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Relational processes in prayer : a reflection of the effects of culture on religious experience.

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RELATIONAL PROCESSES IN PRAYER:

A REFLECTION OF THE EFFECTS OF CULTURE ON RELIGIOUS EXPERIENCE

By

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ABSTRACT
RELATIONAL PROCESSES IN PRAYER: A REFLECTION OF THE EFFECTS OF CULTURE ON RELIGIOUS EXPERIENCE

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This study explores the mediating effect of one's perceived relationship with God on the relationship between prayer and mental health in a cultural context. As an interpersonal activity, prayer may operate along relational constructs. Research supports a theoretical mechanism of prayer that aligns with the benefits of supportive interpersonal relationships. It is possible, then, that as relational processes change across dimensions of individualism and collectivism, prayer may mirror these same changes. A model for collectivistic and individualistic approaches to prayer is proposed and placed within a relational model for prayer's effects on mental health. However, due to instrument failure, the hypotheses were not testable. The construct validity of the Inward, Outward, Upward Prayer scale is called into question and further research into taxonomies of prayer is encouraged.

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CHAPTER 1

INTRODUCTION

Polling data in the United States reveals that prayer is an important part of many people's lives. In a 2005 survey of 1,000 adult Americans from a diverse sample of race, gender, age, income status, and religious identifications (including atheist and nonreligious), Rasmussen Reports (2005) found that only 18% stated they rarely or never pray. On the other hand, 47% reported praying every day or nearly every day, and 82% of Americans surveyed reported praying *at least* occasionally. Though the actual practice of denominational religion may be wide and diverse, the practice of prayer in its variety of forms is something much of this nation is regularly engaged in.

Prayer measurement in its variety of operational definitions (almost always measured simply by frequency) has been related to a number of health and psychological outcomes (McCullough, 1995). Prayer has demonstrated positive relationships with purpose in life (Carrol, 1993; Richards, 1990), marital adjustment (Gruner, 1985), optimism (Ai et al., 2008), happiness (Robbins, Francis, & Edwards, 2008), psychological well-being (Maltby, Lewis, & Day, 1999), self-esteem (O'laire, 1997), life satisfaction, existential well-being, and religious satisfaction (Poloma & Pendleton, 1989, 1991). It has also shown negative relationships with psychotism (Francis, Robbins, Lewis, & Barnes, 2008), and negative affect and happiness (Poloma & Pendleton, 1989, 1991). Miesenhelder and Chandler (2000a, 2000b, 2001) conducted surveys in a variety

of Presbyterian populations and found prayer to be significantly related to both physical health and mental health.

Prayer has also been studied extensively with sufferers of medical and terminal conditions, though usually in the context of dealing with the stress of specific situations (Spilka, 2005). For example, prayer relates negatively to health concern, aids emotional adjustment to arthritis (Laird, 1991 as cited in Spilka, 2005), and is related to increased coping with the stress of cardiac surgery (Saudia, Kinney, Brown, & Young-Ward, 1991), kidney transplantation (Sutton & Murphy, 1989), and being on hemodialysis (Baldree, Murphy, & Powers, 1982). It also buffers against the use of alcohol and drugs among homeless women (Shuler, Gelberg, & Brown, 1994). The list could go on, and books have been written describing prayer and its health correlates (Ellison & Levin, 1998; Koenig, 1998; Paloutzian & Park, 2005). The bottom line is that prayer is has been linked to both physical and mental health across a variety of samples and populations, and there is a scientific basis for examining the mechanisms behind that relationship.

Mediators of Prayer and Mental Health. Mediation models can be used to assess theoretical pathways for prayer functions. Winkeljohn Black, Pössel, Bjerg, Jeppsen, and Wooldridge (2012) argued that prayer might work in similar ways to psychotherapy, specifically through self-disclosure, citing research that simply writing or talking about one's life and struggles can provide relief and promote well-being (e.g., Chaudoir & Fisher, 2010; Saxena & Mehrotra, 2010). This argument was supported for Colloquial and Meditative Prayer types (as measured by Poloma and Pendleton's [1989] prayer types). Bjerg, Pössel, Jeppsen, Winkeljohn Black, & Wooldridge (2012) proposed a different model linking prayer to research on cognitive response styles to negative

events (such as rumination, reflection, or brooding; Nolen-Hoeksema, Stice, Wade, & Bohon, 2007; Shapiro, Oman, Thoresen, Plante, & Flanders, 2008). In their study Bjerg et al. found that Colloquial and Meditative prayers were related to reflective processing of events, though it showed that meditative prayers were *positively* related to depression through reflection. Similarly, petitionary prayers were *positively* related to depression when mediated by brooding, a ruminative response dwelling on the negative event. Thus, these types of prayers, when in response to negative events appear to be associated with increased depression. Colloquial prayer was also mediated by brooding, though negatively so (brooding and depression decreased as colloquial prayer increased). Overall, findings supported colloquial prayer as an indication of healthy responses to negative occurrences since individuals were less likely to dwell on the events or consequences when engaging in conversation-like colloquial prayer. Pössel, Winkeljohn Black, Bjerg, Jeppsen, and Wooldridge (2012) proposed a model of prayer based on cognitive expectations and trust-based beliefs about prayer. This model explained prayer as a means of creating a predictable, stable world as it is supported or managed by God. Prayers, as mediated by trust-based beliefs of the efficacy of prayer (whether and when God answers), related to better outcomes of both mental health and mental illness. This last model emphasized two important beliefs about the efficacy of prayer: one, that an individual has a good relationship with God, and two, that the relationship is influential in getting one's prayers answered in desirable ways, creating a sense of control in the world. Finally, Jeppsen et al. (2012a) presented a model for prayer as a means to create and maintain a relationship with God. In this model, the relationship between prayer and mental health was fully mediated by feeling close to God. The final two studies provide a

basis for the proposed model in this study: that one of the primary mechanisms of the benefits of prayer is that it is a source of social support from God. As individuals pray, they may feel closer to God and gain a sense of control in the world (through their belief in the efficacy or prayer, or that God will answer their prayer in their best interest). The notion of social support as one of the primary beneficial functions of religion in general is not a new concept, and with prayer being the very heart of religious experience, it is logical that prayer would be related to social support as well.

Religion and Social Support

Social support has been identified as a key contributor to health and well-being. A meta-analysis of 148 longitudinal studies demonstrated that low social interaction, as it relates to life expectancy, compares to smoking 15 cigarettes a day and is twice as harmful as obesity (Holt-Lunstad, Smith, & Layton 2010). Some authors have cited social support as one of the functional ways that religion positively affects health (Ferraro & Koch, 1994; Nooney & Woodrum, 2002; Salsman et al., 2005). Religious practice can be a source of social support through a variety of means (Ellison & Levin, 1998; Ellison & George, 1994; Koenig, McCullough, & Larson, 2001). After all, religion by definition refers to a binding together, suggesting the gathering together of individuals sharing beliefs about the nature and purpose of life. In their review of the literature, Koenig and associates (2001) found that 19 out of 20 studies examined in turn reported at least one statistically significant relationship between a religious variable and greater social support. Correspondingly, religious practice was inversely related to loneliness in both men and women (Lee & Ishii-Kuntz, 1987). Furthermore, one of the ways religious participation relates to social support is in pro-social proscriptions from the pulpit.

Providing social support is encouraged by virtually every major religion in the world (Coward, 1986). Being a good neighbor, a good citizen, and building strong families are all hallmarks of principles preached from the pulpit, and they also serve as foundations of strong social networks (Koenig, McCullough, & Larson, 2001). Individuals who attend religious services regularly are less likely to get divorced (Cohen et al., 1997; Strawbridge, Shema, Cohen, & Kaplan, 2001), and have larger support networks, more social contacts and greater satisfaction with support (Bradley, 1995; Ellison & George, 1994; Idler & Kasl, 1997; Koenig et al., 1997).

Nevertheless, Koenig and associates (1997) found that after breaking religious activity into three parts—church attendance, private prayer/bible reading, and religious media—private prayer/bible reading, not church attendance or religious media, most related to social support. The notion that prayer, even private prayer, would be linked to social support (even when controlling for other religious behaviors) reflects the inherent interaction with some distinct other to whom (or with whom) one is praying. Though church attendance and other functions of religion are certainly related to social support, it is important not to overlook the otherwise privately held personal experience of prayer when discussing sources of social support. In their discussion of the social aspects of practiced religion, Ladd and McIntosh (2008) emphasized the important role of prayer in creating social support. They suggested that a perceived relationship is just as effective in providing support as a "real" relationship and discussed the possibility of prayer functioning as social support by forming a relationship with God. Consequently, researchers need not address the existence of God in describing the support provided by the functional role of relationships with God.

One of the reasons that it might seem strange to identify prayer as a source of social support is due to the tendency to view prayer through the narrow scope of merely serving as a petition (implying that all prayers are in some way petitionary prayers). Early prayer theorists ascribed prayer, just as Galton did, only as an expression of need (Heiler, 1932/1958; Pratt, 1920; Strong 1909). However, not all theorists make this oversimplification. Mary Callkins (1911) said this regarding the theoretical descriptions of prayer:

> We may, therefore, profitably widen and deepen our conception of prayer if we bring together illustrations of its different forms from different stages of the religious experience. Fundamental to all is the prayer which expresses not petition, nor penitence, nor thanksgiving, but the mere sense of fellowship (p. 492).

Herein Callkins' thinking seems to be more consistent with James' initial definition of prayer, that at the heart of prayer is a connection with the divine, and not necessarily always a request. When conceptualized as a means of connection rather than petition, prayer is the primary source of divine social support, through a relationship with God.

In this light, it is helpful to consider religion from a relational perspective and consider different dimensions of relationships within religious belief. Davidson (1979) conceptualizes these aspects of religious belief in terms of vertical and horizontal direction. Vertical beliefs "emphasize man's personal relationships to a supra-empirical being or man's cognitions about a supernatural order" while horizontal beliefs "emphasize man's relationships to other men or man's activities in social institutions" (p. 200), such as caring for one's neighbor and being your brother's keeper. These categories are comparable to vertical/horizontal orientations in social relationships in the study of social support. Hartup (1989) suggested that vertical social relationships of children

(parents, teachers, or other authorities) may affect the children differently than horizontal social relationships (peers and social connections), though both are important.

Accordingly, in a meta-analytic review, social support in children and adolescents was found to be most associated with mental health outcomes when the support came from vertical relationships (Chu, Saucier, & Hafner, 2010). These relationships were stronger than social support provided by friends or other sources of support. However, relationships with adults become less vertical as children get older, and horizontal relationships become more prevalent and more important. Consequently, age was also a moderator, with adolescents showing stronger effects of social support in both directions than younger children. However, when conceptualizing spiritual relationships based on Davidson's theory of vertical/horizontal belief, person to person relationships would be considered horizontal and person to God relationships would be considered vertical. Given this context, age becomes less important because one is not transitioning to godhood in the same way that an adolescent is transitioning to adulthood with age. Thus, one's relationship with God would still be considered vertical, and would be considered distinct from other horizontal forms of spiritual social support, even in older adults (Krause 2009a). Therefore, just as vertical sources of social support were more meaningful for mental health in children than horizontal sources, perhaps the perception of vertical support from God would be more meaningful than horizontal social support by peers or other church members for mental health in adults. This would provide some explanation for the findings that private prayer is more associated with the benefits of social support than church attendance and congregational support.

Achieving closeness and control through a relationship with God. According to social psychologists, the function of social support in promoting health occurs through multiple pathways. In fact, Berkman (1995) claimed, "For social support to be health promoting, it must provide both a sense of belonging and intimacy and must help people to be more competent and self-efficacious" (p. 245). Thus, feeling a sense of belonging and closeness is important, but a beneficial relationship also provides a sense of control in one's world (Fiske, 2010). Therefore, from the perspective of receiving social support from God, one's relationship with God would also share these dimensions of closeness and control. First, it will be discussed what it means to feel close to God, followed by how this relationship can be a partnership for problem solving and a means for vicarious control and self-efficacy.

God as a Heavenly Father. One way that people feel close to God is to view themselves as God's children, that they have a loving supportive relationship, much like a present father. The comparison of one's relationship with God to a parental relationship is not uncommon—viewing God as a Heavenly Father is widespread in Christianity. After all, when Jesus Christ provided His model for prayer, He began by addressing God as "Our Father, who art in Heaven" (Matthew 6:9-13, King James Version), and later the image is given even more literally as humankind is referred to as the "offspring of God" (Acts 17:29, King James Version). Thus, for Christians, it is relevant to discuss one's relationship with God in similar terms to that of a parent-child relationship.

Indeed, much research has been conducted illustrating ways individuals can attach to God in similar ways that children attach to early caregivers (Granqvist & Kirkpatrick, 2008). According to attachment theory (Bowlby 1982), attachment is defined as a bond

with two functions: (a) providing a safe haven and (b) serving as a secure base from which one can feel safe to explore their environment and develop skills. Proximity and the feeling of a secure base in attachment figures is a primary function of attachment both to adult caregivers as well as to God. Granqvist (1999, 2000, 2001) and Kirkpatrick (1992, 1997, 1998) have demonstrated that God can be seen as an attachment figure and that attachment styles predict how individuals seek a relationship with God. People do so through prayer, which affects the probability of viewing God as a loving and caring being versus a distant or controlling God (for a review see Granqvist, Mikulincer, & Shaver, 2010). Thus, the idea of closeness, or feeling close to God, is an important factor in explaining the role of attachment to God in health outcomes. Krause (2009a) cited qualitative, in-depth interviews for the basis of investigating closeness as participants described their relationship to God in terms of actual physical proximity to God. They feel that they can always call upon God because He is always "right here" (p. 759), literally in their presence. This is not a new concept, and goes back to early prayer theorists, such as Heiler (1932/1958):

> The man who prays feels himself very close to this personal God. Primitive man believes that God dwells in a visible place; to this place he hastens when he would pray, or he turns his eyes and hands towards it. The religious genius experiences the divine presence in the stillness of his own heart, in the deepest recesses of his soul. But it is always the reverential and trustful consciousness of the living presence of God, which is the keynote of the genuine prayer-experience. It is true that the God to whom the worshipper cries transcends all material things—and yet the pious man feels His nearness with an assurance as undoubted as though a living man stood before him (p. 356-357).

Nonetheless, even Bowlby (1973) acknowledged that physical presence is less important than psychological presence, or as he termed it "accessibility and responsiveness". When attachment figures are perceived as accessible and responsive,

they can provide a sense of security to the child. Similarly, beliefs about God's accessibility and responsiveness (whether and when prayers are answered) mediated the relationship between prayer and mental health (Pössel et al., 2012). Feeling close to God both psychologically (accessibility) and physically (closeness) can have an understandably strong effect on one's self worth and perception of social support. Thus, it is understandable how private prayer can be conceptualized as a source of social support when used to establish this closeness.

Consistent with attachment theory, Granqvist and Kirkpatrick (2008) reported on a variety of empirical studies that demonstrated the positive effects that feeling close to God can have on psychological health. They also stated that prayer is *the most important means* of attaining and maintaining proximity to God. Accordingly, private prayer frequency has not only been demonstrated as a significant predictor of closeness with God, but it was a stronger predictor than church attendance (Krause 2009a), and was identified as a primary mechanism for seeking proximity with God by regular pray-ers (Kumari & Pirta, 2009). Conversely, avoidant individuals who experienced more distress when in close relationships, engaged in less prayer to avoid closeness to God, while non-avoidant individuals engaged in more prayer as a function of their desire to maintain and rely upon a relationship for support in tough times (Byrd & Boe, 2001; Choi, 2006).

In summary, the first piece of a health promoting relationship is feeling close to the other in the relationship. Relationships with God as a father can be conceptualized in ways similar to regular parental relationships, especially through healthy attachment. Prayer has demonstrated a consistent role in helping individuals feel both physically and

psychologically close to God. In fact it was labeled the most important means of attaining closeness.

The second piece of health promoting relationships is that they provide a sense of self-efficacy and control in the world. For a relationship with God to be a mechanism of the benefits of prayer, it must provide the pray-er with this sense of personal control. This is illustrated in two ways: the teamwork model of collaborative religious coping and the belief that one has personal control through their alliance with an omnipotent God.

Prayer as teamwork. The first way that prayer promotes self-efficacy occurs when prayer is used to solve problems collaboratively with a powerful partner. In the development of their model for prayer as a means of spiritual connectivity, Ladd and Spilka (2002, 2006) stated, "Prayers are a form of teamwork and not instances of self-centered solitude" (p. 245). This is made especially clear in the work on religious coping by Kenneth Pargament. In exploring different religious coping styles, Pargament and associates (1988) classified three types of religious problem solving: Deferring, Self-Directive, and Collaborative. In the Deferring type, individuals externalize their locus of control by placing their fate in the hands of God and trusting God's will while they wait for solutions from above. In this case, they have no active part in controlling the outcome of their problem. Self-Directive coping is the opposite type of the first. In this case, individuals emphasize the power and freedom God has given them to direct their own lives, and they take sole responsibility for working out a solution on their own. The third and final category, Collaborative, emphasizes a partnership between God and the individual. One sees a role for both God and the individual in working to solve a problem. They found that prayer frequency was most associated with a collaborative or

work-together approach to religious coping. When controlling for other methods of coping (Self-directed and Deferring to God), this Collaborative approach was associated with higher levels of effective problem solving (Hathaway & Pargament 1990). Further, in a meta-analysis of the effects of optimism, social support, and coping strategies (Prati & Pietrantoni, 2009), positive religious coping (which included collaborative focused prayer) had the largest effect size.

Thus, using prayer to work together with God in problem solving is related to positive outcomes, and represents one way that prayer increases self-efficacy, the second necessary condition for a relationship to provide health promoting benefits. Another operationalization of increasing efficacy and control is the extent to which a relationship provides a vehicle for control in the world. Few partnerships can be as powerful as an omnipotent creator, and the following section describes how believing oneself to be allied with God provides a sense of personal control.

One's relationship to God as a proxy for control in the world. One of the ways that feeling close to God affects our mental health is through creating a perception of order and control in the world. Research suggests that having a sense of personal control leads to healthier outcomes in a variety of contexts. The more people believe that they are in control, the more likely they are to be healthier, feel happier, and live longer (Taylor & Brown, 1988). In a study of 10,308 British civil workers, those who identified an imbalance in the ratio of work effort to reward (IE increased effort put forth does not result in an increased reward, reflecting a lack of control in the work environment), were more likely to manifest poorer mental and physical health than those who didn't feel a lack of control over work reward (Stansfeld, Bosma, Hemingway, & Marmot, 1998).

Furthermore, belief in personal control relates to self-esteem (Ryckman & Sherman, 1973), psychological adjustment (Rao & Murthy, 1984), self-efficacy and goal setting (Phillips & Gully 1997), and academic success (Whyte, 1978). A sense of personal control even mediates the relationship between parenting and depression in children (Margaro & Weisz, 2006). Findley and Hooper (1983) conducted a meta-analysis, which included 43 studies of locus of control and academic achievement, and found that internal beliefs about control were related to higher academic achievement. For example, control beliefs are related to self-efficacy and goal setting, which in turn lead to increased performance on a variety of tasks (Kanfer 1991; Locke & Latham 1990). Therefore, if a relationship with God can provide a sense of personal control, it is clear how that can positively affect one's mental health.

Some theorists proposed that the dichotomy of internal versus external locus of control was too limiting and that a *God-mediated* locus of control may better explain religious individuals' attributional styles (Berrenberg, 1987a). Some researchers explain the benefits of religiosity are due to a relationship between personal control, and religious belief and practice (Krause & Tran, 1989; Saudia, Kinny, Young-Ward, & Brown, 1991; Shrauger & Silverman, 1971). Fiori, Hays, and Meador (2004) proposed that these positive benefits may be mediated by trust in God, with a sense that God provides personal control. In other words, an individual has an indirect control over their world vicariously through their alliance with God. They believe that they have power over outcomes inasmuch as God can be enlisted to aid in achieving those outcomes (Berrenberg, 1987a). Though they may not have control themselves, they believe that God does, and God can help them. Spilka, Shaver, and Kirkpatrick (1985) explained this

same construct in terms of attribution theory: that individuals use a variety of meaning-enhancing explanations of events in order to increase feelings of control. This God-mediated control is associated with greater life satisfaction, optimism, a higher sense of self-worth, and lower levels of death anxiety in the elderly (Krause, 2005). Additionally, in a longitudinal study, individuals with a strong sense of God-mediated control felt more grateful, which in turn offset some of the effects of depressive symptoms (Krause, 2009b).

Feeling connected to a Deity then can be an understandably meaningful relationship to the believer: "The perception of connectivity with the divine provides the individual with an exceptionally powerful social partner" (p. 31; Ladd & McIntosh, 2008). After all, who better to turn to when seeking control then the being one believes to have created the world? By exerting personal efforts (e.g., prayer), they are indirectly influencing their outcome by enlisting the aid of a capable ally. Research investigating the motivation behind prayers in a national survey of over 1,000 adults supports this model for prayer as means to obtain control through God. Researchers found that individuals with lower income try to use prayer to gain good standing and a relationship with God and gain supernatural favor (Baker, 2008). Also, believing that one has a positive relationship with God predicted higher levels of optimism (Mattis, Fontenot, Hatcher-Kay, Grayman, & Beale, 2004). Finally, the relationship between prayer frequency and mental health was mediated by a belief in God-mediated control (Jeppsen et al., 2012b). Thus, individuals with religious beliefs may be able to internalize an otherwise external locus of control through their faith in, and feeling close to, a higher power.

Altogether, it was stated that in order for a relationship to be beneficial to one's health, it must provide a sense of closeness/intimacy as well as personal efficacy/control. Previous research supports the notion that prayer leads to both feeling closer to God and a sense of personal control, and it is suggested that these constructs represent a beneficial relationship with God.

Relating to God doesn't always lead to Positive outcomes. It is important to note, however, that just as with all relationships, one's relationship with God can be a cause of stress, anxiety, and pain. Sometimes people get in fights with those that they are close to, and these interpersonal conflicts can lead to negative outcomes in mental health (Abbey, Abramis, & Caplan, 2010). Similarly, Pargament identified "red flags," or warning signs, of maladaptive religious coping in persons going through a crisis. For example, believing that one's current situation is a product of God's punishment was related to negative outcomes (Pargament et al. 1998). Similarly, feelings of discontent towards God correlated positively with hopelessness, depressive symptoms, and guilt (Braam et al., 2008). During these times, instead of a peaceful retreat, prayer can be a pain filled struggle related to negative affect, lower faith maturity and preoccupied attachment (Ladd & Ladd, 2012). For example, higher prayer frequency was associated with higher neuroticism scores in students at a private Catholic school (Francis et al., 2008). Further, confession in prayer has been associated with lower self-esteem, optimism, and well-being (Whittington, 2010). Petitionary, ritual, and obligatory prayer have similarly been associated with lower levels of well-being (Bjerg et al., 2012; Whittington, 2010; Winkeljohn Black et al., 2012).

Interestingly, Whittington (2010) makes the observation that negative outcomes seem to be associated with prayers that focus on the pray-er, while positive outcomes are more associated with prayers focused on God. Similarly, Poloma and Pendleton (1989) found that people who engaged in meditative and colloquial prayer tended to report feeling closer to God than others. These prayer types assume a two-way communication and lend themselves to building a relationship with God. Conversely, prayers that do not focus on a two-way communication but focus more primarily on the self may prevent individuals from building that relationship. This would provide an explanation, in part, for the negative outcomes experienced by self-focused prayer. Consequently, some prayer types (such as those in Ladd and Spilka's [2002, 2006] argumentative "radical" prayer type) may not be positively associated with mental health.

In summary, the connections between prayer and mental health appear to mirror the effects of relationships, in both positive and negative ways. As prayer promotes a supportive relationship with God that provides a sense of both closeness and control, people tend to experience better mental health. On the other hand, prayer types that do not emphasize a collaborative close relationship tend to promote a negative relationship that is harmful to our mental health. Earlier it was suggested that the prayer types that lead to more positive relationships with God may vary based on the cultural experience of healthy relationships. Thus, the next section will explore how collectivistic cultures may emphasize different types of relationships than individualistic cultures and how this difference might be echoed in the prayer types used to establish a supportive relationship with God.

Prayer in a Cultural Context

Just as prayer lies at the heart of religion (James 1902/1963), beliefs about the purpose of life and religious practice are central to the understanding of culture (Dunch, 2005; Hinnels, 2005). Consequently, the purpose, process, and function of prayer may similarly vary depending on one's cultural background (Wuthnow, 2008). When considering prayer as an inherently social phenomenon, the experience of prayer may mirror social practices and relationships within a cultural context. Thus, as one culture may approach closeness and control differently than another culture, so too the types of prayer used to achieve closeness and control through God may vary.

One way to examine this cultural effect on the practice of prayer is to examine adherents of similar religious denomination from different cultural backgrounds. Though two separate individuals may both identify as Christian, their experience of Christian prayer would vary based on the culture in which they developed their faith. By comparing self-identified Christians from different cultures, a comparison can be made between individualistic and collectivistic cultural influences.

Individualism vs. collectivism: A brief review. Individualism and collectivism have received a large amount of attention in the literature (Oyserman, Coon, & Kemmelmeier, 2002). Singelis and associates (1995) used an analogy to the taxonomy of the animal kingdom to describe the study of cultural orientation:

> The constructs are polythetic as in zoology, where a phylum (e.g., birds) is defined by one or two attributes (e.g., feathers, wings) and numerous attributes define hundreds of species of that category. For cultures, individualism versus collectivism is the broadest division with numerous 'species' of each, defined by culture-specific attributes. This is not to say that any culture is purely one or the other, nor does it imply that members of a culture are automatons blindly and uniformly representing and reproducing the culture. Unlike birds, human beings cannot be classified by a basically static and unambiguously measurable feature,

> such as shape of the nose. Rather, the defining attributes of cultures are best thought of as fluctuating pressures or tendencies, which may or may not be manifest in a particular individual or context. Nevertheless, the attributes enumerated below are useful in describing and predicting differences in social behavior among cultures. (p. 243).

Singelis acknowledges the difficulty with which such broad classification can reliably describe such a diverse variable, while simultaneously recognizing the usefulness of such study (for a review see Oyserman et al. 2002; Triandis, 1995). Researchers have recognized four divisions within individualism-collectivism (horizontal and vertical orientations of both individualism and collectivism) and more than 60 different culture attributes that make up further specification (Singelis et al, 1995; Triandis & Gelfand, 1998).

Oyserman and associates (2002) provide a summary of the findings of over 250 studies examining cultural orientation both within the United States and internationally. First, in summary, they found that cultural differences in individualism focus on valuing personal independence, personal uniqueness, and personal privacy. Differences in collectivism focus on group processes, such as valuing duty and in-group harmony (especially when comparing internationally). Overall, European Americans are in fact different in individualism and collectivism than non-European Americans. This is an important finding because a common practice in research is to simply use nationality as a stand-in for cultural orientation (rather than assessing it directly; e.g., of the 30 studies used to describe the effects of culture on self-concept, cultural orientation was directly measured in only 11 studies). However, the researchers reported that larger effect sizes tended to emerge when cultural orientation was measured directly.

The research reviewed that was especially relevant to the current study is the effects of cultural orientation on relationship and group processes. They found that overall cultural orientation was relevant in describing interpersonal and group relations. Further, though family focus was not higher in Asian countries than in the United States (Hui, 1988), the processes that make up family focus reflected an obligation to the family based on relationship quality and closeness. In other words, one felt obligated to help the family when they felt close to the family, a function of choice. On the other hand, Mexican Americans reported feelings of obligation based on duty and familialism—two hallmarks of collectivism (Freeberg & Stein, 1996). Further, European American adolescents rated parents as more respectful of their independence than Chinese American students (Wink, Gao, Jones, and Chao, 1997). Higher scores of individualism were also related to lower relationship commitment (Agnew & Lee, 1997; Kemmelmeir, Sanchez-Burks, Cytron, & Coon, 1998). Finally, collectivism was related to using indirect communication styles and concern for others' feelings whereas individualism was related to direct communication and concern with message clarity (Gudykunst et al., 1996; Kim, Sharkey, & Singelis, 1994; Kim, Shin, & Cai, 1998).

According to Fiske (2010), Berkman's (1995) statement about the necessary conditions for a relationship to be health promoting is consistent across cultures. The role of closeness and control still stands, but the manner in which closeness and control are achieved changes. It is in these variations that prayer types are expected to change as well. First, it will be discussed how the role of relationships in establishing closeness and control may differ in collectivistic cultures from individualistic cultures.

Closeness and Control in Collectivistic Cultures. Asia is known for its collectivistic cultures, emphasizing a holistic experience of life and community over the isolated experience of an individual (Osyerman, Coon, & Kemmelmeir, 2002; Triandis, 1990). When Christianity was first introduced into Eastern Asia through missionary work, the idea of exclusive religious affiliation was foreign. The idea that people must specifically define themselves by one religious tradition and belief system emphasized division that did not come naturally, and even today many Asian intellectuals emphasize the spiritual and moral self-perfection while condemning "superstitious" practices and religious exclusivity that divides the community while still self-identifying as Christian (Palmer, 2011). This tendency to emphasize inclusivity rather than individuality reflects similar approaches to relating to others. Personal dyadic relationships are diminished in importance when compared to one's part of the larger group.

Evidence of this holistic point of view is found in Kiang and Fuligni's (2009) study of adolescent ethnic identity and family processes. European Americans scored significantly higher than Asian Americans on dyadic cohesion with both mother and father, independently. Dyadic cohesion refers to a singular relationship with one's mother or father, and a dyadic focus emphasizes one's relationship over the collective relationship. Placing one relationship in particular focus over the collective family would mean placing the family in a secondary position, something uncharacteristic for a collectivistic culture. Further evidence (Fuligni, Tseng, & Lam, 1999) shows that Filipinos and Chinese-Americans feel a greater sense of obligation to assist in home duties and support than do European Americans. In summary, European Americans show greater focus on interpersonal dyadic relationships whereas Asian Americans tend to

focus on the greater family collective relationship. How might this translate to vertical and horizontal religious belief systems, and how might it affect one's approach to a personal dyadic relationship with a Heavenly Being (especially one taught and conceptualized as a divine Father figure)? Closeness to God, it would seem, is more likely to occur through prayers that reach out and emphasize closeness to the collective by deemphasizing one's personal needs and emphasizing personal devotion to honor and support of one's group. In other words, just as collectivistic cultures emphasize collective care over interpersonal dyadic relationships, pray-ers may feel closer to God as their prayers emphasize collective care rather than personal needs.

Members of an individualistic culture might use prayer as a means to gain *personal* control over their world vicariously through God. A similar process can occur in groups when individuals entrust control to a group. When a group is trusted, individual group members may give up control over aspects of their lives and accept indirect control through the group, thereby feeling more secure (Morling & Fiske, 1999). This interdependence is characteristic of collectivistic cultures such as in Asian, African, and Latino societies. In some cases it is considered inappropriate and immature to place individual control over group control and individuals are more likely to adjust themselves to the social environment by adapting their individual needs to match those of the group (Fiske, 2010). The collectivistic cultures of Asia are not limited to community practices. Theirs is a holistic approach to life in general, emphasizing the soul and living in harmony with nature. Religious ceremony and tradition reflect these emphases. Eastern cultures in general place an emphasis on suffering, as all life is subject to suffering, and the importance of acknowledging the whole organism, rather than compartmentalizing

the psyche as in western psychology (Yamashiro & Matsuoka, 1997). Today, connection and self-control are still woven throughout the values and spiritual practices of modern China (Thompson, 1979). Therefore, it might be expected that shared experience, supportive suffering, and intercessory petitions (rather than personal petitions) would characterize the experience of prayer in a collectivistic culture.

Similarly, Oyserman and associates (2002) summarized the theoretical literature in how culturally diverse individuals achieve well-being. People from individualistic cultures achieve well-being through attaining goals, achieving personal happiness and personal control. On the other hand, in collectivistic cultures, carrying out duties and obligations are central to well-being. Both of these approaches are compatible with Christian experience, and mirror the contrast in relational processes described by Kiang and Fuligni (2009).

Christianity in its cultural contexts. Though many have cited Christianity as the primary influence for western individualistic culture in the United States (Cohen & Hill, 2007; Oyserman et al., 2002; Sampson 2000), this reflects a narrow view of a broad religion. In fact in a description of the diversity of individualism-collectivism across the United States, one of the most collectivistic states across the country was Utah, considered a state made up of a majority of self-identified conservative Christians (Fiske, 2010). Thus, Christian faith can take on very different approaches, reflecting both individualism and collectivism. For example, Protestantism emphasizes salvation as a process worked out through an individual and God (the individual is separate and distinct from others – individualism). On the other hand Catholicism and Mormonism teach the necessity of priesthood authority to mediate the process (adherence to authority –

collectivism). Further, personal agency, free will, and personal responsibility frequently emphasize the individualism of self-reliance. On the other hand obligations to sacrifice, serve others, and be our brother's keeper all represent characteristics of collectivism.

Thus, Christianity is not a necessarily individualistic religious experience. However, historical views are correct that after the revolutionary religion in the United States became increasingly focused on the individual in line with the separation of church and state (Cohen & Hill, 2007). Cohen and Hill go on to show that American Protestants are in fact more individualistic than American Catholics. The diversity of Christian experience is compounded when considering Christians from diverse ethnic backgrounds (Hefner, 1993). This is supported by Singelis, Triandis, Bhawuk, and Gelfand (1995) in examining whether religious affiliation would distinguish between one of four cultural orientations (horizontal/vertical—individualism/collectivism). They found that Christianity did not discriminate between any of the four orientations. Therefore, Christianity can take on both individualistic and collectivistic tendencies.

The differences between Christianity in western versus eastern cultural backgrounds are similar in essence to the differences in relational processes described earlier. However, it is important to note that though the approach may be different, connecting to God is an important function of Christian faith around the world, and that despite differences in cultural context, collectivistic Christians still believe in the Bible and maintain an individual relationship to God (Dunch, 2008). Consequently, it is not suggested that Christians from a collectivistic background are not connecting to God, but that as a product of the cultural context, they connect to God by connecting to others. In other words, they feel closer to God when praying for others' needs (as in collectivistic

prayer) than when praying for their own (as in individualistic prayer). The end result is similar, only the means are different.

Herein, one might conclude that Davidson's axes of horizontal and vertical belief describe the cultural diversity of Christian experience. For collectivistic Christians, vertical belief (connection to Deity) is achieved through horizontal beliefs (serving others). In other words, by emphasizing their shared suffering and the needs of others over their own, they connect with a God concerned with the needs of their community rather than by emphasizing their own personal desires and experiences.

It is expected that these differences will be manifest in the types of prayers they engage in and that collectivistic prayer will be the means through which collectivistic Christians relate to God. Thus, the directions of the prayers (outward versus upward) are less important in the model than the intentions of the prayers (collective focused versus individual focused) as multiple directions are used for different intentions.

In summary, though Christians share the majority of their religious practice, the cultural context of their religious experience is very different. Cultural context is an important explanatory variable in how people relate to one another (whether emphasizing personal or collective relationships; Kiang and Fuligni, 2009). Therefore, it is proposed that variations in prayer types used to create a supportive relationship with God (closeness and control), will mirror the variations in relationship patterns of the cultural context of the pray-er.

Measuring Prayer

In the last 30 years, many researchers have developed instruments to assess prayer type in a variety of different psychological contexts (Baeslar, 2003; Hood, Morris, &

Harvey, 1993; Laird et al, 1991, 2004; Luckow, 1997; Poloma & Pendleton, 1989). After trying to determine a means to compile previous measures of prayer into one comprehensive measure and failing, Ladd and Spilka (2002) set out to build a measure of prayer that was based on theories of connection rather than communication. According to Ladd and Ladd (2012), the experience of prayer is more than the explicit communication that occurs in verbal prayer. The measure is distinct from previous measures of prayer as it emphasizes the thoughts associated with prayer rather than behaviors. They took Foster's (1992) ideas on 21 types of prayer categorized within three directions of connection and placed them in the context of cognitions applied in prayer. Foster stated that people engage in prayer more often than they think; it is this means of connection rather than explicit communication that is relevant to prayer. Consistent with this theory, Ladd and McIntosh (2008) defined prayer as "the typically intentional expression of one's self in *an attempt to establish or enhance connectivity* with the divine, with others in a religious or spiritual framework, and with the self" (p.29, emphasis added).

This measure categorizes cognitions during prayer based on the degree to which a stimulus word relates to a person's thinking while engaged in prayer. Items are 6 point Likert type items ranging from 1=strongly unrelated to 6=strongly related. The prayer types are theoretically based on three overarching directions of connection: inward, outward and upward. However, the prayer directions are not represented empirically. Instead they reflect theoretical categories of connection that go across different types of prayer. Inward prayers are self-focused, intrapersonal prayers directed towards connecting with the self or the Holy Spirit within the self; outward prayers are focused on developing human-to-human connections; and upward prayers emphasize one's

relationship with God and connecting with the divine. Each direction is comprised of different subtypes of prayer based on the cognitive experience of the pray-er as described by Foster (1992). In the scale development, 153 items were created to measure each prayer type described by Foster. Individuals were asked to rate the degree to which they think about each of the following words or phrases during the prayer. Thus, it focuses on the content of cognitions during prayer. With a sample of 368 praying participants, eight factors emerged, each forming the basis of a subtype of prayer as outlined below. These eight types loaded onto three second order factors that *were not directional* (inward, outward, upward), but reflected prayer intentionality instead. First, the prayer subtypes and directions will be described, followed by the second order intentions.

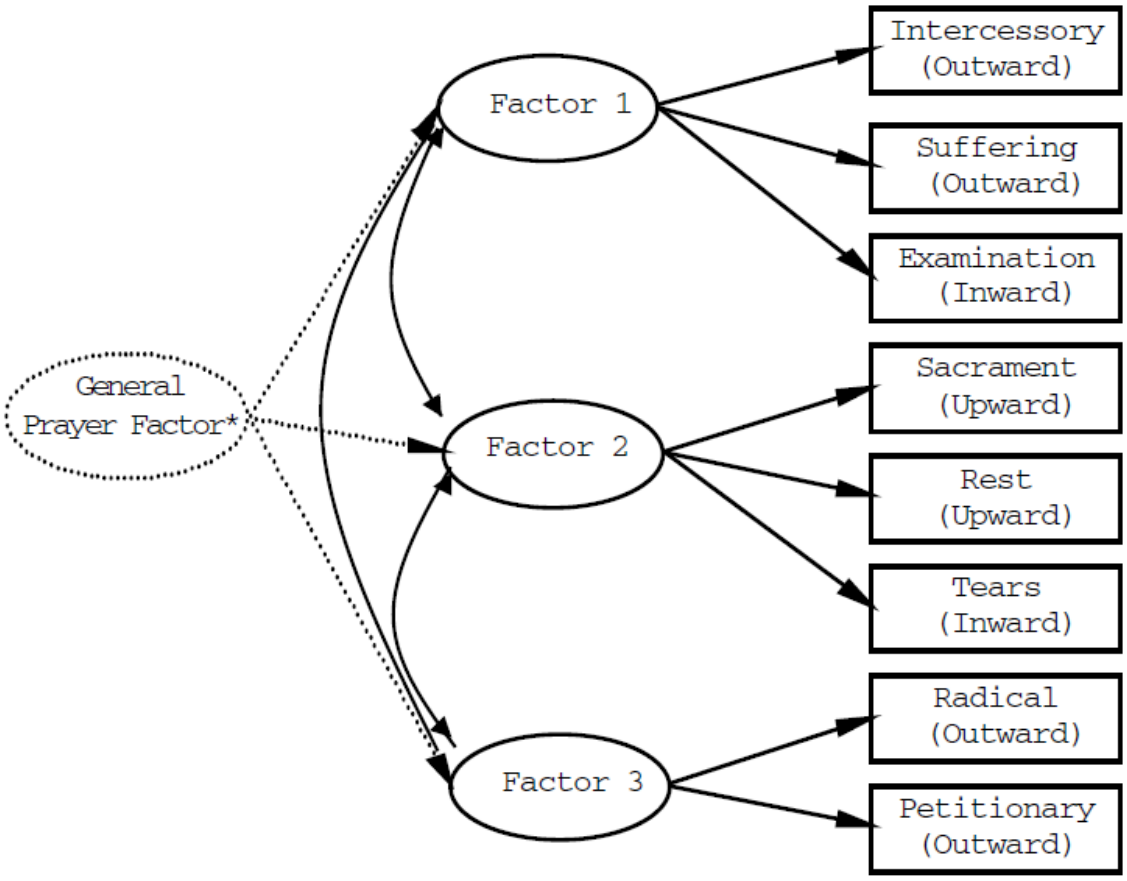
Inward prayers involved two subtypes: examination and tears. The first, examination, reflected aspects of commitment, confession, and self-reflection. The second, tears, indicated prayers of misery and the expression of sadness and grief. This factor is relatively unique; prior to this measure, empirical studies of prayer addressed only the positive experiences in prayer. Prayers of tears represent times when prayer can be a painful struggle, the dark night of the soul (Ladd, 2012).

Outward prayers included four subtypes: radical, suffering, intercession, and petition. Radical prayers reflected aggressive, bold cognitions, in which prayer is used as a form of argument or a means to be revolutionary. The suffering prayer type is another scale that acknowledged negative experiences in prayer. In this scale, individuals focused on identifying with the suffering, pain, and distress *of others*. It is distinct from the misery subtype in its outward focus on others' pain rather than a personal struggle. Misery focused on one's own grief, while suffering sought empathy through

identification with the pain of others. Intercession and petition both reflected solution-seeking prayers: asking for materials, assistance or other needs. They remain different based on the benefactor of the request. Intercessory prayers sought help for someone other than the pray-er, while petitionary prayers sought help for themselves.

Upward Prayers included the last two subtypes: rest and sacramental. Prayers of rest involved the quiet, private connection with God. This is most closely related to meditative forms of prayer and experiencing the presence of God. Sacramental prayer, more commonly referred to as ritual prayer, described connecting to God through religious rite and tradition. Though ritual prayer is often referred to in terms of practice and behavior, it is important to interpret it within the context of the intentionality of the ritual behavior—connecting to God through prescribed rites. Though it is especially relevant when discussing ritualistic behaviors, intentionality is also important in the other prayer factors as well, and it represents the distinction of the second-order factors described below.

Upon scale construction, Ladd and Spilka (2002) tested for second-order factors to see what subtypes would be grouped together. They found that there were indeed three distinct second-order factors of prayer (see Figure 1), but they reflected intentions of prayer, rather than direction of connection. Though initial model development supported a single overall prayer factor, it has not consistently been replicated (Ladd & Spilka, 2006, Breslin & Lewis, 2010).



*Hypothesized, but paths were only significant at $p > 0.10$.

Figure 1. Model of cognitive aspects of prayer. Adapted from "Inward Outward Upward Prayer: Scale Reliability and Validation," by K.L. Ladd and B. Spilka, 2006, *Journal of the Scientific Study of Religion*, 45, p. 235. Copyright 2006 by Blackwell Publishing Limited.

The first factor is named Collectivistic Prayer because the three prayer types loading onto this factor reflect characteristics of a collectivist culture. Suffering and intercessory prayer types both center around the experience and needs of someone other than the pray-er. The first, suffering, emphasizes identification with the pain in others. Researchers have shown that members of collectivist cultures tend to deemphasize one's own experience and instead stress obligation toward collective duties and sharing others' burdens (Fiske, 2010). Intercessory prayer is even more explicit, as it measures prayer with the distinct purpose of helping others in need. The last subtype of prayer is

Examination, and though it is a prayer-type that focuses on the pray-er (it is an inward prayer), it is an evaluation of oneself and a commitment or devotion of one's life to something outside the self. This is hardly a self-serving pursuit, and instead emphasizes the need to set aside one's appetites or inclinations to live according to some standard. This type of prayer could run parallel to the importance of living in such a way that brings honor to one's family rather than personal pleasure to one's life. For this reason, it is expected that members of collectivistic cultures, where family honor, community responsibility, and shared suffering take precedence to personal desires and pain, might use these three types of prayers more frequently than the other prayer types, and that they would be the primary source of connecting to God.

Next is Factor 2, with an emphasis on upward connection to God through meditation and ritual (named Rest and Sacrament, respectively). For this reason the factor is named Religious Prayer in this document. However, the qualifier "Personal" is attached due to the final prayer type loading on Factor 2: Tears. The tears prayer type is the other inward directed prayer. However, it reflects a self-exploration that runs contrary to the examination prayer because it emphasizes the needs of the individual by expressing personal emotional pain (whereas examination prayer reflected a commitment to deny oneself in living up to a standard). Researchers have reported that collectivistic cultures may downplay the importance of individual emotional experience, labeling expression of personal needs and feelings as selfish (Fiske, 2010). Thus, this prayer of Tears would be unlikely to occur in collectivist cultures as personal emotional expression is the intent. Therefore, this prayer factor is seen as a more individualistic prayer type and the primary

means of pray-ers from individualistic cultures in creating and maintaining their relationship to God.

The prayer types loading on to Factor 3 (radical prayer and petitionary prayer) are more intently focused on the needs and desires of the pray-er, and this factor is consequently labeled Individualistic Prayer. In fact, according to Ladd and Spilka (2002), Radical prayer types place the pray-er boldly at the center of focus, and might even be conceptualized as an argumentative prayer. These prayers are expected to be less likely to be used by collectivistic cultures, but much more likely by individualistic pray-ers, due to their egocentric focus. However, though they may be more likely to occur, it is not expected that these prayer types would be the basis for a close relationship to God. Petitionary Prayer has been shown to have a weak link at best to feeling close to God (Poloma & Gallup 1991), and the argumentative nature of Radical prayer seems to be more related to conflict than closeness.

Reliability of the factor structure in EFA for the total model (including both first and second order factors) was strong with all item loadings being greater than .40 (Ladd & Spilka, 2002). Scale reliabilities (Cronbach's alpha) of the eight prayer types were all above .70. The subscales loaded onto second order intentionality factors with loadings all over .65. Later, CFA replicated these findings (Ladd & Spilka, 2006). Each of the eight scales again demonstrated adequate reliability with all alpha coefficients over .70. Each of the scales loaded onto their respective intentionality factors over .60, with the exception of one scale (sacrament) which was .52. In another study (Ladd et al, 2007), scale reliabilities were replicated, but the factor structure was not tested. However, Breslin, Shevlin, and Lewis (2010) revisited this model for prayer and found mixed

results. While the factor structure of the eight types of prayer maintained good fit some of the scales had questionable reliability (Sacramental, α=.63; Tears, α=.69), Breslin, Shevlin and Lewis cited the factor loadings as evidence of support for the model (all items loaded onto their respective factors highly, the minimum at .53 and most above .6). However, the second-order factors failed to hold up to their confirmatory factor analysis. Placed in the context of the previous studies, these results may be due to an international sample (the study was conducted in Ireland), but caution with the measure is warranted.

Research Questions and Hypotheses

The proposed theory is based on two premises: (1) that one of the functional purposes and benefits of prayer is that prayer is used to establish or maintain a relationship with God that provides both closeness and control, and (2) that people achieve that relationship with God through prayer types that are consistent with their cultural context. It is expected that the function of prayers will be similar to the findings of Kiang and Fuligni's (2009) research, which is to say that greater emphasis will be placed on either collective connections and support or dyadic connections and support in prayer intentions. Though the identified goal of connecting to God will be similar, it is hypothesized that collectivism will be related to connecting to God through prayers in which they demonstrate collectivistic support through identification with the suffering of others, commitment to a code of living, and intercessory petitions. Conversely, it is hypothesized that individualism will be related to greater emphasis on dyadic connection and closeness to God through prayers that emphasize personal pain, ritual worship, and listening for God's direction. As participants are not categorized as "collectivistic" or

"individualistic", a model is built to reflect hypothesized pathways between constructs. See Figure 2 for hypothesized pathways.

Collectivism is hypothesized to be positively related to collectivistic prayer and personal religious prayer. It is also hypothesized that these prayer types will be positively related to one's relationship to God. Further, it is hypothesized that relationship to God will mediate the relationship between both Collectivistic Prayer and Personal Religious Prayer and Mental Health. As collectivism is a broad construct and affects participants in ways other than prayer, the model will include pathways controlling for the effect of collectivism on one's relationship to God, as well as Mental Health.

Individualism is hypothesized to be positively related to Personal Religious Prayer and Individualistic Prayer. It is also hypothesized that Individualistic Prayer will not be related to Relationship to God, and will be negatively related to Mental Health. Further, the model will include pathways controlling for the effect of individualism on one's relationship to God, as well as Mental Health.

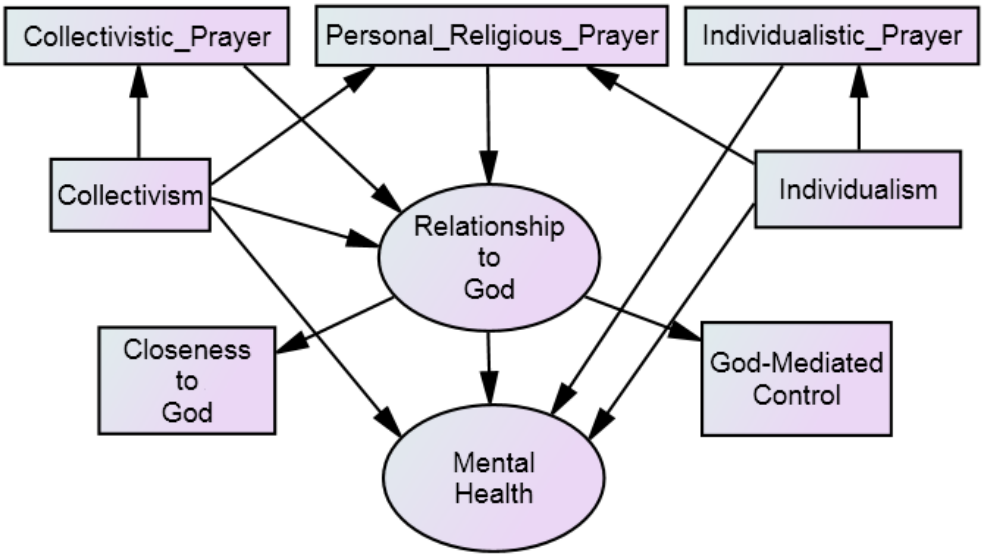


Figure 2. Hypothesized Pathways.

CHAPTER 2

METHOD

Participants

Participants were recruited through email postings and student listserv distribution at Christian universities, Christian clubs at public universities, and university clubs served by the Asian American Christian Fellowship. Emails were sent to relevant student organizations, psychology programs, and religious organizations to solicit participation in the online study. Further, emails were sent to diverse online Christian organizations not associated with higher education. Demographic characteristics of the participants are displayed in Table 1.

Table 1.

Demographic Characteristics of Participants

Characteristic	N	%
Gender Identity		
Male	97	44.9
Female	116	53.7
Genderqueer	1	0.5
Transgender Male	1	0.5
Intersex	1	0.5
Age	92	56.1
18-29	35	21.3
30-39	14	8.5
40-49	12	7.3
50-59	11	6.7
60+		
Race/Ethnicity	92	56.1
Asian, Pacific Islander	10	4.7
Black, African American	9	4.2
Hispanic, Latino/a	5	2.3

Native American	2	0.9
White, European American	185	86.0
Mixed Race/Ethnicity	4	1.9
Other (please specify)	1	0.5
Christian Denomination		
Catholic	17	8.0
Baptist	27	12.7
LDS	81	38.0
Lutheran	1	0.5
Methodist	7	3.3
Presbyterian	6	2.8
Pentecostal	3	1.4
Episcopal	6	2.8
Church of Christ	3	1.4
Evangelical	3	1.4
Nazarene	3	1.4
Non-denominational	48	22.5
Other	8	3.8

Measures

Cultural Orientation. To assess one's cultural orientation (individualistic/ collectivistic), a shortened version (Fernandez, Paez, and Gonzalez, 2005) of Singelis' (1994) measure of interdependent and independent self-construal (theoretical constructs embedded within collectivism and individualism, respectively) was used. Singelis' popular measure was adapted by Fernandez, Paez, and Gonzalez according to recommendations made by Oyserman and associates (2002) in a meta-analysis. Examining the measurement of individualism and collectivism, Oyserman and associates reported that within the United States, differences on individualism between ethnic groups were partially mediated by scale content and reliability. Scales that involved personal uniqueness were more likely to identify differences in individuality, whereas an emphasis on self-knowledge and competition diminished differences. Therefore, an effective measure of individualism would focus more on uniqueness and less on self-

knowledge and competition. The Singelis scales (1995) consistently reported higher reliability than most measures reported in the meta-analysis, though strong reliability is uncommon in cultural orientation measures, due to the diversity within the variable and the fact that most studies in the field collect data across cultures (Oyserman et al, 2002).

Similarly, Oyserman and associates (2002) reported on the effective measurement of Collectivism. In this case, scale reliability was not a mediator, and though it may still be an important component of psychological measurement in general, differences in collectivism were robust even in just adequate reliable scales. Scale content, however, was a partial mediator in effectively distinguishing collectivism. Though in-group harmony and belongingness are important parts of collectivism, in-group duty was the strongest contributor to detecting differences between individualist and collectivist cultures. Therefore, a measure that emphasizes duty, and less-so the secondary characteristics of harmony and belongingness, will be most effective in assessing collectivism.

The findings of Oyserman and associates (2002) were used in shortening and fine-tuning Singelis' original independent and interdependent scales (Fernandez, Paez, & Gonzalez, 2005). The scale, now shortened to 13 items, measures independent self-construal through uniqueness (e.g., "I enjoy being unique and different from others in many respects") and low self-context (e.g., "I act the same no matter who I am with"). Interdependent self-construal is measured through group loyalty (e.g., "I would stay in a group if they needed me, even if I were not happy with the group") and relational interdependence (e.g., "I respect people who are modest about themselves"). Individuals rate their level of agreement on a 4-point Likert scale: 1=Totally Agree, 4=Totally

Disagree. Scores are averaged within the two scales respectively (independence, interdependence). Reliability of the scores for the current sample were consistent with previous studies with poor Cronbach's Alpha for both independence (alpha=.573) and interdependence (alpha=.663).

Prayer. To measure prayer in the context of social support and culture, Ladd and Spilka's (2002, 2006) Inward, Outward, and Upward Scale will be used. Though the measure does not name the second order factors beyond arbitrary numbers (Factor 1, Factor 2, and Factor 3), they will be referred to in this document as Collectivistic Prayer, Personal Religious Prayer, and Individualistic Prayer, respectively. It is important to emphasize these are not names of the subscales. They are only labels provided by the author of the present work for ease of description. The second order factors fit the theoretical framework for the basis of the study as it is proposed that they reflect culturally relevant intentionalities. Participants rate the degree to which 29 stimulus words relate to their own thinking while engaged in prayer. Items are 6 point Likert type items ranging from 1=strongly unrelated to 6=strongly related. Scores are averaged across prayer types for subscale scores.

Reliability of the factor structure in EFA was strong with all item loadings being greater than .40 (Ladd & Spilka, 2002). Scale reliabilities (Cronbach's alpha) of the eight prayer types were all above .70, and the subscales loadings were above .65 onto second order intentionality factors. Later, confirmatory factor analysis with over 500 participants supported these findings (Ladd & Spilka, 2006). Each of the eight scales again demonstrated adequate reliability in the current study with all alpha coefficients over .70

with the exception of Tears (alpha=. 67). The overall prayer factor was not used in the current study, due to inconsistency in previous studies. .

Relationship to God. Earlier it was suggested that in order for a social relationship to have an impact on one's health, the relationship must be a source of both intimacy and a sense of control (Berkman, 2005). Therefore, to measure one's relationship to God, two instruments will be used. The first will assess the degree to which one feels close to God, providing an idea of physical and psychological proximity and availability. The second will be an assessment of one's belief in personal control vicariously through God.

*Closeness to God***.** To measure participants' relationships with God, this study used three questions developed by Krause (2002, 2009; e.g. "I feel that God is right here with me in everyday life"). Items are scored on a 4-point Likert scale indicating the degree to which individuals agree with corresponding statements. Higher scores indicate a stronger relationship with God. Items were developed using a comprehensive process involving focus groups, in-depth interviews, an expert panel, cognitive interviews, and ongoing quantitative studies (Krause 2002). In a later sample (Krause 2009), items demonstrated good reliability (alpha= .93) and validity (factor loadings ranged from .87 to .91). In the current sample, reliability remained strong (alpha=.91).

The Belief in Personal Control Scale-Revised Short Form (BPCS-RS). This instrument consists of 45 5-point Likert scale items describing the degree to which an individual believes a statement is true (Berrenberg, 1987a). The BPCS-RS is a short form based on the Belief in Personal Control Scale (BPCS; Berrenberg, 1987b) which measures three factors of personal control: a belief in general external control, an

exaggerated belief in personal control, and a belief in God-mediated control. In this study, only the God-mediated control scale is included (nine items; e.g. "I can succeed with God's help"). Higher scores on this scale indicate a stronger belief in God-mediated control. Also, the God-mediated control subscale demonstrated expected discriminant validity with the other subscales (r=-.02 with general external control and r=.00 with exaggerated personal control scale). This subscale demonstrated high internal consistency (alpha = .93), four week test-retest reliability (*r*=.93), and convergent validity (r=.95) with the corresponding subscale of the full BPCS. With the current sample, the scale demonstrated consistent reliability (alpha=.90).

Mental Health. Though mental health is frequently operationalized as the absence of mental illness, it is essential to examine the positive spectrum of experience in addition to the negative. The World Health Organization (WHO; 1948) defined health as "a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity." Therefore, in the assessment of mental health as an outcome, multiple measures of both negative symptomatology and positive indicators of well-being will be used to assess a more holistic approach to health. Taken together, the General Health Questionnaire-28 (focused on symptoms of distress and mental illness), the Short Form Health Survey (focused on both positive and negative aspects of mental health) and the WHO-5 Well-Being Index (focused on positive aspects of subjective well-being) will provide this whole-spectrum assessment.

The General Health Questionnaire-28 (GHQ-28). The GHQ-28 is a short assessment of general mental health that measures depression, anxiety, social dysfunction, and somatic symptoms. Lower scores on each of the scales indicate better

general well-being. The 28 item scale is a shortened version of the original GHQ (Goldberg, 1972, 1978) that had 60 items. The 28 items make up the four subscales with seven items each. Items loaded onto their respective factors strongly (all factor loadings >.50) and demonstrated discriminant validity to the other factors (all other factor loadings <.30). The GHQ also demonstrated convergent and divergent validity with the relevant subscales of the Clinical Interview Schedule, as well as concurrent validity with a psychiatrist's clinical assessment of anxiety and depression (CIS; Goldberg et al., 1970). The GHQ-28 has been the subject of study for many years, has been translated into 38 languages, and has demonstrated reliability and validity with a number of populations (Banks et al, 1980; Banks, 1983; Kihç et. al, 1997; Vallejo, Jordan, Diaz, Comeche, & Ortega, 2007). With the current sample, all scales demonstrated adequate reliability with alpha coefficients ranging from .78 to .92. For the purposes of this study, only the depression, anxiety, and social dysfunction scales were used.

Medical Outcomes Study (MOS) 12-Item Short-Form Health Survey (SF-12). The SF-12 is a 12 item measure using Likert-type response for assessing overall general health including positive and negative states of physical, psychological and social functioning (McHorney, Ware, Lu, & Sherbourne, 1994; McHorney, Ware, & Raczek, 1993; Ware, Kosinski, & Keller, 1996; Ware & Sherbourne, 1992). It is a shortened form taken from the MOS SF-36. The general health profile is made up of eight health concepts: 1) physical functioning; 2) role limitations because of physical health problems; 3) bodily pain; 4) social functioning; 5) general mental health (psychological distress and psychological well-being); 6) role limitations because of emotional problems; 7) vitality (energy/fatigue); and 8) general health perceptions. The physical

functioning, role limitations, and bodily pain scales all load on to a higher order factor of physical health. The social functioning and general mental health scales load on to a higher order mental health factor, and the remaining factors load onto both factors.

Factor analysis and principal components analysis support the presence of both higher order factors as well as an overall general health profile. Clinical validity studies involved medical patients categorized into one of four groups: minor physical medical conditions, severe physical medical conditions, psychiatric symptoms only, and psychiatric symptoms in addition to serious medical conditions. Results supported the interpretation of the overall general health profile, the second order physical and mental health scales, and the subscales individually in identifying relevant groups. That is, sufferers of physical conditions only were identified by the appropriate scales, individually and collectively as higher order factors, and the opposite was true of psychiatric-only patients. Individuals in the category suffering from both scored highest on the general health profile and on individual subscales loading onto both of the second order factors (McHorney, Ware, & Raczek, 1993). Reliability of the eight scales on the SF-36 demonstrated strong internal consistency (Cronbach's alpha >.80 on all scales except General Health, alpha =.78) across a diverse sample of medical and psychiatric patients (McHorney, Ware, Lu, & Sherbourne, 1994). The 12-item short form closely mirrors the SF-36 in psychometric property, demonstrating consistent concurrent validity with the SF-26 (multiple R squares of .911 and .918 for the Physical and Mental subscales, respectively). Further, it demonstrated adequate test-retest reliability over a 2-week period with correlations of .89 and .76 for the Physical and Mental Subscales,

respectively. With the current sample, the SF-12 scores proved adequate reliability in both the Physical (alpha=.79) and Mental (alpha=.82) subscales.

The World Health Organization-Five Well-Being Index (WHO-5). The WHO-5 is a brief measure assessing mood (good spirits, relaxation), vitality (being active and waking up fresh and rested), and general interests (being interested in things) as indicators of general well-being. Five items rated on a 6 point Likert scale indicating how often one has been feeling over the last two weeks from 0 ("At no time") to 5 ("All of the time"). Responses are summed for a raw score ranging from 0-25. A score below 13 indicates poor well-being and implies the need for further testing. Percentage scores are calculated by multiplying the total raw score by four. Repeated measures detect significant change when scores differ by 10% (WHO-5, 2012a).

The WHO-5 is a positive mental health measure developed by the World Health Organization (WHO) for use around the world based on the assumption that health is more than the absence of symptoms of mental illness (Bech et al., 2003). The original measure was 28 items long based on Zung's (1974; 1983) scales for depression, anxiety and psychological distress and was designed for assessing health-related personal well-being in diabetic patients (Bonsignore, Barkow, Jessen, & Heun, 2001). Later, at World Health Organization Consensus Meetings, Bech et al. proposed a shorter version of ten items in 1995, and finally, after removing negatively worded items, the five item version was created in 1998 (as cited in Bonsignore, Barkow, Jessen, & Heun, 2001). In the 1998 presentation, the WHO-5 demonstrated internal and external validity in three populations: pregnant women, psychiatric patients, and the elderly (World Health Organization, 1998). The resulting five item measure for well-being has been widely used for a variety of

purposes. In a comparison between the 12-item General Health Questionnaire, the Brief Patient Health Questionnaire, and a blind psychiatric interview using the Composite International Diagnostic Interview, the WHO-5 demonstrated the highest sensitivity (93%) and Negative Predictive Power (98%; Henkel et al., 2003). As a screening tool aimed at the positive side of health, the negative predictive power of screening depression is exactly the direction in which it should be effective. It has shown consistent reliability and validity in discriminating between subjects with and without psychiatric disorders in elderly populations (Bonsignore, Barkow, Jessen & Heun 2001; Heurn et al., 2001) and in describing the well-being of patients suffering with bi-polar disorder and depression (Kessing, Hansen, & Bech, 2006). However, the use of the WHO-5 goes beyond being a short screener since the positively worded items are intended to measure beyond the absence of mental illness by also assessing positive well-being. In a sample of over 9,000 participants, the WHO-5 established incremental validity over the Medical Outcome Studies (MOS) Short Form-36 (SF-36) in screening for both mental illness and positive mental health (Bech et al., 2003) with adequate reliability (α=.86). The WHO-5 exceeded the SF-36 in assessing positive mental health by raising an apparent ceiling effect in the SF-36. Significantly fewer participants scored in the highest two ratings of well-being, and greater spread in scores showed in the WHO-5 as compared to the SF-36. With the current sample, the WHO-5 reliability was adequate (alpha=.86)

Data Analysis

Structural Equation Modeling (SEM) was used to test the fit of the models to the data using three steps. The first step was to conduct a Confirmatory Factor Analysis (CFA) on each of the measures and composite latent variables implied by the model. This

step has several parts. First, confirmatory factor analysis was conducted on each measure to ensure that they are unitary factors and that the higher order prayer factors loaded as expected. Confirmatory factor analysis was then used to test the composite latent variables implied by the model. Thus, each of the prayer variables in the model reflect total scale scores calculated after confirming the factor structure of the measure. This is also the case for the Individualism and Collectivism variables. A two factor model was tested to confirm valid measurement of the constructs, and then the scaled scores for each would be used as observed variables in the measure.

The relationship to God and mental health variables were composite latent factors that subsumed the respective observed measures intended to measure them. Instrument scale scores were used as observed variables and loaded onto the respective composite latent variables. First, the Closeness to God and God-Mediated Control scales were loaded onto one "Relationship to God" factor. Because this construct had only two indicators, the loadings were set to equal each other for model identification purposes. Second, the outcome measures of mental health and well-being would be loaded onto one "Mental Health" latent factor in similar fashion. In this case three of the four subscales on the GHQ were used in addition to the SF12 and WHO5 measures. It was hypothesized that one overarching Mental Health construct would subsume the first-order mental health variables. See Figure 3 for the full structural model. Step two included testing the full structural model and examining model fit using Amos software. In the structural model, scale scores will be used as the observed variables rather than the items themselves. The statistics used for examining model fit will be the chi square statistic (CMIN), the Tucker-Lewis Index (TLI), the Comparative Fit Index (CFI), and the Root

Mean Square Error of Approximation (RMSEA). CMIN is an observation of relative bad fit. When the CMIN statistic is significantly different than zero, the hypothesis of exact fit is rejected (Byrne 2001).

The TLI assess the amount of variance and covariance in the data as explained by the model. TLI statistics above .90 are judged to indicate acceptable fit, and statistics above .95 are considered indicators of good fit (Hu & Bentler, 1999). The CFI compares the hypothesized model to the independent model (no correlations between proposed variables). Similar to the TLI, statistics above .90 are indicators of acceptable fit, and statistics above .95 are indicators of good fit (Hu & Bentler, 1999). The RMSEA is the final measure of goodness of fit. RMSEA scores should be lower and is usually reported with a 90% confidence interval. Acceptable fit is indicated by RMSEA scores below .08 with good fit being indicated by scores below .05 (Hu & Bentler, 1999).

Step three included modifying the model to best-fit. Modification Indices as provided by Amos will be used to assess possible improvements in the model. However, modifications will be made only inasmuch as they are supported by theory. The proposed model is the a priori hypothesized model, and theoretically supported modifications should be minimal.

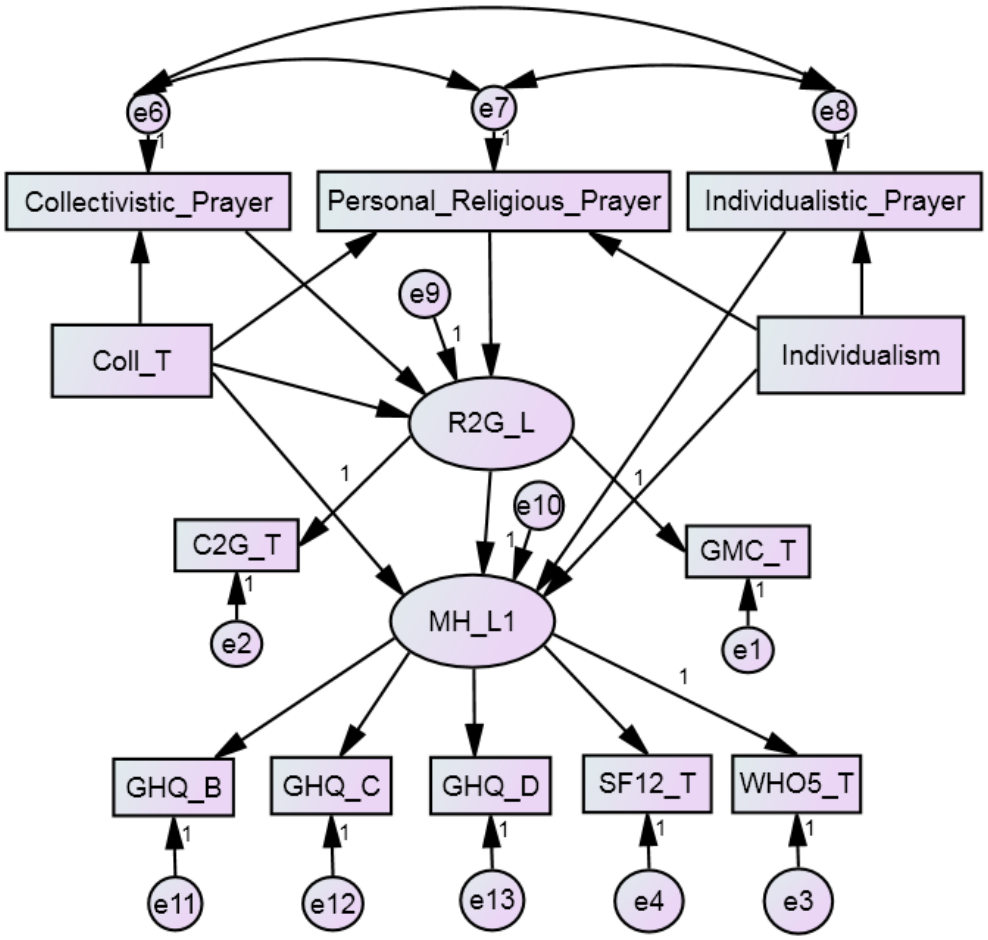


Figure 3. Hypothesized Pathways. R2G=Relationship to God composite index; C2G_T= Closeness to God total scale score; GMC_T= God Mediate Control total scale score; MH= Mental Health composite index; GHQ_T= General Health Questionnaire total scale score; SF12_T= Medical Outcomes Survey Short Form 12 total scale score; WHO5_T= World Health Organization Five Well Being Index total scale score.

CHAPTER 3

RESULTS

Results of the confirmatory factor analysis on the independent, mediator, and dependent variables are reported in Table 2. As can be seen, the factor structure of the Inward, Outward, Upward Prayer scale failed to support the theoretical prayer types. The covariance matrix between the second-order prayer types was not positive definite, the first sign that the model was a poor fit to the data. Further, model fit indices revealed poor model fit. Factor Loadings for the items of the scale are displayed in Table 3 and Table 4.

Table 2

Model Fit Indices for Latent Variables

	CMIN				
Measure	Chi Sq (DF)	P-value	TLI	CFI	RMSEA
IOU Prayer	1003.489 (366)	<.001	.728	.755	.09
Ind-Coll	96.164 (60)	.002	.872	.902*	.05*
Relationship to God (Composite)	93.794 (49)	<.001	.972*	.962*	.06*
Mental Health (Composite)	9.535 (5)	.09	.974*	.987*	.07*

Note. *Index meets standard for acceptable fit. IOU Prayer = Inward, Outward, Upward Prayer; Ind-Coll= Individualism/Collectivism.

Though factor loadings meet the standard for the most part (almost all above .4), standardized residual covariances reveal why the model fit is so poor. Omitted relationships between many items are evidenced by over fifty different combinations of items with standardized residual covariance absolute values over 1.96 (approximately one quarter of the possible combinations). All but one item had an omitted relationship, and that remaining item had a standardized residual covariance absolute value at 1.9 (absolute value). Almost all items had multiple omitted relationships. Thus, no single item could be removed to resolve the omitted relationships problems.

Table 3

Standardized Loadings for First-Order Prayer Factors

Item	Subscale	Loading
Examining myself	Examination	.715
Evaluating my inner life	Examination	.728
Devoting myself	Examination	.583
Committing	Examination	.651
Judging myself	Examination	.571
Asking for help for other people	Intercessory	.790
Seeking assistance for others	Intercessory	.737
Searching on behalf of someone else	Intercessory	.547
Agonizing with others	Suffering	.723

Accepting the pain of others	Suffering	.725
Carrying the distress of people	Suffering	.729
Quietude	Rest	.869
Silence	Rest	.768
Stillness	Rest	.747
Private experiences	Rest	.413
Engaging rituals	Sacramental	.773
Exploring sacraments	Sacramental	.629
Connecting with traditions	Sacramental	.809
Misery	Tears	.676
Sadness	Tears	.736
Grieving	Tears	.534
Seeking to be revolutionary	Radical Approaching	.653
Boldness	Radical Approaching	.720
Radical approaching	Radical Approaching	.598
Assertiveness	Radical Approaching	.716
Asking for things I need	Petitionary	.847
Making personal appeals	Petitionary	.687

Asking that physical needs be met	Petitionary	.691
Requesting material things	Petitionary	.606

Table 4

Standardized Loadings for Second-Order Prayer Factors

Subscale	Higher Order Factor	Loading
Examination	Collectivistic Prayer	.841
Intercessory	Collectivistic Prayer	.658
Suffering	Collectivistic Prayer	.813
Rest	Personal Religious Prayer	.542
Sacramental	Personal Religious Prayer	.399
Tears	Personal Religious Prayer	.696
Radical Approaching	Individualistic Prayer	.508
Petitionary	Individualistic Prayer	.339

As the overall model for prayer failed to demonstrate adequate model fit, first order models were tested to localize the misfit in the model. If the first-order model, including only the eight prayer factors, demonstrates good fit, then the second-order factors are implicated as the source of misfit. On the other hand, if the first-order factors alone do not fit the data, then the higher-order factors would not be testable (with the first-order factors in the model). Model fit indices for the first-order only model are

included in table 5. As can be seen, the model demonstrates poor fit, indicating that the first-level factors fit the data poorly and contributed, in part, to the misfit. Thus, implications of the appropriateness of the second-order factors are limited due to the first-order failure.

It is possible that a theory-consistent model could be constructed using the higher-order factors as first-order factors by ignoring the eight prayer subtypes altogether. If the three factors representing the higher-order factors of prayer can fit the items of the measure as first-order factors, the theory behind the model might still be tested. Thus, CFA was also conducted on a model with the three high-order factors as first-order factors with items loading directly onto their respective higher-order factors (bypassing the original first-order scales). Finally, a third CFA was conducted on a model specifying the same three factor model but included correlated errors across the eight original subtypes. The model-fit indices are reported in Table 5. None of the models tested demonstrated good fir to the data. Though the first and third models that account for the shared variance across the first-order subtypes had RMSEA statistics in the acceptable range, this evidence is insufficient support for model fit when taken in the context of the poor CFI and TLI statistics. Therefore the data from this particular sample do not support the theoretical model proposed by the measure developers. Further, the model testing only the higher order factors—ignoring the first-order factors entirely—had especially poor fit. Consequently, further analysis of the structural equation model proposed by the hypotheses is inappropriate as the study fails to meet the assumptions necessary for analysis.

Table 5

Model Fit Indices for Single-Order Models

Measure	CMIN Chi Sq (DF)	P-value	TLI	CFI	RMSEA
Eight Original Prayer Factors	875.38 (349)	<.001	.764	.797	.08
Three Factor Single-Order	1614.643 (374)	<.001	.482	.523	.12
Three Factor Single-Order 2	776.587 (334)	<.001	.789	.830	.08

Note. Three Factor Single-Order 2 includes correlated errors across the eight original prayer factors.

It is possible that sample characteristics of the current study were related to the model failure. In previous studies, the number of participants identifying as members of the Church of Jesus Christ of Latter-Day Saints (LDS) are not reported. Religious affiliation of participants in previous studies has either not been reported (Breslin & Lewis, 2010) or was collapsed into Christian categories of Protestant, Catholic, or Other (Ladd & Spilka, 2002, 2006; Ladd et al., 2007). It is unknown whether LDS participants were categorized as Protestant or Other in these studies. Nevertheless, the number of LDS participants in the current study (81, 60% of the total sample) greatly exceeds the probable proportion of LDS participants in the previous samples. It's possible that the taxonomy of prayer types as proposed by the Inward, Outward, Upward Prayer theory is not cross culturally applicable to LDS participants, and that the high proportion of LDS participants affected the overall factor structure of the measure.

To test for possible sources of error due to a higher proportion of LDS participants, multiple-groups analysis was conducted on a CFA of each of the three

prayer types in the measure. In this analysis, a series of chi-square tests were conducted to compare an unconstrained model to subsequent models with increased constraints (measurement weights, measurement intercepts, structural covariances, and measurement residuals). If the chi-square change between the unconstrained model and the final model with all constraints imposed is not statistically significant, then the groups are considered equivalent. Significant differences in model fit between LDS and non-LDS participants were only found in the Individualistic Prayer factor (Table 6). Both Collectivistic Prayer and Personal Religious Prayer revealed no significant differences in model fit between the two samples. Based on these findings, the large proportion of LDS participants may have contributed to some of the measure's problems. It is important to note, however, that this comparison was completed separately on each of the three prayer types, using both the first order and higher order factors. This analysis fails to account for omitted relationships across prayer types, and therefore could not account for all of the possible concerns facing the measure. A full multiple-groups CFA would be able to account for this problem, though the sample size of both groups prohibits conducting such an analysis reliably with so many variables.

Table 6

Chi Square Differences Test Between LDS and Non-LDS Samples

Factor	χ^2	DF	*p*
Individualistic Prayer	56.82	17	<.001
Personal Religious Prayer	25.95	23	.30
Collectivistic Prayer	36.346	25	.07

CHAPTER 4

DISCUSSION

The current study aimed to explore the relationship between cultural orientation and the benefits of interpersonal social support experienced through prayer. Due to a failure to meet the assumptions underlying the analysis, the theory was not tested, and no conclusions relative to the general hypotheses are drawn.

However, this does not mean that there are no meaningful findings to be drawn from the study. The construct validity of the Inward, Outward, Upward Prayer Scale is called into question, as the factor structure of the items making up the measure failed to align with proposed theoretical constructs. Though the factor structure has been replicated by the questionnaire's authors (Ladd & Spilka, 2002, 2006; Ladd et al., 2007), it has now failed to be replicated by third party researchers twice (Breslin et al., 2010 and the current study). Breslin and associates examined the measure outside the United States, but the current study used only participants within the United States, so the measure's failure is less likely to be due to cultural differences in the current sample compared to the samples used to develop the measure. It is possible that prayers do not differ in the ways proposed by the Inward, Outward, Upward theory. This claim would go beyond the scope of the findings of the current study, but the results do question the validity of the theory. These findings indicate that prayer cognitions across the proposed dimensions are related to each other in multiple ways. For example, it seems that identifying with the suffering of others may not be distinct from considering your own

needs in prayer, or at least that they may not be described through different types of prayer. Further investigation is warranted, however, as the results of the study alone do not provide such conclusive evidence. Therefore, future studies should further investigate the validity of the prayer taxonomy proposed by this theory.

Though the multiple groups analysis did not reveal significant contribution of variance between LDS and non-LDS participants, denominational teaching on the nature and function of prayer may have significant effects on the valid measurement of prayer. Future research might focus on these types of denominational effects on prayer measures as the appropriateness of prayer taxonomies may vary based on the values or beliefs about prayer within religious groups. Further, religious commitment and the salience of religion in one's personal life would be important to understanding the interaction between culture and religious activities such as prayer. There are also other cultural factors that might impact a study such as this, including the geographic region where the participants reside and socioeconomic status. Though two participants might share the same religious identity, the culture of Christianity in the South might differ from the culture of Christianity in the Northwest—perhaps creating a slightly different experience of prayer. Finally, the socioeconomic status of both the participant and the general economic culture of their immediate context may provide an important insight into one's experience of prayer. It's possible that individuals with more financial resources pray for different reasons or about different subjects compared to individuals experiencing poverty. Their context might change the meaning of their subjective experience of their socioeconomic status as well. Thus, there are many factors within culture at play when

investigating the effects on religious experience, and future investigations into cross cultural religious research might include these considerations.

Another possible direction future research could take is to more explicitly investigate the possibility of a multicultural relationally-based prayer taxonomy. Baeslar (2003) has proposed a relational prayer theory that is based on communication patterns. However, this particular model was neglected in favor of Ladd and Spilka's (2002) model for the current study because it is based on linguistic structure in the English language and was less likely to fit a multicultural lens. Nevertheless, after the results of the current study, further investigation into other relationally based prayer taxonomies is warranted. Literature supports the possibility that prayer is an interpersonal experience, and so a socio-cultural prayer model might be developed. A significant amount of exploratory research would need to precede this kind of work as it does not necessarily follow from the current findings. However, these findings do highlight the possibility that current prayer taxonomies may not be adequate in assessing the interpersonal function of prayer beyond prayer behaviors.

There are many limitations to the current study that are other possible sources of the model failure. Included in these are the correlational nature of the data, the limited diversity in the sample, and the sample selection procedures. First, the cross-sectional data limits the interpretability of the reported correlations. Though the model is developed based on published findings, the directionality of the correlations would be based solely on the theory and not implicated by study design. Second, the selection of the sample limits the generalizability of the study. Though the study aimed to assess differences in culture, the sample was quite limited in its representation of racial/ethnic

diversity. Data was also not collected regarding the education, socio-economic status and other demographic variables that might have revealed further limitations. Finally, the sample selection procedure was through online recruitment of volunteers. Though invitations to participate were sent to a wide variety of diverse Christian organizations, participants were self-selected. Unfortunately, there is no way to know whether organizations did in fact forward invitations to their respective memberships. This means that response rate cannot be calculated. It is possible that the selection procedures limited the diversity of participants based on who is more likely to respond to such invitations.

In summary, the study failed to meet the assumptions necessary for conducting the proposed analysis. The theory to be tested was that the relationship between prayer and mental health is mediated by a perceived relationship with God, and that the prayers used to establish or maintain this relationship would reflect cultural approaches to interpersonal relationships. Though the literature supports the possibility of this theory, it was not possible to appropriately test the theory using the sample or instruments selected in this study. Future research in this field is encouraged despite the limitations of these findings.

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