Intercessory Prayer for ill Health: A Systematic Review

Objectives: To review the effectiveness of prayer as an additional intervention for those with health problems already receiving standard medical care. Search Strategy: Electronic searches of Biological Abstracts, CINAHL, The Cochrane Controlled Trials Register, EMBASE, MEDLINE, PsycLIT, and Sociofile were undertaken. All references of articles selected were searched for further relevant trials. Selection Criteria: Randomised and quasi-randomised trials of personal, focused, committed and organised intercessory prayer on behalf of anyone with a health problem were considered. Outcomes such as achievement of desired goals, death, illness, quality of life and well-being for the recipients of prayer, those praying and the caregivers were sought. Data Collection and Analysis: Studies were reliably selected and assessed for methodological quality. Data were extracted by 4 reviewers working independently. Dichotomous data were analysed on an intention-to-treat basis, and continuous data with over 50% completion rate are presented. Main Results: There was no evidence that prayer affected the numbers of people dying from leukaemia or heart disease (OR 0.64, CI 0.32-1.27), or that it decreased coronary care complications (OR 0.95, CI 0.49-2.26) or the time participants stayed in hospital. There were significantly fewer ‘intermediate/poor outcomes’ for those with heart disease in the prayed-for group (OR 0.49, CI 0.30-0.80), and this finding was robust to some changes in definition. Conclusions: This review provides no guidance for those wishing to uphold or refute the effect of intercessory prayer on the outcomes studied in the available trials. Therefore, in the light of the best available data, there are no grounds to change current practices. There are very few completed trials of the value of intercessory prayer. The evidence presented so far is interesting enough to justify further study. If prayer is seen as a human endeavour it may or may not be beneficial, and further trials could uncover this. It could be the case that any effects are due to elements beyond present scientific understanding that will, in time, be understood. If any benefit derives from God’s response to prayer it may be beyond any such trials to prove or disprove.

Key Words
Intercessory prayer · Systematic reviewing · Randomisation

Schlüsselwörter
Fürbitte · Systematische Reviews · Randomisierung

Zusammenfassung
Die Wirkung der Fürbitte für Kranke: Eine systematische Übersicht
Introduction

Prayer, the ‘solemn request or thanksgiving to God or object of worship’ [1], is an ancient and widely used intervention taking many different forms, including organised prayer to God based around and advanced belief system, individualised sporadic prayer, spiritual healing, meditation and thanksgiving. Prayers can be spoken by ‘believers’ (in a variety of faiths including Christianity, Islam, Judaism and so on) and ‘non-believers’ (particularly in times of catastrophe). This review focuses on intercessory prayer which, for the purposes of our study, involves a person or group setting time aside to communicate with God, though not necessarily within the Judeo-Christian discipline. This is organised, regular and committed prayer on behalf of another who is usually in some kind of need. Those who practise intercessory prayer will almost inevitably hold some committed belief that they are praying to God (regardless of specific theology).

Several points are to be taken into account when assessing the results of randomized trials of prayer. There are problems with trial methodology. An omnipotent God would make concealment of allocation impossible and may be noncompliant with the limitations of a randomized controlled trial [2]. The intervention raises the issue of ‘contamination’ of the control group within any randomized trial of prayer; everyone is the recipient of prayer as devout people pray generally for sick and suffering people. Measuring outcomes may also be problematic. If man’s understanding of God is as limited as Holy Literature suggests [3 a, 3 b], the outcome of divine intervention may be considerably more subtle than could be measured in the crude outcomes of a trial. Other difficulties are less unique to this intervention.

Theology suggests that it is likely that any outcome would reflect a non-divine dimension to the intervention. The results of trials, whether positive, negative or equivocal, should not be interpreted as ‘proof/disproof’ of God’s response to those praying. However, that there may be an effect of prayer not dependent on divine intervention, and that this may be quantifiable, makes this investigation both possible and important.

Methods

Inclusion Criteria
Randomised or quasi-randomised trials of personal, focused, committed and organised intercessory prayer on behalf of anyone with a health problem were sought. Data on outcomes such as achievement of desired goals, death, illness, quality of life and well-being for the recipients of prayer, those praying and the caregivers were of particular interest.

Identification of Relevant Trials
Extensive, methodical, electronic searches of Biological Abstracts, CI- NAHL, The Cochrane Controlled Trials Register, the internet, MEDLINE, PsycLIT, PSYNDEx and Sociofile were undertaken. Explicit details are available [4]. All references of articles selected were searched for further relevant trials.

Quality Rating
Studies were selected by two reviewers (IA, LR) working independently and assessed for methodological quality according to the guidelines recommend- ed in the Cochrane Collaboration Handbook [5].

Data Management
Data were extracted by four reviewers (CA, SH, LR, CS) working independ­ently. Outcomes were assessed using dichotomous, categorical or continuous measures. For dichotomous outcomes, where possible, a Peto ‘Odds Ratio’ (OR) with the 95% confidence interval (CI) was estimated. The reviewers undertook an intention-to-treat analysis assuming that those who dropped out – from whatever group – had an unfavourable outcome. For continuous data it was decided not to include any data from a rating scale unless (i) its properties had been published in a peer-reviewed journal; (ii) it had been completed by over 70% of those randomised; and (iii) the data were not skew­ped [6]. Heterogeneity was examined using a Chi^2 test.

Results

The Search
The electronic searches highlighted 196 citations, and the three included studies were identified from these, London 1964 [7], New York 1969 [8] and San Francisco 1988 [9]. A further four trials, identified by Internet search, either await assessment [10] or are, as far as the reviewers know, ongoing [11–13]. A last ongoing study [14] was identified by serendipity (for details see table 1). Several randomised studies were excluded because the interventions were not clearly intercessory prayer [15–19].

Death
For the outcome of ‘death’ data from two studies [8, 9] gave an equivocal result (OR 0.64 CI 0.32–1.27) (fig. 1).

Complications
San Francisco 1988 specifically requested those praying to ask for a decrease in complications. They then presented a series of ‘complications’ and statistical analysis was bound to highlight some as ‘significant’. The reviewers asked a blinded colleague (Dr. Evandro Coutinho) to choose a generic complication. He chose ‘Readmission to Coronary Care Unit’ and prayer did not decrease the odds of this (OR 1.05, CI 0.49–2.26).

Intermediate/Poor Outcome
Both London 1964 and San Francisco 1988 presented data on intermediate/poor outcome, and the homogeneous results were in fa­vour of the prayed-for group (OR 0.45, CI 0.28–0.71) (fig. 2). The reviewers then tested the sensitivity of this finding by regrouping the intermediate outcome with ‘good’ instead of ‘poor’. The OR resulting from this was not substantially different.

Time to Recovery
Only San Francisco 1988 specifically requested those praying to ask for ‘swift recovery’. Data from the proxy measure – days in hospital – was similar for both groups (mean 7.6 days).

Forsch Komplementärmed 1998;5(suppl 1):82-86 83
<table>
<thead>
<tr>
<th>Study</th>
<th>Methods</th>
<th>Participants</th>
<th>Interventions</th>
<th>Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Studies included</strong></td>
<td></td>
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<td></td>
<td></td>
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| London 1964   | Randomised: spin of a coin, matched for sex, age and primary diagnosis – no further details | Diagnosis: rheumatoid arthritis (17), ankylosing spondylitis (5), osteoarthritis (2), scleroderma (1), personality problems (5), depression (1), obsessional neurosis (1), anxiety neurosis (1), learning disability (2), schizophrenia (1), unknown (2) | 1. Intercessory prayer: 15 min/day (approx. 15 h during trial) and standard medical care  
2. Standard medical care  
n = 19.  
2. Standard medical care  
n = 19. | Clinical State (Clinical State Scale)  
Attitude (Attitude Scale) |
| New York 1969 | Randomised: ‘names randomly selected’ – no further details            | Diagnosis: ‘leukemic children’ – prayer group lymphatic (n = 10), control lymphatic (n = 6), myelogenous (n = 2)  
n = 18.  
Age at diagnosis: prayer group – mean 6.6, range 1–19  
Sex: prayer group – 4 male, 6 female; control – 6 male, 2 female | 1. Intercessory prayer: one  
Protestant family praying daily; weekly reminder; frequent discussions; standard medication  
n = 10  
2. Standard medical care:  
n = 8 | Death  
Illness status (monthly questionnaire) – better/unchanged/worse  
Adjustment of child and family (monthly questionnaire) |
| San Francisco 1988 | Randomised: assigned ‘using a computer generated list’ – no further information  
Blindness: double-blind; doctors, author and participants unaware of grouping  
Duration: ‘for the remainder of admission (in hospital)’ | Diagnosis: (examples) congestive heart failure  
(n = 129), cardiomegaly  
(n = 126), acute myocardial infarct (n = 109)  
History: just admitted to CUC  
n = 393.  
Consented  
Age: average, prayer group 58 (SD 15), control 60 (SD 15)  
Sex: prayer group – male 127, female 65; control – male 138, female 63 | 1. Intercessory prayer: by ‘born again multidenominational Christians’ outside hospital: daily, by 3–7 intercessors, until discharge and standard medical care;  
n = 192  
2. Standard medical care:  
n = 201 | Death  
Rapid recovery  
Prevention of complications |
| **Studies awaiting assessment (very limited details available)** |                                                                         |                                                                              |                                                                               |                                                                          |
| Targ 1993      | Randomised: no further details                                         | Diagnosis: people with AIDS  
n = 20  
Setting: California Pacific Medical Center, San Francisco | 1. Intercessory prayer:  
n = 10  
2. Standard care:  
n = 10 | The results were so encouraging that the study is being expanded [10]. |
| **Studies ongoing (very limited details available)** |                                                                         |                                                                              |                                                                               |                                                                          |
n = 1,800  
Setting: 3 North American hospitals  
Duration: 2 years | 1. Intercessory prayer (blinded to trial);  
n = 600  
2. Intercessory prayer (unblinded to trial);  
n = 600  
3. Standard care (blinded to trial);  
n = 600 |                                                                          |
| Choi 1997      | Randomised: no further details                                         | Diagnosis: multiple sclerosis [8]  
Setting: University of Minnesota Medical School | 1. Distant intercessory prayer  
2. Standard care |                                                                          |
| Larson and Matthews 1997 | Randomised: no further details                                       | Diagnosis: people with rheumatoid arthritis  
Setting: National Institute of Healthcare Research, Rockville, Maryland | 1. Distant intercessory prayer  
2. Standard care |                                                                          |
| Targ 1997      | See Targ 1993                                                         |                                                                              |                                                                               |                                                                          |
Discussion

There are remarkably few trials relating to this widely used health care intervention, and all included trials were undertaken from within a Judaeo-Christian framework. How generalisable these results are to other belief systems is unclear. London 1964 is different from the other trials in that the two investigators stated that they approached the question from the perspective of a 'believer' and 'non-believer'. San Francisco 1988 and New York 1969 were clearly undertaken by people who believed in the power of prayer. How this may have influenced the production and reporting of results is also debatable.

Trial data do not suggest that prayer postpones death. The smaller study (New York 1969) was more suggestive of a 'positive' effect than San Francisco 1988. If publication bias is operating – which is likely [20] – it should be expected that small, difficult to identify 'negative' studies may exist, further shifting the result towards the null.

Reporting bias has resulted in the spurious 'significant' results relating to complications being quoted as an indication of the efficacy of prayer [21]. Prayer had no discernible effect on the single complication (Readmission to a Coronary Care Unit) chosen by a person blinded to trial results. People who were prayed for had less 'Intermediate or poor outcomes'. However, it was not stipulated whether definitions of 'good', 'intermediate' and 'poor' were decided before or after seeing the data and whether those doing the analysis were blind to group allocation. Authors are being contacted in order to clarify this and other points. London 1964 provided data on this outcome as derived from the Clinical State Scale. The protocol for this review stated that only published scales were to be reported in an attempt to avoid presenting invalid data. This scale is not referenced, and it is unclear if it is a valid measure of health or can be used with any degree of reliability.

Implications

This review does not uphold or refute the effect of intercessory prayer, and in the light of these data there are no grounds to change current practices. More, well-conducted trials are needed in order to evaluate the effects of this most widely used intervention.

Methodological Issues

There are general issues relating to methodology and presentation that are not specific to trials of intercessory prayer. The process of randomisation should be clearly defined. Objectives should be explicit from the outset and data presented with clarity and without bias [20].

Other issues relate specifically to trials of intercessory prayer. Prayers are offered worldwide for those in need. This may result in those in the control group being affected by these prayers, meaning that there cannot be a 'pure' control group. If there is a beneficial effect of prayer in general, this may reduce the chances of it
being detected in a trial. Also, if God, as some believe, is omnipresent and omnipotent, He cannot be prevented from intervening in any patient or group. If prayer is seen as a human endeavour it may or may not be beneficial and further trials could uncover this. It could be that any effects of prayer are due to elements beyond present scientific understanding that will, in time, be understood. If any benefit derives from God’s response to prayer it may be beyond any such trials to prove or disprove.

There remain great questions for people of any or no faith regarding illness and prayer, not least why a loving God would heal some but not others.

References


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