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Religious Attendance, Surrender to God, and Suicide Risk:
Mediating Pathways of Feeling Forgiven by God and Psychopathology

A thesis
presented to
the faculty of the Department of Psychology
East Tennessee State University

In partial fulfillment
of the requirements for the degree
Master of Arts in Psychology

by
Kelley C. Pugh
May 2019

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Keywords: Religion, Surrender, Forgiveness, Depression, Anxiety, Stress, Suicide Risk

ABSTRACT

Religious Attendance, Surrender to God, and Suicide Risk: Mediating Pathways of Feeling Forgiven by God and Psychopathology

by

Kelley C. Pugh

Suicide is a national public health concern, and college students may be at increased risk. Symptoms of psychopathology (i.e., stress, anxiety, and depression) may contribute to risk, whereas religiosity (i.e., religious attendance, surrendering to God, and feeling forgiven by God) may reduce risk. Students from a rural southeastern university ($N=249$) completed self-report measures. Serial mediation analyses indicate that attendance and surrender to God are inversely-predictive of suicide risk, both directly and through the indirect pathways of feeling forgiven by God (1st order mediator) and psychopathology (2nd order mediators). In all models, specific indirect effects occurred through feeling forgiven by God, suggesting the importance of relational aspects of religiosity. Our novel findings highlight mechanisms of action linking religiosity to suicide risk, and may provide direction for therapeutic intervention (e.g., psycho-education regarding religious involvement, fostering feelings of forgiveness) to reduce psychopathology and suicidality in the collegiate population.

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CHAPTER 1

INTRODUCTION

Suicide, defined as the act of intentionally causing one's own death, is a national health concern, as nearly 44,000 Americans die by suicide every year, making suicide the tenth leading cause of death in the U.S. (Center for Disease Control and Prevention [CDC], 2017; Sinyor, Tse, & Pirkis, 2017). Of concern, suicide is the second leading cause of death for young adults ages 15-29 (Curtin, Warner, & Hedegaard, 2016; World Health Organization [WHO], 2017) and, for those who are college students, 12% report serious contemplation of a suicide attempt at some point during their college education (Wilcox et al., 2010).

Risk for suicide is multi-factorial, encompassing biological, interpersonal, cognitive-emotional, and psychopathological elements. Robust contributors to suicidal behavior include genetic predispositions, age, sex, race and ethnicity, cognitive-emotional states, and psychopathology. Specifically, depression, anxiety, and stress, among other syndromes, are well-established predictors of suicidal behavior (Cavanagh, Carson, Sharpe, & Lawrie, 2003; Hoertel et al., 2015). Although most suicide-focused theoretical models and research justifiably address such risk factors, a growing body of work suggests that potential protective factors, including religiosity, may confer benefit during times of distress and may reduce suicide risk (Koenig, King, & Carson, 2012).

Religiosity, which is a way of connecting with the transcendent through an organized set of beliefs, is a broad construct that can be explored in numerous ways. For example, some researchers who examine the effects of religiosity on health distinguish between intrinsic and extrinsic religiosity (Allport, 1950; Hill, 2013), and others maintain that spirituality, which is not necessarily excluded from religiousness, emphasizes a personal relationship with the

transcendent, and may have differential effects from religiosity (Hackney & Sanders, 2003; Oman, 2014). However, overall, spirituality and religiosity, which is the focus of our study, are generally associated with better mental health functioning and decreased risk of suicide (Colucci & Martin, 2008; Koenig, 2009; Lawrence, Oquendo, & Stanley, 2016). Religious attendance, or frequency of attending religious services, is the most commonly used measure of religiosity (Steensland et al., 2000), and is beneficially associated with risk for psychopathology and suicidal behavior (Price & Callahan, 2017). Another marker of religiosity, surrender to God, which can be understood as a relinquishment of personal control to God, has not been as well-studied in the literature, but preliminary results suggest its benefit for well-being (Dyslin, 2008; Wong-McDonald & Gorsuch, 2000), including an association with lower rates of depression (Kelley & Chan, 2012), anxiety (Lovejoy, 2010), and stress (Clements & Ermakova, 2012). Both attendance and surrender can be conceptualized as forms of religious coping, employed to resolve stressors via collaboration with God, by making meaning out of situations, or by feeling comforted by aspects of religion (Pargament, Smith, Koenig, & Perez, 1998), including development and maintenance of a relationship with God (Fadardi & Azadi, 2017; Sansone, Kelley, & Forbis, 2013). Closeness to God, whether a consequence of service attendance or surrender, may result in beneficial involvement of additional, intrapersonal spiritual and religious characteristics. For instance, feeling forgiven by God has emerged as a robust predictor of mental and physical health, and may be a potential underlying mechanism in the relation between religious coping efforts, such as attendance or surrender, and psychopathology, including suicide risk (Griffin, Worthington, Lavelock, Wade, & Hoyt, 2015).

As such, in the current study, we examine the notion that behavioral (i.e., service attendance) and cognitive-emotional (i.e., surrender) components of religiosity are beneficially

related to suicide risk and, further, that this linkage may be best explained by the nurturing impact of religious coping on one's relationship with God (i.e., feeling forgiven by God) and psychological functioning (i.e., depression, anxiety, stress). In the following sections, we discuss the scope of the public health problem of suicide, and the potentially protective role of religious and spiritual coping, as well as potential psycho-spiritual mechanisms of action that might help to explain this salutogenic association.

Suicide Risk

Epidemiology. Suicide is a significant public health concern, both nationally and globally (Mishara, 2006; Sinyor et al., 2017). Internationally, suicide accounts for 1.4% of all deaths, approaching nearly 800,000 deaths every year (World Health Organization [WHO], 2017), and is the fourteenth leading cause of death (Nock et al., 2012). Worldwide, young people, ages 15-19 years old, are experiencing increasing rates of suicide, with a current rate of 7.4 suicide deaths per 100,000 persons, an increase compared to a rate of 4.4 per 100,000 in 1965 (Wasserman, Cheng, & Jiang, 2005). In the United States, suicide is the tenth leading cause of death, overall (Curtin et al., 2016; Xu, Murphy, & Kochanek, 2016), and the second leading cause of death for individuals aged 15-29 (WHO, 2017). Of concern, U.S. suicide rates have steadily increased since 1999 (Curtin et al., 2016) and, currently, more than 44,000 Americans die by suicide every year, a rate of 13.5 per 100,000 persons, with an average of 121 deaths by suicide per day (CDC, 2017; WHO, 2017), or one every 12.8 minutes (Drapeau & McIntosh, 2015).

Despite the prevalence of suicide deaths, suicidal ideation and attempts are more common, and represent important, targetable risk factors for intervention and prevention efforts (Luca, Franklin, Yueqi, Johnson, & Brownson, 2016; Kessler, Berglund, Borges, Nock, & Wang,

2005). At the most basic level, suicide ideation, or thoughts of suicide, occurs most frequently. For example, Nock and colleagues (2008) report that, internationally, the lifetime prevalence of suicidal ideation is 9.2%, with 3.1% of the population having made a suicide plan. Han and colleagues (2015) report, from a nationally representative survey, that 3.8% of adults in the United States endorsed suicidal ideation in a prior twelve-month period, a finding corroborated in another national sample of employed United States adults ($N= 184,300$), in which 3.1% reported suicide ideation during the prior twelve-months (Han et al., 2016). Although not all who contemplate suicide go on to attempt or die by suicide (Klonsky & May, 2014), previous research indicates that suicidal ideation is a robust predictor of a future suicide attempt (Burke et al., 2016; Rappaport, Flint, & Kendler, 2017).

Suicide attempts are also presumed to be widely prevalent; for instance, in the United States, it is estimated that, for every death by suicide, there are 25 suicide attempts (American Foundation for Suicide Prevention [AFSP], 2017), resulting in an estimated 1,028,725 suicide attempts annually, or one attempt every 31 seconds. Some trends indicate that the suicide attempt rate is growing in the United States. For example, in a nationally representative sample ($N= 69,341$), Olfson and colleagues (2017) discovered that 0.79% of adults in the United States had made a suicide attempt during 2012-2013, which was a significant increase from a 0.62% attempt rate in 2004-2005.

Risk Factors for Suicide. Given the increasing prevalence of suicidal behavior, further investigation is warranted on risk factors contributing to suicide, including biological, sociodemographic, interpersonal, cognitive-emotional, and psychopathological factors.

Biological. There is a strong body of literature indicating the existence of biological predispositions for suicide risk. Numerous studies have indicated the correlation between

parental suicide and offspring suicide; as examples, in a study of primary care patients ($N= 509$), those with a family history of suicide had a significantly higher rate of suicide attempts (15.4% vs. 4.0%; Rihmer et al., 2013) and, in a population study of German adults ($N= 7,177$), parental suicide significantly increased suicide risk in offspring, independent of mental illness or socioeconomic status (Sørensen et al., 2009). Although this linkage is likely attributable to both environmental and genetic factors, twin and adoption studies suggest a familial, inherited basis for suicide risk (Brent & Mann, 2005). As a specific example, among Danish adoptees ($N= 1,933$), Petersen, Sørensen, Andersen, Mortensen, & Hawton (2014) found a significantly higher risk of suicide attempt among biologically related siblings, suggesting a genetic component to suicide risk. Further, there is neurological evidence of differences between people who have died by suicide and control groups. For example, in brain tissues and cerebrospinal fluid from postmortem brains of people who had died by suicide, abnormal serotonin systems are implicated, including increased serotonin receptor subtypes and decreased serotonin metabolites (Pandey, 2013). Additional processes, including dysfunction of immune receptors (e.g., Toll-like receptors; Pandey, Rizavi, Ren, Bhaumik, & Dwivedi, 2014), and deficiencies of brain derived neurotrophic factor protein (Hayley et al., 2015), are also associated with suicide risk, although these findings are based on small sample sizes.

Sociodemographic. Beyond purely biological or genetic factors, demographic variables such as age, sex, and race/ethnicity specifically contribute to suicide risk. Historically, there has been a general tendency for suicide rates to increase with age, and the American Foundation of Suicide Prevention (AFSP, 2017) reports that the highest suicide rate is among adults aged 45-54 (19.7 deaths per 100,000), followed by those 85 and older (19.0 deaths per 100,000). However, there is a growing concern about the number of young people who die by suicide each year (Case

& Deaton, 2015). Suicide is among the leading causes of death for adolescents and young adults (Curtin et al., 2016), and the sharpest increase in deaths by suicide over the last five years exists in people aged 15-34 (AFSP, 2017). Suicide attempts also appear to disproportionately affect young adults. For example, in a nationally representative sample, risk for suicide attempt was significantly larger for young adults, aged 21 to 34 years old, than for any other age group (Olfson et al., 2017), suggesting that although young people may not be most likely to die by suicide, they may be most likely to attempt suicide. In 2013, for instance, for every young person, 15-24 years old, who died by suicide in the U.S., an estimated 100-200 attempts were made, resulting in approximately 487,800 or more attempts made by young people annually (Drapeau & McIntosh, 2015).

Of relevance to our study, young adults attending college may be at particular risk for suicide (American College Health Association [ACHA], 2009), perhaps as a result of stressors unique to the college experience (e.g., finances, grades, separation from historical support systems; Kadison & DiGeronimo, 2004). Among many examples, in a sample of college freshman ($N= 4,921$), low academic performance was associated with greater frequency of suicidal thoughts and behaviors (Mortier et al., 2015) and, in another study of undergraduate students, low GPA was related to higher levels of suicidal ideation ($N= 26,457$; De Luca, Franklin, Yueqi, Johnson, & Brownson, 2016). It must be noted, however, that some evidence indicates that young adults in college may be at reduced risk for suicide. For example, in a population study of adults in the United States, college students had approximately one-half the risk for death by suicide than their age and sex counterparts (Schwartz, 2006), a finding corroborated in a recent national sample ($N= 69,341$; Olfson et al., 2017).

Overall though, most studies suggest that suicide rates are increasing for the college-aged cohort (Phillips, 2014). Suicide is currently the second leading cause of death for college students (7.5 deaths per 100,000 students; Schwartz, 2006; Suicide Prevention Resource Center, 2004), and approximately 1,100 college students die by suicide each year (Wilcox et al., 2010). Annually, up to 16.5% of students endorse a suicide attempt or serious contemplation of suicide (ACHA, 2009) and, historically, 12% of students indicate they contemplated suicide during their college years (Wilcox et al., 2010). Current suicide risk is also a concern; for example, in a sample of students from a public university, 11.1% of students endorsed suicide ideation within the past four weeks (Garlow et al., 2008).

Biological sex, referring to the differences between males and females, is another established risk factor for suicide. In general, males are consistently at greater risk for suicide than female counterparts, including across national and international samples (ASFP, 2017; Bertolote & Fleischmann, 2015; Crump, Sundquist, Sundquist, & Winkleby, 2014; LeardMann et al., 2013). In the United States, males die by suicide 3.57 times more often than females (AFSP, 2017); however, females in both clinical and non-clinical samples endorse more suicide attempts than males (Olfson et al., 2017; Schaffer et al., 2015). Indeed, in a national sample of adolescents, female sex was associated with greater risk for both suicidal ideation and suicide attempts (Waldrop et al., 2007). The discrepancy among males and females and between suicide attempts and deaths by suicide can be explained, in part, by the lethality of suicide method. For example, in 2014, in the U.S., females who died by suicide were most likely to have used poisoning (34.1%), whereas males were most likely to have used firearms (55.4%; Curtin et al., 2016).

Of note, minority status of sexual orientation or gender-identity (i.e., an individual's perception of their masculine, feminine, or other-defined role within society) is another important factor that predicts suicide risk. In a diverse college sample ($N= 140$), sexual minority students reported significantly higher levels of suicidal ideation and suicide attempts than their heterosexual counterparts (Silva, Chu, Monahan, & Joiner, 2015), a finding replicated in LGB youth ($N= 31,852$; Hatzenbuehler, 2011). According to an executive summary report, nationally, 46% of transgender men report having attempted suicide, followed by transgender women (42%) and gender-nonconforming individuals (36-38%) (Haas, Rodgers, & Herman, 2014).

An individual's race or ethnicity is also a strong predictor of suicide risk. Of all racial/ethnic groups, White males have the highest rate of suicide deaths (Houle & Light, 2017); in the United States in 2016, Whites had a suicide rate of 15.2 per 100,000 people, followed by American Indians and Alaskan Natives with a rate of 13.5 per 100,000, Asian Americans (6.7) and African Americans (6.1) (ASFP, 2017). While some have suggested that this gap may be due to death misclassification, perhaps as a result of social values concerning suicide or ambiguous classification of methods (e.g., death by poisoning; Rockett et al., 2010; Rockett, Kapusta, & Bandari, 2011), other factors may contribute to these differential rates of suicide. For African Americans, for example, high levels of hope and belongingness contribute to reduced risk for suicide, consistent with Joiner's interpersonal theory of suicide (Davidson, Wingate, Sligh, & Rasmussen, 2010), which we discuss below. Similarly, for Asian Americans and Hispanic/Latino Americans, the influence of a collectivistic culture may serve as a protective factor, by enhancing interpersonal connections and family cohesion (Hsieh, 2016).

Interpersonal. The beneficial impact of satisfactory social relationships is not limited to ethnic minorities and, indeed, there is a large body of research documenting the linkage between

interpersonal wellbeing and suicide risk. Lack of social support from school, friends, and family is significantly related to suicidal ideation and attempts, including in adolescents admitted to a hospital following suicidal behavior ($N= 143$; Miller, Esposito-Smythers, & Leichtweis, 2015), and in university students in Portugal ($N= 1,074$; Gonçalves, Sequeira, Duarte, & Freitas, 2014). Similar constructs, such as loneliness, are related to suicide risk, in a sample of Hungarian college students ($N= 456$; Chang, Chang, et al., 2017), Latino college students ($N= 160$; Chang, Díaz, et al., 2017), ethnically diverse college students ($N= 385$; Hirsch, Chang, & Jeglic, 2012), and in a longitudinal, nationally representative sample of Spanish adults ($N= 2,392$; Bennardi et al., 2017). Conflicted or strained relationships also confer risk; for example, in a sample of French adolescents, age 17 ($N= 39,542$), a strained relationship with one or both parents was a significant predictor of suicide attempts (Du Roscoät, Legleye, Guignard, Husky, & Beck, 2016) and, in a systematic review of intimate partner relationships, relationship separation and poor-quality relationships were related to suicidal thoughts and behaviors, and also serve as a triggering event for suicide attempts (Kazan, Calear, & Batterham, 2016).

A more modern theory, the interpersonal theory of suicide, posits that “thwarted belongingness” (i.e., unmet need for connectedness) and “perceived burdensomeness” (i.e., perception that one’s presence is a nuisance or hardship for others), in addition to acquired capability, are among the greatest risks for suicidal behavior (Joiner, 2005; Van Orden, Witte, Braithwaite, Selby, & Joiner, 2010). As examples, in a study by Van Orden and colleagues (2008), suicidal ideation in college students was inversely associated with perceived proximity and emotional closeness to peers and, in another collegiate study ($N= 249$), family belongingness contributed significant variance to suicidal ideation (Ploskonka & Servaty-Seib, 2015). Regarding perceived burdensomeness, several studies have demonstrated its link to suicidal

ideation, including in collegiate samples ($N= 150$; Gautam & Nagle, 2016), adult outpatients being treated for an anxiety disorder ($N= 105$; Teismann, Forkmann, Rath, Glaesmer, & Margraf, 2016), and in a sample of American Indians (O’Keefe et al., 2014).

Cognitive-Emotional. In addition to interpersonal dysfunction, many intra-personal factors have been identified as contributors to suicide risk, including poor coping, goal-setting, and emotion regulation abilities. Individuals who lack hope, that is, those who are unable to visualize and set realistic goals (i.e., agency), or who lack the problem-solving skills to attain goals (i.e., pathways), are at risk for increased suicidal behavior (O’Connor, O’Carroll, Ryan, & Smyth, 2012). This sense of goal frustration, or hopelessness, is a strong contributor to suicidal behavior, including death by suicide, across a wide variety of samples, such as general samples of U.S. adults ($N= 910$; Klonsky & May, 2015), sexual minority college students ($N= 349$; Hirsch, Cohn, Rowe, & Rimmer, 2017), and prisoners (Gooding et al., 2015). Additionally, deficits in problem-solving are a known contributor to suicide risk; as examples, in a study by Chu and colleagues (2017), poor social problem-solving skills were significantly related to suicide risk in two samples of undergraduates ($N= 336$, $N= 105$), homeless individuals ($N= 53$), primary care patients ($N= 222$), and military service members ($N= 329$), a finding replicated among a racially diverse sample of college students (Walker, Hirsch, Chang, & Jeglic, 2017). Passive forms of problem-solving (e.g., reliance on another person or chance, waiting on passage of time) are also associated with suicide attempts in young adults with and without a suicide attempt history ($N= 324$; Quiñones, Jurska, Fener, & Miranda, 2015), and with suicidal ideation in female college students ($N= 483$; Bozzay, Karver, & Verona, 2016).

Emotion dysregulation, or the inability to effectively control affective responses, is another proposed mechanism by which suicide risk is enhanced (Stanley, Hom, Rogers, Hagan,

& Joiner, 2016). Emotion dysregulation is strongly associated with suicide attempts, in both urban and rural college students (Ammerman, Kleiman, Uyeji, Knorr, & McCloskey, 2015; Kranzler, Fehling, Anestis, & Selby, 2016), and women with bulimia nervosa (Pisetsky et al., 2015). Additionally, affective lability was associated with a higher lifetime risk of suicide attempts in a sample of patients with bipolar disorder ($N= 485$; Etain et al., 2017) and, in a meta-analysis by Palmier-Claus, Taylor, Varese and Pratt (2012), a significant association between unstable mood and suicide risk emerged. Although there are many forms of emotional distress, psychache, or unremitting psychological pain, has been established as a robust antecedent of suicide ideation, attempts, and death by suicide (Campos, Holden, & Santos, 2017). For example, in a longitudinal study of general ($N= 683$) and high-risk college students ($N= 262$), Troister and colleagues discovered that psychache was directly related to suicidal ideation, and that change in psychache corresponded directly to changes in suicidal ideation (2013).

Finally, a deficit in one's ability to cope with stressful circumstances may contribute to suicide risk. Baumeister (1990) proposed an escape theory of suicide, positing that individuals are at-risk for suicide if they perceive that a stressful situation exceeds personal coping capabilities, as these individuals might perceive death as a means of escaping from a stressful situation. For example, in a sample of older adults hospitalized for a suicide attempt, "desire to escape" was the most frequently reported reason for the suicide attempt (Van Orden et al., 2015), and was also a prominent theme that emerged in a psychological autopsy study of men who had died by suicide (Kiamanesh, Dieserud, & Haavind, 2015). This theme may also be seen in patients with chronic pain, for whom death may be perceived as a means of escaping physical discomfort or suffering (Hooley, Franklin, & Nock, 2014). Finally, several studies support a desire to escape as a risk factor in college students. In one study, following failure to achieve

high on intelligence testing, dysphoric students demonstrated an increased change in their desire to escape-the-self (Chatard, Selimbegović, Pyszczynski, & Jaafari, 2017) and, in a randomized control study of undergraduates ($N= 138$), participants primed to experience inescapable failure were more likely to report a “suicidal mind” (Tang, Wu, & Miao, 2013).

Thus, it is no surprise that, historically, a large body of research and much clinical work has addressed the role of coping deficits in suicide risk. Negative styles of coping, such as self-blame and disengagement, are related to suicide behaviors, as evidenced in a longitudinal study of psychiatric inpatient adolescents and young adults ($N= 286$; Horwitz, Czyz, Berona, & King, 2017), and in a sample of racially diverse LGBT women ($N= 150$; Rabinovitch, Perrin, Tabaac, & Brewster, 2015). Similarly, low levels of coping skills are linked to suicide risk in community samples of Portuguese women ($N= 195$; Campos et al., 2017), prisoners ($N= 65$; Gooding et al., 2015), adolescents hospitalized for a suicide attempt ($N= 167$; Mirkovic et al., 2015), and Chinese college students ($N= 5,972$; Tang & Qin, 2015).

Psychopathological. Regardless of the presence of other factors, psychopathology is one of the most robust correlates and predictors of suicide risk, with previous research indicating that approximately 70-90% of persons who died by suicide had a diagnosable mental illness (Cavanagh et al., 2003). Similarly, in a longitudinal and nationally representative survey ($N= 34,653$) conducted by the National Institute on Alcoholism and Alcohol Abuse, general psychopathology significantly predicted future suicide attempt ($b= .38, p< .005$), over and above the effects of sociodemographic factors (Hoertel et al., 2015).

Certain mental illnesses are highly correlated with suicide risk. As examples, Goodman and colleagues (2017) found that approximately 75% of inpatients with borderline personality disorder (BPD) reported a lifetime history of suicide attempt and, in persons with schizophrenia,

suicide is the leading cause of death (Bornheimer & Nguyen, 2016), at a rate of 867 per 100,000 (Kredentser, Martens, Chochinov, & Prior, 2014). As well, bipolar disorder confers strong risk for suicide, and people with bipolar disorder are 20-30 times more likely to die by suicide than the general population (Pompili et al., 2013). In a recent meta-analysis, Schaffer and colleagues (2015) noted an estimated annual risk of suicide attempt of 0.9%, with approximately 50% of those at risk having bipolar disorder. Finally, substance use is a strong correlate of suicide risk, including in a study of female suicide attempters ($N= 192$; Bagge et al., 2013), and in a prospective study of substance-using primary care patients ($N= 868$; Hallgren et al., 2017). Further, in a sample of suicide attempters ($N= 433$), those who most frequently attempted suicide were also more likely to suffer from a substance use disorder (Icick et al., 2017).

In the current study, we focus on several “common” psychopathologies that contribute risk for suicide (Cavanagh et al., 2003), and that are often present in young adults and college students, including stress, depression, and anxiety (Berman, 2009; Hoertel et al., 2015; Podlogar et al., 2017; Thompson et al., 2012). Of note, among the general population and in college students, depression and anxiety account for approximately half of all psychological cases (AbdAleati, Zarahim, & Mydin, 2016). In the following sections, we discuss each in turn, given their role as mediators in our proposed analyses.

Stress. Although not a disorder, the experience of stress, which is conceptualized as a negative and taxing association between a person and their environment that exceeds existing coping resources (Folkman, 2013; Lazarus, 2006), is related to suicide risk (Grover et al., 2009; Thompson et al., 2012). In the United States, the prevalence of stress could be a contributing factor to rising suicide rates. In a recent Gallup Poll, 79% of Americans reported that they frequently or sometimes encountered stress in their daily lives (Saad, 2017), with women more

likely than men to report feeling frequently stressed (49% versus 40%, respectively), and younger people (age 18-29) more likely than older people (65 and older; 54% versus 24%, respectively).

Stress is linked to suicide risk in diverse samples, including United States college students (Lester, 2014), military service members (Shelef, Brunstein Klomek, Yavnai, & Shahar, 2017), and Chinese college students (Zhang, Wang, Xia, Liu, & Jung, 2012). Additionally, in a sample of Caucasians in English-speaking countries ($N= 326$), higher levels of stress were related to the belief that suicide was a “good” solution to problems (Gill, Muñoz, & Leykin, 2017). In the United States, in a recent study of undergraduate students ($N= 646$), perceived stress directly contributed to suicidal behavior ($r= .42, p< .01$; Hirsch, Rabon, Reynolds, Barton, & Chang, 2017).

According to the Strain Theory of Suicide, deficient or ineffective coping abilities may contribute to suicide risk; for example, as stress or conflict increases, ability to cope may decrease and, further, persons who are unable to cope effectively (e.g., passive coping style; avoidance) are more likely to continue perceiving stressors, resulting in a feedback cycle of strain that contributes to suicide risk (Zhang, Wiczorek, Conwell, & Tu, 2011). During stressful experiences, a perceived loss of control may occur, thereby contributing to suicide risk and, further, it has been suggested that suicidal behavior, itself, may be a form of reasserting control over one’s environment, albeit in a deleterious and potentially deadly manner (Marzuk, Nock, Leon, Portera, & Tardiff, 2002). Relevant to the present study, college students may be susceptible to stressors related to the academic experience (e.g., identity development, grades and finances, roommate conflicts; Kadison & DiGeronimo, 2004), all of which have been

previously linked to psychopathology, including depression, and to suicide risk (De Luca et al., 2016; Mortier et al., 2015).

Depression. Depression is one of the most common mental health disorders in the United States, with a twelve-month prevalence rate for major depressive disorder of 7%, and with the American Psychiatric Association (APA) noting greater risk for females and young adults ages 18-29 years old (2013). For example, in a nationally representative survey of adolescents ($N=10,123$), the lifetime prevalence of a major depressive episode was 11.0% and twelve-month prevalence was 7.5%, with females at two to four times greater risk than males (Avenevoli, Swendsen, He, Burstein, & Merikangas, 2015).

Further, the link between depression and suicide has been well established in the literature (Baldessarini, Vásquez, & Tondo, 2016; Berman, 2009; Bertolote, Fleischmann, de Leo, & Wasserman, 2004; Wong, 2013); for instance, in a recent study, in a nonclinical sample of Portuguese college students ($N=440$), Campos and colleagues (2016) found a strong relation between depressive symptoms and suicide risk. Additionally, in first-year college students ($N=1,253$), the presence of depression distinguished between individuals who persistently engaged in suicidal ideation compared to those who rarely engaged in suicidal ideation (Wilcox et al., 2010). Depression contributes to suicide deaths as well. For example, Zhang and Li (2013) gathered information from proxy informants for people who had died by suicide ($N=392$) and from living controls ($N=416$), discovering a strong association between depression and suicide.

Although overall depression is a risk factor, specific attributes of depression may exacerbate risk. In a longitudinal community sample from Sweden, for instance, severity of depression was linearly associated with suicide risk ($N=3,563$; Mattisson, Bogren, Horstmann, Munk-Jørgensen, & Nettelbladt, 2007). The presence of melancholic features (Brådvik,

Mattisson, Bogren, & Nettelbladt, 2010), hopelessness (Zhang & Li, 2013), sleep disturbances (Bernert & Nadorff, 2015), and irritability (Balázs et al., 2006) as components of depression, may specifically contribute to suicide risk.

Numerous mechanisms have been proposed to explain the linkage between depression and suicide, several of which intersect well with the conceptualization of religious coping. For instance, in a meta-analysis by Taylor, Gooding, Wood, & Tarrier (2011), defeat (i.e., inability to attain goals or a status; helplessness) and subsequent entrapment (i.e., appraising a situation as being inescapable; hopelessness) were established as underlying factors precipitating and maintaining depression. For individuals who feel helpless and hopeless and, thus, depressed, suicide may be viewed as a means of escaping from stressful experiences and feelings of distress (Holmes, Crane, Fennell, & Williams, 2007; Johnson, Gooding, & Tarrier, 2008; Overholser & Ridley, 2015). Rumination, or engagement in negative, repetitive and compulsive thoughts, may also serve to maintain depression by perpetuating thoughts of hopelessness and inefficacy (Kerkhof & van Spijker, 2011), thereby increasing suicide risk. Of note, ruminative processes can also contribute to symptoms of anxiety, which are implicated in suicide risk, as discussed below.

Anxiety. Globally, one in nine people have experienced an anxiety disorder in the past year (Craske & Stein, 2016) and, in the United States, over a twelve-month period, an estimated 7% of people suffer from a social anxiety disorder and 2.9% from generalized anxiety disorder (APA, 2013). Further, anxiety has been established as an independent predictor of suicidal behavior, including suicide ideation, in a study of adult individuals with an anxiety disorder ($N=471$; Baldessarini et al., 2016), and in a literature review focused on anxiety in children and adolescents (Hill, Castellanos, & Pettit, 2011). In two studies, by Rogers and colleagues (2016),

cognitive anxiety, defined as the fear of losing control over one's thoughts, was significantly related to suicidal ideation, both in college students ($N= 186$) and in a clinical outpatient sample ($N= 392$).

Beyond ideation, anxiety is also associated with suicide attempts and death by suicide (Sareen et al., 2005), including in samples such as members of the U.S. Air Force (Conner et al., 2012), people living with HIV (Passos, Souza, & Spessato, 2014), and Chinese and United States college students ($N= 539$; Zhang, Liu, & Sun, 2017). In a study by Buckner, Lemke, Jeffries, and Shah (2017), social anxiety was related to suicide risk in college students ($N= 780$) and, in a longitudinal sample of 161 young adults who later attempted suicide, latent variable analysis revealed that a clinically anxious profile was a significant predictor of future suicidal behavior (Hart et al., 2017). Finally, in a large longitudinal study conducted in Sweden ($N= 3,563$), people with anxiety disorders had a 3.3% risk for suicide, which was significantly higher than the general population sample, at 0.3% risk (Anderberg, Bogren, Mattisson, & Brådvik, 2016).

Regarding mechanisms of action for the anxiety-suicide linkage, as with depression, defeat and entrapment, and rumination, may play a role (Simon et al., 2007; Taylor et al., 2011), including in clinical samples. Anxiety-based risk processes for suicide may include (Koerner & Dugas, 2006), among others, thwarting of interpersonal needs (e.g., perceived burdensomeness, social anxiety; Hill, 2011; Joiner et al., 2005), a fear of the future (Barlow, 2000), and worry, which is conceptualized as an “intolerance of uncertainty” and as an ineffective, future-focused attempt to engage in mental problem solving (Kerkhof & van Spijker, 2011). The “looming vulnerability” model may help to explain anxiety's unique relation to suicide risk, wherein an individual tends to perceive threats from a variety of sources, leading to perceptions of fear and of being overwhelmed beyond the capacity of existing coping resources (Rector, Kamkar, &

Riskind, 2008; Riskind, Long, Williams, & White, 2000). Given that all forms of anxiety are based on a sense of avoidance, it is not surprising that anxiety provokes an “urge to escape,” which may seem attainable by taking one’s own life (Beauchaine, Neuhaus, Brenner, & Gatzke-Kopp, 2008).

Upon review of the literature, suicide appears to be a multi-faceted problem, with numerous contributing factors and varied theories of explanation (ASFP, 2017; Cavanagh et al., 2003; Curtin et al., 2016; Olfson et al., 2017; Petersen et al., 2014); fortunately, however, such breadth provides an array of opportunities for intervention and prevention. Most theories of suicide posit that psychological distress, resulting from deficits in social and interpersonal functioning, goal-setting and problem-solving, and emotion regulation, are responsible for suicide risk (Beauchaine et al., 2008; Gunn, 2014; Holmes et al., 2007). That is, ineffective coping across psychosocial domains, may contribute to the development or exacerbation of psychopathology and suicide risk and, as a result, many current intervention strategies for suicidal persons address interpersonal, problem-solving, or existential concerns (Campos et al., 2017; Gooding et al., 2015), including the utility of religious coping for suicide prevention.

Religiosity, Mental Health, and Suicide Risk

In contrast to deficit models, empowerment or resiliency models focus on character strengths and psychosocial attributes, including adaptive coping, as buffers against the development and maintenance of psychopathology and suicide. Religiosity has been defined as adherence to “an organized system of beliefs... designed to facilitate closeness to the sacred or transcendent” (Moreira-Almeida, Lotufo Neto, & Koenig, 2006, p. 243), and is often conceptualized as either intrinsic in nature, motivated for the sake of itself (e.g., desiring closeness to God), or extrinsic in nature, when used as a means to another end (e.g., desiring

social support from a church) (Allport, 1950; Donahue, 1985; Hill, 2013). Spirituality is a closely related concept, but typically emphasizes the individual relationship with the divine, and finding meaning in life (Oman, 2014), and does not necessarily include a structured set of beliefs typically associated with religion. However, leaders in the field suggest that the two are so closely intertwined that separating the constructs may be misleading (Marler & Hadaway, 2002; Pargament, 1997) and, instead, should be viewed as different dimensions of the “search for what is sacred” (Pargament, Magyar-Russell, & Murray-Swank, 2005). Considering the overlap between religiosity and spirituality, in this paper, the constructs of attendance, surrender (to God), and forgiveness (by God) will be characterized as religious concepts, given their emphasis on engagement in religious services, and on God as a deity; however, it should be noted that such conceptualization does not preclude any personal, relational, or spiritual elements that might exist or be evoked by these constructs.

Overall, the literature supports a broad, beneficial relation between religiousness and spirituality, and psychopathology, suicidal ideation, and suicide behavior (Colucci & Martin, 2008; Koenig, 2009; Koenig, King, & Carson, 2012; Moreira-Almeida et al., 2006). As an example, in a sample of college students ($N= 486$), Power & McKinney (2014) found an inverse relation between intrinsic religiosity and both internalizing and externalizing forms of psychopathology (e.g., depressive symptoms, somatic symptoms, personality problems). Latent-profile analyses have yielded similar results; in a study of adolescents in Appalachia, those with highly religious profiles (as opposed to a control group and a low religious group) were at less risk for experiencing internalized and externalized psychopathology (Longo, Bray, & Kim-Spoon, 2017).

Religiosity is also related to beneficial outcomes in persons with specific psychopathologies, including severe mental illness. For instance, in a study of people with and without borderline personality disorder, spiritual well-being was inversely associated with symptoms of BPD, and people with BPD had lower overall levels of religion/spirituality than control patients (Sansone, Kelley, & Forbis, 2012). Religious involvement has also been related to increased psychological resiliency in persons with schizophrenia and bipolar I disorder (Mizuno et al., 2017), and perceived quality of life in persons with schizophrenia (Caqueo-Urizar, Urzúa, Boyer, & Williams, 2016). Importantly, as found in a longitudinal study of people recovering from severe mental illnesses ($N= 81$), religious support and “enduring with faith” were associated with positive outcomes in recovery (Webb, Charbonneau, McCann, & Gayle, 2011), offering potential points of intervention.

Pertinent to the current study, religiosity also serves as a direct buffer to the experience of stress, and against symptoms of depression and anxiety. Religious activity is associated with lower levels of depressive symptoms and overall psychological distress in Christian and Jewish samples (McGowan, Midlarksy, Morin, & Graber, 2016), as well as in cancer patients (Ng, Mohamed, Sulaiman, & Zainal, 2017). In a sample of Muslim college students ($N= 723$), religiosity was related to reduced depression, anxiety, and stress levels (Nadeem, Ali, & Buzdar, 2017), and, in a study of adolescents ($N= 111$), positive religious coping buffered against the negative effects of stress (Carpenter, Laney, & Mezulis, 2012).

Finally, religiosity protects against suicide risk, the primary outcome of interest in our study. Religious involvement has a protective effect against suicide risk in nationally representative samples ($N= 30,560$; Kleiman & Liu, 2018), and in specific samples as well, such as Latinos in the United States (Barranco, 2016), lesbian, gay, and bisexual Austrians (Kralovec,

Fartacek, Fartacek, & Plöderl, 2014), and U.S. veterans (Sharma et al., 2017). Religiosity buffers against suicide risk in psychiatric samples as well. For example, in a study of 164 people with bipolar disorder, both involvement in religious activities and intrinsic religiosity were significantly related to reduced suicide-related behaviors (Caribé et al., 2015).

Religiosity and Mental Well-Being: Potential Mechanisms of Action. There are several existing, albeit broad, explanations, for why religiousness may serve as a protective factor, buffering against psychopathology and suicide risk, including commitment, ideological beliefs and values, adaptive coping behaviors, and support networks, including one's personal relationship with God or a higher power.

Commitment, Teachings, and Value Systems. For instance, regardless of ideology, religious commitment (i.e., the degree to which one identifies with a religious belief system) reduces risk for suicide, and less religious groups of people (e.g., atheists) and countries (e.g., China), have greater suicide risk (Bertolote & Fleishmann, 2015; Gearing & Lizardi, 2009). In a study of 6-12th grade students enrolled in church-affiliated schools ($N= 11,481$), personal commitment to religion was associated with numerous beneficial effects, including a reduced risk for depression and suicide (Ji, Perry, & Clarke-Pine, 2011). Similar salutary effects of religious commitment were found in Black adolescent youth, with religious commitment serving as a significant mediator of the relation between religious involvement and positive psychosocial well-being ($N= 1,170$; Rose, Joe, Shields, & Caldwell, 2014).

More specific than a broad sense of commitment, the doctrines and teachings of many major religions inhibit suicide, either in terms of explicit doctrine forbidding suicide or in terms of other traditions or values associated with the sanctity of life. For example, in Islamic tradition, per the Qu'ran, suicide is forbidden in terms of both tradition and doctrine; "And do

not kill yourselves, surely God is most Merciful to you” (Qur’an 4:29). This prohibition may be reflected in Islamic countries, such as Pakistan, which has one of the lowest global rates of suicide death (Stack & Kpsowa, 2011), less than .01% (Bertolote & Fleishmann, 2002; Shah & Chandia, 2010). In Christianity, broadly, the sanctity of life is emphasized (e.g., “So God created man in his own image” [Gen. 1:26]; “[God] created every part of me; [God] knit me together in my mother’s womb” [Ps. 139:13]), and Catholicism recognizes suicide as a “mortal sin” (Stark, Doyle, & Rushing, 1983; Torgler & Schaltegger, 2014). Finally, the Buddhist principles of non-violence, including toward the self, as well as the view of life, death, and rebirth as a journey toward Nirvana, may protect against suicide risk (Disayavanish & Disayavanish, 2007; Sangharakshita, 1996). In the Buddhist belief system, a person who ends his or her own life to reduce suffering, instead of turning to meditation or the eightfold-path, will reincarnate as a lower, rather than higher, life form; thus, suicide may not be viewed as a release from future pain but, rather, a guarantee of it (Keown, 1998).

Support of Social Networks. Religiosity may also serve as a protective factor against psychopathology and suicide due to the opportunities for relationship and support that religious affiliation facilitates (e.g., fellowship with church members) (Clary, 2015). Such a belief can be traced back to Durkheim (1915), who noted the emphasis of religion on social cohesiveness, and the protective qualities of social integration for suicide risk, propositions which have been borne out by modern research (e.g., Interpersonal Theory of Suicide; van Orden et al., 2010). For instance, churches that are more active in promoting networking and community have lower rates of suicide ideation (Stack & Wasserman, 1992). These effects occur across denominations, including in Evangelical Protestant, Catholic, and Judaic groups (Pescosolido & Georgianna, 1989). Indeed, in a study of Americans in an east coast city ($N= 1,091$), religiosity was related to

decreased odds of suicide; however, after controlling for social support, this relation was no longer significant, suggesting the essential role of religious-based community affiliation in reducing suicide risk (Rasic, Belik, Elias, Katz, Enns, & Sareen, 2009). In a sample of Midwestern college students, religion-based emotional support mediated the relation between religiosity and mental health variables, including depression and suicidal behavior, suggesting the robustness of social support as a protective factor underlying religiousness (Hovey, Hurtado, Morales, & Seligman, 2014). Finally, in the context of religion, group membership may be seen as sacred or unending, with the development of a social identity rooted in what may be perceived as an “eternal” group (Ysseldyk, Matheson, Anisman, 2010), thereby enhancing the potential protective effect of this form of social support.

Religious Coping. The process of being religious, or the utilization of specific aspects of religiousness (e.g., prayer), may be used to manage distress (Ano & Vasconcelles, 2005), particularly when caused by life stressors (Pargament et al., 1998). Whereas positive religious coping, or the psychologically adaptive utilization of religion (e.g., use of prayer), is related to less psychopathology and suicide risk (Bjorck & Thurman, 2007), negative coping, or the psychologically maladaptive utilization of religion (e.g., view of God as punitive), is related to greater symptoms of psychopathology (McConnell, Pargament, Ellison, & Flannery, 2006).

As an example of religious coping, religious-based meaning-making during stressful life experiences may help individuals view stressors as a process of personal sanctification or as having a purpose for a greater good (Pargament, Koenig, & Perez, 2000). In a qualitative study of female abuse victims, religious meaning-making helped to mitigate psychopathology surrounding the abuse, facilitating intrapsychic resolution (Jones, 2017). By providing an overarching purpose for the self and one’s religious ideals, religion’s inherent meaning-making

system helps to provide a sense of order to sometimes otherwise unexplainable or emotionally-taxing events (e.g., death) (Emam & Al-Bahrani, 2014; van Uden & Zondag, 2016).

Another example of religious coping may revolve around an individual's perceived closeness to God or feelings of trust in deity or greater spiritual forces (Pargament et al., 2000). Religiousness facilitates a personal relationship with God, or another higher power, whereby an individual may work along with or in accordance with their God, to manage daily life and cope with life stressors. Referred to as collaborative-based coping (Pargament et al., 2000), this positive religious coping style can be an effective problem-solving strategy and has demonstrated salubrious effects on mental health across samples.

For example, in a sample of African American youth, those who used a religious collaborative coping style endorsed more reasons for living when considering suicide (Molock, Puri, Matlin, & Barksdale, 2006), a finding corroborated in a sample of African American women, who were at decreased risk for suicide when higher levels of collaborative religious coping were present (Marion & Range, 2003). Similarly, in a sample of praying adults ($N= 330$), closeness to God mediated the association between prayer and psychological distress (e.g., anger, anxiety, depression) (Jeppsen, Pössel, Winkeljohn Black, Bjerg, & Wooldridge, 2015). Of note, perceived closeness to God may enable the cognitive-emotional processes of trusting in God and feeling forgiven by God, both of which have been linked to better outcomes in mental health and reduced suicide risk (Fadardi & Azadi, 2017; Sansone, Kelley, & Forbis, 2013).

Although such broad components of religiousness appear to be beneficially related to mental health outcomes, less research has examined specific aspects of religiosity, to determine independent effects on psychological functioning and suicide risk. In the present study, three specific religious factors are examined. The first, frequency of attendance of religious services,

is often used as a marker of degree of religiousness, and can be considered an overt, behavioral manifestation of religious networking and engagement, regardless of its motivational locus (i.e., intrinsic versus extrinsic) or beneficial consequences (e.g., increased social support). The second, “surrender to God,” or the relinquishment of personal control to God, refers to one’s personal, individual-level relationship with a Deity and appears to be more intrinsic in nature, but has been less well studied in relation to health outcomes. Finally, we examine feeling forgiven by God, which is a cognitive-emotional process, bred from doctrinal or spiritual belief and fostered through a personal connection with God, that may allow release from negative self-evaluations or transcendence of experiences for which one feels blame (e.g., guilt over perceived wrongdoing; McConnell & Dixon, 2012). Of note, none of these variables are well understood in terms of process; that is, little research has examined potential mechanisms of action for the linkage between specific aspects of religiousness and suicide risk.

Religious Attendance as a Protective Factor. Religious attendance (or “attendance”) is arguably the most common method for assessing religiosity in psychological studies (Steenland et al., 2000), and self-reported frequency of attendance is often used as a stand-alone measure of degree of religiousness (as examples, see Barton, Miller, Wickramaratne, Gameraff, & Weissman, 2013; Gillum, King, Obisesan, & Koenig, 2008; Lucette, Ironson, Pargament, & Krause, 2016; Price & Callahan, 2017). In such studies, self-reported frequency of religious attendance is assessed with responses such as “once or twice a year” or “weekly,” and typically refers to attendance of an official worship service but may also include a wider array of religious-related activities (e.g., Bible study, gatherings for prayer). Although Brenner (2011) notes that self-reported frequency of religious attendance may be biased, due to over-reporting by those with a strong religious identity, religious attendance maintains a robust, typically-

beneficial association with distress, psychopathology, and suicide risk (e.g., Kidwai, Mancha, Brown, & Eaton, 2014; Rasic et al., 2011).

Religious service attendance is hypothesized to protect against psychopathology via several potential mechanisms. To some degree, attendance may be a proxy marker for extent of commitment to a religion or set of doctrinal beliefs (Wessellmann, VanderDrift, & Agnew, 2016) which, as we have noted above, is associated with lower levels of psychopathology and suicide risk, across a variety of samples (Ji et al., 2011; Rose et al., 2014). Additionally, certain adaptive coping skills may be facilitated by frequent service attendance, such as heightened perceptions of meaning in life (Kidwai et al., 2014), and a sense of spiritual peace (Chaudoir et al., 2012). Lastly, engagement with a religious community as a component of service attendance may protect against negative mental health outcomes, perhaps via perceptions of an expanded social network (Fukui, Starnino, & Nelson-Becker, 2012), greater perceived and received social support (Ai, Huang, Bjorck, & Appel, 2013; Rasic et al., 2011), or feelings of belongingness (Idler et al., 2009). However, despite these proposed mechanisms, the exact means by which religious attendance affects mental health remain elusive, and are likely to be complex (Idler et al., 2009; Sternthanal, Williams, Musick, & Buck, 2010), as tracking attendance does not inherently account for the cognitive-emotional motivations behind the behavior (Hill & Pargament, 2008).

As examples of the relation between religious service attendance and mental health outcomes, weekly religious attendance is related to less depression (McCullough & Larson, 1999; Zou et al., 2014), as demonstrated in a community sample from New England ($N=918$), for whom religious attendance yielded a 30% lower odds of lifetime depression (Maselko, Gilman, & Buca, 2009), and in a longitudinal study of Canadian citizens, for whom monthly

religious attendance was associated with less occurrence of major depression (Balbuena, Baetz, & Bowen, 2013). Similarly, in a study of female nurses in the United States ($N= 48,984$), women who attended services were at lower risk to develop depression compared to women who did not attend services (Li, Okereke, Chang, Kawachi, & VanderWeele, 2016). In a study of individuals with a traumatic brain injury (TBI) who were tracked over one, five, and ten years ($N= 5,573$), religious attendance predicted better outcomes of depression post-TBI (Philippus et al., 2016). Attendance has also been linked to reduced depressive symptoms in persons with diabetes ($N= 222$; Kilbourne, Cummings, & Levine, 2009). Finally, pertaining to the current study, college students also benefit from religious attendance; across several samples, religious service attendance was related to fewer depressive symptoms (Jansen, Motley, & Hovey, 2010; Steffen, Masters, & Baldwin, 2017).

Regarding anxiety, there is mixed evidence for its relation to religious attendance. Some studies show no association; for example, in a study of adults in their last week of life, attendance, while associated with a greater sense of peace, was not related to anxiety (Braum, Klinkenberg, & Deeg, 2011) and, in studies of Greek Orthodox Christians ($N= 363$; Leondari & Gialamas, 2009), individuals recovering from TBI (Philippus et al., 2016), and older adult Christians and Jews ($N= 143$; McGowan et al., 2016), similar patterns of non-significance have emerged. However, most research suggests that religious service attendance is associated with lower levels of anxiety, such as in U.S.-based samples of college students (Jansen et al., 2010; Steffen et al., 2017) and community adults ($N= 921$; Ellison, Burdette, & Hill, 2009). This effect has been replicated across a variety of samples, including in a large, epidemiological study of U.S. adults ($N= 20,130$; Robinson, Bolton, Rasic, & Sareen, 2012), Mexican immigrants and Mexican Americans ($N= 868$; Moreno & Cardemil, 2016), older adults in Taiwan ($N= 115$;

Huang, Hsu, & Chen, 2011), and pregnant women in the southern U.S. ($N= 344$; Mann, McKeown, Bacon, Vesselinov, & Bush, 2008).

The beneficial influence of religious attendance also extends to the experience of stress; for instance, in a recent sample of American middle-aged adults ($N= 5,449$), churchgoers demonstrated significantly lower levels of physiological stress than non-churchgoing counterparts (Bruce et al., 2017) and, in a nationally representative sample of older adults ($N= 1,450$), religious attendance was inversely related to allostatic load (i.e., biological markers resulting from chronic stress) (Hill, Rote, Ellison, & Burdette, 2014). As a coping resource, religious service attendance is associated with better stress management, as in a sample of Koreans living in the United Arab Emirates (Kim, Pearce, & Choi-Kwon, 2015), and with greater happiness and psychological well-being, via its stress-buffering effect, in Korean women (Jung, 2014). Among youth in the United States ($N= 5,736$), religious attendance is associated with increased odds for positive psychological well-being and reduced stress (Petts, 2014), as well as in an array of diverse samples, including Hindus in India ($N= 320$; Gupta & Gupta, 2014), Arab American adolescents ($N= 88$; Goforth, Pham, Chun, Castro-Olivo, & Yosai, 2016), and Latino caregivers in the United States ($N= 209$; Sun & Hodge, 2014).

Finally, religious attendance is associated with reduced suicide risk, our primary outcome of interest for the current study. In nationally representative, longitudinal studies, Kleiman and Liu (2014; 2018) found that religious attendance or engagement in religious activities were associated with less suicide ideation and attempts, and, in another national sample ($N= 20,130$), Robinson and colleagues (2012) discovered an association between infrequent attendance of religious services and suicidal ideation. In a sample of clinical outpatients reporting suicidal ideation, religious attendance was directly negatively related to suicidal ideation, but also

indirectly via its beneficial impact on social support, indicating a potential mechanism of action (Price & Callahan, 2017). Similar patterns exist in longitudinal and prospective samples; for instance, over an 8 to 13-year period, Baltimore residents who attended only one religious service a year were at reduced risk for future suicide attempts, compared to those who never attended (Rasic, Robinson, Bolton, Bienvenu, & Sareen, 2011). Similarly, in a sample of female nurses, those who attended religious services once or more per week, over a 14-year period, were at a significantly lower suicide risk than women who never attended religious services (VanderWeele, Li, Tsai, & Kawachi, 2016).

In sum, our review of the literature suggests that, generally, religious attendance, which is a behavioral marker of overall religiousness, exhibits a beneficial association with mental health and suicide risk outcomes. Perhaps due to its brevity and simplicity, the measurement of religious attendance can be incorporated with ease into psychological studies; yet, theoretical underpinnings may be lacking, as questions remain regarding the mechanisms by which religious attendance is associated with psychological outcomes (Hill & Pargament, 2008). Other more-specific and theoretically-based measures of religiosity, such as surrender, may offer additional insight into the linkage between religiousness and health.

Surrender to God as a Protective Factor. More private than public, and more intrinsically than extrinsically motivated and focused, surrender to God, or “surrender,” is conceptualized as an “active choice to relinquish” personal control to God or a deity, and entrust one’s life to God’s purposes (Wong-McDonald & Gorsuch, 2000, p. 149). The theological concept of surrender, while in some sense entailing a loss of personal control, should not be viewed as a passive action or state of being but, rather, as an autonomous willingness to hand

over one's life to God, with awareness that doing so may, at times, result in denial of the self and "abandonment to divine providence" (Chambers, 2010; Dyslin, 2008, p. 43).

Of note, surrender is not, necessarily, a measure of commitment to a religion or a measure of strength of religious beliefs (Knabb, Frederick, & Cumming, 2017; Wong-McDonald & Gorsuch, 2000). For example, although a highly surrendered person is likely to be committed to their religion and have strong religious beliefs, an individual could exhibit these characteristics but choose not to relinquish personal control to God. In this way, surrender differs from other aspects of religiosity, in that many religious activities (e.g., attendance, prayer) can be performed regardless of surrender to God.

Yet, the concept of surrender is highly salient to many world religions, most of which demand some, if not complete, allegiance across all domains of life. The language of surrender evokes ideas such as adherence, fidelity, and trust, even to the point of self-denial. For example, theologian Dietrich Bonhoeffer wrote about the conversion experience (i.e., when an individual takes personal commitment to enter into faith), noting that "When Christ calls a man, He bids him come and die" (1959, p. 88). As another example, "Islam" literally translates to "surrender" or "submission," which can be understood as "uncompromising obedience" (Nygard, 1996, p. 125).

Critics of the act of surrendering might suggest that relinquishing personal control removes a sense of volition or efficacy to address stressors or accomplish goals, or conveys a sense of helplessness or hopelessness, as suggested by theories of locus of control and learned helplessness (e.g., Maier & Seligman, 2016; Filippello et al., 2017; Rizza et al., 2015).

However, as noted by Safran (2016), this relinquishment of control can also be viewed as a

positive mechanism of coping, especially in uncontrollable or anxiety-provoking circumstances and, in general, surrender is beneficially linked to mental and physical health.

For example, in separate samples of college students and pregnant women, surrender to God was associated with lower levels of stress (Clements & Ermakova, 2012). In a community study, of Christians, surrendering to divine providence was associated with reduced worry, a finding partially explained by an “ability to tolerate uncertainty” (p. 186), which is foundational to the concept of surrender (e.g., personal control is being relinquished) (Knabb et al., 2017). Of note, such calming effects may be particularly salient for the processes underlying psychopathology, including for stress, anxiety, and depression.

Although research on surrender to God (as defined in the present study, and as measured by the Surrender to God scale) is sparse, similar constructs have been previously examined, often as an important factor in substance abuse and addiction programs. For example, Alcoholics Anonymous is largely focused on spiritual transformation, with the final step of recovery explicitly focused on surrendering one’s will to a “higher power” (Forcehimes, 2004). In addition, religious surrender may contribute to addiction recovery given religion’s often explicit warnings against excessive drug and alcohol use, and because engagement in meaning-based coping may contribute to persistence in abstinence (Dermatis & Galanter, 2016; Dyslin, 2008).

Surrender-based constructs may also have beneficial consequences for other psychological symptoms, including stress, anxiety, and depression. For example, in a study of Christian participants engaging in a mindfulness intervention, surrender to God was an important factor in managing worry (Frederick & White, 2015). In qualitative studies, spiritual surrender emerged as a theme that was important in achieving subjective well-being in cancer survivors, facilitating acceptance and peace regarding a diagnosis (Rosequist, Wall, Corwin, Achterberg, &

Koopman, 2012; Velasco-Scott, 2016), as well as in Chinese palliative care patients, enabling transcendent acceptance of impermanence and frailty of life, and contributing to reduced stress at the end of life (Ho et al., 2013). In a study of individuals who underwent prayer counseling, increased levels of surrender were related to fewer symptoms of anxiety and depression (Lovejoy, 2010). Attachment to God, which can be understood as closeness or allegiance to God, is a facilitator of surrender and has been linked to psychological health; as examples, in a pre-and post-test design of adults ($N= 43$) who engaged in prayer to facilitate closeness to God (Monroe & Jankowski, 2016), and in a nationwide sample of Presbyterians ($N= 906$; Bradshaw, Ellison, & Marcum, 2010), secure attachment to God was related to reduced psychological stress. Similar beneficial effects of attachment to God have been demonstrated in bereaved individuals, with those having greater attachment to God experiencing reduced symptoms of depression in a time of personal grieving (Kelley & Chan, 2012).

Surrender-based constructs, as shown in some preliminary studies, may also protect against suicide risk. In a mixed sample of inpatients and an online community sample, by Teismann and colleagues (2017), a person's conviction of trust in, and following the guidance of, a "higher power" buffered the deleterious effect of depression on suicidal ideation. In another study, of Canadian college students ($N= 1,245$), strength of religious faith served as a protective factor (i.e., a reason to live), among those who reported suicidal ideation or a previous history of suicide attempts (Rieger, Peter, & Roberts, 2015).

Overall, our review of the literature indicates that both surrender-based (e.g., attachment to God, commitment to God, trust in God) and attendance-based religious factors exert a salubrious effect on well-being, and highlights the benefits of establishing a commitment to, or relationship with, the church and God. When this relationship is jeopardized, perhaps due to a

perceived moral violation or spiritual crisis (e.g., feelings of abandonment or punishment by God), individuals may seek to atone for their transgressions, by seeking forgiveness from God.

The process of forgiveness can be understood as the relinquishment of negative thoughts and emotions regarding an offense, whether perceived to be committed by the self, others, or by God and, thus, by nature, is a relational construct (Worthington & Scherer, 2004). Of note, people who are likely to perceive a relationship with God (e.g., frequent attenders of religious services, “surrendered” individuals), are also more likely to report experiences of forgiveness (Fox & Thomas, 2008). Importantly, there is an emerging body of research documenting the beneficial effects of forgiveness on physical and mental health, including psychopathology and suicide risk (e.g., Griffin et al., 2015; Webb, Hirsch, & Toussaint, 2015).

Forgiveness as a Protective Factor. Although there are nuances to the definition of forgiveness (usually depending on to whom the forgiveness is being bestowed; Strelan & Covic, 2006), most conceptualizations agree that forgiveness is “an emotion-focused coping strategy” that involves the deliberate relinquishment of negative thoughts and emotions toward a perceived transgressor (e.g., self, other, God) or transgression (e.g., an experience) (Worthington & Scherer, 2004, p. 385). Engagement in forgiveness, regardless of target, is beneficially related to mental and physical health outcomes for all people, both religious and non-religious (e.g., Cheadle & Toussaint, 2015; Sheldon, Gilchrist-Petty, & Lessley, 2014; Toussaint, Shields, Dorn & Slavich, 2016).

However, the concept of forgiveness may be particularly salient to those who are religious, as forgiveness is emphasized in the doctrine of most major world religions (Griffin et al., 2015; McCullough & Worthington, 1999; Rye, 2005; Worthington & Scherer, 2004). Further, overall religiousness and primary markers of religiousness, such as frequency of

religious attendance and degree of faith (e.g., depth of belief in God), are associated with forgiveness (Fox & Thomas, 2008). For example, in a national survey of American adults ($N=1,629$), greater religiosity was associated with higher levels of forgiveness (Lutjen, Silton & Flannelly, 2012).

Engaging in forgiveness may be related to better mental health outcomes both directly (e.g., soothing of physiological processes) and indirectly (e.g., via enhancing social support, or establishing personal control) (Toussaint & Webb, 2005; Webb, Hirsch, Visser, & Brewer, 2013). Further, engaging in forgiveness may exert a protective effect, in part, via its influence on an individual's cognitive-emotional functioning. When a transgression is perceived, forgiveness may serve as a coping tool, reducing the stress response, whereas unforgiveness may serve as an additive stressor, perhaps via rumination (Berry, Worthington, Parrott, O'Connor, & Wade, 2001; Flanagan, Hoek, Ranter, & Reich, 2012; Worthington & Scherer, 2004). For instance, in a community-based sample of adults ($N=332$) tracked over five weeks, greater levels of forgiveness were associated with less stress and, in turn, to better overall, non-specific symptoms of mental health (Toussaint, Shields, & Slavich, 2016) and, in a study of cardiac patients, higher levels of forgiveness were associated with less perceived stress (Friedberg, Suchday, & Srinivas, 2009). Conversely, in both non-clinical and clinical samples, Matheny and colleagues (2017) discovered that an unwillingness to forgive was associated with decreased stress tolerance.

Importantly for the current study, forgiveness, in its various forms, is associated with lower levels of anxiety, depression, and suicidal behavior (Krause & Ellison, 2003; Tse & Yip, 2009). Forgiveness of others, for instance, is related to lower levels of depressive symptoms in a variety of samples, including a nationally representative study of women from the U.S. (Toussaint, Williams, Musick, & Everson-Rose, 2008), cardiac patients (Friedberg et al., 2009)

and Korean educators ($N= 311$; Chung, 2016). Cardiac patients who forgive others also exhibit lower levels of anxiety (Friedberg et al., 2009). Finally, in a study of racially diverse college students with elevated levels of depressive symptoms, forgiveness of others demonstrated a direct, beneficial association with suicide risk (Hirsch, Webb, & Jeglic, 2011).

Self-forgiveness is also related to better mental health; for instance, in the aforementioned study on diverse college students, by Hirsch and colleagues (2011), self-forgiveness was related to less suicidal behavior, via its beneficial impact on depressive symptoms. In other samples of college students, self-forgiveness buffered against depressive symptoms in those who had anxious or avoidant attachment styles (Liao & Wei, 2015) and, in another sample, college students with greater self-forgiveness reported lower levels of anxiety ($N= 233$; Macaskill, 2012). In a nationally representative U.S. sample, Toussaint and colleagues (2008) discovered that men and women with higher levels of self-forgiveness were significantly less likely to report an episode of major depressive disorder. Finally, in a recent study of older adults, self-forgiveness weakened the relation between perceived burdensomeness and suicidal ideation (Cheavens, Cukrowicz, Hansen, & Mitchell, 2016).

Feeling Forgiven by God. In the current study, we examine the construct of “feeling forgiven by God,” which has historically received less empirical and theoretical attention than self-forgiveness and other-forgiveness, but is increasingly being investigated in the forgiveness literature. Feeling forgiven by God, or the experience of divine forgiveness, can also be considered a cognitive-emotional coping tool, in that it reduces or alleviates negative evaluations about the self (Martin, 2008). However, as opposed to other aspects of forgiveness (e.g., forgiving others, forgiving the self) that require extending forgiveness toward a transgressor, feeling forgiven by God entails accepting or receiving forgiveness from a benefactor.

Theoretically, extending forgiveness to others is linked to the establishment of personal control in one's life, by allowing an autonomous response toward a perceived slight that may otherwise be out of an individual's control (Benson, 1992; McCullough & Worthington, 1994; Toussaint & Webb, 2005). On the other hand, the process of seeking forgiveness by God places one in the position of the transgressor and, thus, attributes control to a benefactor, rather than the self. In this way, individuals may have to feel "worthy" of receiving forgiveness, before being able to feel forgiven by God (e.g., Brodar, Crosskey, & Thompson, 2015; Krause & Hayward, 2015), perhaps through the atonement of sin or by compensating with good works (Papastephanou, 2003).

Perhaps unsurprisingly, religious people (e.g., more likely to attend and surrender) more often report feeling forgiven by God (Toussaint & Williams, 2008). For example, in a study of older adults, feeling forgiven by God was a significant mediator of the relation between religious attendance and successful aging (Lawler-Row, 2010). Similarly, also in older adults, increased participation in organized religion was associated with greater perceived closeness to God and, in turn, to greater forgiveness, including by God (Torges, Ingersoll-Dayton, & Krause, 2013).

In general, feeling forgiven by God is associated with positive health outcomes, such as reduced drinking in college students (Webb & Brewer, 2010; Webb, Hirsch, Conway-Williams, & Brewer, 2013) and beneficial health-related social functioning in physical therapy patients (Svalina & Webb, 2012). Feeling forgiven by God also has positive effects on psychological well-being; for example, in a sample of undergraduates involved in Christian campus ministries ($N= 129$), experiencing perceived forgiveness by God was related to higher levels of self-compassion, greater perceived social support, and more feelings of forgiveness from others (Brodar et al., 2015). Across several studies, experiencing divine forgiveness was related to

optimism in African Americans (Mattis et al., 2017) and to feelings of gratitude and hope in a nationwide sample ($N= 1,774$; Krause, Emmons, & Ironson, 2015) and, in a series of literature reviews, to better overall mental health (see reviews by Griffin et al., 2015; Toussaint & Webb, 2005).

Specific to mental health, in several national samples of adults, feeling forgiven by God was associated with fewer psychiatric symptoms, including symptoms of depression and anxiety (Toussaint, Williams, et al., 2008; Uecker, Ellison, Flannelly, & Burdette, 2016), and with less depression and greater life satisfaction in a national survey of older adults ($N= 1,187$; Krause & Ellison, 2003). In another study of older adults, by Ingersoll-Dayton, Torges, and Krause (2011), feeling forgiven by God was related to less depression, via its beneficial impact on self-forgiveness. Belief in a loving, forgiving God is also associated with lower levels of anxiety, in a national sample of U.S. adults ($N= 1,306$; Flannelly, Galek, Ellison, & Koenig, 2010) and, similarly, belief in divine forgiveness was related to less anxiety about death, in several U.S. adult samples (Krause, 2015b; Krause & Hayward, 2015). Finally, in a sample of students at a Mormon university ($N= 123$), experiencing God's love and forgiveness predicted soothing stress-responses following personal religious errors (i.e., a Go/No-Go task involving pro-alcohol tendencies) (Good, Inzlicht, & Larson, 2015) and, in a sample of U.S. college students ($N= 158$), feeling forgiven by God was inversely associated with suicidal behavior (Hirsch et al., 2011).

It should be noted that, in some studies, the health-related effects of feeling forgiven by God appear to be somewhat weaker than the effects of self-forgiveness and other-forgiveness (Hirsch et al., 2011; Krause & Ellison, 2003; Webb, Hirsch, et al., 2013). Such findings may be due to confounding factors; for example, some individuals may claim that they feel forgiven by God in order to align with doctrinal belief, without personally experiencing feeling forgiven,

perhaps due to feelings of unworthiness or doubt that God can forgive (Griffin, Lavelock, & Worthington, 2014). Further, feeling forgiven may involve a more passive cognitive-emotional process than what is required when extending forgiveness, thus resulting in diminished effects (Toussaint & Webb, 2005). However, as forgiveness by God represents a transcendent and divine form of forgiveness, it may be of particular importance to religious individuals (Martin, 2008; Ysseldyk et al., 2010). As examples of this perceived importance, among certain groups, such as graduate students in theology, there is a perception that feeling forgiven by God is more encompassing, more perfect, and more unlimited than human forgiveness (Kim & Enright, 2014) and, among older adults, forgiving oneself was believed to only be possible by first feeling forgiven by God (Ingersoll-Dayton & Krause, 2005).

Regarding process and application, seeking forgiveness from God may be particularly useful for highly religious people, who may otherwise be self-punitive regarding their role in the ubiquity of “human sin;” for instance, if we are all sinners, then divine forgiveness may help to counteract the negative emotional sequelae of such an assumption (Uecker et al., 2016). As religiosity increases, so does belief in sin (Weeden & Kurzban, 2013), making feeling forgiven by God for such sin increasingly relevant for mental health. That is, feeling forgiven by God may make a religious individual less stressed about sinning by omission, less anxious about divine judgment, or less depressed about the depravity of mankind (Worthington, Witvliet, Pietrini, & Miller, 2007). Feeling forgiven by God may also indirectly benefit mental health, by strengthening one’s interpersonal relationship with God and promoting feelings of psycho-spiritual belongingness (Fadardi & Azadi, 2017; Pargament, Koenig, & Perez, 2000), thereby buffering against psychopathology and suicide risk (Van Orden et al., 2010). In sum, feeling forgiven by God may promote a positive, transcendent, spiritual mental state, potentially

ameliorating negative cognitive-emotional processes, such as rumination, entrapment, or defeat, and facilitating positive cognitive-emotional processes, such as acceptance by, and sense of security from, God (e.g., Bradshaw, Ellison, Flannelly, 2008; Ellison et al., 2009). In the current study, feeling forgiven by God is examined as a potential mechanism of action linking religiosity to perceptions of stress, symptoms of psychopathology, and suicide risk.

Statement of the Problem

Suicide is a global health concern, and college students are at increased risk for suicidal behavior and ideation (ACHA, 2009; Wilcox et al., 2010), perhaps as a result of the high rates of psychopathology, including stress, depression, and anxiety, present in collegiate populations (Bertolote et al., 2004; Cavanagh et al., 2003). In our study, we examined the potential, beneficial association between the religious factors of surrender and attendance and the outcomes of mental health and suicide risk.

Although, overall, religiosity demonstrates a protective effect against psychopathology and suicide (Koenig, 2009; Koenig et al., 2012), questions remain regarding which factors of religiousness are responsible, and via which mechanisms of action. Religiosity is most often measured by self-reported rating of degree of religiousness, or by self-reported religious attendance, which have been previously linked to psychopathology and suicide risk. Yet, self-ratings may be biased, perhaps in an idealized manner (Brenner, 2011), and tracking religious attendance, as a behavior, does not inherently account for cognitive-emotional processes that motivate service attendance; as such, attendance, as a predictor of health, is limited in its explanation (Hill & Pargament, 2008). Surrender to God, which involves relinquishing personal control to God, provides a stronger theoretical basis for its relation to psychopathology and suicide risk (i.e., a disposition of trusting God for outcomes; Wong-McDonald & Gorsuch,

2000), but has not been thoroughly examined in psychological literature. Statistical models explaining the pathways between these forms of religiosity and suicide risk may shed light on underlying mechanisms of action for this protective effect.

One proposed mechanism of action is forgiveness, a form of religious coping useful for managing distress (Ano & Vasconcelles, 2005; Pargament et al., 2000), and which may help to explain the cognitive-emotional processes that link broader religiousness and spirituality, to health and well-being. Conceptualized, broadly, as a process involving replacing negative evaluations with positive ones, forgiveness is inversely associated with stress, anxiety and depression, and provides a theoretically-sound mechanism of action linking religiosity and psychopathology (Zwingman et al., 2007). Yet, there remains a gap in the literature regarding the effects of feeling forgiven and, specifically, feeling forgiven by God, although preliminary evidence has established its beneficial relation to depression, anxiety, and stress (Griffin et al., 2015; Toussaint & Webb, 2005). Further investigation is warranted, as feeling forgiven by God may be particularly important for those who attend worship services frequently or who have surrendered to God, as well as for those who are prone to experiencing negative self-evaluations that can exacerbate psychopathology and suicide risk (Moreira-Almeida, Lotufo Neto, & Koenig, 2006). To our knowledge, no previous research has examined the sequential associations between these religious factors and suicide risk, via their adaptive effects on feeling forgiven by God and psychopathology.

Hypotheses

In the current study, in addition to descriptive and bivariate analyses, we examined the serial mediating roles of feeling forgiven by God (first order mediator) and symptoms of psychopathology (depression, anxiety, and stress; second order mediators) in the relation

between two forms of religiosity (religious attendance and surrender to God; independent variables) and suicide risk (dependent variable) in college students.

1. At the bivariate level, we hypothesized that religious attendance, surrender to God, and feeling forgiven by God would be positively related to one another, and negatively related to depression, anxiety, stress, and suicide risk. Depression, anxiety, stress, and suicide risk would be positively related.
2. At the multivariate level, feeling forgiven by God and depression/anxiety/stress would mediate the relation between religious attendance/surrender to God and suicide risk in a serial fashion, such that higher levels of attendance/surrender would be associated with a greater perception of feeling forgiven by God and, in turn, to lower levels of depression/anxiety/stress and suicide risk.

CHAPTER 2

METHOD

Participants

Participants were recruited from a public University in rural southern Appalachia ($N = 249$). The mean age was 21.05 ($SD = 5.203$), with 35.3% identifying as male ($n = 88$) and 64.7% as female ($n = 161$). Our sample was 77.9% White ($n = 194$), 11.6% Black ($n = 29$), 4.8% Multiracial ($n = 12$), 2.0% Asian ($n = 5$), 0.8% Pacific Islander ($n = 2$), 0.4% Native American ($n = 1$), and 2.4% identified as Other ($n = 6$). Relatively consistent with regional trends and the university setting (Chalfant & Heller, 1991; Hill, 2011), most participants identified as Protestant (e.g., Methodist, Baptist) (55.8%, $n = 139$), followed by those of other Judeo-Christian denominations such as Catholic (4.8%, $n = 12$) and Jehovah's Witness (0.4%, $n = 1$). Remaining participants identified as Other (12.4%, $n = 31$), Agnostic (7.6%, $n = 19$), Nonreligious (4.8%, $n = 12$), Atheist (3.2%, $n = 8$), Muslim (2.0%, $n = 5$), and Unsure (8.8%, $n = 22$).

Procedure

In this study, which was approved by an Institutional Review Board, participants were recruited via an online participant management system, and completed a battery of surveys as an option for obtaining course extra credit or to fulfill a research requirement. Informed consent was provided prior to survey initiation, and the order of measures was counterbalanced to reduce ordering effects and non-random missing data due to participant fatigue or random survey taking (Sanjeev & Balyan, 2014). Participants were excluded from analyses if they completed the survey in less time than expected (i.e., 25 minutes or less), a recommended data screening practice to ensure thoughtfulness in responding and quality of data (DeSimone & Harms, 2017; Revilla & Ochoa, 2015). Data was imported to SPSS (version 24.0), and subsequently cleaned

for missing values, a single-source problem of “ignorable missingness” (due to the study’s non-longitudinal nature), remedied by inputting item averages (Allison, 2002; Rahm & Do, 2000).

Measures

Surrender to God was measured by the Surrender to God Scale (STGS), which is a 12-item measure of the active relinquishing of control to God (Wong-McDonald & Gorsuch, 2000). The STGS was developed by Wong-McDonald and Gorsuch from a factor-analysis of Pargament and colleagues’ Religious Problem-Solving measure (Pargament et al., 1998), which suggested a style of religious coping (i.e., surrender) previously unrecognized in the original Religious Problem-Solving measure. Examples of items include “When my understanding of a problem conflicts with God’s revelation, I will submit to God’s definitions” and “When I think about the troubles I’ve had, I can give thanks for God’s using them for God’s purposes.” Participants were asked to indicate the extent to which they agreed with each statement on a scale from 1 (*strongly disagree*) to 5 (*strongly agree*), with higher total scores representing higher levels of surrender to God. Total scores range from 12 to 60. In Wong-McDonald and Gorsuch’s original sample of college students (2000), the STGS demonstrated excellent internal reliability (Cronbach’s alpha = .94; George & Mallery, 2016) and was positively correlated with intrinsic religiosity, spiritual well-being, and a locus of control in God. Since, the STGS has been further established in terms of validity and its inverse relation to stress (Clements & Ermakova, 2012), its convergent validity with The Providence Scale, a 12-item measure of belief in divine providence (Knabb et al., 2017; Lawrence, 1997), and an overall inverse relation to psychopathology and convergent validity with other forms of religiosity, such as daily spiritual experiences and religious coping (Pugh, Jordan, Clements, & Hirsch, 2019). In the present study, the alpha value of the STGS was 0.982.

Religious attendance, or frequency of attendance of religious services, was measured by the single question: “How often do you attend religious services at a church, mosque, synagogue, or other place to worship?” (Lucette et al., 2016; Steensland et al., 2000). Participants responded to the question with the following frequencies: *Never* (0); *Less than once a year* (1); *Once or twice a year* (2); *Several times a year* (8); *Once a month* (12); *2-3 times a month* (30); *Weekly* (52); *Several times a week* (104); or *Prefer not to answer*. Consistent with a previous study of a national sample (Gillum et al., 2008), responses were assigned numeric values (above, in parentheses) in proportion to a calculated yearly sum of dates attended, so that higher frequency of attendance would correspond in proportion to higher numeric values. As not all categories of responses could be directly correlated to a numeric value, approximate values were assigned. Specifically, “*2-3 times a month*” was calculated as 2.5 times a month, yielding 30 times per year; and “*Several times a week*” was calculated using a conservative estimate of 2 times a week, yielding 104 times per year. The item response of “*Prefer not to answer*” was omitted from analyses, as these results are not interpretable and unlikely to make a significant impact on results due to low endorsement rate ($n = 12$). Although a single item measure, religious attendance is claimed to be a good indicator of overall religiosity, demonstrating convergent validity with other measures of religiosity (Brenner, 2011; Hall, Meador, & Koenig, 2008), such as perceived importance of religious self-identity in a sample of Canadian adolescents (Balbuena et al., 2013), and private faith practices (e.g., meditation, prayer) in samples of older adults (Cruz et al., 2009) and religious elders in a rural community (Arcury et al., 2007).

Feeling forgiven by God was assessed using a single-item measure extracted from the Fetzer Brief Multidimensional Measure of Religiousness and Spirituality (BMMRS; Fetzer Institute, 1999) forgiveness subscale, which consists of three items including self and other

forgiveness. Participants rated the statement “I know that God forgives me” on a scale from 1 (*always or almost always*) to 4 (*never*), and the item was reverse-scored so that higher scores indicated greater forgiveness. In previous research, this single-item measure has been used to represent a dispositional state of feeling forgiven by God (Johnstone, Yoon, Franklin, Schopp, Hinkebein, 2009; Webb, Hirsch, & Toussaint, 2011; Webb et al., 2013).

Among adolescents, college students, and both chronically ill and healthy adults, all domains of the BMMRS have been regarded as reliable and valid measures of religiosity (Harris et al., 2008; Johnstone, McCormack, Yoon, & Smith, 2012; Vespa et al., 2017). The strong psychometric properties of the BMMRS include the embedded forgiveness constructs, although the three-item forgiveness scale demonstrate only moderate internal consistency ($\alpha=.68$), perhaps due to its brevity or the differential constructs assessed by the three forgiveness items (e.g., forgiveness of others, forgiveness of self, feeling forgiven by God; Harris et al., 2008). In previous research, feeling forgiven by God has been associated with self-forgiveness in samples of college students and adults (Martin, 2008). This single-item measure of feeling forgiven by God has been related to religious attendance (Lawler-Row, 2010), demonstrating a form of convergent validity. Further, feeling forgiven by God is also related to reduced symptoms of depression in college students (Hirsch et al., 2011), and fewer symptoms of anxiety in a nationally representative sample (Uecker et al., 2016).

Depression, anxiety, and stress were measured using the Depression, Anxiety, and Stress Scales - 21 (DASS-21; DASS-D; DASS-A, DASS-S), which is a 21-item measure divided into three self-report scales. Participants are asked to indicate the degree to which each statement applied to them over the past week on a scale from 0 (*did not apply to me at all*) to 3 (*applied to me very much or most of the time*). Seven items assessed depressive symptoms such as

anhedonia and self-deprecation (e.g., “I felt down-hearted and blue”), seven assessed anxiety symptoms such as autonomic arousal and situational anxiety (e.g., “I felt scared without any good reason”), and seven assessed stress symptoms such as agitation and impatience (e.g., “I tended to overreact to situations”). Subscale items were summed and multiplied by two (to facilitate comparison to the longer 42-item version), yielding a maximum score of 42. Higher scores indicate greater symptoms of depression, anxiety and stress.

The DASS-21 is commonly used in samples of college students (Beiter et al., 2015), but has also demonstrated clinical utility in distinguishing between the three subsets of psychopathology in clinical groups, non-clinical groups, and in community samples (Antony, Bieling, Cox, Ehns, & Swinson, 1998; Brown, Chorpita, Korotitsch, & Barlow, 1997; Henry & Crawford, 2005). The total score of the DASS-21 has demonstrated excellent internal consistency in a large ($N= 1,794$), nationally representative non-clinical sample in the U.K. ($\alpha = .93$; Henry & Crawford, 2005), as has each subscale, in combined clinical outpatient and inpatient samples (depression: $\alpha = .96$, anxiety: $\alpha = .92$, stress: $\alpha = .95$; Ronk, Korman, Hooke, & Page, 2013). In the current study, alpha values of each subscale on the DASS-21 demonstrated adequate internal reliability (depression: $\alpha = .903$, anxiety: $\alpha = .819$, stress: $\alpha = .822$).

Suicide risk was assessed using the Suicide Behaviors Questionnaire – Revised (SBQR), a four-item assessment of suicide ideation in the past year, communication of suicidal intent, lifetime history of attempts, and likelihood of future attempts (Osman, Bagge, Gutierrez, Konic, Kopper & Barios, 2001). Each item is measured on a different scale, but each item yields a total summed score. Item 1 assesses lifetime ideation and attempts, and participants choose from a selection of six responses, placing them in one of four subgroups with corresponding scores: a

non-suicidal subgroup (1), suicide risk ideation subgroup (2), suicide plan subgroup (3), and suicide attempt subgroup (4). Item 2 assesses the frequency of ideation over the past 12 months, on a five-point scale ranging from 1 (*never*) to 5 (*very often*). Item 3 assesses the communication of a threat of suicide attempt, and participants choose from a selection of 5 responses assessing for the frequency of threats and the desirability of suicide, yielding a score ranging from 1-3. Item 4 assesses likelihood of future suicidal attempts, and participants respond on a seven-point scale from 0 (*never*) to 6 (*very likely*). Item scores are summed to yield a total score, ranging from 3-18, with higher scores indicating greater suicide risk.

The SBQR is recommended for use in both clinical and nonclinical settings for its ability to differentiate between at-risk and non-suicidal participants, with sensitivity of .87 and specificity of .93 (Osman et al., 2001). The SBQR has demonstrated adequate internal consistency in a sample of American college students ($\alpha = .78$; Hirsch & Barton, 2011), as well as in a sample of Nigerian college students ($\alpha = .80$; Aloba, Ojeleye, & Aloba, 2017). The SBQR has demonstrated convergent validity with related constructs of psychache and the thwarting of interpersonal needs (Campos & Holden, 2016), and has been positively correlated with symptoms of psychopathology, such as depression in community samples (Aloba et al., 2017) and anxiety in clinical samples (Simon et al., 2007). In the current study, the SBQR had an alpha value of 0.872.

Covariates

In previous research, sex, age, and racial/ethnic differences have been identified in religious attendance (De Vaus, 1984; Koenig & Vaillant, 2009), various measures of religiosity including forgiveness beliefs (Krause, 2015a; Miller & Hoffmann, 1995), and in an array of psychopathology, including stress (Bale & Epperson, 2015; Bangasser & Valentino, 2014),

depression and anxiety (Altemus, Sarvaiya & Epperson, 2014; Ellis, Orom, Giovino & Kiviniemi, 2015; Ellison, 1995; McHenry, Carrier, Hull & Kabaj, 2014), and suicidal behavior (Brent, Baugher, Bridge, Chen & Chiapetta, 1999; Saleh, 2015). Thus, these demographic variables were used as covariates in multivariate analyses to eliminate potentially confounding effects, and to determine the potential effects that these variables may have on the relations between religiosity, forgiveness, psychopathology, and suicide risk.

Statistical Analyses

Bivariate Analyses. Pearson product-moment correlations were utilized to assess the independence of, and associations between, all study variables. A recommended cutoff for multicollinearity, of $r > .80$, was utilized to determine an excessive degree of association (Katz, 2011).

Multivariate Analyses. Six serial mediation models were tested, using Hayes' (Hayes, 2013) PROCESS Model 6, to examine the relation between religiosity factors (i.e., attendance [models 1, 2, and 3] and surrender [models 4, 5 and 6]) and suicide risk, and the potential mediating effects of feeling forgiven by God (1st order mediator), and depressive symptoms (models 1 and 4), anxiety symptoms (models 2 and 5), or stress symptoms (models 3 and 6) (2nd order mediators).

Hayes' mediation techniques provide certain advantages over other regression analyses. First, there is no statistical requirement for the IV and DV to be related to examine indirect effects. Second, the PROCESS macro utilizes bootstrapping, which is a process involving the extraction, resampling, and replacement of cases within a given data set, generating a confidence interval useful in determining significance and, in turn, lessening the likelihood of a Type I error

(Preacher & Hayes, 2008). In the current study, we used a bootstrapping frequency of 10,000 samples.

Serial mediation models assume that the independent variable influences subsequent mediators in a serial fashion until the dependent variable is reached in the sequence; further, each variable has a direct effect on each other variable. Thus, serial mediation models yield several types of results, including both direct and indirect effects. The *total effect*, represented by c , is the relation between the independent variable (surrender to God or religious attendance) and the dependent variable (suicide risk), without controlling for mediating factors (feeling forgiven by God, depression, anxiety, stress). The *direct effect*, represented by c' , is the relation between the independent variable and the dependent variable, while controlling, or holding constant, mediating factors. A *total indirect effect* of a serial mediation is the sum of all specific indirect effects, and is represented by ab . *Indirect only* effects are considered when ab is significant, but c or c' is not.

Beyond this, *specific indirect effects* can also be examined, providing information about the role a specific mediator plays in the linkage between the IV and DV. Three potential specific indirect effects are relevant to this study. First, a specific indirect effect may exist solely through the 1st order mediator (a_1b_1 ; feeling forgiven by God). Second, a specific indirect effect may exist solely through the 2nd order mediator (a_2b_2 ; depression, anxiety, or stress). Third, a specific indirect effect may exist through the 1st order mediator and 2nd order mediator, apart from other pathways ($a_1a_3b_2$; feeling forgiven and depression, anxiety, or stress). These potential pathways are modeled in Figure 1.

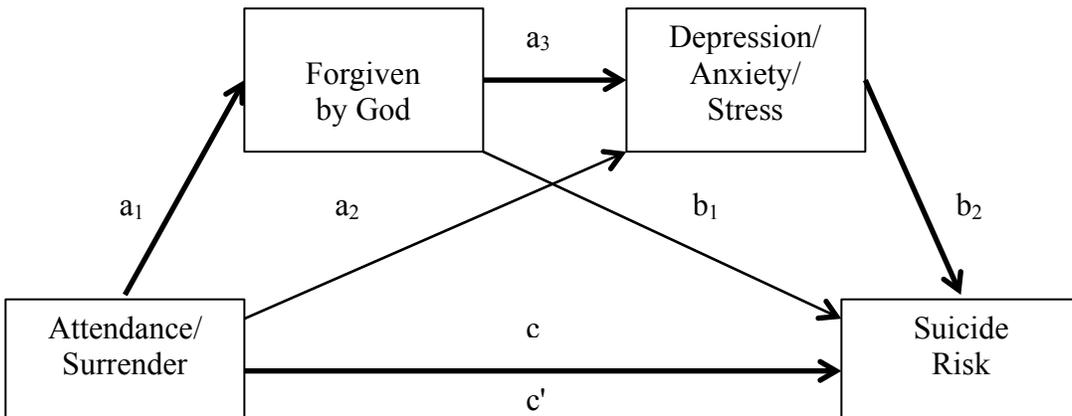


Figure 1. Serial mediation model: illustration of direct and indirect effects

Note. a_1 = direct effect of Attendance (Model 1, 2, 3)/Surrender (Model 4, 5, 6) on feeling Forgiven by God; a_2 = direct effect of Attendance (Model 1, 2, 3)/Surrender (Model 4, 5, 6) on symptoms of Depression (Model 1, 4)/Anxiety (Model 2, 5)/Stress (Model 3, 6); a_3 = direct effect of Forgiven by God on Depression (Model 1, 4)/Anxiety (Model 2, 5)/Stress (Model 3, 6); b_1 = direct effect of Forgiven by God on Suicide Risk; b_2 = direct effect of Depression (Model 1, 4)/Anxiety (Model 2, 5)/Stress (Model 3, 6) on Suicide Risk; c = total effect of Attendance (Model 1, 2, 3)/Surrender (Model 4, 5, 6) on Suicide Risk, without accounting for Forgiven by God and symptoms of Depression (Model 1, 4)/Anxiety (Model 2, 5)/Stress (Model 3, 6); c' = direct effect of Attendance (Model 1, 2, 3)/Surrender (Model 4, 5, 6) on Suicide Risk when accounting for Forgiven by God and symptoms of Depression (Model 1, 4)/Anxiety (Model 2, 5)/Stress (Model 3, 6); Total Indirect Effect = $a_1b_1 + a_1a_3b_1 + a_2b_2$ (Attendance [Model 1, 2, 3]/Surrender [Model 4, 5, 6] on Suicide Risk through various specific effects); a_1b_1 = specific indirect effect through Forgiven by God; a_2b_2 = specific indirect effect through Depression (Model 1, 4)/Anxiety (Model 2, 5)/Stress (Model 3, 6); $a_1a_3b_1$ = specific indirect effect through Forgiven by God and Depression (Model 1, 4)/Anxiety (Model 2, 5)/Stress (Model 3, 6).

CHAPTER 3

RESULTS

Descriptive Statistics

Participants reported attending religious services and events an average of 25 times per year (Mean=25.340; $SD=28.304$), ranging from *never attending* ($n=44$, 17.7%), to attending religious services *several times a week* ($n=15$, 6.0%). The most frequent response for attendance was *weekly* ($n=57$, 22.9%), followed by *never*, and, then, by responses of *2-3 times a month* ($n=39$, 15.7%), *several times a year* ($n=36$, 14.5%), and *once or twice a year* ($n=33$, 13.3%). On the Surrender to God scale (STGS), the mean response score was 39.010 ($SD=14.911$), with the largest group of students indicating the lowest level of surrender to God (lowest possible score on STGS=12; $n=36$, 14.5%), followed by students indicating the highest level of surrender to God (highest possible score on STGS=60; $n=23$, 9.2%) and, then, by those with a high level of surrender to God (Mode score on STGS=48; $n=24$, 9.6%). Participants reported an average score of 3.276 ($SD=1.073$) on the item measuring feeling forgiven by God, with most students indicating feeling *always* or *almost always* forgiven by God ($n=154$, 61.8%). Thirty-one (12.4%) participants reported feeling *never* forgiven by God.

Overall, participants in our sample reported non-clinical levels of depressive symptoms (Mean=5.663; $SD=4.814$), anxiety symptoms (Mean=5.679; $SD=4.264$), and stress symptoms (Mean=7.440; $SD=4.164$), similar to comparable collegiate samples (Henry & Crawford, 2005). Still, compared to the general population and other collegiate samples, individual respondents reported a higher than average frequency of mental illness: 18.5% ($n=46$) of individuals endorsed having at least mild symptoms of depression, and 24.1% ($n=60$) of individuals reported having at least mild symptoms of anxiety (APA, 2013). Overall, our sample can be classified as being at

low to no risk for suicide (Mean=6.078; *SD*=3.915; Osman et al., 2001); however, it should be noted that 26.3% (*n*=83) of our participants endorsed risk for suicide, having obtained a score of 7 or above on the SBQR.

Bivariate Results

At the bivariate level, all hypotheses were supported (Table 1). Religious attendance was positively, significantly related to surrender to God ($r = .503, p < .001$) and to feeling forgiven by God ($r = .376, p < .001$). Conversely, religious attendance was negatively related to depression ($r = -.192, p = .003$), anxiety ($r = -.163, p = .012$), and stress ($r = -.239, p < .001$), as well as suicide risk ($r = -.266, p < .001$).

Table 1

Bivariate Correlations and Descriptive Statistics of Study Variables

	Attendance	Surrender	Forgiven	Depression	Anxiety	Stress	Suicide
Surrender	.503***						
Forgiven	.376***	.747***					
Depression	-.192**	-.351***	-.384***				
Anxiety	-.163*	-.242***	-.331***	.721***			
Stress	-.239***	-.351***	-.346***	.736***	.756***		
Suicide	-.266***	-.347***	-.379***	.518***	.433***	.459***	
Age	.020	-.030	.013	-.118	-.057	-.039	-.096
Race	-.007	-.055	.024	.079	.028	.058	.022
Sex	-.807	-.081	-.078	.067	.100	.198**	.145*
<i>Mean</i>	25.340	39.010	3.275	5.663	5.679	7.440	6.078
<i>Std. Dev.</i>	28.304	14.911	1.073	4.814	4.264	4.164	3.915

Note. Attendance = Religious Attendance Scale; Surrender = Surrender to God Scale; Forgiven = Feeling Forgiven by God item from Fetzer's Brief Multidimensional Measure of Religiousness and Spirituality; Depression = Depression, Anxiety and Stress Scale (DASS) – Depression Subscale; Anxiety = DASS – Anxiety Subscale; Stress = DASS– Stress Subscale; Suicide = Suicide Behaviors Questionnaire – Revised; Sex = self-reported sex at birth; Std. Dev. = Standard Deviation. Pearson product-moment correlations are reported.

* $p < .05$, ** $p < .01$, *** $p < .001$.

Similarly, surrender to God was positively related to feeling forgiven by God ($r = .747, p < .001$), and negatively related to depression ($r = -.351, p < .001$), anxiety ($r = -.242, p < .001$), stress ($r = -.351, p < .001$), and suicide risk ($r = -.347, p < .001$). Feeling forgiven by God was also inversely related to depression ($r = -.384, p < .001$), anxiety ($r = -.331, p < .001$), stress ($r = -.346, p < .001$), and suicide risk ($r = -.379, p < .001$).

Finally, symptoms of psychopathology and suicide risk were all positively related. Specifically, depression was positively related to anxiety ($r = .721, p < .001$), stress ($r = .736, p < .001$), and suicide risk ($r = .518, p < .001$). Anxiety was positively related to stress ($r = .756, p < .001$) and suicide risk ($r = .433, p < .001$), and stress and suicide risk were positively related ($r = .459, p < .001$).

No correlation coefficient exceeded .80; thus, all proposed variables were retained for multivariate analyses (Katz, 2011).

Multivariate Results

As proposed, we examined six independent multivariate statistical models. Described below, our first set of models utilized religious attendance as the independent variable, whereas the second set utilized surrender to God as the predictor.

Models of Religious Attendance. In our first model, we examined feeling forgiven by God and depression as serial mediators of the relation between religious attendance and suicide risk (Figure 2). Supporting hypotheses, a significant total effect was observed ($\beta = -.036, SE = .009, t = -4.104, p < .001, CI 95\% [-.053, -.019]$), but not a significant direct effect ($\beta = -.015, SE = .008, t = -1.904, p = .058, CI 95\% [-.031, .001]$), indicating mediation. Greater levels of religious attendance were associated with greater levels of feeling forgiven by God which, in

turn, was related to less depression and consequent suicide risk. Approximately 9% of the indirect effect was accounted for by this model ($R^2=.094$).

Further, in this model, a specific, indirect effect existed, via feeling forgiven by God ($a_1b_1=-.010$, $SE=.004$, CI 95% [-.018, -.003]). Greater levels of religious attendance were associated with an enhanced perception of having received forgiveness from God which was, in turn, related to less suicide risk.

In the second model, we examined the serial mediating effects of feeling forgiven by God and anxiety on the relation between religious attendance and suicide risk (Figure 2). Supporting hypotheses, a significant total effect was observed ($\beta=-.036$, $SE=.009$, $t=-4.104$, $p<.001$, CI 95% [-.053, -.019]), and a significant direct effect that reduced in significance ($\beta=-.016$, $SE=.008$, $t=-1.976$, $p=.049$, CI 95% [-.033, .000]), indicating mediation. Greater religious attendance was associated with a stronger perception of feeling forgiven by God which was serially related to less anxiety and reduced suicide risk. Approximately 9% of the indirect effect was accounted for by this model ($R^2=.094$).

A specific, indirect effect also existed in this model, through feeling forgiven by God ($a_1b_1=-.012$, $SE=.004$, CI 95% [-.021, -.005]). More religious attendance was associated with greater levels of feeling forgiven by God and, in turn, to less suicide risk.

In the third model, we examined the serial mediating effects of feeling forgiven by God and stress on the relation between religious attendance and suicide risk (Figure 2). Supporting hypotheses, a significant total effect was observed ($\beta=-.036$, $SE=.009$, $t=-4.104$, $p<.001$, CI 95% [-.053, -.019]), but not a significant direct effect ($\beta=-.013$, $SE=.008$, $t=-1.540$, $p=.125$, CI 95% [-.030, .004]), indicating mediation. Greater frequency of religious attendance was related to more feelings of forgiveness by God which, in turn, was associated with less stress and consequent

suicide risk. Approximately 9% of the indirect effect was accounted for by this model ($R^2=.094$).

As in other models, a specific, indirect effect existed for feeling forgiven by God ($a_1b_1=-.0130$, $SE=.004$, $CI\ 95\% [-.021, -.006]$). Greater levels of religious attendance were associated with a higher likelihood of feeling forgiven by God and, in turn, to less suicide risk.

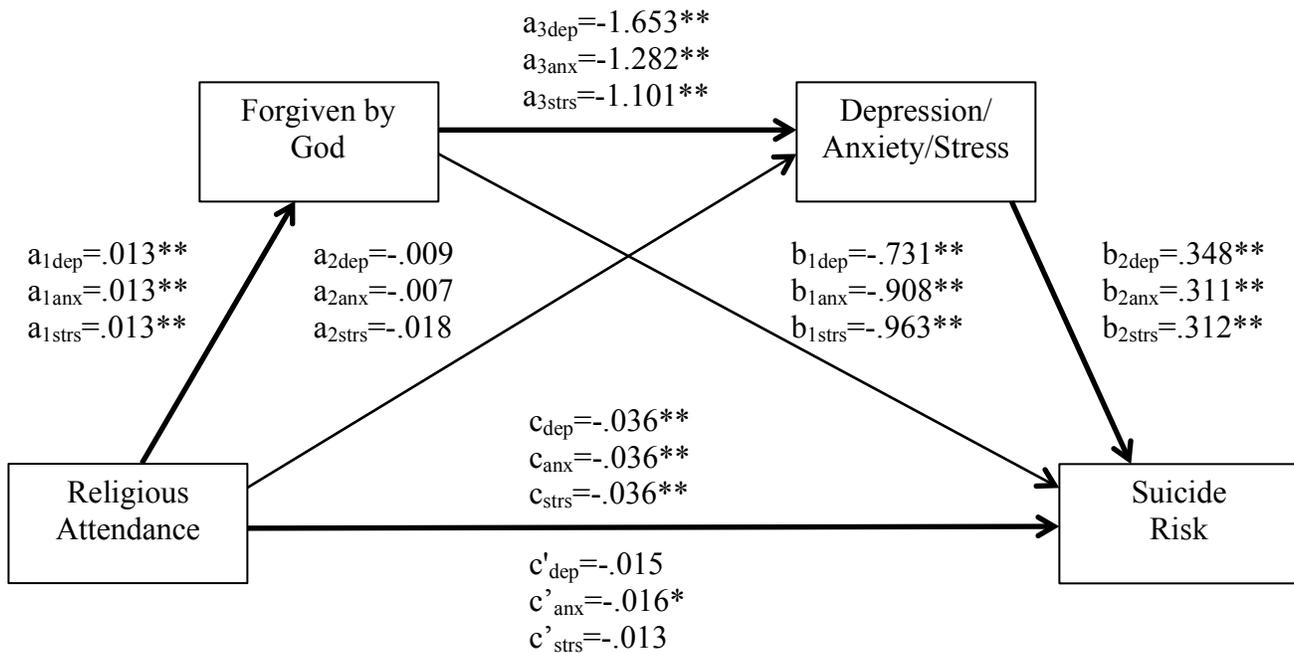


Figure 2. Models of religious attendance. Religious Attendance = Religious Attendance Item; Forgiven by God = Feeling Forgiven by God item from Fetzer’s Brief Multidimensional Measure of Religiousness and Spirituality; Depression/Anxiety/Stress = Depression, Anxiety, and Stress Scale – 21; Suicide Risk = Suicide Behaviors Questionnaire – Revised. Note: * $p<.05$, ** $p<.001$

Models of Surrender to God. Our second series of analyses investigated the linkage between surrender to God and suicide risk. In our fourth model, we examined the serial mediating effects of feeling forgiven by God and depression on this association (Figure 3). Supporting hypotheses, a significant total effect was observed ($\beta=-.092$, $SE=.016$, $t=-5.700$,

$p < .001$, CI 95% [-.124, -.060]), but not a significant direct effect ($\beta = -.018$, $SE = .022$, $t = -.811$, $p = .418$, CI 95% [-.060, .025]), indicating mediation. In other words, greater surrender to God was related to more feelings of being forgiven by God and, in turn, to less depression and suicide risk. Approximately 14% of the indirect effect was accounted for by this model ($R^2 = .144$).

We also found a specific, indirect effect, via feeling forgiven by God ($a_1b_1 = -.038$, $SE = .020$, CI 95% [-.071, .007]). Greater surrender to God was associated with greater levels of feeling forgiven by God and, in turn, to less suicide risk.

In our fifth model, we examined the serial mediating effects of feeling forgiven by God and anxiety on the relation between surrender to God and suicide risk (Figure 3). Supporting hypotheses, a significant total effect was observed ($\beta = -.092$, $SE = .016$, $t = -5.700$, $p < .001$, CI 95% [-.124, -.060]), but not a significant direct effect ($\beta = -.035$, $SE = .022$, $t = -1.586$, $p = .114$, CI 95% [-.079, .009]), indicating mediation. Greater levels of surrender to God were associated with higher levels of endorsement of feeling forgiven by God and, in turn, to less anxiety and subsequent suicide risk. Approximately 14% of this indirect effect was accounted for by this model ($R^2 = .144$).

We also found a specific, indirect effect in this model, through feeling forgiven by God ($a_1b_1 = -.033$, $SE = .021$, CI 95% [-.073, .008]). Greater surrender to God was associated with greater levels of feeling forgiven by God and, in turn, to less suicide risk.

In our final model, we examined the serial mediating effects of feeling forgiven by God and stress on the relation between surrender to God and suicide risk (Figure 3). Supporting hypotheses, a significant total effect was observed ($\beta = -.092$, $SE = .016$, $t = -5.700$, $p < .001$, CI 95% [-.124, -.060]), but not a significant direct effect ($\beta = -.016$, $SE = .023$, $t = -.705$, $p = .481$, CI 95% [-.060, .029]), indicating mediation. Greater levels of surrender to God were associated with more

self-reported feelings of being forgiven by God which, in turn, were related to less stress and subsequent suicide risk. Approximately 14% of the indirect effect was accounted for by this model ($R^2=.144$).

Unlike other models, this model yielded two specific indirect effects. First, an indirect effect existed through feeling forgiven by God ($a_1b_1=-.044$, $SE=.021$, CI 95% [-.084, -.004]; that is, greater surrender to God was associated with more feelings of forgiveness by God and, in turn, to less suicide risk. We also found a specific indirect effect via stress ($a_2b_2=-.020$, $SE=.009$, CI 95% [-.039, -.003], whereby greater surrender to God was associated with less stress and, in turn, to less suicide risk.

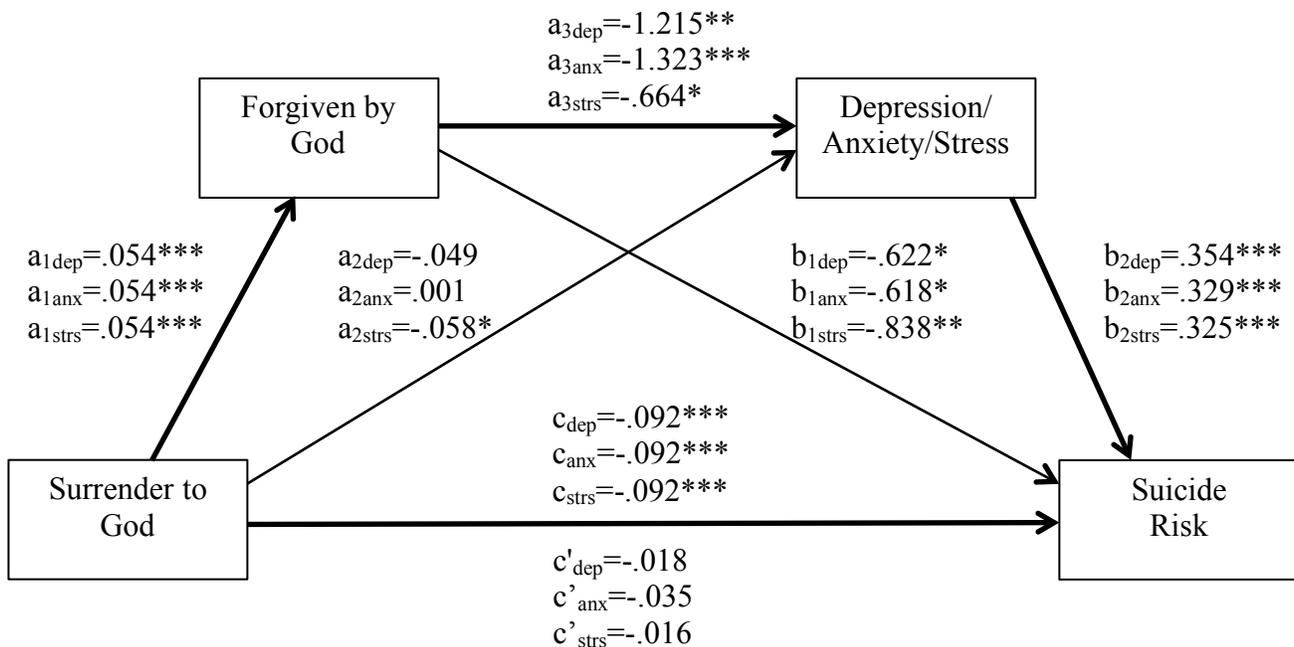


Figure 3. Models of surrender to God. Surrender to God = Surrender to God Scale; Forgiven by God = Feeling Forgiven by God Item from Fetzer’s Brief Multidimensional Measure of Religiousness and Spirituality; Depression/Anxiety/Stress = Depression, Anxiety, and Stress Scale – 21; Suicide Risk = Suicide Behaviors Questionnaire – Revised. Note: * $p<.05$, ** $p<.01$, *** $p<.001$

CHAPTER 4

DISCUSSION

In our sample of college students, we examined the associations between surrender to God, religious attendance, feeling forgiven by God, psychopathology, and suicide risk. In support of hypotheses, at the bivariate level, and consistent with previous findings, depression, anxiety, stress, and suicide risk were all significantly positively associated (Deng et al., 2018; Hong & Cheung, 2015) and, similarly, religious attendance, surrender to God, and feeling forgiven by God were all positively related (Lavelock, Griffin, & Worthington, 2013; Lawler-Row, 2010). Further, measures pertaining to religiosity (surrender to God, religious attendance, and feeling forgiven by God) were inversely associated with depression, anxiety, stress, and suicide risk (Bonab & Kooshar, 2011; Bruce et al., 2017; Flannelly et al., 2010; Kleiman et al., 2018; Knabb et al., 2017; Uecker et al., 2016; Zou et al., 2014).

Our patterns of findings replicate previous research, including substantiating the linkage between psychopathology and suicide risk, an association that has been well-documented among general community samples and specialized populations, including college students (Campos et al., 2016; Lester, 2014; Zhang, Liu, & Sun, 2017). We also confirmed the inverse linkage between religiosity and negative psychological states (Kleiman & Liu, 2018; McGowan et al., 2016; Nadeem et al., 2017). Of note, we extend this previous literature with the inclusion of feeling forgiven by God as a mediating factor, helping to explain the association between the religiosity-psychopathology and psychopathology-suicide linkages. Finally, our findings add to the existing literature focused on surrender to God, which has been previously linked to reduced stress in pregnant woman and college students (Clements & Ermakova, 2012), and to the ability to tolerate uncertainty among Christian college students and Christian church-going community

members (Knabb et al., 2017). Despite being less extensively studied than religious attendance, we found that the construct of surrendering to God adhered to a general pattern observed in religious studies, in which intrinsically-oriented religious variables serve as protective factors against poor physical and mental health outcomes (Frederick & White, 2015; Rosequist et al., 2012; Teismann et al., 2017).

In our multivariate analyses, across all six serial mediation models, our hypotheses were supported; that is, both measures of religiosity (i.e., religious attendance and surrender to God) were associated with suicide risk via feeling forgiven by God and the three domains of psychopathology (i.e., depression, anxiety, and stress). Additionally, specific indirect pathways emerged across all models, linking religious attendance and surrender to God to suicide risk, via feeling forgiven by God. As well, a specific indirect effect existed between surrender to God and suicide risk via the independent pathway of stress.

Overall, our findings support the extant research beneficially linking religious variables to reduced suicide risk and contribute to an expanded understanding of potential mechanisms of action through which these constructs are related (Hall, Webb, & Hirsch, 2018; Lavelock et al., 2018; Morton, Lee, & Martin, 2017; Teismann et al., 2017; VanderWeele et al., 2016), including feeling forgiven by God and psychopathology. In the following sections, we will examine our primary bivariate and multivariate findings. As all six multivariate models were conceptually similar, common patterns emerged; however, we will describe each model in turn, exploring theoretical underpinnings for any differential findings.

Discussion of Bivariate Associations

Our study variables can be conceptualized into two general domains: religious factors (i.e., religious attendance, surrender to God, and feeling forgiven by God) and

psychopathological factors (i.e., depression, anxiety, stress, and suicide risk). In the sections below, we will discuss these domains separately, as well as their interactions.

Associations among Religious Variables. As hypothesized, religious attendance was positively associated with surrender to God; that is, individuals who frequently attend religious services were more likely to endorse an active choice to relinquish control to God (Wong-McDonald & Gorsuch, 2000). Although an intuitive linkage, this is not a necessary pairing, as religious attendance and sense of intrinsic religiosity may manifest independently. However, our findings indicate that religiously-oriented behavioral actions, such as attendance, while not dependent upon intrinsic beliefs, are related to personally-held religious beliefs. This association can be interpreted in several ways. First, those who endorse having a system of faith, or some type of relationship with God or a deity, may perceive both religious attendance and surrender as central to their belief system (Pew Research Center, 2018). Second, individuals who surrender to God may also be more motivated to attend services, perhaps highlighting surrender's requisite obedience to God, which could involve a sense of obligation to attend church services or perceived identity associated with religious attendance (Blackaby, Blackaby, & King, 2008; Brenner, 2011). Finally, those who attend religious services frequently may, in turn, cultivate a theological understanding of surrendering to God via immersion in a faith community and exposure to religious ideals.

To our knowledge, there are no other studies that have examined the direct linkage between religious attendance and surrender to God, as surrender is not commonly examined in the psychological literature. Broadly, however, in previous research, extrinsic forms of religiosity (e.g., attendance) are associated with higher levels of intrinsic religiosity (e.g., centrality of belief; Cohen et al., 2005; Power & McKinney, 2014). For example, in a sample of

Muslim university and seminary students ($N=296$), Ghorbani and colleagues (2016) found that extrinsic religious orientations were directly related to intrinsic religious orientations, and to intrinsic spiritual factors, including an enlightened sense of self-knowledge and satisfaction with life.

Religious attendance was also positively related to feeling forgiven by God. In previous research, the linkage between religious attendance and other forms of forgiveness has been well established (Escher, 2013), and most commonly involves other-forgiveness, or actively extending forgiveness to a transgressor. As but one example, in a national sample of American adults ($N=1,629$), religious attendance was associated with a greater likelihood of exercising forgiveness toward others (Lutjen et al., 2012). Our current study, however, extends the minimal research that has focused on feeling forgiven by God, placing it in the context of collegiate mental health and replicating similar findings from other samples. For instance, in a sample of U.S. adults over the age of 50, religious attendance was positively related to feeling forgiven by God (Lawler-Row, 2010). Similarly, in a sample of ethnically diverse older Americans ($N=1,208$), engagement in organized religious activities was associated with a global measure of forgiveness, which included feeling forgiven by God (Torges et al., 2013).

Once again, there are multiple ways to conceptualize this association. To begin, those who choose to attend religious services may already have a theological framework that supports the idea of a forgiving God (Exline, 2008). Alternatively, as with surrender to God, those who frequently attend services may develop a belief in a forgiving God; that is, the religious experience of attending a service may facilitate the spiritual experience of forgiveness. Finally, given that less attendance is related to less forgiveness by God, it may be that those who feel

unforgiven by God may avoid religious services (LeCount, 2017), perhaps due to shame or guilt (Koenig, 2009).

Lastly, surrender to God, an intrinsic religious construct, was positively related to feeling forgiven by God; in other words, those who are willing to relinquish control to God, or who trust in God's purposes above their own, are also more likely to feel forgiven by God. Although there is limited research on these constructs, some precedent for an association between intrinsic religiousness and feeling forgiven exists. For example, in a study of "believers in God," an intrinsic motivation for religion was associated with belief in an unconditionally forgiving God ($N=182$, Akl & Mullet, 2010). In another study of individuals with disabilities in a rehabilitative setting, positive religious coping was related to feeling forgiven by God (Lavelock, Griffin, & Worthington, 2013).

Numerous potential explanations exist for the association between surrender and feeling forgiven. For instance, it can be argued that, if an individual engages in surrender or feels an obligation to surrender, such fealty may be accompanied by perceptions of the receipt of other divine benefits, such as feeling forgiven by God (Toussaint & Williams, 2008). Also, given that surrender is a relational construct, involving the interactions between the individual surrendering and the deity being surrendered to, it may facilitate the experience of forgiveness; that is, without a relationship, feeling forgiven may not be required or relevant and, as a relational construct, it is subject to a variety of interpersonal dynamics, including feelings of forgiveness (Beck, 2006). Finally, it should be noted that, rather than being a solely passive state, surrender involves an active choice to relinquish control, yet elements of passivity remain and may help to explain the association between surrender and feeling forgiven. As previously noted, the act of being forgiven often subjugates the recipient of forgiveness, deeming them a transgressor and placing

them in a “lesser” position in a relationship, in a process not unlike that of surrender. Thus, the perspective of seeing oneself as lesser, and the deity as greater, may be indicative of a general underlying religious or spiritual worldview that contributes to their association (Brodar et al., 2015; Krause & Hayward, 2015).

In sum, as expected, all religious and spiritual variables in our study were positively related, and our findings expand the knowledge base on surrender to God and forgiveness by God, and their linkage, which are infrequently investigated. Although further research is needed to substantiate these associations, past and current findings suggest that, to the extent that a person engages in religious activities, they may also manifest a greater willingness to surrender to God and greater likelihood of feeling forgiven by God.

Associations among Psychopathological Variables. As with our religious variables, all psychopathological variables were significantly, positively related, as predicted. To begin, and supporting previous literature, perceived stress was positively associated with depression and anxiety (Deng et al., 2018; Wood, 2014). Stress can be conceptualized as a response to events that exceed an individual’s present coping resources which, in turn, creates vulnerability for psychopathology (Gunnar & Vazquez, 2015). When life events are overwhelming, feelings of distress may arise, including symptoms of anxiety and depression. Of note, the presence of anxiety and depression may also reciprocally and detrimentally impact perceptions of stress (Zhang et al., 2011).

We also found, in support of our hypotheses, that anxiety and depression were positively related, an association that is well-established in the extant literature. Across a variety of samples, including in twin studies, it has been posited that the comorbidity of anxiety and depression may be due to overlapping biological and psychosocial etiology ($N=2,619$;

Waszczuk, Zavos, Gregory, & Eley, 2016). In one meta-analytic review, by Hong and Cheung (2015), a single-factor model that incorporated aspects of both depression (e.g., rumination) and anxiety (e.g., intolerance of uncertainty) yielded the best fit, suggesting a common system by which these disorders function. Yet, although there are both conceptual and statistical associations between depression, anxiety, and stress, past research, as well as the diagnostic process, acknowledge that these variables represent related, yet independent, cognitive-emotional states (Cummings, Caporino, & Kendall, 2014). In our study, for example, this is reflected in the magnitude of our correlation values, which are high, but not multicollinear.

Last, supporting hypotheses and consistent with previous research, stress, anxiety, and depression were all positively and significantly related to suicide risk (Anderberg et al., 2016; Baldessarini et al., 2016; Buckner et al., 2017; Hirsch et al., 2017; Wong, 2013). Respondents who endorsed higher levels of depression, anxiety, or stress also indicated greater risk for suicidal ideation and behaviors. In previous studies, various forms of psychopathology have been linked to dimensions of suicide risk. For example, in a study of college students ($N=165$), life stressors and depression were linked to suicidal ideation (Lester, 2014) and, in individuals who died by suicide, 70-90% had a diagnosable mental illness (Cavanagh et al., 2003).

Several existing theories of suicide, with intrapersonal and interpersonal emphases, may help to explain why these associations exist. For example, the strain theory of suicide posits that as stress increases, or builds upon previously existing psychopathology, healthy coping resources decline and there is greater risk that death by suicide will be viewed as a viable coping mechanism to exercise control over one's life (Marzuk et al., 2002). This pattern was evident in a study of Chinese college students which examined the mediating roles of active (e.g., problem-solving) and passive (e.g., avoidance) coping in the stress-suicide linkage; as hypothesized,

passive coping style explained the association between increased psychological strain and heightened suicide risk (Zhang et al., 2011). Parallel to the strain theory, the escape theory of suicide posits that suicide may be considered when it is viewed as a means of escaping, such as from a stressful situation, from undesirable feelings of hopelessness or entrapment associated with depression (Overholser & Ridley, 2015; Taylor et al., 2011), or from excessive worry associated with anxiety (Beauchaine et al., 2008; Rector et al., 2008; Riskind et al., 2000).

At the social level, the interpersonal theory of suicide also contributes an explanation for the linkage between psychopathological variables and suicide risk, positing that perceived burdensomeness and thwarted belongingness are necessary factors for suicide risk (Joiner, 2005; Van Orden et al., 2010), and that such thwarted interpersonal needs are closely associated with an array of psychopathology. As examples, in a community sample of Portuguese adults ($N=203$), thwarted belongingness and perceived burdensomeness mediated the relation between depression and suicide risk (Campos & Holden, 2015) and, in a sample of college students ($N=780$), interpersonal needs mediated the relation between social anxiety and suicidal ideation (Buckner et al., 2017). Other similar, socially-related constructs are also related to psychopathology and suicide risk, in previous research. For example, loneliness is a consistent contributor to depression (Demir & Kutlu, 2016; Donovan et al., 2017), and low levels of social support exacerbate the severity of stress (Ai et al., 2013), depression (Miller et al., 2015), and anxiety (Hovey et al., 2014). In other words, a lack of strong social support, however measured, appears to be robust contributor to both psychopathology and to suicide risk.

In sum, our findings corroborate existing research supporting the associations between stress, anxiety, depression, and risk for suicide. As we have described, the linkages between these variables, by and large, appears to be sequential, such that increased pathology seems to

precede increased suicide risk. This pattern is notable for our understanding of multivariate models, described later.

Associations between Religious Variables and Psychopathological Variables.

Supporting hypotheses, and consistent with previous literature, all religious variables in our study were significantly inversely related with all psychopathological variables (Colucci & Martin, 2008; Koenig, King, & Carson, 2012; Moreira-Almeida et al., 2006). All associations followed a general trend, that those who endorsed higher levels of “religiousness” were also less likely to endorse psychopathology or suicide risk.

Religious Attendance and Psychopathological Factors. Consistent with previous research, greater religious service attendance per year was associated with lower levels of psychopathology. In past studies, greater attendance has been linked to lower levels of stress among middle-aged Americans ($N=5,449$; Bruce et al., 2017), and to lower levels of allostatic load in a national sample of older adults ($N=1,450$; Suh, Hill, & Koenig, 2018). Similar patterns exist between greater attendance and less depression among college students (Steffen, Masters, & Baldwin, 2017) and community samples (Maselko et al., 2009), and between greater attendance and less anxiety among U.S. adults ($N=20,130$; Robinson et al., 2012) and college students (Steffen et al., 2017). Finally, greater religious service attendance per year was associated with reduced suicide risk, consistent with previous studies examining national samples (Kleiman & Liu, 2018) and clinical outpatients seeking mental health treatment (Price & Callahan, 2017).

Theoretical and empirical explanations for these associations are not thoroughly explored, yet it is generally asserted that, although religious attendance is an extrinsic behavior, it originates from a variety of cognitive-emotional processes. As we noted in our Introduction,

there may be several pathways of influence, such as through religious beliefs (e.g., sanctity of life) or spiritually-oriented protective factors (e.g., meaning in life), which we examine below, in our multivariate discussion.

To some degree, attending religious services may serve as a proxy marker for general levels of religiousness. Intuitively, individuals who are highly committed to a religious belief system may be more likely to attend religious services (Allport & Ross, 1967; Wesselmann et al., 2016), and previous research indicates a strong linkage between adaptive adherence to religious belief systems and better mental health (Ji et al., 2011; Rose et al., 2014). Further, those who frequently engage in religious services may develop networks of social support within their faith community (Fukui et al., 2012), thereby promoting better mental health (Krause, 2008).

Religious Attendance and Suicide Risk. Attendance of religious services may be associated with less suicide risk in a similar way. If, as suggested, attendance serves as a proxy marker for religious values and beliefs, then the association between attendance and suicide risk could be explained by many religions' forewarnings against suicidal behavior. As examples, Buddhist traditions endorse a principle of non-violence toward others and the self (Disayavanish & Disayavanish, 2007), and Catholicism regards suicide as a "mortal sin" (Stark et al., 1983). Religious beliefs, such as life being a gift from God and death as "life's greatest evil", may also prevent individuals from engaging in suicidal behavior (VanderWeele et al., 2016).

Beyond religious beliefs precluding suicide risk, religious attendance is a known protective factor of psychopathology (Maselko et al., 2009, Steffen et al., 2017). This association may be due to other underlying mechanisms such as increased social support or other psychosocial resources like self-esteem, cultivated through theological beliefs (e.g., of being divinely created in God's image), or through community-based experiences of belonging

(George, Ellison, & Larson, 2002). The association between attendance and suicide could also be explained by spiritual factors, although this hypothesis is not as frequently examined. In a sample of college students ($N=459$), intrinsic religiosity (i.e., attending church to seek a relationship with God) was inversely associated with suicide risk, whereas extrinsic religiosity (i.e., church attendance to build social networks) was not related to risk (Walker & Bishop, 2005), suggesting that, perhaps, religious involvement is related to reduced suicide risk only in the context of intrinsically-occurring motivations.

Although these explanations can inform our understanding of the linkages between attendance and mental health outcomes, it must be noted that not all attendees may benefit similarly, and that such psychological benefits may also be found in persons who are non-attendees, warranting future research. However, in sum, our findings support previous literature linking greater religious attendance to less psychopathology and reduced suicide risk, indicating the potential beneficial impact of religious service attendance on wellbeing.

Surrender to God and Psychopathological Factors. Like religious attendance, we found that surrender to God was inversely associated with stress, depression, and anxiety. Although there is less research on surrender than attendance, the theoretical underpinnings for the concept of surrender provide a strong justification for the existence of these associations.

Before addressing our surrender-psychopathology findings, we note an important assumption about the perceived nature of God and how this may influence outcomes. Trusting God, rather than the self, to ensure good outcomes, may serve to orient one's locus of control externally rather than internally (Büssing, Fischer, Ostermann, & Matthiessen, 2009). As such, relinquishment of control may only be beneficial if the deity is perceived as good or beneficent, whereas if one's preferred deity is perceived as a punitive or harsh God, then surrendering to this

deity may be associated with heightened pathology (Smither & Walker, 2015). To illustrate, in a sample of U.S. adults ($N=1,426$), belief in a punitive God was positively associated with psychiatric symptoms, including anxiety and paranoia (Silton, Flannelly, Galek, & Ellison, 2014), whereas belief in a God perceived as caring was associated with less depression among churchgoing Anglicans ($N=201$; Greenway, Milne, & Clarke, 2003). Similarly, in a general sample of U.S. adults ($N=220$), the perception of God as loving was related to a positive core self-evaluation (i.e., a combination of self-esteem, self-efficacy, internal locus of control, and low neuroticism), whereas perceiving God as punitive was negatively related to positive core self-evaluations, suggesting the importance of one's subjective view of God's benevolence as a contributing factor to health outcomes (Smither & Walker, 2015). In this regard, it is important to consider that most of our participants were Protestant Christians, which is a system of faith that often portrays God as loving, or as an advocate for mankind's good (Zwingmann & Gottschling, 2015); similarly, the Surrender to God Scale assumes that the God being surrendered to is beneficent. Thus, although we did not assess beliefs about the beneficence of God in our study, it is reasonable to posit that those who endorsed greater surrender are also more likely to believe that God is beneficent. Such positive perceptions of God's character, as a potentially-inherent component of the religious belief systems of our sample, may be an underlying contributor to our finding of a linkage between surrender and mental health outcomes (Greenway et al., 2003; Silton et al., 2014).

Stress. To our knowledge, only one other study has examined the association between surrender to God and perceptions of stress. Clements and Ermakova (2012) discovered that, among samples of college students ($N=460$) and pregnant women ($N=230$), surrender to God was associated with lower levels of stress. Relatedly, in a study of community-dwelling adults

from Tennessee ($N=1,252$), DeAngelis (2017) found that “goal-striving stress” (i.e., psychological tension from seeking to attain a certain outcome) was weakened when one endorsed belief in divine control. Our study supports these findings, thereby contributing to the literature on the surrender-psychopathology linkage and providing some insight regarding the association of control, or the surrender of control, and perceptions of stress.

Indeed, surrender to God may be inversely related to stress via a paradoxical reduction of need for control. As we have noted, stress can be understood as a response occurring when an individual perceives a lack of, or is unable to exercise, control over some or all aspects of a situation (Koolhaas et al., 2011). Because surrender to God inherently requires relinquishment of control, it is reasonable to posit that surrender to God may exacerbate one’s experience of stress; however, it is important to note that, in the process of surrender, control is not absent but, rather, has been granted to someone else (Wong-McDonald & Gorsuch, 2000). Theorists have explored this idea, noting that “reliance on God has been used as a positive coping strategy by prophets and believers in stressful situations” (Bonab & Kooshar, 2011). Such relinquishment of control may facilitate a sense of relief if a stressor is perceived to exceed one’s coping resources and if, at the same time, an individual also perceives their God or deity to have a greater ability to resolve a stressful situation than the individual themselves (Thuné-Boyle, Stygall, Keshtgar, Davidson, & Newman, 2011; Wilt, Exline, Grubbs, Park, & Pargament, 2016).

Beyond this explanation, it should be noted that relinquishing control does not inherently indicate a complete loss of autonomy. It is possible, for example, to maintain control over some aspects of one’s life while granting ultimate control to God or a deity. For example, a person may continue to be actively involved in the process of goal-attainment, while simultaneously placing oneself in the passive position of trusting God to provide positive outcomes. Numerous

researchers and theologians have addressed this dual-process system of divine sovereignty and human agency, acknowledging that they are complementary rather than oppositional processes (Geisler, 2010; Jensen, 2014). Surrender to God may be similarly dualistic, with its independent, yet intertwined, processes of both relinquishing and maintaining control. As an illustration, an individual may trust in God for a beneficial outcome to an acute health crisis but may still actively maintain a treatment regimen. For example, a sample of Catholic Hispanic women noted that they might respond to a diagnosis of cancer via both behavioral (i.e., actively seeking care) and cognitive (i.e., trusting God) processes (Leyva et al., 2014).

Anxiety. We also found that respondents with greater endorsement of surrender to God reported fewer symptoms of anxiety, consistent with previous research examining beneficial effects of similar religious constructs on anxiety-based characteristics. For example, in a study among Christian college students and community-dwelling Christians, surrendering to divine providence was associated with less worry and an enhanced ability to tolerate uncertainty (Knabb et al., 2017). Among both Christian ($N=120$) and Jewish adults ($N=234$), trust in God for positive outcomes was associated with lower levels of anxiety (Rosmarin, Krumrei, & Pargament, 2010). Finally, in a study of Christian participants who struggled with worry (Frederick & White, 2015), “centering prayer” was related to less worry, with the authors noting that surrendering to divine intervention was an essential component of this activity. In some regards, this proposed linkage between release of control and reduced anxiety is counterintuitive, given that a typical response to intolerance of uncertainty in individuals who are clinically anxious is to establish a heightened sense of control (Boswell, Thompson-Hollands, Farchione, & Barlow, 2013; Reuther et al., 2013). However, as demonstrated by these studies, and as indicated by our current findings, some relinquishment of control, or relinquishment of control in

the appropriate context (e.g., to one's personal deity or divine power), may exert a beneficial effect on symptoms of anxiety.

There is also some precedent for this assertion, when framed within a historical religious and spiritual context, as many theological orientations emphasize the relinquishment of worry to an active God or deity. For example, in the New Testament, Jesus states, "do not worry about tomorrow, for tomorrow will worry about itself" (Matthew 6:34), in the context of being anxious regarding having one's needs met. Likewise, the apostle Peter wrote "cast all your anxiety on [God] because he cares for you" (1 Peter 5:7). Finally, the Qu'ran states, "Allah is sufficient for us; and what an excellent Guardian He is" (3:173), referring to the reduction of threat from spiritual enemies. The presence of such tenets in the doctrine of mainstream religions may help to explain the ready applicability of the religious concept of surrender to the psychosocial concept of anxiety.

Depression. Consistent with hypotheses, surrender to God was inversely associated with symptoms of depression. Although the linkage between surrender to God and depression has not been previously examined, other related aspects of religiosity, such as intrinsic religiosity and trust in God, are negatively associated with depression across a variety of samples, including college students (Power & McKinney, 2014), individuals with severe and persistent mental illness (Sansone et al., 2012), and religiously diverse adults (Jeppsen et al., 2015). For example, among clinically depressed patients ($N=143$, Mosqueiro, da Rocha, de Almeida-Fleck, 2015), intrinsic religiosity attenuated the deleterious effects of depression on overall well-being. In other studies, trusting in God was linked to less depression in adult Jewish community samples ($N=565$; Rosmarin, Pargament, & Mahoney, 2009) whereas, conversely, disappointment with

God's perceived involvement, or lack thereof, in one's life was related to greater depression in a sample of adult Australian churchgoers ($N=160$, Strelan, Acton, & Patrick, 2011).

The association between surrender and depression could be explained by the beneficial impact of surrender on a hallmark characteristic of depression – hopelessness (Cruz et al., 2009). Although life experiences and situations may sometimes be overwhelming, with little sense of perceived control, the act of surrender is predicated on the notion that God or a deity establishes control for desired outcomes, thereby promoting the belief that one's life circumstances might improve in the future. There is religious support for this assertion. For example, in the book of Hebrews, it is noted that “we have this hope as an anchor for the soul,” a statement encouraging hope rather than despair (Hebrews 6:19). As another example, Buddhism teaches that while suffering is universal, there is hope that one day suffering will cease with Nirvana (D'Costa & Thompson, 2017). Surrendering to God, therefore, may aid in the realization that there are greater existential things to place one's hope in beyond life circumstances. Such effects are evident in previous research. For example, in a study of persons diagnosed with clinical depression ($N=271$), religious beliefs, above and beyond the effects of religious activity, were a significant predictor of decreased hopelessness and, in turn, of fewer depressive symptoms (Murphy et al., 2000). In another study, of Malaysian adolescents ($N=1376$), spirituality significantly buffered the effect of hopelessness on depression, suggesting that, even in difficult circumstances, spirituality may protect individuals from developing more severe maladaptive thinking patterns (Talib & Abdollahi, 2017).

Surrender to God and Suicide Risk. Consistent with our hypotheses, surrender to God was also inversely associated with suicide risk, such that a stronger degree of surrender was predictive of less suicide risk. Although previous research on surrender and suicide is limited,

Koenig and colleagues (2012) note that the endorsement, by both Islam and Christianity, of worshipping and surrendering to a God, is associated with positive coping mechanisms (e.g., cognitive reframing, optimism) and, in turn, to less suicide risk among the religiously devoted. Intrinsic forms of religiosity that bear conceptual similarities to surrender, such as religious conviction and trust, were also related to reduced risk for suicidal behaviors in several samples of college students ($N=419; 1,245$; Lester & Walker, 2017; Teismann et al., 2017). Findings such as these provide insight into the nature of the protective effects of surrender on suicide risk. Whereas individuals at risk for suicide often perceive no hope for the future (Klonsky & May, 2015; O'Connor et al., 2012), those who surrender may be more likely to trust God for outcomes and, thus, may be more hopeful about their future (Wong-McDonald & Gorsuch, 2000).

In sum, we found that surrender to God was inversely associated with psychopathology and suicide risk, suggesting a potential beneficial impact of trusting in, and offering control to, one's personal deity. Although there is limited research linking surrender to suicide, preliminary evidence and theoretical explanations are ripe for establishing this association, which we discuss further in our multivariate section below.

Feeling Forgiven by God and Psychopathological Factors. Finally, we will discuss the associations between feeling forgiven by God and perceived stress, symptoms of depression and anxiety, and suicide risk. In our study, feeling forgiven by God was inversely associated with these psychopathological variables; however, it should be noted that an important distinction might exist between feeling forgiven and needing to be forgiven or seeking forgiveness. Whereas feeling forgiven is associated with better mental health, seeking forgiveness has, in some cases, been associated with poorer mental health outcomes (e.g., Toussaint, Williams, Musick, & Everson-Rose, 2008a), perhaps because seeking forgiveness places one in the

position of transgressor, which we discuss below in our multivariate section. The following discussion should be interpreted in light of this distinction.

Stress. Consistent with hypotheses and a growing body of literature, feeling forgiven by God had an inverse association with symptoms of stress, such that individuals who felt more forgiven by God reported less stress. As we noted in the Introduction, most forgiveness-based research has focused on self-forgiveness or other-forgiveness, both of which are associated with lower levels of stress (Flanagan et al., 2012; Toussaint et al., 2016; Worthington & Scherer, 2004). Relatedly, choosing not to forgive (i.e., unforgiveness) can be conceptualized as a maladaptive stress response (Worthington & Scherer, 2004), and is linked to physiological stress responses, such as activation of the sympathetic nervous system and glucocorticoid secretion (Berry & Worthington, 2001; Witvliet, Ludwig, & Laan, 2001). Such stress-related outcomes may occur because exercising forgiveness helps to reduce stress by establishing a sense of personal control (McCullough & Worthington, 1994; Toussaint & Webb, 2005), whereas unforgiveness results in additional distress.

Fewer, but noteworthy, studies have linked receiving, rather than extending, forgiveness, to lower levels of stress. In one example, in a sample of Mormon college students, feeling forgiven by God was viewed as a soothing-stress-response to a transgression (Good et al., 2015). Such forgiveness, from God or others, may be conceptualized as a removal of guilt for a perceived transgression (Worthington et al., 2007). Given that guilt is linked to greater stress across samples, including among college students with high negative body image ($N=44$; Lupis, Sabik, & Wolf, 2016) and LGB individuals with high internalized homophobia ($N=389$; Hequembourg & Dearing, 2013), feeling forgiven by God or others may help to ameliorate this guilt-stress linkage. Indeed, feeling forgiven by God may accomplish this task more robustly

than interpersonal forgiveness, as many religious persons perceive God or a deity as having greater authority than humans to judge (Beck, 2017). Similarly, God may be perceived as having greater authority to extend forgiveness, including forgiveness of a higher quality. For example, in a sample of theology students, God's forgiveness was deemed to be "more perfect" than human forgiveness (Kim & Enright, 2014). In sum, our findings suggest that feeling forgiven by God contributes to reduced perceptions of stress and, according to past research, this may be due to an amelioration of guilt.

Depression. Also consistent with hypotheses, feeling forgiven by God was inversely associated with depression, such that those perceiving greater forgiveness by God reported fewer symptoms of depression, similar to previous findings with college students (Toussaint et al., 2008a; Uecker et al., 2016). In additional research, with psychiatric outpatients, forgiveness was linked to less depression ($N=145$; Dew et al., 2010) and, in a sample of U.S. adults ($N=1,232$) by Toussaint and colleagues (2011), belief in God's unconditional forgiveness was associated with less depression and, in turn, to reduced mortality.

As noted, distinguishing between feeling forgiven and needing to be forgiven or seeking forgiveness may be important in the interpretation of our findings. Whereas, as in our study, feeling forgiven is associated with less depression, it is also the case that being in the position of seeking forgiveness is linked to increased depression, for example as occurred in a nationally representative sample of U.S. adults ($N=1423$; Toussaint et al., 2008b) and a community sample of individuals who had a family member in hospice ($N=142$; Exline, Prince-Paul, Root, Peereboom, & Worthington, 2012). Together, such findings suggest that being in the place of "transgressor" can potentially exacerbate risk for experiencing depressive symptoms, while feeling forgiven by God may have an ameliorative effect on psychopathology.

A theoretical explanation for the association between forgiveness and depression could be that, perhaps, this linkage is predicated upon the cognitive-emotional factor of hopelessness, a key characteristic of depression and strong predictor of suicide risk (Klonsky & May, 2015; Zhang & Li, 2013). Perceiving oneself as culpable or indebted for a committed transgression has been linked to hopelessness (Ermer & Proulx, 2016), whereas feeling forgiven is philosophically conceptualized as being offered a second chance, or a “clean state,” thus restoring hope that was not previously present (Allais, 2008). Further, from a spiritual perspective, guilt over one’s perceived sin or transgression has been linked to despair, or “sickness of the spirit” (Podmore, 2009, p. 174). Referencing the ideas of Søren Kierkegaard, a nineteenth-century philosopher and theologian, Podmore claims that the experience of feeling forgiven by God, and accepting God’s authority to divinely forgive, releases one from self-despair (Kierkegaard, 2004; Podmore, 2009); this same effect may be evident in our current study.

Anxiety. Feeling forgiven by God was also inversely associated with anxiety, consistent with our hypotheses, such that greater perceptions of being forgiven by God were related to fewer symptoms of anxiety. This association has been previously documented. For example, in a study by Flannelly and colleagues’ (2010), belief in a forgiving God was negatively related to anxiety ($N=1,306$). From a spiritual perspective, feeling forgiven by God is also associated with less anxiety pertaining to death or the afterlife, offering solace and spiritual certainty (Krause & Hayward, 2015; Pevey, Jones, & Yarbor, 2009).

The association between feeling forgiven and anxiety could also be explained by the impact of perceived forgiveness on the underlying mechanism of persistent worry (Paulesu et al., 2010), with less rumination occurring if one perceives forgiveness for committing a transgression. Feelings of indebtedness (e.g., being in need of forgiveness) have been linked to

heightened anxiety in the context of interpersonal relationships (Mathews & Green, 2010) and, conversely, feeling forgiven by others is associated with a reduced sense of perceived burdensomeness, a characteristic that can contribute to anxiety (Joiner et al., 2005; Koerner & Dugas, 2006; Nsamenang, Webb, Cukrowicz, & Hirsch, 2013). Thus, it may be that the linkage between feeling forgiven and reduced anxiety is predicated on successful relationships, including a spiritual relationship (Smither & Walker, 2015), although this assertion has not been previously examined for feeling forgiven by God.

In sum, our findings suggest that feeling forgiven by God may help to assuage feelings of anxiety, by beneficially impacting factors that might otherwise exacerbate anxious cognitions, such as ruminative tendencies and interpersonal dysfunction, including one's relationship with God or a deity.

Feeling Forgiven by God and Suicide Risk. Finally, supporting past research and consistent with our hypothesis, feeling forgiven by God was significantly, inversely associated with suicide risk, such that greater perception of feeling forgiven by God was related to less suicide ideation and attempts (Hirsch et al., 2011; Sansone et al., 2013). A theoretical explanation for the linkage between forgiveness by God and suicide can be understood in the context of several, specific risk factors for suicide, including guilt, shame and interpersonal distress. For example, in previous research, greater levels of guilt were related to increased suicidal ideation, in samples of US military personnel ($N=69$; Bryan, Morrow, Etienne, & Ray-Sannerud, 2013) and sadomasochism practitioners ($N=321$; Roush, Brown, Mitchell, & Cukrowicz, 2017). Given that forgiveness can help to assuage the distress associated with shame and guilt, it may, therefore, reduce suicide risk as a result (Krause, 2017; Toussaint, Owen, & Cheadle, 2012).

Interpersonal distress, including thwarted belongingness, is also a robust predictor of suicide risk, and may help to explain the linkage between forgiveness and suicide risk. Although generally applied to human interactions, we propose that this failed sense of closeness can also be extended to one's relationship with God or a deity (Gebauer & Maio, 2012; Laurin, Schumann, & Holmes, 2014). Importantly, a fractured relationship with God or deity may involve existential concerns not present in human relationships including, for example, fears of divine punishment or exclusion from a positive afterlife (Exline, Grubbs, & Homolka, 2015). Although some theorists assert that reconciliation of a relationship is not necessary for forgiveness (Worthington, 2013), it is often the case that restoration of a relationship is fostered through the process of forgiveness (Sheldon et al., 2014). Feeling forgiven by God may, therefore, help to restore one's perceived relationship with God, thereby reducing suicide risk.

In sum, our bivariate hypotheses were supported, with all religious variables positively related, all psychopathological variables positively related, and all religious variables negatively associated with our examined psychopathological factors. Many of these basic associations are intuitive, and confirm previous research; however, we extend knowledge in this area by investigating an understudied construct, surrender to God, and its linkage to commonly-examined psychosocial and religious variables. Given the prevalence of religious and spiritual beliefs in the U.S., and the potential desire by patients to incorporate aspects of religion/spirituality into mental and physical health treatment, it is important to establish a base of findings regarding the direct associations between these factors. However, the linkages between religion/spirituality and mental wellbeing are complex, and the manifestation of psychopathology may involve interactions between both intrinsic beliefs and extrinsic behaviors,

and one's personal relationship with God or deity, which we explore below, in our discussion of multivariate models.

Discussion of Multivariate Findings

In multivariate analyses, we examined the potential mediating effects of feeling forgiven by God and psychopathology on the association between attendance and surrender, and suicide risk, highlighting potential mechanisms of action. All of our multivariate hypotheses were supported, such that greater levels of assessed religious variables (i.e., attendance and surrender to God) were associated with stronger perceptions of feeling forgiven by God and fewer symptoms of psychopathology and, in turn, to less suicide risk.

Models of Religious Attendance. In analyses focused on religious attendance, feeling forgiven by God (1st-order mediator) and depressive symptoms (2nd-order mediator) were significant mediators of the attendance-suicide linkage. Specific indirect pathways were observed through feeling forgiven, and serially through feeling forgiven and depression, but not through depression alone. Similarly, feeling forgiven by God (1st-order) and anxiety symptoms (2nd-order) were significant mediators of the attendance-suicide association; further, feeling forgiven served as a specific indirect pathway. Finally, in our stress-focused model, the relation between attendance and suicide risk was significantly mediated by forgiveness by God (1st-order) and anxiety (2nd-order) and, again, forgiveness by God emerged as a specific indirect pathway. Our findings support existing research linking greater religious attendance to reduced suicide risk, and suggest potential mechanisms of action for their association (Price & Callahan, 2017; VanderWeele et al., 2016).

Broadly, as we have noted, religious attendance may be a proxy marker for belief in a religious system, and lessened suicide risk for attendees may be explained by the forewarnings

against suicidal behavior present in many religions (Disayavanish & Disayavanish, 2007; Stark et al., 1983). Many faith systems also encourage meaning-making and resiliency (Abu-Ras & Hosein, 2015; Kidwai et al., 2014), both of which are related to reduced suicide risk (Heisel & Flett, 2016; Kleiman & Beaver, 2013). For example, in a study of college students ($N=670$; Kleiman & Beaver, 2013), perceived meaning in life and search for meaning in life were negatively related to suicidal ideation. Similarly, in a study of community-dwelling older adults ($N=173$; Heisel & Flett, 2016), finding meaning in life, including meaning in suffering (an important aspect of many religious faiths [e.g., Romans 5:3, which states that suffering leads to hope through the development of character]), conferred resiliency against the onset and exacerbation of suicidal ideation. Yet, these factors are intrinsic in nature and, in the present discussion, we focus on religious attendance and other extrinsic, behavioral forms of religiosity, and their relation to mental health and suicide risk. To begin, we found a serial mediation effect linking attendance of religious services to suicide risk through the pathways of forgiveness by God and several variants of psychopathology; we will focus our discussion on each of these pathways, in turn.

Mediation through Feeling Forgiven by God. Numerous previous studies have examined the linkage between religious attendance and mental health, including the mediation of this association by intrinsic aspects of religiosity characterized by psychosocial and cognitive-emotional appraisals, one of which is the feeling of forgiveness by God. As noted by Lavelock and colleagues (2013), feeling forgiven by God can be conceptualized as a deeply-personal, internal event involving both cognitive appraisals and consequent emotional reactions, including psychological wellbeing.

Yet, compared to broader religious constructs, few studies have examined forgiveness by God as a potential underlying factor in the linkage between attendance and mental health; thus, we begin by discussing such broad intrinsically-based factors as a base of support for our forgiveness-focused findings. For example, in a study of college students ($N=855$) by Steffen and colleagues (2017), the salubrious relation between religious service attendance and mental health outcomes (i.e., anxiety and depression) was mediated by components of intrinsic religiosity (e.g., implementing religious beliefs into daily life), above and beyond the effects of extrinsic religiosity (e.g., social support gained from congregational experience). This finding, and our own, suggest that intrinsic benefits arising from attendance are an important contributor to psychological wellbeing and, further, that personal beliefs may arise from engagement in extrinsic religious behaviors. Indeed, previous research indicates that intrinsic religious factors, including feeling forgiven by God, can beneficially impact wellbeing even when extrinsic behaviors, such as participation in organized religion, have no effect (Torges et al., 2013).

It is important to note, however, that discrepant findings exist for the mediating role of intrinsically-based factors. As an example, in a probability sample of adults living in Chicago ($N=3,105$), although intrinsic religiosity was negatively associated with both depression and anxiety, it did not significantly mediate the relation between attendance and psychopathology (Sternthal, Williams, Musick, & Buck, 2010). In another study, of college students ($N=454$), social support, but not religious beliefs (i.e., commitment to religion), mediated the relation between religious involvement and suicide risk (Robins & Fiske, 2009), suggesting that the role of attendance in suicide risk can be attributed to interpersonal engagement rather than intrapersonal experiences. Taken together, these findings suggest that not all intrinsic religious

factors serve as an explanatory mechanism for the attendance-suicide linkage, posing the question – which factors help account for this association?

We suggest that feeling forgiven by God may resolve this issue, with its emphasis on both interpersonal and intrapersonal characteristics, and its ability to soothe distress on both a social and psychological level (Brodar et al., 2015; Martin, 2008). Further, as we have noted throughout, the concept of forgiveness, including forgiveness by God, is predicated on the existence of a relationship, and to be at ease in that relationship, due to forgiveness, may offer greater support than broader ideological values and beliefs, for reducing the likelihood of poor mental health (Griffin et al., 2015; Uecker et al., 2016). In both theory and research, forgiveness appears to play a critical role in the association between religiosity and mental and physical health (Flannelly, 2017). For instance, in a study of middle-aged adults ($N=80$) by Lawler-Row (2010), state forgiveness mediated the relation between spirituality and depression and, in a sample of older adults ($N=605$), feeling forgiven by God mediated the relation between religious attendance and successful aging, including psychological wellbeing and depression. From a pathway perspective, such findings, including our own, suggest that engagement in religious and spiritual activities, including service attendance, is related to a greater likelihood of feeling forgiven by God and, in turn, to better health. In their theoretical integration of forgiveness and spirituality, Webb, Hirsch, & Toussaint (2017) posit that the positive effects of forgiveness may stem, in part, from an individual's relation to, or conception of, the "sacred." In other words, by pursuing that which is considered sacred (e.g., prayer, attending religious services), there emerges a greater possibility of feeling forgiven, as the pursuit of the sacred may be a mechanism to facilitate a relationship with the divine. This relationship, in turn, may be accompanied by subsequent beneficial impacts on psychosocial health.

As another explanation, forgiveness, given its soothing nature, may help to ease intrapersonal and interpersonal distress over perceived transgressions, including perceptions of sin, which may be brought to one's attention due to religious involvement (Holt, Clark, & Roth, 2014). In previous studies, greater frequency of church attendance is associated with stronger adherence to orthodox doctrine (Earls, 2016) and, in this way, religious attendance may influence one's doctrinal belief regarding the forgiveness of God. Kent, Bradshaw, and Uecker (2018) note that many religious dogmas "emphasize the sinfulness of the individual," and suggest that adherence to such beliefs (e.g., the belief in sin) may, in some cases, be detrimental to psychological wellbeing. For example, theodicy (i.e., belief that God punishes to make retribution for evil) has been linked to poorer psychological wellbeing (i.e., satisfaction with life, depression, and anxiety) in a sample of college students ($N=3,083$) and a community sample of adults in the United States ($N=1,047$; Wilt et al., 2016). To some extent, this assertion can be extended to suicide risk. In a study of patients diagnosed with psychotic depression who had attempted suicide ($N=45$), persons with "delusions of sinfulness" were more likely to make medically serious suicide attempts than those with other types of delusions, which the authors suggest may represent perceptions of deserving punishment (Miller & Chabrier, 1987).

Given that sin is conceptualized as a distancing from, or a disappointing of, God or a deity (Lemke, 1981), perceptions of divine forgiveness may exert a beneficial effect because they represent a "reconciliation with God" (Roberts, 2016, p. 161). In general, the act of seeking forgiveness encompasses interpersonal reparations (Sandage, Worthington, Hight, & Berry, 2000), and this can be extended to an individual's relationship with the divine. Indeed, Kierkegaard posits that, to feel forgiven by God, one must first acknowledge the relational

component of the “Holy Other” (2004) and suggests that it is faith, “a self-surrendering recognition of acceptance before the Holy Other,” which facilitates release from despair.

In sum, the relation between attendance and suicide risk can be explained, in part, by feeling forgiven by God. Although differential mental health outcomes may exist for those who attend religious services for extrinsic reasons, as compared to intrinsic reasons (Steffen et al., 2017; Torges et al., 2013), feeling forgiven appears to comprise a restorative relational experience that may help to ameliorate psychological distress and, in turn, suicide risk (Flannelly, 2017; Uecker et al., 2016).

Mediation through Psychopathology. Overall, there has been limited scientific investigation of potential mediating psychopathological factors linking religious involvement and suicide risk, and other researchers (e.g., Price & Callahan, 2017) have highlighted this gap in the study of explanatory mechanisms. One example involves a longitudinal study of women ($N=89,708$) by VanderWeele and colleagues (2016), in which depressive symptoms mediated the association between attendance and suicide risk for those who occasionally attended religious services. It has also been suggested that religious/spiritual and psychosocial factors may work simultaneously to prevent suicide, rather than in an ordered fashion. For example, in a study examining the association between attendance and suicide ideation, Price and Callahan (2017) found that although their proposed mediators (i.e., social support, substance abuse, and external locus of control) did not explain the attendance-suicide linkage, they did contribute to reduced suicide ideation, over and above the effects of religious attendance, which also had a significant beneficial impact on suicide risk.

Such findings, along with our own, suggest a lack of understanding of the relation between religious attendance and suicide risk, in that the true mechanisms of this linkage have

either yet to be discovered, or vary in complexity across individuals to the extent that determination of a singular pathway is unlikely (Price & Callahan, 2017). Indeed, in our study, no specific indirect effect existed from religious attendance to suicide risk through psychopathological variables alone, suggesting that psychopathology does not account for this relation outside of the presence of feeling forgiven by God.

In sum, despite such disparate findings, our results provide support for the notion that intrinsic religious factors (i.e., forgiveness by God), which often involve cognitive-emotional processes, are an important mechanism underlying the relation between attendance and suicide risk (Lawler-Rowe, 2010), and may work via facilitation of a relationship with the divine or by assuaging stress and symptoms of psychopathology. Importantly, our findings indicate that feeling forgiven by God is a necessary component in this association, as no specific indirect pathway existed through the second-order mediators of depression, anxiety, and stress. This may be because religious attendance, as an extrinsic expression of religiosity, exerts less impact on the internal cognitive-emotional processes known to contribute mental health (Power & McKinney, 2014). Attendance may also be pursued for purposes unrelated to the process of feeling forgiven by God, such as seeking social support or maintaining a socially-normative appearance of religiousness.

Thus, when examined independently, religious attendance, as an extrinsic predictive factor, may not exert a protective effect on suicide risk, suggesting that a personal relationship with God or a spiritual connection to the divine or sacred is a critical contributor to the attenuation of psychopathology and suicide risk (Flannelly, 2017). To this end, we also examined surrender to God in our study, as an intrinsically-based, religiously-focused predictor

of suicide risk that might better account for the development of a relationship with God or the divine and the amelioration of psychopathological symptoms.

Models of Surrender to God. In our series of analyses examining surrender to God as the predictor of suicide risk, all models exhibited the same pattern of effects. Serial mediation existed between surrender to God, feeling forgiven by God (1st-order mediator), all second-order mediators (i.e., depression, anxiety and stress), and suicide risk. Specific indirect pathways were also observed through feeling forgiven by God, through feeling forgiven by God and all forms of psychopathology, yet, largely, not through psychopathology alone, except for an indirect effect via stress. Importantly, existing research and theory offer a base of supportive explanations for our pattern of findings, which we discuss in the sections below.

Mediation through Feeling Forgiven by God. As in our models focused on religious attendance, feeling forgiven by God proved to be a necessary component in two of our three models focused on surrender. Specifically, feeling forgiven by God was a requisite component of the pathways linking surrender to God and suicide risk via depression and anxiety, but not stress.

To begin, it is important to consider implications of the surrender-forgiveness association for mental health and suicide risk, as compared to the attendance-forgiveness association. As we have implied, the intrinsic nature of surrender to God, as opposed to the extrinsic expression of religious attendance, may exert a more-robust impact on individual-level beliefs that affect cognitions and emotions, with beneficial downstream effects on psychological wellbeing (Ardelt, 2003). As opposed to attendance, which is primarily behavioral in nature, surrender to God involves a process of cognitive-emotional change (e.g., placing “their will into God’s will”), which may exert a greater impact on subsequent cognitive-emotional decision-making (Wong-

McDonald & Gorsuch, 2000), including the choice to seek and receive forgiveness from God (Toussaint & Williams, 2008). As such, given its cognitive-emotional foundations, the surrender-forgiveness linkage may be more relevant for mental health and suicide risk, than the attendance-forgiveness pathway.

As well, as we have noted previously, feeling a need for forgiveness, and the act of seeking forgiveness, places an individual in the precarious, subjugated position of “transgressor” (Exline et al., 2012). Further, if a person also decides to surrender to God or deity, they are ceding control of some or all aspects of their life to be acted upon by a higher power (Wong-McDonald & Gorsuch, 2000). As such, if a person surrenders their life to God, but continues to feel condemned, or unforgiven, by God, there may be a greater likelihood of negative effects on mental health, in contrast to those who may feel unforgiven, but who are not surrendered and simply attend religious services. Put another way, to surrender to God but to continue to feel unforgiven, may be perceived as abandonment or condemnation (Flannelly, Galek, Ellison, & Koenig, 2009). Some evidence exists for the deleterious effects of such perceived condemnation by God; for example, among U.S. adults ($N=1,426$), belief in a punishing God was related to higher levels of both anxiety and depression (Silton et al., 2014).

Yet, in our current study, despite the potential for such negative psychological outcomes, surrender to God was beneficially associated with other positive religious experiences (i.e., feeling forgiven), mental health outcomes, and suicide risk, in a serial fashion. As suggested by previous research, the quality of the perceived relationship one has with God or a deity, may help to explain some of this effect. For example, in a qualitative study of young adults with severe mental illness, a perceived relationship with God, and feeling supported by God, were important for coping with mental health difficulties (Oxhandler, Narendorf, & Moffatt, 2018) and, in a

qualitative study of mental health professionals and traditional healers in India, perceptions of God as supportive were noted as an important factor in protecting against suicide (Lasrado & Young, 2017). Such findings suggest that perceiving a relationship with God that is characterized by encouragement, caring, or steadfastness, may be important for protecting against maladaptive outcomes and, further, this type of trusting intimacy with the divine is linked to ideas of forgiveness/relational reconciliation across religious texts. For example, the Bible states, “if we confess our sins, he is faithful and just to forgive us” (1 John 1:9), and “draw near to God, and he will draw near to you” (James 4:8).

Yet, limited research has examined feeling forgiven as a mediator of the surrender-suicide linkage, although some evidence indicates an association between the strength or quality of one’s relationship with the divine, feeling forgiven, and psychological outcomes. In a study of older U.S. adults ($N=1,024$), for example, feeling forgiven by God was more strongly associated with positive psychological wellbeing among those reporting a secure attachment to God, as opposed to those with an avoidant or anxious style of attachment to God (Kent, Bradshaw, & Uecker, 2018). Similarly, in a non-religious study, perceived closeness to one’s partner accounted for a significant amount of the variance in the association between forgiveness and psychological wellbeing, with heightened closeness related to greater forgiveness and psychological wellbeing (Bono, McCullough, & Root, 2008). Such findings suggest that those who feel more connected to God, perhaps via the relationally-based act of surrender, may be more likely to experience divine forgiveness and its subsequent positive effects. Applied to our own study, perhaps the mediating variable of feeling forgiven by God can be considered as a reconciled relationship with the divine, thereby accounting for the linkage between surrendering to God and psychological wellbeing.

Mediation through Psychopathology. As we have noted throughout, surrender to God may be representative of a broader, underlying religious or spiritual belief system to which one adheres, and may also encompass meaning-making and adaptive religious coping, all of which are well-established protective factors against suicide risk (Molock et al., 2006; van Uden & Zondag, 2016). Although minimal research on surrender exists, other intrinsically-oriented spiritual constructs, such as meaning in life, which may arise from surrendering to God (Steiger & Frazier, 2005), are protective against suicide risk. For example, in a study of Jewish adolescents ($N=450$), meaning in life was related to lower levels of depressive symptoms and, in turn, to less suicidal behavior (Wilchek-Aviad & Malka, 2016). Similarly, in a previously-mentioned study of adults, purposeful meaning in life was related to suicide risk via reductions in psychopathology, including anxiety and depressive symptoms (Sternthal et al., 2010). Finally, in a recent study of a U.S. community sample ($N=262$) by Hall and colleagues (2018), existential spirituality (i.e., concerned with meaning) was related to less suicide risk through the mediating pathway of psychache, or unremitting psychological pain. Given that psychache involves internalized negative cognitive appraisals, as do depression and anxiety, it is feasible to posit that surrender to God may have a similar ameliorative effect on these psychopathological symptoms. Although surrender to God does not necessarily encompass meaningfulness, it may be that enhanced recognition of God's primacy in life contributes to perceptions of meaningfulness, a common component of religion itself (Routledge, Roylance, & Abeyta, 2017; Steger & Frazier, 2005).

Another construct that is theoretically-related to surrender to God is religious commitment, or strength of religious beliefs, in that surrender involves relinquishing one's own wills and perceptions to align them with those of a deity. As we have noted, the fullest extent of

surrendering to God encompasses all aspects of one's life and, thus, it may be out of obedience to God that an individual chooses not to engage in suicidal behaviors, as many religions preclude suicide (Stack & Kposowa, 2011). Empirical support for this assertion indicates that degree of religious commitment is linked to lower suicide rates across all major world religions (Norko et al., 2017), and religious objection to suicide was negatively related to suicidal behavior in a retrospective case control study of bipolar patients ($N=149$; Dervic et al., 2011). Supporting our mediation framework, in a study of clinical outpatients seeking treatment for substance abuse ($N=112$), religious faith (i.e., strength of religious beliefs) was related to decreased suicidal behavior, through the mediating pathway of depression (Wang, Wong, Nyutu, Spears, & Nichols, 2016).

Additional religious beliefs related to the concept of surrender, such as “trust in higher guidance,” which is accounted for in the Surrender to God Scale, may also beneficially impact mental health and suicide risk. Although not examined in a mediation model, “trust in higher guidance” lessened the impact of depression on suicide risk, in a mixed sample of inpatients and online participants ($N=427$; Teismann et al., 2017). Recognizing the positional authority of God may also be important in the process of surrendering to God; for example, in a qualitative study of persons in Ghana who had previously attempted suicide, participants expressed common themes of viewing God as the “owner” of life and death, which contributed to determination against attempting suicide again in the future (Akiota, Knizek, Kinyanda, & Hjelmeland, 2014).

Finally, as we have noted, locus of control may play a role in both surrender and suicide risk. In a study of clinical outpatients by Price and Callahan (2017), external locus of control was associated with greater suicidal ideation. Further, in a Christian sample ($N=122$; predominantly Catholic), internal locus of control mediated the relation between awareness of

God and better mental health, and external locus of control mediated the relation between awareness of God and poorer psychological health (Ryan & Francis, 2012). Although such findings may seem to contradict our pattern of results, in that surrender can be interpreted as a form of external control, there is a distinct difference. That is, although an external locus of control may generally be related to poorer health outcomes, surrender to God does not represent a complete loss of control but, rather, the autonomous willingness to “hand over” control to a deity perceived to be more powerful.

Here, we note that a specific indirect pathway emerged between surrender and suicide risk through stress alone, perhaps due to the association between stress and perceptions of control. When an individual cedes control to God or a deity, they also relinquish the threat of failure to control; indeed, according to Folkman (1984), believing one is in control of a situation may actually heighten stress. Surrender to God, therefore, may have important implications for the management of stress reactions. For example, in a qualitative study of Filipina Americans diagnosed with breast cancer, “leaving it to God” was frequently endorsed as an important mechanism of coping with the stress of the diagnosis (Lagman, Yoo, Levine, Donnell, & Lim, 2014).

Further, that stress manifests as a pathway in the relation between surrender and suicide risk, independent of forgiveness by God, may be the result of the direct association between the experience of stress and the perception of external events (Folkman, 2013; Lazarus, 2006). It may be that an individual can surrender to God, but not feel forgiven by God, and still experience less stress regarding external situations, believing God to be in control. From a theological perspective, God need not be forgiving for an individual to perceive that external events remain under divine control (Case-Winters, 1990), as stress is generally considered to

emerge from one's appraisals of external, demanding life events (Phillips, Carroll, & Der, 2015). Anxiety and depression, in contrast, may not be influenced by surrendering to God without accounting for feeling forgiven by God because, while anxiety and depression are often influenced by life circumstances, these symptoms arise, in large part, from internalized experiences and evaluations of the self (Sowislo & Orth, 2013). In other words, feeling forgiven may be more crucial for the pathways of anxiety and depression than for stress, as feeling forgiven may directly influence how one perceives themselves, but may not directly impact the perceived stressfulness of life circumstances.

In comparison, it is important to note that a specific indirect pathway via stress did not exist in our model examining religious attendance as the independent variable. This may be because religious attendance, a single item measure of behavior, does not account for belief in a sovereign God or deity, who has control over situations. However, the Surrender to God scale and, thus, the concept of surrender, is imbedded with references to a God who is sovereign or who can have control over situations (Wong-McDonald & Gorsuch, 2000). Further, religious attenders may subscribe to either a theistic or deistic theology (i.e., an involved-God or an uninvolved-God theology), whereas those who surrender are more likely to believe that God can intervene in one's personal life (Wong-McDonald & Gorsuch 2000). Pertinent to our own findings, preliminary evidence suggests that theistic belief in God has better effects on health outcomes than deistic views of God (Krause, Hill, Pargament, & Ironson, 2018).

In summary, we provide initial evidence supporting the act of surrendering to God, and of seeking and receiving forgiveness from God, as potential contributors, both independently and synergistically, to better mental health and reduced suicide risk. As we have noted, despite limited previous research on surrender, there appears to be a strong theoretical basis for its

protective effect, given that the act of surrendering entails both commitment to, and trust in, God or deity, as well as an adaptive relational quality with God. Such assurances and feelings of support may, in turn, contribute to reduced likelihood of psychopathology and suicide risk.

Brief Overview of Attendance and Surrender-Based Models. Overall, all multivariate hypotheses were supported, providing evidence that the link between religious variables and suicide risk is accounted for through the serial pathway of feeling forgiven by God and psychopathology. As discussed, numerous possible explanations exist for the effect of religious attendance on suicide risk, but it is likely that internal factors associated with having a relationship with God contribute substantially to this linkage (Lawler-Rowe, 2010), given that feeling forgiven by God was a necessary component across all our attendance-based models. Importantly, whereas previous research has primarily focused on the social and interpersonal benefits of religious attendance (Hovey et al., 2014; Rasic et al., 2009), we extend this premise to also include a relationship with God or deity and, as well, we propose that attendance may benefit mental health outcomes via its impact on cognitive-emotional functioning (i.e., decision to seek/accept forgiveness from God; reduced psychopathological symptoms).

Evidence from our surrender-based models also supports the importance of having a meaningful relationship with God or deity, in that the construct of surrender encompasses having trust in God which, in turn, lends itself to the facilitation of the relational aspect of feeling forgiven by God. As we have noted, such adaptive views of one's relationship with God or deity (e.g., viewing God as loving versus punitive) are beneficially related to mental health outcomes (Greenway et al., 2003; Smither & Walker, 2015). We also found that a specific indirect effect existed between surrender and suicide risk via stress, highlighting how surrender, in the context of life stress, may involve shifting locus of control from the self to an external, but reliable and

trustworthy, source (Folkman, 2013; Phillips et al., 2015), with beneficial impact on stress symptoms. In other words, trusting God for outcomes, a key component of surrender (Wong-McDonald & Gorsuch, 2000), may have a direct influence on reducing psychopathology.

Limitations

Despite strengths, our results should be viewed in the context of limitations. First, our cross-sectional design precludes examination of causality and, thus, bidirectionality of associations must be considered. For example, if an individual does not feel forgiven by God they might, as a consequence, avoid attending church services. Such a trend has been observed among LGB individuals ($N=355$), and among U.S. adults ($N=21,131$) who endorse “nontraditional” sexual and family behaviors (e.g., abortion, cohabitation, homosexuality), who believe that their sexual orientation or beliefs regarding family systems preclude them from being invited into a relationship with God (Barnes & Meyer, 2012; Weeden, Cohen, & Kenrick, 2008). Further still, religious attendance might be impacted by the presence of psychopathology. As one example, in a longitudinal study of the association between major depressive episode (MDE) and attendance of religious services, women with early-onset MDE were 1.42 times more likely to discontinue attending religious services than women with late-onset or no-lifetime MDE (Maselko, Hayward, Hanlon, Buka, Meador, 2012). In addition to symptoms, mental health stigma may also contribute to lack of religious attendance. For instance, in a study by Stanford (2007), of self-identified Christians ($N=293$) who were experiencing a mental illness themselves or the mental illness of a loved one, although most participants had a positive interaction with their church, approximately 30% had a negative interaction (e.g., abandonment from church, mental illness ascribed to demonic activity or sin) and, of those, 12.6% reported they were no longer involved with their faith because of their experience with mental illness. Tension may

also exist between the views of mental illness espoused by clergy and religious leaders, and a parishioner's decision to attend religious services. For example, in a sample of Baptist pastors ($N=1,207$), although the majority acknowledged biological causes of mental illness, some pastors attributed mental illness to negative spiritual influences (e.g., sin, demonic activity; Stanford & Philpott, 2011) – beliefs which may dissuade persons with anxiety or depression from attending religious services. Given such bi-directional possibilities, future longitudinal and prospective studies are needed to substantiate our findings.

Also, our sample was comprised primarily of White, young adults who identified as Protestant Christians, limiting the generalizability of our findings to other racial or ethnic, age, or religious groups. In previous literature, for example, age is a significant predictor of suicide risk, with young adults of college age being at increased risk (AFSP, 2017; Curtin et al., 2016). Nationally, college students also comprise the highest demographic of religious “nones,” or those not affiliating with any religious belief or system (Kosmin, Keysar, Cragun, & Navarro-Riverra, 2009). Thus, our findings could be expected to differ among other age groups and among other religious denominations, warranting future research with persons from a diverse range of religious affiliations and with a lifespan perspective. Relatedly, in past research, White individuals, particularly males, are at the greatest risk for suicide (Houle & Light, 2017), yet our ethnically-homogenous sample does not allow for investigation of ethnic differences. Future research with socioculturally-diverse samples is necessary to confirm extrapolation of our findings to non-White populations.

Generalizability of religious beliefs should also be considered. The extant literature indicates a critical role for an individual's beliefs about the character of God for forgiveness (e.g., viewing God as either vengeful or benevolent; McCullough, Bono, & Root, 2005). Thus,

the results of our study may have differed if conducted with persons from a different theological belief system. For example, Protestant Christianity traditionally posits the existence of a loving and immanent God (Zwingmann & Gottschling, 2015), whereas other religious traditions might place greater emphasis on the judgment of God (e.g., Islam; Waines, 2003). Further, other religious traditions may not endorse the construct of surrender (e.g., Wicca, which celebrates the divine in many forms; Guiley, 2010), and may even approach death as a form of spiritual practice (e.g., Japanese Buddhist monks practicing “sokushinbutsu,” or self-mummification; Dahl, 2014). Each of these perspectives may differentially influence how religious and spiritual engagement is approached, and how suicidality is viewed, warranting additional research across denominational and ideological groups.

It should also be noted that contradictory findings exist. For example, in a study by Lawrence and colleagues (2017) of depressed patients of the New York State Psychiatric Institute ($N=321$), greater levels of suicide ideation and attempts were observed among those who considered religion to be important and who attended religious services frequently. In a longitudinal study of families from New England ($N=918$), religious attendance was related to less depression, whereas religious wellbeing (i.e., the perceived quality of a person’s relationship with God) was related to greater likelihood of depression (Maselko et al., 2009), perhaps because religious persons experiencing mental distress may place greater reliance on religious coping mechanisms. Such mixed findings illustrate the complex nature of religion and spirituality and suggest that multiple domains and manifestations of religiosity exist and exert independent effects on health. Thus, future research assessing multiple domains of religiosity and spirituality, across religious belief groups, is needed to replicate our findings, including with those who are non-believers or former-believers, and those belonging to non-Protestant denominations.

Additionally, although our findings offer insight into spiritual and religious theory, and models of suicide prevention, there may be additional variables to consider and other important explanatory pathways to explore. For example, future studies could examine the linkages between interpersonal factors, such as social support, and the effect of religiousness on mental wellbeing. Given that involvement in a religious community can help to cultivate a sense of belongingness and existential peacefulness (Emam & Al-Bahrani, 2014; Jones, 2017; van Orden et al., 2010), which are non-denominational factors associated with reduced suicide risk, examination of non-religious, yet spiritual, contributors to mental health are warranted. Other socially-oriented factors are the values and belief systems of a person's family of origin, given that familial structures, including religious rituals and tenets, are strong contributors to personal-level religiosity/spirituality (Bengtson, Copen, Putney, & Silverstein, 2009). That is, where, when and how individuals form personal religious and spiritual beliefs may have differential lifespan impacts on mental health outcomes (e.g., Buxant & Saroglou, 2008; Miller, 2016). It will also be important to examine negative religious coping, and maladaptive explanatory pathways leading to suicide risk, that might occur within the pursuit of religiousness and spiritual growth. For instance, religious strain (i.e., guilt over having committed a sin) may serve as a mediating factor between religiosity and increased suicide risk (Exline, Yali, & Sanderson, 2000).

Finally, investigation of constructs that bear similarity to surrender, such as martyrdom, is needed. Although both surrender to God and martyrdom, including suicide attacks, have been conceptualized as self-sacrifice to a deity, one lends itself to decreased suicide risk while the other, by consequence, results in harm or death for the individual (Ginges, Hansen, & Norenzayan, 2009; Webber, Klein, Kruglanski, Brizi, & Merrari, 2017). It is also important to

recognize that conflict between one's choices or behaviors and one's religious or moral beliefs (e.g., moral injury) may contribute to heightened engagement in suicidal behavior (Bryan, Theriault, & Bryan, 2015). As well, as we have noted, the act of surrendering to God is linked, perhaps paradoxically, to locus of control. For example, although numerous studies indicate that an external locus of control can be detrimental to health outcomes (Price & Callahan, 2017; Ryan & Francis, 2012), our findings suggest otherwise, that surrendering control, in a religious context, may confer positive benefits. The nuances of this theory could be fertile grounds for exploration in future studies, including qualitative investigations of the association between perceptions of control and surrender, which may differ situationally and individually. For example, it may be useful to investigate the dialectic of human responsibility and trusting in God for outcomes, such as the occurrence of surrender during the experience of health crises, which is a context in which both maintaining personal control and ceding control to a deity could be simultaneously beneficial.

Implications

Despite limitations, our findings expand the existing body of knowledge on potential mechanisms of action for religiousness and spirituality and may have important implications for clinical application and future research. First, we provide empirical support for the beneficial association between religion/spirituality and mental health, and we contribute to a mixed body of literature debating whether religious attendance serves as a risk or protective factor (Koenig et al., 2012; Moreira-Almeida et al., 2006). Although religious/spiritual experiences vary widely on an individual level, our findings suggest that, overall, religious behaviors (i.e., attendance) and beliefs (i.e., surrender) may protect against poor mental health. We also expand the extant literature, by investigating feeling forgiven by God as a cognitive-emotional and relationally-

based process underlying the association between religious/spiritual engagement and reduced suicide risk.

Although the benefits of religious attendance, and of surrendering to and feeling forgiven by God, are supported by our study, the integration of religion into psychotherapy has been referred to as ethically “messy” and, thus, should be approached with caution (Gonsiorek, Richards, Pargament, & McMinn, 2009). However, if relevant for a patient, engaging in religious/spiritual beliefs and behaviors should not be a source of question but, rather, viewed as a component of cultural diversity and addressed from a stance of cultural competency (Richards & Bergin, 2014). For clinicians, maintaining a position of “cultural humility” (i.e., emphasizing openness, curiosity, and supportive interaction) and a person-centered approach (i.e., viewing clients as experts about their own religious experiences) is recommended for the provision of optimal care (Carey & Mathison, 2018; Foronda, Baptiste, Reinholdt, & Ousman, 2016). Understanding a client’s religiousness and spirituality may be particularly important when assessing severity of risk for suicide, as degree of religious commitment can be a strong protective variable against suicide risk (Gearing & Lizardi, 2009). For a clinician, gaining such information may help to gauge patient safety; for instance, a client with strong religious prohibitions against suicide may be deemed less at-risk, than a client without such beliefs.

Regarding attendance, our results highlight the importance of the behavioral act of attendance for consequent changes to cognitive-emotional functioning, including the initiation and cultivation of feeling forgiven by God and improvements in psychological functioning. Although the decision to attend religious services is a personal one and may often be considered outside the purview of traditional psychotherapy, mental health providers, as a component of cultural competency, should be aware of the potential psychosocial benefits that might

accompany religious service attendance (Campinha-Bacote, 2002). Therapeutically focusing on intrinsic factors of religiosity, and framing attendance of religious services as a means of fostering a relationship with God, may be important for obtaining positive mental health outcomes (Gall et al., 2005). Clinicians may also find benefit in highlighting “non-religious” reasons for attending religious services, such as gaining social support or being conformant to a cultural tradition. For example, when working with college students, clinicians might encourage engagement with religiously-based clubs or organizations, which might foster a sense of spiritual community (Bryant, 2007).

Regarding surrender, our findings posit this construct as both a direct and indirect contributor to psychological wellbeing and provide evidence for the broader assertion that religious/spiritual pursuits are of benefit to mental health. Notably, although surrender to God may sometimes be framed as a poor coping strategy, in that it involves a relinquishment of control (Maier & Seligman, 2016), our findings suggest that the process of surrendering control may not always have deleterious effects and may be a valuable coping mechanism within the context of some religious belief systems (Safran, 2016). Practically, clinicians can utilize Socratic and dialectic strategies to encourage clients to view engagement in surrender from multiple perspectives, simultaneously promoting a principle of maintaining personal responsibility while also surrendering ultimate authority to God (Ritschel, Lim, & Stewart, 2015). This might be accomplished, therapeutically, by enhancing cognitive flexibility, perhaps in the context of acceptance and commitment therapy (Hayes, Levin, Plumb-Villardaga, Villatte, & Pistorello, 2013). Cognitive flexibility may also be promoted via the practice of mindfulness, which is theorized to lend attentional processes to previously unattended stimuli, such as the paradoxical dialectic, and potential benefits, of surrender (Moore & Malinowski, 2009).

Mindfulness, as well as other contemplative practices (e.g., meditation) may also be of particular benefit for religious individuals (Hathaway & Tan, 2009). For example, previous research suggests that some of religion's (e.g., prayer) impact on health operates through a "relaxation response," which may be beneficial to mental health (Jones, 2004), and which could be incorporated into therapeutic interventions for use with religious individuals.

Although there is a substantial literature on the benefits of forgiveness for psychological wellbeing, much of this has focused on self or other-forgiveness, or feeling forgiven by others, with less emphasis on feeling forgiven by God (Cheadle & Toussaint, 2015; Webb, Hirsch, et al., 2013). Yet, despite being under-researched, our findings suggest that feeling forgiven by God may have clinical utility for resolving stress and ameliorating psychopathology. Future research is warranted on the psychological effects of feeling forgiven by God, particularly regarding how perceptions of such reconciliation with God or a deity alleviates symptoms of hopelessness, despair, or worry about the future, given the lack of empirical studies of these processes and the potential to inform the development of novel therapeutic interventions. Additionally, research is needed to understand potentially differential effects of feeling forgiven by God on existential/spiritually-based distress versus situationally-based distress, as our current study does not examine the etiological basis of our respondents' psychopathological symptoms (i.e., related to one's perceived spiritual transgressions or arising from non-spiritual, daily circumstances). The mechanisms of action of forgiveness by God may differ across forms of psychopathology (e.g., anxiety, depression, or stress), thereby yielding disorder-specific implications for intervention.

Clinically, the cultivation of forgiveness may be particularly important for persons who, as a result of appraisals of low self-worth, are experiencing mental distress or feel unworthy of

forgiveness (e.g., personal transgressions have desecrated their relationship with God) (Davis, Hook, & Worthington, 2008; Exline & Martin, 2007; Fisher & Exline, 2006). Although most forgiveness-focused interventions have been developed based on extending forgiveness toward others or the self, some principles of these interventions may also be appropriate for the therapeutic development of forgiveness by God. For clinicians working with clients experiencing spiritual struggles, encouraging cognitive reframing (e.g., via cognitive-behavioral therapy) regarding worthiness of forgiveness and one's self-expectations for securing forgiveness, may result in enhanced ability to feel forgiven (Baskin & Enright, 2004). Similarly, mindfulness-based interventions (e.g., via breathing exercises or guided imagery accompanied by contemplative thought) can be used to enhance client ability to receive forgiveness, via engagement in a non-judgmental, present-moment awareness that allows simultaneous acknowledgement of perceived shortcomings and development of a broadened perspective shifting focus away from past offenses (Foulk, Ingersoll-Dayton, & Fitzgerald, 2017). Clinicians may also wish to utilize additional components of self-compassion to promote acceptance of forgiveness by God. For example, the extension of loving kindness toward the self may result in adaptive enhancement of client self-perception and worthiness to receive forgiveness, including from God (Lee, 2009; Williams, 2015), with consequent beneficial effects for mental health. These approaches bear similarity to Worthington's REACH model of forgiveness (Worthington et al., 2010), which emphasizes the principles of recalling the offense, empathizing, giving the gift of forgiveness altruistically, and committing to and holding onto forgiveness. Although intended to facilitate forgiveness between partners in a relationship, adaptations of these therapeutic strategies may also be helpful in increasing an individual's perception of worthiness to receive forgiveness from God.

Of note, pastoral counselors may be better-prepared to facilitate feeling forgiven by God, as compared to non-pastoral psychologists (Berecz, 2001), given their theological grounding and orientation toward discussion focused on obtaining forgiveness from God or deity (Rye et al., 2000). In secular therapeutic contexts, clinicians are trained to facilitate the extension and reception of forgiveness on either an interpersonal or intrapsychic level (i.e., toward others or the self) but are generally not equipped to offer guidance on divine forgiveness. However, clinicians working in secular settings with clients struggling to feel forgiven by God or deity, could utilize the Three “Rs” (rapport, reframe, and release) framework to assist in cultivating forgiveness, within the context of the client’s professed doctrinal beliefs (Berecz, 2001). It should be noted that forgiveness, to some extent, is a learnable skill, and clinicians can encourage clients to practice extending forgiveness toward others and the self in-session. Engaging in self and other-forgiveness may, in turn, bolster one’s personal experience of feeling forgiven, including by God, as the practice of forgiveness can be conceptualized as a reciprocal relational process (Bono et al., 2008). Finally, accepting forgiveness from God can be framed as a personal act of coping that helps to establish a sense of control over difficult life experiences and relationships, thereby reorienting forgiveness by God from a theological stance to one that is more psychological in nature and, perhaps, increasing its therapeutic acceptability as a result (McCullough & Worthington, 1994; Toussaint & Webb, 2005).

Despite the potential benefits of feeling forgiven by God, and despite one’s power to forgive the self or others, we often have very little control, or no control, over being forgiven by others, or by God. This caveat may require therapeutic exploration, in-session, to determine the most appropriate manner by which to facilitate feeling forgiven by God. Additionally, as we have discussed throughout, the need for forgiveness and the process of seeking forgiveness are

often associated with negative outcomes (Exline et al., 2012; Toussaint et al., 2008a) and, so, addressing issues of forgiveness therapeutically may require clinical attentiveness to potential deleterious impacts to wellbeing. Should such negative outcomes occur, therapeutic exploration of this tension may be necessary. Indeed, when an individual confronts, rather than avoids, psychological strain, symptoms may “get worse before getting better” (e.g., Tasca, Maxwell, Faye, & Balfour, 2017), and this phenomenon can be contextualized to help accommodate a client’s feelings of being unworthy of forgiveness. Secular approaches, such as acceptance and commitment therapy, may also be useful toward the resolution of chronic perceptions of being unforgiven, by enabling an acceptance of feeling unforgiven, without becoming entrenched in psychopathological sequelae (Hayes et al., 2013). Pragmatically, and ethically, secular clinicians should be prepared to refer their clients to pastoral care if psychospiritual concerns, including chronic feelings of being unforgiven by God, persist.

Finally, clinicians and researchers must also be aware that differing religions may have unique systems of forgiveness (e.g., engaging in penance to secure forgiveness, forgiveness being granted based on “good” works, or the unconditional nature of forgiveness; Rye et al., 2000). Because of this, a client’s perception of what must be accomplished to achieve forgiveness could vary widely across individuals and religious denominations, presenting both challenge and opportunity for clinical intervention and future research (Rye et al., 2000). As such, approaching a client’s belief about forgiveness from a position of curiosity and cultural humility may be an important therapeutic strategy toward understanding the role of feeling forgiven in the facilitation of mental health outcomes (Foronda et al., 2016).

Despite potential limitations in appropriateness and ease of implementation of religion-focused or spiritually-based strategies in therapy, our study suggests that religious involvement,

whether via attendance or surrender, and its consequent effect on feeling forgiven by God, may offer protection against anxiety, depression and suicide risk. Although levels of religiosity are declining among college students (Chan, Tsai, & Fuligni, 2015; Stoppa & Lefkowitz, 2010), clinicians should be cognizant of the potential benefits associated with religious activities and beliefs, as our findings suggest they may have an ameliorative effect on mental distress and suicide risk in this vulnerable population (Wilcox et al., 2010).

Conclusion

Overall, in our collegiate sample, we found that the religious variables of attendance and surrender to God were directly associated with decreased suicide risk, and indirectly associated with suicide risk through the mediating pathways of feeling forgiven by God and psychopathology. That is, religious involvement was serially associated with an enhanced perception of feeling forgiven by God and, in turn, to lower levels of stress, anxiety, and depression, and suicide risk. Yet, attendance and surrender do not provide a full explanation of this protective effect, as feeling forgiven by God emerged as a necessary component in most of our models, suggesting its importance in facilitating wellbeing in the context of religious and spiritual engagement.

Researchers have aptly pointed to the dearth of exploration of underlying factors linking religious involvement to mental health, particularly the lack of investigation of ancillary religious variables (e.g., forgiveness) on the supposed beneficial effects of religiosity and failure to consider multiple potential mediators (e.g., personality characteristics; psychopathology) conjointly (Joiner, Perez, & Walker, 2002). In our study, we have addressed these critiques and, thus, offer novel insight into potential mechanisms of action for the religion/spirituality-suicide linkage that has long been documented in the literature (Caribé et al., 2015; Kleiman & Liu,

2018; Sharma et al., 2017). In conclusion, despite mixed results in previous studies, our findings suggest that religious involvement, whether extrinsic or intrinsic, is generally beneficial for mental wellbeing, even when such involvement entails a relinquishment of personal control in the form of surrender to God. As such, our findings can inform efforts to improve the mental health of students on college campuses, by providing awareness of the potential salutary effects that religion and spirituality, including the perception of feeling forgiven by God, can have on risk for psychopathology and suicide in the collegiate population.

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