REVIEW ARTICLE

Two Meta-Analyses of Noncontact Healing Studies

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Objective: Reviews of empirical work on the efficacy of noncontact healing have found that adopting various practices that incorporate an intention to heal can have some positive effect upon the recipient's wellbeing. However, such reviews focus on 'whole' human participants who might be susceptible to expectancy effects or benefit from the healing intentions of friends, family or their own religious groups. We proposed to address this by reviewing healing studies that involved biological systems other than 'whole' humans (e.g., studies of plants or cell cultures) that were less susceptible to placebo-like effects. Secondly, doubts have been cast concerning the legitimacy of some of the work included in previous reviews so we planned to conduct an updated review that excluded that work.

Data Sources: The following databases were searched: Swetswise, ASSIA, Psych-NET, Web of Science, Cochrane Library, British Nursing Index, Cinahl Full Text, and Informaworld.

Study Selection: Only studies in English were eligible for inclusion. All studies must have examined the effects upon a biological system of the explicit intention to improve the wellbeing of that target; 49 non-whole human studies from 34 papers and 57 whole human studies across 56 papers were included.

Data Synthesis: The combined weighted effect size for non-whole human studies yielded a highly significant r of .258, but outcomes were heterogeneous and correlated with blind ratings of study quality; 22 studies that met minimum quality thresholds gave a reduced but still significant weighted r of .115. Whole human studies yielded a small but significant effect size of r = .203. Outcomes were again heterogeneous, and correlated with methodological quality ratings; 27 studies that met threshold quality levels gave an increased r = .224.

Conclusions: Results suggest that subjects in the active condition exhibit a significant improvement in wellbeing relative to control subjects under circumstances that do not seem to be susceptible to placebo and expectancy effects. Findings with the whole human database suggests that the effect is not dependent upon the previous inclusion of suspect studies and is robust enough to accommodate some high profile failures to replicate. Both databases show problems with heterogeneity and with study quality and recommendations are made for necessary standards for future replication attempts.

Key words: Noncontact healing, Distance Healing, Meta-analysis, Reiki, Johrei, Therapeutic Touch, Intercessory Prayer and Wellbeing

(Explore 2015; 11:11-23 © 2015 Published by Elsevier Inc.)

INTRODUCTION

The supposed linkage between religious beliefs and practices and health has long been of interest to psychologists since it provides suggestive evidence for a connection between psycho-spiritual factors and physical well-being.[1,2] This research is an extension of conventional accounts of the health benefits of religiosity and/or spirituality that supposes that they are mediated by cognitive and behavioral differences, with those expressing a religious faith tending to be more optimistic and resilient, to believe that the physical world is essentially orderly and meaningful, to engage in healthy behaviors such as regular exercise or meditation, and to avoid unhealthy behaviors such as drug and alcohol abuse and promiscuous or risky sex (for reviews see Fontana[3] and Koenig et al.[4]). More intriguingly, a number of reviews of the efficacy of healing[5–8] have found that interceding on behalf of patients through prayer or by adopting various practices that incorporate an intention to heal can have some positive effect upon their well-being. However, these reviewers also raised concerns about study quality and the diversity of healing approaches adopted in the studies under review—ranging from techniques that usually involve close physical proximity between the practitioner and the patient, such as therapeutic touch and Reiki healing, through to techniques that work at a distance, such as psychic healing or intercessionary prayer to a higher being—and this makes the findings difficult to interpret, since in some cases, the beneficial effects could be attributable to placebo effects or to the consequences of general lifestyle changes that are involved in holistic approaches to medicine. The diversity of approaches included under the rubric of healing also presents problems in explaining the observed effects, since there is so little common ground that it is difficult to conceive of a mechanism that they might all share.

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ISSN 1550-8307/$36.00

http://dx.doi.org/10.1016/j.explore.2014.10.001

Some of these concerns can be addressed by conducting double-blind randomized controlled clinical trials. These entail the random allocation of participants (or patients) to either a treatment or control condition so as to control for selection bias (or alternatively participants are matched on the basis of other variables that are thought to affect the prognosis of their health condition, such as age, gender, co-morbidity, and so on), with patients and attending physicians remaining blind to the allocation so as to control for placebo improvements. Such a design has been described by Astin et al.[9] as meeting minimum standards for research quality.

Perhaps the first study (and certainly the most influential) that met these criteria is Byrd's[10] consideration of the effects of intercessory Judeo-Christian prayers with a population of 393 coronary care unit patients. Participants were randomly assigned on a double-blind basis to either a control or a prayer group on admission to the unit. Each participant in the prayer group was assigned to between three and seven intercessors, who were given the patient's name, diagnosis, general condition, and updates on their condition throughout the trial (but not sufficient information to be able to trace the patient). The intercessors themselves were from a variety of Protestant and Roman Catholic churches, the only conditions to becoming an intercessor were that they had to be "born again" according to the Gospel of John 3:3 and that they should "lead an active Christian life as manifested by daily devotional prayer and active Christian fellowship with a local church" (p. 827). Intercessory prayer was conducted daily and involved asking for a "rapid recovery, and for preventions of complications and death, in addition to other areas of prayer they believed to be beneficial to the patient" (p. 827). Byrd found that the prayer group presented with significantly fewer cases of pneumonia, congestive heart failure, intubation/ventilation, cardio pulmonary arrest, and significantly less need for antibiotics and diuretics. Significantly more participants in the prayer group also showed a "good" hospital course, i.e., "no new diagnoses problems or therapies were recorded for the patient or if events occurred that only minimally increased the patient's morbidity or risk of death" (p. 828).

Other well-controlled studies have also reported positive outcomes. For example, Sicher et al.[11] conducted a study into distance healing using a population of people with advanced AIDS. In total, 40 participants were pair-matched by age, $CD4^+$ count, and number of AIDS-defining diseases (ADDs) before being randomly assigned to either the distance healing or control group. Four initial measurements were taken: $CD4^+$ count, psychological distress (measured using the Profile of Mood States), physical symptoms (measured using the Whaler Physical Symptoms Inventory), and quality of life (measured using the Medical Outcomes Survey for HIV). These same measurements were also taken after the 10-week treatment period and 12–14 weeks later at the follow-up stage. During the study period, participants also reported doctor's visits, hospitalization, illness recovery, and onset of new illnesses. Rather than working with traditional Christian groups, Sicher et al. recruited distance healing practitioners from different traditions or schools, but all with a minimum of five years regular ongoing healing practice, previous experience of distance healing with at least 10 patients, and previous experience of distance healing for patients with AIDS. Each practitioner treated five subjects for six hours in total (one hour daily for six days). Each participant received healing from 10 different practitioners. Sicher et al. found that during the six months of the study, patients in the treatment condition experienced significantly fewer doctor's visits, hospitalizations, and new ADDs, as well as significantly shorter periods of hospitalization, significantly lower severity of illness, and significantly improved mood. However, no significant differences in physical symptoms or quality of life were found between the groups. Despite the marked differences in procedure (including the populations from which healers were drawn and the method by which healing was delivered), the positive findings have been regarded as a successful replication of Byrd (but see also Bronson[12] for suggestions that the authors capitalized on data mining).

Some of this high-quality research has been summarized by Astin et al.,[9] who restricted their review to only those clinical studies that included random assignment of participants to conditions, a placebo-control condition, publication in full in a peer-reviewed journal, and use of participants who suffered from any medical condition [thus, excluding research involving direct mental interactions with living systems (DMILS) and staring detection studies such as those summarized by Schmidt et al.,[13] which reported significant effects of intention upon electrodermal activity in healthy participants]. Astin et al.[9] identified 23 studies that met these criteria, collectively involving 2774 participants, which produced the predicted improvement in condition with a combined effect size of 0.40 ($p < .001$). Among these studies, 13 (57%) showed a positive treatment effect, nine showed no effect, and one showed a negative effect. Despite remaining concerns about the heterogeneity of the database and methodological limitations with some studies, the authors were able to conclude that the evidence was sufficiently strong to warrant further study.

A later review by Astin[14] was restricted to prayer studies and consisted of 14 studies with a combined 2448 participants. These were mainly drawn from the earlier review (but with some additions, such as Abbott et al., 2001) and so does not provide much new information. Again, the outcome was positive, with six studies (43%) showing a positive treatment effect and the database generating an overall effect size of 0.30. This is somewhat lower than the effect size reported when studies of therapeutic touch are included, and other reviews have suggested that this approach may be of particular interest.[15] It should be noted that Ernst[16] also provided an update, consisting of 17 studies published after his 2000 review, and found that their outcomes "collectively…shift the weight of the evidence against the notion that distant healing is more than a placebo" (p. 241).

Rationale for the Current Study

Despite incorporating randomized control blinded studies, the studies included in the review by Astin et al.[9] are still susceptible to counter explanations as a consequence of their inability to create an appropriate control condition (for