307/3509885</u>
- Randall, H. E., & Byers, E. S. (2003). What is sex? Students' definitions of having sex, sexual partner, and unfaithful sexual behaviour. *Canadian Journal of Human Sexuality*, 12(2), 87–96.
- \*Rayesh, N., & Kalantar, S. M. (2018). The role of praying for the spouse and sanctification of marriage in reducing infidelity. *Mental Health, Religion & Culture, 21*(1), 65-76. <u>https://doi.org/10.1080/13674676.2018.1447555</u>
- Rendon, J. J., Xu, X., Denton, M. L., & Bartkowski, J. P. (2014). Religion and marriage timing: A replication and extension. *Religions*, 5(3), 834-851. <u>https://doi.org/10.3390/rel5030834</u>
- Rosenthal, R. (1991). Meta-analysis: A review. *Psychosomatic Medicine*, *53*(3), 247–271. https://doi.org/10.1097/00006842-199105000-00001
- Ruether, R. R. (Ed.). (1998). *Religion and sexism: Images of women in the Jewish and Christian traditions*. Wipf and Stock Publishers.
- Rusu, P. P., Hilpert, P., Beach, S. H., Turliuc, M. N., & Bodenmann, G. (2015). Dyadic coping mediates the association of sanctification with marital satisfaction and well-being.
   *Journal of Family Psychology*, 29(6), 843-849. <u>https://doi.org/10.1037/fam0000108</u>

- \*Scheeren, P., & Wagner, A. (2019). Predicting marital infidelity. *Psicologia Clínica*, 31(2), 387-406. <u>http://dx.doi.org/10.33208/PC1980-5438V0031N02A09</u>
- Sherkat, D. E. (2004). Religious intermarriage in the United States: Trends, patterns, and predictors. *Social Science Research*, *33*(4), 606-625.

https://doi.org/10.1016/j.ssresearch.2003.11.001

- Sherkat, D. E., & Wilson, J. (1995). Preferences, constraints, and choices in religious markets: An examination of religious switching and apostasy. *Social Forces*, 73(3), 993-1026. <u>https://doi.org/10.1093/sf/73.3.993</u>
- \*Smith, I. (2012). Reinterpreting the economics of extramarital affairs. *Review of Economics of the Household, 10*(3), 319-343. <u>https://doi.org/10.1007/s11150-012-9146-9</u>
- South, S., & Lloyd, K. M. (1995). Spousal alternatives and marital dissolution. *American* Sociological Review, 60(1), 21-35. <u>https://doi.org/10.2307/2096343</u>
- \*Spanier, G. B., & Margolis, R. L. (1983). Marital separation and extramarital sexual behavior. *Journal of Sex Research, 19*(1), 23-48.

https://doi.org/10.1080/00224498309551167

- Stafford, L. (2016). Marital sanctity, relationship maintenance, and marital quality. *Journal of Family Issues*, 37(1), 119-131. http://dx.doi.org/10.1177/0192513X13515884
- Stafford, L., David, P., & McPherson, S. (2014). Sanctity of marriage and marital quality. Journal of Social and Personal Relationships, 31(1), 54–70. http://dx.doi.org/10.1177/0265407513486975
- Stolzenberg, R. M., Blair-Loy, M., & Waite, L. J. (1995). Religious participation over the early life course: Age and family life cycle effects on church membership. *American Sociological Review*, 60(1), 84-103. <u>https://doi.org/10.2307/2096347</u>

- Streiner, D. L. (2003). Starting at the beginning: an introduction to coefficient alpha and internal consistency. *Journal of Personality Assessment*, 80(1), 99-103. https://doi.org/10.1207/S15327752JPA8001\_18
- Suls, J., & Martin, R. (2009). The air we breathe: A critical look at practices and alternatives in the peer-review process. *Perspectives on Psychological Science*, 4(1), 40-50. https://doi.org/10.1111/j.1745-6924.2009.01105.x
- Thompson, A. E., & O'Sullivan, L. F. (2015). Drawing the line: The development of a comprehensive assessment of infidelity judgments. *The Journal of Sex Research*, 53(8), 910-926. <u>https://doi.org/10.1080/00224499.2015.1062840</u>
- Thompson, A. E., & O'Sullivan, L. F. (2016). I can but you can't: Inconsistencies in judgments of and experiences with infidelity. *Journal of Relationships Research*, 7(3), 1-13. <u>https://doi.org/10.1017/jrr.2016.1</u>
- Thornton, A., Axinn, W. G., & Hill, D. H. (1992). Reciprocal effects of religiosity, cohabitation, and marriage. *American Journal of Sociology*, 98(3), 628-651. <u>https://doi.org/10.1086/230051</u>
- Treas, J., & Giesen, D. (2000). Sexual infidelity among married and cohabiting Americans. Journal of Marriage and Family, 62(1), 48-60. <u>https://doi.org/10.1111/j.1741-</u> 3737.2000.00048.x
- \*Trinitapoli, J., & Regnerus, M. D. (2006). Religion and HIV risk behaviors among married men: Initial results from a study in rural Sub-Saharan Africa. *Journal For the Scientific Study of Religion, 45*(4), 505-528. <u>https://doi.org/10.1111/j.1468-5906.2006.00325.x</u>

- Tuttle, J. D., & Davis, S. N. (2015). Religion, infidelity, and divorce: Reexamining the effect of religious behavior on divorce among long-married couples. *Journal of Divorce & Remarriage, 56*(6), 475-489. <u>https://doi.org/10.1080/10502556.2015.1058660</u>
- \*Vail-Smith, K., Whetstone, L.M., & Knox, D. (2010). The illusions of safety in "monogamous" undergraduate relationships. *American Journal of Health Behavior*, 34(1), 12-20. <u>https://doi.org/10.5993/AJHB.34.1.2</u>
- Valentine, J. C., Pigott, T. D., & Rothstein, H. R. (2010). How many studies do you need? A primer on statistical power for meta-analysis. *Journal of Educational and Behavioral Statistics*, 35(2), 215-247. https://doi.org/10.3102%2F1076998609346961
- Weaver, A. J., Kline, A. E., Samford, J. A., Lucas, L. A., Larson, D. B., & Gorsuch, R. L. (1998). Is religion taboo in psychology? A systematic analysis of research on religion in seven major American Psychological Association journals: 1991–1994. *Journal of Psychology and Christianity*, 17(3), 220–232. <u>https://psycnet.apa.org/record/1998-12587-003</u>
- \*Whisman, M. A., Gordon, K. C., & Chatav, Y. (2007). Predicting sexual infidelity in a population-based sample of married individuals. *Journal of Family Psychology*, 21(2), 320-324. https://doi.org/10.1037/0893-3200.21.2.320
- Whisman, M. A., Dixon, A. E. & Johnson, B. (1997). Therapists' perspectives of couple problems and treatment issues in couple therapy. *Journal of Family Psychology*, *11*(3), 361-366. <u>https://psycnet.apa.org/doi/10.1037/0893-3200.11.3.361</u>
- \*Whisman, M. A., & Snyder, D. K. (2007). Sexual infidelity in a national survey of American women: Differences in prevalence and correlates as a function of method of assessment.

Journal of Family Psychology, 21(2), 147-154. <u>https://doi.org/10.1037/0893-</u> 3200.21.2.147

- Wiederman, M. W. (1997). Extramarital sex: Prevalence and correlates in a national survey. Journal of Sex Research, 34(2), 167-174. <u>https://doi.org/10.1080/00224499709551881</u>
- Wiederman, M. W., & Hurd, C. (1999). Extradyadic involvement during dating. Journal of Social and Personal Relationships, 16(2), 265–274.

https://doi.org/10.1177/0265407599162008

- \*Williams, A. J. (2010). Enhancing marital happiness: The effects of religious attendance on infidelity, religious congruence, and spousal supportiveness (Order No. 1478965). Available from ProQuest Dissertations & Theses A&I. (737527427). https://ezproxy.uvu.edu/login?url=https://www.proquest.com/dissertationstheses/enhancing-marital-happiness-effects-religious/docview/737527427/se-2?accountid=14779
- Wilson, K., Mattingly, B. A., Clark, E. M., Weidler, D. J., & Bequette, A. W. (2011). The gray area: Exploring attitudes toward infidelity and the development of the Perceptions of Dating Infidelity Scale. *The Journal of Social Psychology*, *151*(1), 63-86. https://doi.org/10.1080/00224540903366750
- Witter, R. A., Stock, W. A., Okun, M. A., & Haring, M. J. (1985). Religion and subjective well-being in adulthood: A quantitative synthesis. *Review of Religious Research*, 26(4), 332-342. <u>https://doi.org/10.2307/3511048</u>
- Wolfinger, N. H., & Wilcox, W. B. (2008). Happily ever after? Religion, marital status, gender and relationship quality in urban families. *Social Forces*, 86(3), 1311-1337. <u>https://doi.org/10.1353/sof.0.0023</u>

Zitzman, S. T., & Butler, M. H. (2009). Wives' experience of husbands' pornography use and concomitant deception as an attachment threat in the adult pair-bond relationship. *Sexual Addiction & Compulsivity*, 16(3), 210-240. <u>https://doi.org/10.1080/10720160903202679</u>

### Appendix

### Table 1

#### **Description of Study Characteristics**

Study	Religiosity	Infidelity	Relationship Status	Gender	Race	Location	Peer- Reviewed	Sample Representative
Abalos (2011)	Other religiosity	Physical	Married or cohabiting	0		Philippines	Yes	Yes
Adamopoulou (2013)	Attendance	Physical	Mixed (married, cohabiting, dating)			USA	Yes	Yes
Allen (2008)	Other religiosity	Physical	Married	50%	4.17%	USA	Yes	No
Ali (2001)	Other religiosity	Physical	Married	0%		Cote D'Ivoire	Yes	Yes
Behar (2018)	Other religiosity Attendance	Physical	Married	49.4%	29.9%	USA	No	No
Choi (1994)	Attendance	Physical	Married	 0% 	100% 0% 100%	USA	Yes	No No No
Cowart (2018)	Other religiosity Spirituality/ sanctification	Physical	Married	55.3%	12.2%	USA	No	No
Edwards (1976)	Other religiosity	Physical	Married	58%	0%	Canada	Yes	No
Esselmont (2014)	Other religiosity Attendance	Physical	Married	51%		USA	Yes	Yes
Fincham (2010) Study 1 Study 2	Other religiosity	Physical	In romantic relationship	85.3%		USA	Yes	No

Study	Religiosity	Infidelity	Relationship Status	Gender	Race	Location	Peer- Reviewed	Sample Representative
	Spirituality/ sanctification	Unclear						
Gonzalez (2013)	Unclear	Physical Emotional	Married	64%	100%	USA	No	No
Hansen (1987)	Unclear	Physical	Never married	56.7%	19.1%	USA	Yes	No
Hill (2004)	Other religiosity	Physical	Married (81%) or cohabiting	0%		Brazil	Yes	Yes
Johnston (1997)	Other religiosity	Physical	"Vast majority married"	0%		USA	No	No
Khasmakhi (2018)	Unclear	Unclear?	Married	50.5%		Iran	Yes	No
Liu (2000)	Attendance	Physical	Mixed	57.1%	17.4%	USA	Yes	No
Maddox Shaw (2013)	Attendance	Physical	Never married	65.1%	18.7%	USA	Yes	No
Mahambrey (2018)	Other religiosity	Unclear	Mixed, 73% married	55%	12%	USA	Yes	Yes
Mark (2011)	Other religiosity	Physical	Monogamous relationship 50% married	55.1%	Men 21.8% Wome n 14.2%	USA & Canada	Yes	No
Martins (2014)	Other religiosity	Unclear	Dating	68.4%		Portugal	Yes	No
Martins (2016)	Other religiosity	Physical Emotional	Dating	71.6%		Portugal	Yes	No
McAllister (2020)	Unclear Spirituality/ sanctification	Physical Emotional	Dating	78.5%	32%	USA	Yes	No

Study	Religiosity	Infidelity	Relationship Status	Gender	Race	Location	Peer- Reviewed	Sample Representative
Negash (2016, 2019)	Other religiosity	Physical	Exclusive romantic relationship	57%	30%	USA	Yes	No
Norona (2016)	Other religiosity	Physical Emotional	Dating	65.8%	16.2%	USA	Yes	No
Potter (2011)	Unclear	Physical	Married	51%		USA	Yes	No
Rayesh (2018)	Other religiosity Spirituality/ sanctification	Physical Emotional	Married	76.1%		Iran	Yes	No
Scheeren (2019)	Unclear	Unclear	Married (55%) or partnered	70.1%		Brazil	Yes	No
Smith (2012)	Attendance	Unclear	Mixed	48.4%		Germany	Yes	Yes
				61.1%		UK		Yes
				54.1%		USA		Yes
Spanier (1983)	Other religiosity	Physical	Separated or divorced	55.6%		USA	Yes	No
Trinitapoli (2006)	Attendance Other religiosity	Physical	Married	0%		Malawi	Yes	No
Vail-Smith (2010)	Other religiosity	Physical	97% never married	61.5%	21.9%	USA	Yes	No
Whisman (2007a)	Unclear	Physical	Married	100%	11.3%	USA	Yes	Yes
Whisman (2007b)	Unclear	Physical	Married	54.6%	16.1%	USA	Yes	No
Williams (2010)	Attendance	Unclear	Married	62%		USA	No	No

*Note.* -- indicates "not reported." "Gender" is indicated by the percentage of the sample that is female. "Race" is indicated by the percentage of the sample, in majority-white countries, that is BIPOC+.

### Table 2

# Summary of Study Effect Sizes

Study	Group(s)	Statistic Reported	Original Effect Size	Standard Error	Original Standard	Correlation (Pearson's	Study aggregate	Study 95% CI*
				Reported	Error	r)	r*	
Abalos	Catholic	Cohort 2x2	Inf events	N	Inf N 2252	57*	58	60,56
(2011)		(Events)	495, no inf		No inf N			
			events 1757		2252			
	Muslim		Inf events 4,		Inf N 118,	88*		
			no inf events		no inf N			
			114		118			
	Other Christian		Inf events		Inf N 378,	52*		
			94, no inf		no inf N			
			events 284		378			
Adamopoulou	All	Independent	Inf mean	Inf SD, N	Inf 1.37,	06*	06	09,04
(2013)		Groups	1.22		1146			
		(relig M by	No inf mean	No inf	No inf			
		infidelity	1.44	SD, N	1.50, 4068			
		status)						
Allen (2008)	Female relig & inf	Independent	Inf mean	Inf SD, N	Inf 8.13,	.01*	08	20, .05
		Groups	3.27		22			
		(relig M by	No inf mean		No inf			
		infidelity	3.18		1.28, 96			
	Female relig, male	status)	Inf mean		Inf 1.28,	18*		
	inf		2.62		26			
			No inf mean		No inf			
			3.18		1.28, 96			
	Male relig, female		Inf mean		Inf 4.23,	07*		
	inf		2.73		22			
			No inf mean		No inf			
			3.11		1.27, 96			

Study	Group(s)	Statistic Demoster <sup>1</sup>	Original	Standard	Original	Correlation	Study	Study
		Reported	Effect Size	Error	Standard	(Pearson's	aggregate	95% CI*
-			<b>T</b> 0	Reported		<i>r</i> )	r ·	
	Male relig & inf		Inf mean		Inf 2.96,	13*		
			2.53		26 N. i. c			
			No inf mean		No inf			
<u>A1: (2001)</u>	A 11		3.11	0.50/ 01	1.27,96	0.0*	00	10 01
<u>Ali (2001)</u>	All	Odds Ratio	0.76	<u>95% CI</u>	.0.48, 1.19	08*	09	18,01
Behar (2018)	Other religiosity	Chi-Square	16.79	Ν	77	4'/*	39	51,24
	Attendance	0.11 D!	6.95			30*	•	
Choi (1994)	Black Sample	Odds Ratio	5.18	95% CI	1.61, 16.71	.41*	.38	.20, .55
	Hispanic Sample		4.77		1.20, 18.88	.40*		
	White Sample	~ 1 !	2.02		0.21, 19.58	.19*	<u> </u>	
Cowart	Other religiosity	Correlation	02	Ν	123	02	03	16, .10
(2018)	Sanctification		.31		123	.31		
	Prayer		04		123	04		
Edwards	Men	Correlation	.000	Ν	213	.000	05	14, .04
(1976)	Women		09		294	09		
Esselmont	Biblical inerrancy	Log Odds	0.94	Standard	0.25	.25*	.25	.23, .27
(2014)	(all)	Ratio		Error (log)				
	Attendance (all)		0.98		0.07	.26*		
	High religious		0.76		0.30	.21*		
	importance (all)							
	Religious marital		0.91		0.07	.24*		
	formation (all)							
	Black Protestant		2.54		1.32	.57*		
	Jewish		0.29		0.33	.08*		
	Mainline		0.68		0.25	.18*		
	Protestant							
	Other Protestant		1.91		1.14	.47*		
	Other religion		1.26		0.69	.33*		
	Unaffiliated		1.35		0.51	.35*		

Study	Group(s)	Statistic Reported	Original Effect Size	Standard Error Reported	Original Standard Error	Correlation (Pearson's <i>r</i> )	Study aggregate r*	Study 95% CI*
Fincham (2010)							10	20, .001
Study 1 Study 2	All Infidelity Infidelity Acts	Correlation Independent Groups (relig M by infidelity status)	10 Inf 3.91, no inf 2.44 Inf 3.06, no	N SD, N	375 Inf 2.16, 20 No inf 1.04, 22 Inf 2.35.	10 40* 35*	40	62,14
			inf 1.72		20 No inf 1.01, 22			
Gonzalez (2013)	Emotional inf Physical inf	Log Odds Ratio	.04 02	Standard Error	.04	.01* 01*	.00	03, .03
Hansen (1987)	Men Women	Correlation	19 20	Ν	93 122	19 20	20	32,06
Hill (2004)	All	Odds Ratio	4.72	95% CI	1.71, 12.93	.39*	.39	.16, .59
Johnston (1997)	Difficulty devotions	<i>t</i> -value	-1.31	N	24	27*	36	50,20
	Spiritual accountability		-2.45		23	47*		
	Satisfaction church support		1.69		28	31*		
	Satisfaction clergy supervisor Satisfaction God		0.64		15	17*		
	Satisfaction		2.70		28	47*		
	Presbytery		2.03		28	37*		
Khasmakhi (2018)	All	Correlation	.00	N	321	.00	.00	11, .11

Study	Group(s)	Statistic Reported	Original Effect Size	Standard Error Reported	Original Standard Error	Correlation (Pearson's <i>r</i> )	Study aggregate <i>r</i> *	Study 95% CI*
Liu (2000)	Men Women	Log Odds Ratio	11 08	Standard Error	.06 .07	03* 02*	03	05,003
Maddox	Attendance	Cohen's d	-0.13	Standard	.04	06*	07	11,03
Shaw (2013)	Other Religiosity		-0.10	Error	.05	05*		
Mahambrey (2018)	All	Chi-Square	10.96	Ν	2869	06*	06	10,03
Mark (2011)	All	Chi-Square	10.63	Ν	915	11*	11	17,04
Martins (2014)	All	<i>t</i> -value	1.88	Ν	156	.15*	.15	01, .30
Martins (2016)	Men in-person emotional inf	Odds Ratio	0.90	95% CI	0.51, 1.57	03*	.04	04, .12
× ,	Men in-person physical inf		1.62		0.83, 3.15	.13*		
	Men online emotional inf		1.60		0.93, 2.78	.13*		
	Men online physical inf		1.94		0.86, 4.41	.18*		
	Women in-person emotional inf		1.07		0.74, 1.53	.02*		
	Women in-person		0.96		0.58, 1.59	01*		
	Women online emotional inf		1.18		0.81, 1.70	.05*		
	Women online physical inf		0.93		0.39, 2.22	02*		
McAllister (2020)	Men relig emotional inf	Correlation	.12	Ν	154	.12	.003	07, .08
(2020)	Men relig physical		.09		154	.09		
			11		154	11		

Study	Group(s)	Statistic Reported	Original Effect Size	Standard Error Reported	Original Standard Error	Correlation (Pearson's <i>r</i> )	Study aggregate <i>r</i> *	Study 95% CI*
	Men sanct			1				
	emotional inf		13		154	13		
	Men sanct							
	physical inf		.01		562	.01		
	Women relig		0.6					
	emotional inf		06		562	06		
	Women relig		0.0		5()	0.0		
	physical inf		08		562	08		
	emotional inf		- 12		562	- 12		
	Women sanct		12		302	12		
	physical inf							
Negash	All	Correlation	.02	N	647	.02	.02	06, .10
(2016, 2019)								
Norona	Emotional inf	<i>t</i> -value	2.38	Ν	118	.22*	.24	.07, .41
(2016)	Physical inf		3.03		118	.27*		
Potter (2011)	All	<i>t</i> -value	3.11	Ν	434	15*	15	24,06
Pavech	Pelig infact	Correlation	17	N	222	17	17	26 08
(2018)	Sanct infact	Conclation	17	1	222	17	1/	2008
(2010)	Relig emotional		- 17		222	- 17		
	inf		•1 /			•1 /		
	Relig physical inf		17		222	17		
	Sanct emotional		18		222	18		
	inf							
	Sanct physical inf		19		222	19		
Scheeren (2019)	All	Odds Ratio	0.29	95% CI	.09, 1.01	32*	32	57,02
Smith (2012)	German Men	Independent	Inf 1.26	SD, N	Inf 0.76,	04*	06	07,004
		Groups (M	No inf 1.47		38			

ReportedEffect SizeError ReportedStandard Error(Pearson's aggregate $pr *$ 95% CI*inf, M no inf)inf, M no inf)No inf $0.86, 1635$ No infGerman WomenInf 1.32 No inf 1.45Inf 0.85, $02*$ No inf $0.81, 1542$ No inf $0.81, 1542$ UK MenInf 1.82 No inf 2.04Inf 0.96, $08*$ No inf $1.00, 1538$ No inf $1.00, 1538$ UK WomenInf 2.04 No inf 2.27Inf 0.87, $07*$ 268 No infNo inf $0.97, 2593$ US MenInf 2.85 No inf 2.97Inf 1.01, $05*$ No inf $1.00, 4522$ US WomenInf 2.97 No infInf 0.99, $07*$	Study	Group(s)	Statistic	Original	Standard	Original	Correlation	Study	Study
Reported         Error         r) $r^*$ inf, M no inf)         No inf         No inf $r^*$ German Women         Inf 1.32         Inf 0.85,02* $r^*$ No inf         25         No inf $0.81, 1542$ UK Men         Inf 1.82         Inf 0.96,08* $r^*$ UK Wen         Inf 2.04         Inf 0.96,08* $r^*$ UK Women         Inf 2.04         Inf 0.87,07* $r^*$ US Men         Inf 2.85         Inf 1.01,05* $r^*$ US Women         Inf 2.97         Inf 0.99,07* $r^*$			Reported	Effect Size	Error	Standard	(Pearson's	aggregate	95% CI*
$\begin{array}{cccccccccccccccccccccccccccccccccccc$					Reported	Error	<i>r</i> )	r*	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$			inf, M no			No inf			
German WomenInf 1.32Inf 0.85, $02^*$ No inf 1.4525No inf 1.4525No inf 0.81, 1542UK MenInf 1.82Inf 0.96, $08^*$ No inf 2.04283No inf 1.00, 1538UK WomenInf 2.04Inf 0.87, $07^*$ VS MenInf 2.85Inf 1.01, $05^*$ No inf 2.971392No inf 1.00, 4522US WomenInf 2.97Inf 2.97Inf 0.99, $07^*$			inf)			0.86, 1635			
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		German Women		Inf 1.32		Inf 0.85,	02*		
UK MenInf 1.82No inf $0.81, 1542$ UK MenInf 1.82Inf 0.96,08*No inf 2.04283No inf1.00, 1538UK WomenInf 2.04Inf 0.87,07*No inf 2.27268No inf0.97, 2593US MenInf 2.85Inf 1.01,05*No inf 2.971392No inf1.00, 4522US WomenInf 2.97Inf 0.99,07*				No inf 1.45		25			
UK Men       Inf 1.82       Inf 0.96,08*         No inf 2.04       283         No inf       1.00, 1538         UK Women       Inf 2.04       Inf 0.87,07*         No inf 2.27       268         No inf       0.97, 2593         US Men       Inf 2.85       Inf 1.01,05*         No inf 2.97       1392         VS Women       Inf 2.97       Inf 0.99,07*						No inf			
UK MenInf 1.82Inf 0.96, $08^*$ No inf 2.04283No inf 1.00, 1538UK WomenInf 2.04Inf 0.87, $07^*$ No inf 2.27268No inf 1.01, $05^*$ US MenInf 2.85Inf 1.01, $05^*$ No inf 2.97US WomenInf 2.97Inf 0.97, 2593US WomenInf 2.97Inf 0.97, 2593US WomenInf 2.97Inf 0.99, $07^*$						0.81, 1542			
No inf 2.04283 No inf 1.00, 1538UK WomenInf 2.04Inf 0.87,07*No inf 2.27268 No inf 0.97, 2593No inf 0.97, 2593US MenInf 2.85 No inf 2.97Inf 1.01,05* 1392 No inf 1.00, 4522US WomenInf 2.97Inf 0.99,07*		UK Men		Inf 1.82		Inf 0.96,	08*		
Wo inf       1.00, 1538         UK Women       Inf 2.04       Inf 0.87,07*         No inf 2.27       268         No inf       0.97, 2593         US Men       Inf 2.85       Inf 1.01,05*         No inf 2.97       1392         No inf       1.00, 4522         US Women       Inf 2.97         US Women       Inf 2.97         US Women       Inf 2.97         US Women       Inf 2.97         No inf       1.00, 4522         US Women       Inf 2.97         US Women       Inf 2.97				No inf 2.04		283			
UK Women       Inf 2.04       Inf 0.87,07*         No inf 2.27       268         No inf       0.97, 2593         US Men       Inf 2.85       Inf 1.01,05*         No inf 2.97       1392         US Women       Inf 2.97       Inf 0.99,07*						No inf			
UK WomenInf 2.04Inf 0.87, $07^*$ No inf 2.27268No inf 0.97, 2593US MenInf 2.85Inf 1.01, $05^*$ No inf 2.97I392No inf 1.00, 4522US WomenInf 2.97Inf 0.99, $07^*$						1.00, 1538			
No inf 2.27 $268$ No inf $0.97, 2593$ US Men       Inf 2.85       Inf 1.01,05*         No inf 2.97       1392         No inf $1.00, 4522$ US Women       Inf 2.97       Inf 0.99,07*		UK Women		Inf 2.04		Inf 0.87,	07*		
US Men $Inf 2.85$ $Inf 1.01,05*$ No inf No inf 2.97 $I392$ US Women $Inf 2.97$ $Inf 0.99,07*$				No inf 2.27		268			
US Men $Inf 2.85$ $Inf 1.01,05*$ No inf 2.97 $1392$ US Women $Inf 2.97$ $Inf 0.99,07*$						No inf			
US Men Inf 2.85 Inf 1.01,05* No inf 2.97 1392 US Women Inf 2.97 Inf 0.99,07*						0.97, 2593			
No inf 2.97       1392         No inf       1.00, 4522         US Women       Inf 2.97         No inf       1.00, 4522         Inf 0.99,      07*		US Men		Inf 2.85		Inf 1.01,	05*		
US Women Inf 2.97 Inf 0.99,07*				No inf 2.97		1392			
US Women Inf 2.97 Inf 0.99,07*						No inf			
US Women $Inf 2.97$ $Inf 0.99$ , $07*$						1.00, 4522			
		US Women		Inf 2.97		Inf 0.99,	07*		
No inf 3.15 1017				No inf 3.15		1017			
No inf						No inf			
0.94, 5947						0.94, 5947			
Spanier         All         Chi-Square         5.40         N         205        16*        16        29,03           (1983)	Spanier (1983)	All	Chi-Square	5.40	Ν	205	16*	16	29,03
Trinitapoli Attendance Correlation08 N 96008 .05 .02, .08	Trinitapoli	Attendance	Correlation	08	N	960	08	.05	.02, .08
(2006) African Log Odds .46 Standard .21 .13*	(2006)	African	Log Odds	.46	Standard	.21	.13*		
Independent Ratio Error		Independent	Ratio		Error				
Missionary .33 .13 .09*		Missionarv		.33		.13	.09*		
Protestant		Protestant							
Muslim .56 .56 .15*		Muslim		.56		.56	.15*		

Study	Group(s)	Statistic	Original	Standard	Original	Correlation	Study	Study
		Reported	Effect Size	Error	Standard	(Pearson's	aggregate	95% CI*
				Reported	Error	r)	r*	
	Pentecostal		.24		.10	.07*		
	Other		.49		.27	.13*		
Vail-Smith	Men	Odds Ratio	0.79	95% CI	.48, 1.30	06*	08	16, .02
(2010)	Women		0.74		.48, 1.14	08*		
Whisman	Computer	Correlation	06	Ν	4884	06	06	08,04
(2007a)	In-person		05		4884	05		
Whisman	All	Odds Ratio	0.52	95% CI	.34, .78	18*	18	28,07
(2007b)								
Williams	Respondent inf	Chi-Square	4.14	Ν	821	07*	10	15,05
(2010)	Spouse inf	-						
	-		13.91		821	13*		

*Note.* \*Indicates that the value is calculated by Comprehensive Meta-Analysis software, based on the imputed original effect size and standard error. "Inf" indicates "infidelity," "relig" indicates "religiosity," and "sanct" indicates "sanctification."

### Table 3

# **Religiosity Measurement Characteristics**

Study	Questions came from	Number of questions	Questions Wording	Psychometric Information Provided
Abalos (2011)	Philippines Demographic and Health Survey (DHS) 2003	1*	Religious affiliation (Catholic, Muslim, Others)	
Adamopou lou (2013)	Wave III of Longitudinal Study of Adolescent Health	1	Attendance in religious services: 1- a few times; 2- several times; 3- once a month; 4- two or three times a month; 5- once a week; 6- more than once a week.	
Allen (2008)		1	Rate how religious they were from a scale of 1 (not at all religious) to 5 (very religious).	
Ali (2001)	Cote d'Ivoire DHS 1994	1*	Religious affiliation: Christian, Muslim, Traditional or None	
Behar (2018)		2	"How often do you attend religious services?" (Never, 1-2 year, several times a year, once a month, 2-3 month, once a week, several times a week) "What is your religious preference?" (Roman Catholic, Protestant, Jewish, Christian Scientist, Muslim, Mormon, Seventh-Day Adventist, Atheist, Agnostic, Orthodox, Other)	
Choi (1994)	1990/91 National AIDS Behavioral Survey	1	"Over the last year, how often have you gone to church or other types of religious meetings or services?" (1-3 times a month; Less than once a month; Don't go to church; 1 + times a week)	
Cowart (2018)	Assessment of Spirituality and Religious Sentiments		Religious Sentiments Spiritual Transcendence: Prayer Fulfillment, Universality, Connectedness	ASPIRES: Convergent validity = 0.27-0.77 Construct validity self- actualization, affect, self-
Study	Questions came	Number of	Questions Wording	Psychometric
-----------	------------------	-----------	--	------------------------------
	from	questions		Information Provided
	(ASPIRES;			esteem, hope, life
	Piedmont et al.,			satisfaction, optimism $r =$
	2008)			.4549 (Piedmont et al.,
				2008)
	Prayer Behavior			Reliability = ".94, .78,
	Questionnaire	4	See Fincham (2010)	.49, and .89 for Universal
	(Fincham, 2010)			Prayer Fulfillment,
				Connectedness, and
				overall Total Score,
				respectively" (Piedmont
				et al., 2008, p. 8).
				Religious Index Scale =
				.89 (2009)
				Lack of psychometrics
				for prayer scale
Edwards		1	Religious identity as measured by whether participants	
(1976)			were affiliated with the Roman Catholic Church	
Esselmont		5	"How much influence have your religious beliefs,	2 items biblical inerrancy
(2014)			teachings, or congregation had on the following big	r = .744
			decisions you have made in your life:	
			Your decision about whether or whom to marry? (	
			None (1) to Most important influence (5)	
			How often do you attend worship services, not	
			including weddings or funerals? (Never (0) to Once a	
			week or more (5))"	
			"How important is religion or religious faith to you	
			personally? (Somewhat important (1) to By far the	
			most important part of your life (4)"	
			"There are errors in your religious text on moral,	
			spiritual, or religious matters."	

Study	Questions came from	Number of questions	Questions Wording	Psychometric Information Provided
		•	"There are errors in your religious text regarding science or history." (Strongly disagree (1) to Strongly agree (5))	
Fincham (2010) Study 1		4	"I pray for the well-being of my romantic partner." "I pray that good things will happen for my partner." Likert scale 1-5 (never-very frequently)	Alpha T1 = .96
Study 2		2	"My relationship with my partner is holy and sacred." "I sense God's presence in my relationship with my partner."	Pearson's r T1 = $.72$ T2 = $.79$
Gonzalez (2013)	Brief Multidimensional Measure of Religiousness/Spiri tuality, part of 1998 General Social Survey	3*	Consists of a broad range of short religiosity and spiritual scales (only those assessing values, organizational religiousness, and overall self-ranking were used)	Alpha = .84 reportedly normed on a national population as part of the General Social Survey in 1998
Hansen (1987)		2	Indicate the influence of religion on their lives, five responses which ranged from none to great. How often subjects attend church services, from never to once a week.	
Hill (2004)	Brazil DHS 1996	1	Religious affiliation (None, nonpracticing Catholic [ attends church less than twice a month], practicing Catholic [attends church twice or more a month], Evangelical, Other)	
Johnston (1997)		14	"Did one or more of the following occur in the 18 months before your affair (or the time you were the most emotionally and physically vulnerable to an affair during your ordained ministry, if none occurred)?" 1-7 at time of affair; 1-7 now? "Difficulty having effective devotions" "Lack of outside spiritual accountability"	

Study	Questions came	Number of	Questions Wording	Psychometric
	Irom	questions	<ul> <li>"How satisfied were/are you with:" at time/affair 1-7 dissatisfied-satisfied; now 1-7 dissatisfied-satisfied</li> <li>"Your relationship with your church?"</li> <li>"Your relationship with your presbytery?"</li> <li>"Your relationship with God?"</li> <li>"To what degree did/do you have an emotionally close relationship with the following persons?" at time/affair 1-7; now 1-7;</li> <li>"clergy supervisor?"</li> </ul>	Information Provided
Khasmakhi (2018)	Religious Orientation Questionnaire (Allport, 1950)	20	<ul><li>11 questions (1-12) measure external religious orientation, 9 questions (13-21) measure internal religious orientation.</li><li>Likert-type scale from 1 (totally disagree) to 5 (totally agree)</li></ul>	Divergent correlation between internal and external religious orientation ( $r = .21$ ; Allport, 1968)
Liu (2000)		1	Church attendance from 0 (never) to 8 (several times a week)	
Maddox Shaw (2013)		2	"How often do you attend religious services?" (from 1 [never] to 7 [more than once a week]) "All things considered, how religious would you say that you are?" (from 1 [not at all] to 7 [very religious])	convergent validity (Johnson et al., 2002; (Rhoades et al., 2009)
Mahambre y (2018)	Midlife Development in the United States (MacArthur Foundation Research Network, 1995), second wave	1*	Asked to what degree the respondent is religious, with possible responses including very, somewhat, not very, and not at all.	
Mark (2011)		1	Importance of religion: Very important, important, slightly important, not important at all.	

Study	Questions came	Number of	Questions Wording	Psychometric
	from	questions		Information Provided
Martins (2014)				
Martins (2016)		1*	Dummy coded as $0 = Catholic$ , $1 = no$ religion	
McAllister (2020)	Manifestation of God Scale Sacred Qualities Scale	4	Sanctification, 5-point Likert scale: "I sense God's presence my relationship with my partner." "My relationship with my partner is holy and sacred. " Religiosity, 4-point Likert scale: "How often do you attend religious services?" (ranging from never, or almost never to one or more times per week) "How important is religion in your life?" (ranging	Cronbach's alpha religiosity = .83
Mitsunaga (2005)		1	Affiliation, possible answers were Catholic, Protestant, Other Christian, Muslim, Traditionalist/other	
Negash (2016, 2019)		1	"All things considered how religious would you say you are?"	
Norona (2016)	Intrinsic Religious Motivation Scale (Hoge, 1972)	10	"My faith involves all of my life." "Although I believe in my religious, I feel there are many more important things in life." From 1 to 4 (1 = Strongly disagree, 4 = Strongly agree)	Current study: Alpha = .89 "Strong validity with other measures of religiosity, such as ministers' judgements"
Potter (2011)	National Youth Survey	2	"During the past year, how often did you attend religious services?" 5 indicates several times a week. "How important has religion been in your life?" 5 indicates that religion is very important.	

Study	Questions came from	Number of questions	Questions Wording	Psychometric Information Provided
Rayesh (2018)	Partner-Focused Prayer Measure (Fincham, 2010)	4	See Fincham (2010)	Current study: Religiosity alpha = .62
	Manifestation of God in Marriage Scale (Mahoney, 1999)	13	"My marriage represents God's presence in my life" "My marriage is a holy bond"	Sanctification alpha = .94
Scheeren (2019)		1*	Regular religious practitioner or not	
Smith (2012)		1	Four-point ordinal scale of frequency of attendance at religious services where four is most frequent and one is least frequent.	
Spanier (1983)		1	"Would you say you are very religious, somewhat religious, slightly religious, or not at all religious?"	
Trinitapoli (2006)	Second wave of the Malawi Diffusion and Ideational Change Project (MDICP)	2	"When was the last time you went to church (or mosque)?" "in the last week," "in the last month," "last 2-6 months," "more than 6 months ago" Select one of "Catholic, Protestant, Revivalist, Moslem, Traditional African, No Religion, or Other," categorized into "Catholic; Pentecostal; African Independent; mission Protestant; Muslim; or other"	Data said to be reliably consistent with the first wave of the MDICP (they mentioned it is "roughly" test-retest period)
Vail-Smith (2010)	Health Behavior Survey based on the Centers for Disease Control and National College Health Risk Behavior Survey	1*	"Respondents who self-identified as not being religious" // "those identifying themselves as religious"	

Study	Questions came	Number of	Questions Wording	Psychometric Information Provided
Whisman (2007) married	The National Comorbidity Survey	4	<ol> <li>The importance of religious or spiritual beliefs in daily life.</li> <li>Frequency of attending religious services.</li> <li>Whether participants sought spiritual comfort during problems or difficulties.</li> <li>Whether participants asked themselves what God would want them to do when making decisions in daily life.</li> </ol>	Alpha = .87
Whisman (2007)	Cycle 5 of the National Survey of Family Growth	2	"Currently, how important is religion in your daily life? Would you say it is very important, somewhat important, or not important?" "About how often do you attend religious services? Would you say more than once a week, once a week, 1-3 times per month, less than once a month, or never?"	Pearson's $r = .62$
Williams (2010)	2006 National Survey of Religion and Family Life Modified version of Steensland et al. (2000) classification of religion	5* (2 for congruence )	Religious affiliation: Catholic, Protestant, other (including Jewish, Mormon/Church of Jesus Christ of Latter-day Saints, Greek or Russian Orthodox, Islam or Muslim, other Christian, and other non- Christian faiths) and none (consisting of atheists and respondents who identify with no denomination Frequency of religious attendance: dichotomized as frequent (more than once a week, once a week, or almost every week) and infrequent (once or twice a month, a few times a year, or never). Whom the respondent goes to church with Religious congruence: "1) Do you feel your spouse shares your core religious or spiritual values? (Yes, No)"	

Study	Questions came	Number of	Questions Wording	Psychometric
	from	questions		Information Provided
			"2) How often do you pray or do religious activities	
			with your spouse or children together at home, besides	
			grace at meals?"	

*Note.* -- indicates "not reported." \* indicates that the exact number of questions was not reported in the study. I estimated the amount, assuming only one question per referenced domain of religiosity.

# Table 4

# Infidelity Measurement Characteristics

Study	Questions came from	Number of questions	Questions Wording	Psychometrics
Abalos (2011)	Philippines Demographic and Health Survey (DHS) 2003	2	"Apart from the woman/women you have already mentioned, do you currently have any other regular, occasional, or regular and occasional sexual partners?" "Have you had sex with any other woman in the last 12 months?"	
Adamopoulou (2013)	Wave III of Longitudinal Study of Adolescent Health	1*	"The respondents had to list all their current and previous sexual relationships with detailed information on the starting and ending date, whether they cohabited and how long, when they got married, etc If the respondent had more than one relationship in a given month, we keep the one with the longest overall duration and treat the event as infidelity."	
Allen (2008)	Sensual/sexual Satisfaction Subscale of the Marital Satisfaction Inventory (Snyder, 1979)	1	"True/False: I have never been sexually unfaithful to my partner."	
Ali (2001)	Cote d'Ivoire DHS 1994	1*	"Men were asked whether, in the past two months, they had had any sexual relationship with any nonmarital partner and, if so, the number of such partners and whether they had used a condom during the most recent sexual act."	

Study	Questions came from	Number of questions	Questions Wording	Psychometrics
Behar (2018)		6	The Behar-Canillas-Balice Measure of Infidelity consists of six questions measuring past instances of sexual infidelity including: kissing, hand to genital manipulation, oral sex, vaginal sex, anal sex, and cybersex.	Alpha = .88, pretested with experts & lay individuals
Choi (1994)	1990/91 National AIDS Behavioral Survey	1	"Over the past 12 months, how many different people have you had either vaginal or anal intercourse with?"	
Cowart (2018)		1	"Have you ever had an extramarital sexual relationship with someone other than your spouse while married to your current spouse?"	
Edwards (1976)		1	"At any time during your marriage have you had sexual inter-course with some other person than your spouse?"	
Esselmont (2014)		1	sexual involvement with someone other than their spouse since marriage, binary yes/no	
Fincham (2010) Study 1		4	Whether participants engaged in kissing, sexual intimacy without intercourse, and sexual intercourse in the past month with someone other than their romantic partner. Level of attraction (e.g., "How attractive did you find	Pearson's <i>r</i> T1 = .96 T2 = .96
Study 2	The Infidelity Scale (Drigotas, 1999)	9	this person?") arousal (e.g., "How much arousal did you feel in their presence?"), emotional engagement (e.g., "How emotionally intimate were you with this person?), and physical involvement (e.g., "How physically intimate were you with this person?")	Infidelity acts (2 questions from The Infidelity Scale) TI $r = .77$ T2 $r = .74$
Gonzalez (2013)		16	"Sexual infidelity is defined here as committing a sexual act (intercourse, oral/anal sex, kissing,	

Study	Questions came	Number of	Questions Wording	Psychometrics
	from	questions		
			fondling) with someone other than your spouse	
			without their approval.	
			1. During the course of my current marriage I have	
			committed sexual infidelity as defined above. Yes/No	
			2. If yes, I have committed sexual infidelity (during	
			the course of my current marriage) with	
			approximately how many partners. o 1 o 2 o 3 o 4	
			o 5 o 6 or more	
			3. If yes, when did you start committing sexual	
			infidelity in your current marriage?	
			Before marriage (when dating current spouse) 0-1st	
			year 2nd-5th year 6th-9th year 10th-20th year After	
			20 years	
			4. If yes, is your spouse aware that you have	
			committed sexual infidelity? Yes/No	
			5. Are you aware that your spouse has committed	
			sexual infidelity during your marriage? Yes/No"	
			"Emotional infidelity is defined here as being	
			attracted to someone other than your spouse and	
			engaging in a nonsexual relationship (flirting, dating,	
			romantic conversations, e-mails) with this person	
			without your spouse's knowledge. Usually, there are	
			feelings of guilt or wrongness associated with this	
			type of infidelity.	
			6. During the course of my current marriage I have	
			committed emotional infidelity as defined above.	
			Yes/No	
			7. If yes, I have committed emotional infidelity	
			(during the course of my current marriage) with	
			approximately how many partners. 1 2 3 4 5 6 or	
			more	

Study	Questions came from	Number of questions	Questions Wording	Psychometrics
			8. If yes, when did you start committing emotional	
			infidelity in your current marriage? o Before	
			marriage (when dating current spouse) 0-1st year	
			2nd-5th year 6th-9th year 10th-20th year After 20	
			years	
			9. If yes, is your spouse aware that you have	
			committed emotional infidelity? Yes/No	
			10. Are you aware that your spouse has committed	
			emotional infidelity during your marriage? Yes/No	
			11. What would you say is the main reason you have	
			committed infidelity (if answered yes to sexual or	
			emotional infidelity)? (write in)	
			12. What would you say is the main reason you have	
			not committed infidelity? (write in)	
			13. How many sexual partners have you had in your	
			entire life? 1 2 3 4 5 6 7 8 9 10 or more	
			14. Do you consider yourself sexually satisfied in	
			your marriage? Yes/No	
			15. Do you consider yourself happily married?	
			Yes/No	
			16. How likely is it that you will commit infidelity	
			during the rest of your marriage? Highly Unlikely	
			Unlikely Unsure Likely Highly Likely 12345"	

Study	Questions came from	Number of questions	Questions Wording	Psychometrics
Hansen (1987)		3	<ul> <li>"While in a committed dating relationship, have you ever engaged in the following with someone other than your dating partner?" Erotic kissing, petting, and sexual intercourse were listed. Subjects responded either yes (scored 1) or no (scored 0) for each. If their dating partner knew they had sexual contact with someone else.</li> <li>If they had ever had a committed partner who engaged in erotic kissing, petting, or intercourse someone else.</li> <li>"Effect of own (or partner's) extradyadic relations on quality of dating relationship (most recent relationship during which it occurred): improved a great deal, improved somewhat, did not affect, hurt somewhat, hurt a great deal."</li> </ul>	Reproducibility coefficient = .98
Hill (2004)	Brazil DHS 1996	2	Whether had an extramarital sexual partner in last year Number of sexual partners in last 12 months	
Johnston (1997)		2	<ul> <li>"Since marriage, how often in the following situations have you had sexual contact (excluding intercourse) with a woman other than your wife?"</li> <li>"Since marriage, how often in the following situations have you had sexual intercourse with a woman other than your wife?"</li> <li>"With a church member; with a member of the church staff; with a counselee; with a friend; with a stranger; with a prostitute; other"</li> </ul>	
Khasmakhi (2018)	Marital Betrayal Talents Scale	52		"Marami and Khademi (2013) determine the validity of the scale by

Study	Questions came from	Number of questions	Questions Wording	Psychometrics
	(Marami & Khademi, 2013)			construct validity (Correlation with Enrich's marital satisfaction test), internal consistency, and factor analysis. To determine the reliability of the scale, Cronbach's alpha coefficient was used."
Liu (2000)		1*	Whether had extramarital sex	
Maddox Shaw (2013)		2	<ul> <li>"Have you had sexual relations with someone other than your partner since you began seriously dating?" Or "Did you have sexual relations with someone other than your ex-partner while you were together?" depending on whether participant was still in the relationship.</li> <li>"Has your partner had sexual relations with someone other than you since you began seriously dating?" Or "Did your ex-partner have sexual relations with someone other than you while you were together?" depending on whether participant was still in the relationship. "No, Probably not, Probably so, and Yes, I know for sure" "Yes, I know for sure," coded as 1, others coded as 0.</li> </ul>	
Mahambrey (2018)	Midlife Development in the United States (MacArthur Foundation	1*	"The following questions are about experiences you may have had at ANYTIME. Check the appropriate boxes next to any of the following experiences you have had." One response category included "Spouse/partner engaged in (marital) infidelity."	

Study	Questions came from	Number of questions	Questions Wording	Psychometrics
	Research Network, 1995), second wave			
Mark (2011)		1	Indicated that they, during their current relationship, ever had "cheated (i.e., engaged in sexual interactions with someone other than your primary partner that could jeopardize, or hurt, your relationship)"	
Martins (2014)	Extradyadic Behaviors Inventory (Luo et al., 2010)	23	"The EBI consists of a self-response inventory, which includes 23 items to assess EB in person or face-to- face (offline) and 13 items to assess computer- mediated EB (online). Subjects were to report how often they engaged in each of the described behaviours with someone of the opposite sex during their current relationship. In this questionnaire, the five-point scale of Wiederman and Hurd (1999) was adopted: $1 - I  did  not  have  this  behaviour  because  I$ didn't  want  to; 2 - I  didn't  have  this  behaviour because there was no opportunity; $3 - I  had  this$ behaviour only once; $4 - I  had  this  behaviour  more$ than once with the same person; and $5 - I  had  this$ behaviour with different people."	"Studies of the Portuguese version are ongoing"
Martins (2016)	Extradyadic Behaviors Inventory (Luo et al., 2010)	23	"This self-report questionnaire consists of 23 items assessing face-to-face EDB (e.g., "kissing"; "romantic date"; "received oral sex"; "vaginal intercourse") and 13 items assessing online EDB (including internet and phone interactions; e.g., "spent time online with romantic interest"; "shared sexually provocative pictures"; "phone sex"). Participants were asked to report how often they had engaged in each of the listed behaviors while in their current relationship with someone (of	Alpha = .7398

Study	Questions came from	Number of questions	Questions Wording	Psychometrics
		•	the opposite sex) other than their current partner. The instructions of the EDBI were not phrased specifying that these behaviors are infidelity"	
McAllister (2020)	(Drigotas, Safstrom, & Gentilia, 1999)	2	"Have you done anything that you consider to be physically unfaithful?" "Have you done anything you consider to be emotionally unfaithful?"	
Mitsunaga (2005)		1*	occurrence of currently married or cohabitating men reporting having had sex with a nonmarital and non- cohabitating partner in the last 12 months and those who did not.	
Negash (2016, 2019)		4	"Please indicate whether, within the past 2 months, you have experienced any of the following behaviors with other people while you were dating your partner. That is, at the same time you were dating your partner, did you engage in any of the following sexual or romantic behaviors with someone else?" Behaviors measured were kissing, hugging/ caressing, sexual intimacy without intercourse, and sexual intercourse. 0 = no, 1 = yes, yes to any question = placed in yes category for analysis	
Norona (2016)	The Infidelity Scale (Drigotas, 1999)	2	"How emotionally intimate were you with this person?" 0 to 8 (0 = Not at all/Never, 8 = Extremely/ A great deal/Very often) "How physically intimate were you with this person? 0 to 8 (0 = Not at all/Never, 8 = Extremely/ A great deal/Very)"	Cronbach's alpha = .95
Potter (2011)	National Youth Survey	2	"How often have you slept with someone that was not your spouse in the past year?" Survey respondents were asked specifically about their rate of sexual encounters with the paramour.	

Study	Questions came from	Number of questions	Questions Wording	Psychometrics
			Their answers were coded with values ranging from 0 to 7. If the respondent did not engage in an affair they received a 0 value while a respondent received a 7 if they had relations with their paramour every day. Intermediate levels of activity with a paramour were coded from 2-6 depending on the frequency of encounters (No affair= 0; 1-3 encounters for the year= 1; 4-9 encounters for the year= 2; Once a month= 3; Once every 2-3 weeks= 4; Once every week= 5; Two or Three times a week= 6; Once a day= 7).	
Rayesh (2018)	The Infidelity Scale (Drigotas et al., 1999)	11		Cronbach's alpha Total = .92, thought = .90, act = .87
Scheeren (2019)		1	"Did you cheat on your current partner?" Yes/No	
Smith (2012) US Sample	American General Social Survey 1991- 2010	1	Whether a respondent has ever been unfaithful to a spouse	
German Sample	1 <sup>st</sup> wave German Parfam Survey 2008- 2009	1	Whether the respondent has been unfaithful to their partner in the past year	
UK Sample	British NATSAL Survey 1999- 2001		"Infidelity in the NATSAL data is divided into three classes according to whether the cheating is reported as regular (Affair) or irregular and whether the first occasion of cheating was also the last occasion. The latter condition defines a one night encounter. If the respondent reports more than form of infidelity with	

Study	Questions came from	Number of questions	Questions Wording	Psychometrics
			their three previous partners, the individual is allocated to the most time intensive category"	
Spanier (1983)		20	<ul> <li>their three previous partners, the individual is allocated to the most time intensive category"</li> <li>1. Engaged in extramarital coitus: yes/no</li> <li>2. Extramarital kissing or petting, but not sexual intercourse with: yes/no</li> <li>3. Number of extramarital coital partners: 1,2,3, more than 3</li> <li>4. Extramarital coitus first occurred: after separation seemed likely, shortly before separation seemed likely</li> <li>5. Number of years after marriage began that extramarital coitus first occurred: less than or equal to 4 years, more than 4 years</li> <li>6. Last extramarital affair was one night stand, short-term involvement with little or no emotional attachment, involvement with some emotional commitment, a more long-term love relationship</li> <li>7. Last extramarital relationship ended before the separation, after separation, but before divorce, after divorce, continued into interview</li> </ul>	
			<ul> <li>8.Extramarital sexual relations were very satisfactory, somewhat satisfactory, a little unsatisfactory, very unsatisfactory</li> <li>9. Extramarital relations were a cause of marital problems, a result of marital problems, unrelated to marital problems</li> <li>10. Having extramarital sex made respondent feel very guilty, somewhat guilty, a little guilty, not at all guilty</li> </ul>	

Study	Questions came	Number of	Questions Wording	Psychometrics
	Irom	questions		
			11.Do you think spouse knew about your extramarital	
			relations while you were living together? Yes, no,	
			don't know	
			12. Would you say your (former) spouse strongly	
			disapproved of your extra- marital relations,	
			somewhat disapproved of your extra- marital	
			relations, neither disapproved nor approved	
			13. Did (former) spouse engage in extra- marital sex?	
			yes, no, don't know	
			14. Did spouse engage in extramarital kissing or	
			petting, but not sexual intercourse with someone? yes,	
			no, don't know	
			15. Spouses' extramarital sex first occurred: after	
			separation seemed likely, shortly before separation	
			seemed likely, well before separation seemed likely	
			16. Number of years after marriage began that	
			spouses' extramarital sex first occurred: less than or	
			equal to 4 years, more than 4 years	
			17. Spouses' last extramarital affair was One night	
			stand, short-term involvement with little or no	
			emotional attachment, involvement with some	
			emotional commitment, a more long-term love	
			relationship	
			18. Spouses' last extramarital relationship ended	
			before the separation, after separation but before	
			divorce, after divorce, continued to interview, don't	
			know	
			19. Respondents who found out about spouses'	
			affair(s) strongly disapproved of spouses' extra-	
			marital relations, somewhat disapproved of spouses'	

Study	Questions came from	Number of questions	Questions Wording	Psychometrics
			extra- marital relations, neither disapproved or approved, approved 20. Spouses' extramarital relations were a cause of marital problems, a result of marital problems, unrelated to marital problems	
Trinitapoli (2006)	Second wave of the Malawi Diffusion and Ideational Change Project (MDICP)	1	"Have you yourself slept with anyone other than your wife/wives in the last 12 months?"	
Vail-Smith (2010)		18	Having oral, anal, or vaginal sex with another person while in a monogamous relationship	"To assess content validity, the items were reviewed by a panel of 3 university professors knowledgeable in the research area. Suggested revisions were made regarding item clarity and format."
Whisman (2007)	The National Comorbidity Survey	1	"How many people (either men or women) have you had sexual intercourse with in the past 12 months?"	
Whisman (2007)	Cycle 5 of the National Survey of Family Growth	1	"During the last 12 months, that is, since (MONTH/YEAR), how many men, if any, have you had sexual intercourse with? Please count every male sexual partner, even those you had sex with only once."	

Study	Questions came	Number of	Questions Wording	Psychometrics
	from	questions		
Williams	2006 National	2	"Do you believe your spouse has ever been unfaithful	
(2010)	Survey of		to you?"	
	Religion and		"Have you ever been unfaithful to your spouse?"	
	Family Life		Both Yes/No	

*Note.* -- indicates "not reported". \* indicates that the exact number of questions was not reported in the study. I estimated the amount, assuming only one question per referenced domain of infidelity.