

Intercessory Prayer

Background/Definition

National data from the General Social Survey's analysis from 1972 to 2006 indicates that up to 97% of Americans pray, with some 57% reporting that they pray at least once a day (General Social Survey, 2008). The act of praying for the welfare of others is termed "intercessory prayer" in the scientific literature, a term which specifies that such prayers serve as an intercession with God's will on the behalf of others. This term typically denotes distant healing studies conducted with prayer agents of a Christian faith. It is important to note that different sects within Christianity espouse different beliefs concerning the nature of prayer, God's will, and which living creatures are worthy of receiving benevolent attention from God (Lesniak, 2006); this must be considered in the design of distant healing experiments.

Theory

A generally accepted etymological analysis of the word "God" draws back to Indo-European cognates meaning "the one who is called upon" (Roberts, Ahmed, Hall, 2009). Intercessory prayer draws upon the theory that this invisibly present and transpersonal force holds will that can be drawn upon in order to live a life in accordance with religious teachings.

Praying, a common religious practice dating back to ancient times, is seen as a way for Christians to stand in service of God by sacrificing time on behalf of others in need (Miller, 2013). It also holds the assumption that humans hold the capacity to tune into this godly force via focused intention and awareness of another person's wellbeing. Praying and enlisting God's support on behalf of others has been seen as a way for interpersonal support to flow between people and groups (Schafer, 2013).

Procedure

According to Christian belief, to pray for others is to intercede in whatever is happening in order to change the circumstances with God's intervention, whether it is an illness, injury, or hardship. This belief originates from the Old Testament and Levitical priesthood, which describe the priests' responsibility to stand "before and between" (Allaboutprayer.org, 2014). Embodying the deflection of sin and reflection of divine intervention is Jesus Christ, who stands as the model for intercessory prayer. According to the Bible, Jesus used intercessory prayer to heal the sick and perform miracles.

Review

Byrd (1988) headed a health study of prayer effects on the population of individuals admitted to San Francisco General Hospital's Coronary Care Unit (CCU). The study design highlighted an immediate consideration for future research design in the fact that the control group naturally included some patients who were being prayed for by friends

or family. The randomness of group assignment should have provided a comparable chance that some patients in the prayer group would receive prayers from loved ones as well. However, since the healing effects of prayer may correlate to the number of people praying for a person, researchers would do well to consider that a “baseline amount of prayer” might generate some complicating effects.

Byrd's prayer-receiving patients suffered fewer congestive heart failures, fewer cardiac arrests, fewer episodes of pneumonia, and required less antibiotic or diuretic therapy. Despite this decrease of unpleasant instances, prayer did not significantly reduce the length of hospital stay for those in the prayer group.

Harris et al. (1999) sought to replicate Byrd's study using CCU patients (990 participants) admitted over a twelve month period at the Kansas City *Mid American Heart Institute*. This study featured complete blinding for the participants. Two patients in the prayer group experienced hospital stays that were more than twice as long as any other patient in the study, but calculations both including and excluding those two patients found no significant difference in hospital stay length between the control and prayer group. The prayer group did exhibit approximately 10% less incidence of negative outcomes and events from the control group as measured by the MAHI-CCU score (a scoring system developed for the study by three experienced cardiologists). Using Byrd's previous “condition-based” rating measure there were no significant differences between the prayer and control groups.

Astin, Harkness, & Ernst (2000) conducted a systematic review of randomized trials assessing the efficacy of distant healing. Of the 23 studies that met their criteria, 5 involved intercessory prayer. Within this prayer group of studies, two showed a significant treatment effect was observed on a least one outcome measure for patients receiving prayer. Three studies showed no effect. The authors computed an average effect size of 0.25 ($p=0.009$) for four of these studies.

A later meta-analysis examined 17 randomized studies of DHI (Distant Healing Intention) and found significant yet small effects for intercessory prayer (Hodge, 2007). A meta-analysis focusing only on intercessory prayer did not find a significant outcome, but did find a positive effect (Masters, Spielmans, & Goodson, 2006). An updated meta-analysis also found a non-significant yet positive outcome (Masters & Spielmans, 2007). While the DHI effect size was not significant, it was almost 15 times larger for the unhealthy populations than for the healthy control group, which may suggest that need or motivation might impact the effectiveness of intercessory prayer.

Most recently, a meta-analysis concluded that intercessory prayer groups had fewer deaths than the standard care groups, and these significant results demonstrated again that unhealthy subjects (and thereby highly motivated) were significantly more impacted than the healthy control (Roberts, Ahmed, & Davison, 2011). However, in agreement with Masters & Spielmans (2007) the authors conclude that while the data was “interesting enough to support further study...if resources were available for such a trial, we would probably use them elsewhere.”

A large team of researchers organized a study of the efficacy of therapeutic prayer for patients undergoing coronary artery bypass graft surgery (CABG) across 6 different hospitals (Benson et al., 2006). They sought to measure the degree to which the healing effects of prayer are mediated by the knowledge that one is being prayed for. Three Christian prayer groups were given the first name and last initial of the individuals to be prayed for. Healing effects were measured in terms of the number of complications that arose after surgery. The researchers did not observe a significant healing effect from prayer in this large study, but they did see a significant increase in complications after surgery among patients who were certain that they would be prayed for.

Regarding these findings with the “certainty of receiving prayer” group, coauthor Dr. Bethea noted: “It may have made them uncertain, wondering ‘why am I so sick that they had to call in their prayer team?’” (Carey, 2006). This psychological factor must be taken into account in the design of similar future studies. It was also noted that the prayer groups were not accustomed to praying for people without knowing more specific information such as the age & sex of participants, or periodic progress reports to inform them of the subject's ongoing state of health. Although ensuring the process of prayer is standardized across prayers is essential for valid replication purposes, it may be detrimental to prayer efficacy.

Additionally, Duke University Medical Center’s MANTRA Study did not find any significant result on health outcomes (Krucoff et al., 2005). However, a positive effect was shown when a group of people prayed for the subjects. This amplification of efficacy when done in groups offered an avenue for further research despite the fact that the distant healing hypothesis was not confirmed by the primary outcome.

The California Pacific Medical Center conducted a study that showed no positive effects on distant intention on AIDS patients (Sicher, Targ, Moore, & Smith, 1998). However, the authors reported an intriguing effect in the treatment group; subjects who had received distant healing were able to guess their treatment condition to a “highly statistically significant degree,” whereas the control condition was unable to correctly guess. Despite the fact that the primary outcomes of health and improvement were uncorrelated with the data, the treatment group demonstrated some awareness of feeling an impact of the distant prayer.

Outside of the human subject paradigm, Lesniak (2006) carried out an intercessory prayer experiment with bush babies as test subjects. She ensured first that the chosen prayer intercessors deeply believed that God sufficiently cared for the well-being of smaller animals and would wish for them to be healed. The bush babies had wounds of various sizes from self-injurious behavior, and measures were administered to document their physiological and psychological status and emerging trends throughout the study. Measures of difference generally did not reach significance, the exception being those participants in the prayer group with the most severe injuries. Their wounds decreased in size at significant rates, and their time spent grooming and potentially injuring themselves was significantly lower than comparable control participants. Their

hemoglobin counts were significantly higher than those of severely wounded animals in the control group, and their corpuscle size was significantly decreased, indicative of smaller red blood cells which serve to better mediate oxygenation at wound sites. Monocyte levels were also significantly lower in the severe wound subset of the prayer group.

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