

Health, Prayer and Spirituality: A Review of the Muslim Contribution

John F. Mayberry *DSc MD LLM FRCP*,
Professor of Gastroenterology, University of Leicester
Research Fellow, Muslim College, Cambridge

Correspondence: johnfmayberry@yahoo.co.uk

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Abstract

This paper reviews the origins of prayer studies and considers the differences between those concerned with demonstrating the general efficacy of prayer on disease outcomes and those investigating its supportive effects for patients. The limitations in the design of randomised controlled prayer studies are considered, especially the difficulty of creating adequate control groups. Studies on the role of prayer as a supportive therapy in heart disease, renal disease and oncology are reviewed. The potential benefit of prayer early in life, leading to a reduction in impaired cognition when older, is considered. In summary, the need for a more open approach to the role of prayer in clinical settings is suggested.

Introduction

In 1872 Henry Thompson, a surgeon, laid down a challenge in *“The Prayer for the Sick: Hints towards a Serious Attempt to Estimate its Value”*.^[54] He suggested that over a 3 year period the morbidity and mortality on two comparable wards should be compared, with one being the subject of “special prayer by the whole body of the faithful.” This led to the Prayer Gauge debates of the 19th Century and formed the basis for later such studies across a range of medical fields. This framing of the debate around the question of whether God/Allah/Y_HW_H listens to men and women rather than to an assessment of potential benefits of prayer has largely continued to the present. However, in 2004 Puchalski wrote that:

“Physicians and other clinicians who diagnose and develop treatment plans should address spirituality with patients because it can affect how a person understands their illness, how they make treatment decisions, and how they cope with suffering, illness, disability and/or stress.”^[41]

Although much of the research concerned with spirituality and prayer has had a Christian basis,^[47] during recent years an emerging Islamic literature has developed. Most originates from Iran, but other communities are also involved.^[26] The purpose of this review is to draw together these publications, compare the findings with literature from other faiths and consider how this form of research might be best developed and to maximise its impact on the day-to-day care of patients.

There is considerable spiritual literature on aspects of prayer seldom dealt with in scientific publications. This includes the intensity with which the prayer is made and its impact on electroencephalographic activity, blood pressure and heart rate. How any potential role of prayer induced changes in physiology in promoting health and alleviating illness is yet to be defined. A significant question would be whether petitionary prayer could alter mortality. However, there is a consistent belief within Islam, Christianity and Judaism that the time of a person’s death is fixed and so within these faiths researchers would

be limited to assessing other benefits such as less complications and shorter hospital stays. On an individual basis there is growing evidence patients with chronic disease who have positive beliefs can deal with the psychological impact of their disease better, as suggested by a qualitative study of 35 patients at Tabriz, Iran. However, with time and lack of clinical improvement these beliefs weakened. Those who felt that Allah paid no attention to their prayers were more depressed, lonely and anxious and were less likely to follow their prescribed therapeutic regimes.[2]

The gold standard for assessment of the efficacy of medical interventions is the randomised controlled clinical trial (RCT), which was developed out of the initial work by Cochrane.[8] This approach minimises the effects of observer bias and false-positive as well as false-negative results. It puts interventions to an objective test and should remove elements of subjectivity which can mislead researchers. However, it raises a major question concerning distant prayer research. It introduces the concept that Godly intervention can be subject to human testing, an issue of deep concern to many believers. Apart from the overall issue of subjecting prayer to clinical trials, there is also the impact of such studies on those who pray. It requires a belief on their part that testing prayer is appropriate, which means that those involved in such research are unlikely to be a representative cross section. The difficulty associated with recruitment of Christians to prayer trials is well illustrated by Lesniak's work on healing of wounds in bush babies, where a number of those approached felt prayer for healing of animals was inappropriate.[28] A further example of the theological problems connected with prayer research is the study by Sicher et al at the California Medical Centre. [51] They recruited a bank of prayers from a range of spiritual backgrounds including Christians, Jews, Buddhists and Native Americans. There were no Muslims in the study. Its purpose was to investigate whether the beneficial outcome of prayer was affected by the spiritual background of the prayer. Although the results were interpreted to suggest this was not a factor, there was a failure to take account of the fact that all of the patients were prayed for at various times by all of the religious groups represented in the study and this does not mean that all were equally effective.

In conventional medical studies control subjects either receive a placebo or the best available alternative treatment. If the control receives placebo, the trial can demonstrate that the active intervention works. Where the control receives the best alternative treatment, the trial can demonstrate that the new intervention may be better. In

many trials of prayer the control is a placebo. This assumes that controls do not pray on their own behalf, and family members are not praying for them. It also assumes that distant prayers strictly obey the rules and do not feel tempted to pray for all people involved in the study. As Jantos has written:

“Praying only for individuals unknown to the intercessor and specifying the number and duration of prayers that can be offered each day has no religious rationale and only a tenuous relationship with traditional prayer practice.”[25]

If we were to follow the RCT model to its extreme one could imagine devising a protocol which compared different types of prayer or which compared the effectiveness of Muslim and Christian prayer. It is extremely unlikely that such methodologies would be acceptable to the faith community.

In contrast to studies from the West, most work from Muslim centres has been concerned either with the physiological and clinical impact of personal prayer or with the benefit of listening to recitations from the Qur'an. There have been no studies comparable to the distant intercessory petitionary prayers referred to by Jantos.[25]

Impact of Prayer

If prayer changes outcomes, then there is every reason to support its continued use in religious communities and to encourage its greater use in secular societies. For some time there has been a keenness to limit the role of religious practices within many healthcare systems, especially in the West. Such attitudes should be challenged if there is an adequate evidence base. Interestingly Archie Cochrane saw clinicians who failed to take account of evidence as “villains” if they “succeed in ignoring the results if they do not fit in with their own preconceived ideas” .[10]

Clinical relevance

Puchalski and others have encouraged clinicians to consider the spiritual needs of patients. In the USA this led to the emergence of Departments of Spirituality and Health within a number of medical schools.[41,42] The difficulties many clinicians experience in dealing with this aspect of their patients' lives is emphasised by their need to use a validated tool, such as FICA,[427] to articulate questions about whether a patient is a practicing believer and member of a faith community. Studies from Pakistan and Iran show a more ready recognition of the links between spiritual and physical health. In a study of 605 patients across all specialties from Islamabad 93% wanted

their physicians to pray for their health out-loud in front of them and 88% believed having a God-fearing doctor would have a positive impact on their health [1]. Similarly in Karachi 96% of patients believed prayer had healing properties and 90% claimed to have experienced healing through prayers [43]. In Punjab a study of 800 patients found that almost all used prayer as an adjuvant to conventional medical treatment. [5] The consequences of such beliefs is of particular importance when considering controlled studies amongst Muslims as it is likely that any control group will be praying for themselves, as may be others.

In 2008, 131 physicians in Teheran completed a structured self-administered questionnaire about their attitudes to prayer in the clinical setting. 95% admitted that they had prayed for patients, with 31% saying patients “often” requested prayer of them. More than 90% of these clinicians had been asked at some time by patients to pray for them. Interestingly only 7% of these physicians believed prayer could influence the outcome of treatment, and less than 3% had received any training on prayer for the sick.[48] An improved relationship of trust between patient and clinician has been reported in the West when doctors and patients have discussed spirituality together.[30] In contrast a study amongst Muslims in the UK has shown that a failure to acknowledge and discuss the influence of religion on long-term illness leads to a vacuum in professional knowledge, inadequate support for patients' decision-making and poor responses to requests for assistance.[33] Such situations can also be seen in Muslim countries. In a Saudi study of 225 physicians, 91% believed religion had a positive influence on health but more than half never questioned patients about religion.[3] At times this was because they believed that it would lead to refusal of appropriate medical treatment, although there seemed to be a lack of awareness of issues of congruence. So should clinicians pray with patients when requested to do so? Dagi has suggested open prayer should only happen if specifically requested, but preferably to facilitate prayer being led by an identified religious leader so avoiding even the appearance of religious coercion.[9] This may overcome some of the difficulties caused by those who believe that any form of prayer with a patient is an unacceptable crossing of professional boundaries. However, such constraints will be a challenge for devout clinicians, with 13% of a small sample of 40 such physicians in the USA admitting to openly praying with their patients.[39] In countries such as Iran, traditional physicians (or Hakims) who practice Unani-Tibb are ready to pray with patients with conditions such as thalassaemia major and practice “healing touch”. In an open before and after study of 7 patients intercessory

prayer resulted in an increase in haemoglobin and transfusion intervals, decreasing ferritin levels and improved performance at school.[23,24] In a similar study amongst 12 patients with multiple sclerosis there was evidence of improved physical health and energy levels as recorded on serial questionnaires.[22] These small scale underpowered studies were unfunded and limited in size because clinicians were unpaid volunteers, although one would have hoped that financial incentive did not play a part.

Prayer studies need appropriate funding and professional design so as to ensure that they are adequately powered, have appropriate controls and use validated outcome measures.

Prayer and its Physiological Impact

Yucel is a Hospital Chaplain who investigated the effects of reading or listening to Arabic religious selections compared to non-religious pieces at Brigham and Women's Hospital in the USA amongst 60 Muslim patients.[55] Patients were exposed to two texts daily for a period of 2 to 5 days. Those exposed to the religious selections showed a significant fall in blood pressure, heart rate and body temperature. They also reported that they felt less stress and depression, comforted and more hopeful. However, the survey tools used to measure these feelings had not been externally validated.

In an Egyptian study of the benefits of meditation on post-operative pain, 20 patients were assisted by researchers in reading and repeatedly reciting short religious phrases or prayers (zikr) and jaw relaxation techniques. A control group received no intervention. The intervention group became less anxious, although the benefits on pain control were less obvious.[52] The study can be criticised on a number of goals, particularly the absence of a comparable but non-religious education program for the control group. However, it is consistent with many other studies from different backgrounds that relaxation and meditation techniques can have a profound influence. Similar criticisms could be directed at a study on the role of Muslim prayer movements as an alternative therapy for erectile dysfunction.[25]

Malaya Doufesh et al investigated the effect of 4 to 6 minutes of salat on the α relative power of electroencephalography (EEG) and autonomic nervous activity and the relationship between them by using spectral analysis of EEG and heart rate variability in 30 healthy volunteers.[11,12] They found an increase in parasympathetic activity and a decrease in sympathetic

function. These findings suggested that the high levels of α activity during salat are associated with increased relaxation and reduced tension. The effect of Dua prayer for 5 to 9 minutes was also investigated in 9 volunteers in a separate study.[4] There was higher alpha amplitude during the prostration phase of the Dua prayer which was similar to other studies documenting increased alpha amplitude in the parietal and occipital regions during meditation and mental concentration.[37]

Prayer and specific diseases

The impact of prayer has been examined in patients with coronary artery disease, cancer and HIV. It has also been assessed in conditions ranging from warts through to life-threatening organ failure, including chronic obstructive pulmonary disease.

Cardiology

The sentinel study which brought the role of distant intercessory prayer in alleviating illness to international attention was that of Byrd in California.[7] In his randomised double-blind study of 393 patients admitted to a coronary care unit, those who were the subject of distant intercessory prayer required less ventilatory assistance, fewer antibiotics and less diuretics than the control subjects. There was no evidence of a difference in mortality. Studies from Iran have suggested that listening to recitation of the Qu'ran can reduce anxiety prior to angiography,[29] anaesthesia [6] and heart surgery .[14, 53] There is evidence that this effect can be enhanced by ensuring that the listeners understand what is being said through appropriate translation, in this case into Persian.[49] Similarly in a study on the intensive care unit of Baqiatallah Hospital, Teheran patients with cardiac failure or chronic pulmonary obstructive disease who listened to a recording of one of the Prophet's prayers over a three day period developed lower scores on the SOFA (Sequential Organ Failure Assessment) scale compared to a control group who received no intervention.[27] However, again this study is limited by those difficulties associated with Nasiri's work, who reported on the benefit on pain of repeatedly saying the name of "Allah" during the recitation of Hazrate Zahra's praises daily over 3 days [35,36]. The intervention group received training on correct pronunciation of the prayer, whereas the control group received nothing. This is a serious limitation and the control group should have been trained to use a non-religious recitation. The authors went as far as to suggest that reciting the word "Allah" could be a non-pharmacological, safe, low cost intervention for effective pain relief ! A major issue with this type of study is the

likelihood of patients in the control group or their family praying. In addition more than 90% of physicians in Iran pray for their patients and more than 90% of Muslim patients pray for themselves so it is unlikely that the control group were not prayed for.[48]

Renal Disease

In a study of hemodialysis from Golestan, 245 patients were asked to complete Meraviglia prayer frequency [32] and Palutzian-Ellison spiritual health questionnaires.[18] A similar study was conducted amongst 85 patients at Imam Reza Hospital in Amol.[17] Both scales were developed in the USA in largely Christian settings and require validation in other countries and communities. Both Iranian studies demonstrated that prayer was practiced by more than 90% of patients. For those on haemodialysis 42% continuously demanded help of Allah.[18] In a later study of 88 patients, 44 listened to intercessory *Tavassol Prayer* played periodically for 10 weeks in the mornings for 20 minutes during dialysis. Measurements of the spiritual health of patients in the intervention group were significantly higher than in the control group, but there were no assessments of its impact on clinical parameters.[38] However, clinicians from all backgrounds need to be aware of these spiritual aspects of the life of many of their patients.

Cancer

In a qualitative study of 11 cancer patients in Teheran, Rahnama et al demonstrated that Muslim patients: "use a number of religious beliefs as their spiritual sources:

"Believe in the possibility of gaining health from God",
"believe in miracles",
and "believe that God defines the length of one's life"[44].

In a study of 360 patients with cancer from Teheran, prayer and spiritual healing was the most commonly used method of complementary medicine. [48,49] Older patients, the widowed and divorced together with those who had received only a primary education prayed significantly more often and had more positive attitudes towards prayer than others. Work from Golestan has shown that someone's experience of prayer prior to onset of cancer had a positive effect on their view of its value subsequently.[15] In a small study from Iran of 12 patients readings from the Qu'ran and prayer improved patients feelings of spiritual well-being.[31] In Saudi Arabia religious involvement led to less depression and less suicidal ideation amongst patients with colorectal cancer.[50]

Dementia

In a community based study of 935 Arabs living in the largely Muslim area of Wadi Ara in northern Israel the proportion of individuals praying at midlife was significantly higher among controls (87%) as compared to those with mild cognitive impairment (71%) and Alzheimer's disease (69%); $\chi^2 = 28.60$, $p < 0.0001$. [21] The proportion that prayed during midlife was 94% for men and 66% for women. Since only six percent of males did not pray, the contribution of praying as a dichotomous variable could be evaluated only in women. Among women, 74% of controls compared with 60% of those with mild cognitive impairment prayed during midlife. The number of praying hours for those who prayed did not significantly influence the risk. The observed association between prayer and decreased risk for mild cognitive impairment was independent of educational level, which may influence the choice or the capability to learn and recite prayer. No benefit was seen for prevention of Alzheimer's disease.

Coma

Thirty three patients in coma were randomised to an intervention or control group. The intervention consisted of listening to the Azan at noon and evening prayer for 14 days through headphones. Level of consciousness was measured before and after each intervention. The intervention resulted in a significant improvement in consciousness. [34] However, the study provides no evidence that it was specifically the Azan which had this effect. In order to demonstrate such a benefit the control group needed to be exposed to similar sounds, but without a religious basis.

Carpal Tunnel Syndrome and Warts

An Iranian study of 12 patients in whom 23 hands had been diagnosed as having carpal tunnel syndrome with objective tests demonstrated a significant improvement in 48% of patients six weeks after a three week period of intercessory prayer. Again the study was limited by small numbers. [13]

However, in a study of 45 Turkish patients who were mainly Muslims the effects of intercessory prayer was compared with control groups who received no intervention. Although participants believed in the therapeutic effects of prayer, when they did not trust the intercessor, prayer had no effect on their warts and there

was no difference in healing between the groups. [19] Such a study emphasises the potential problem with "laboratory-based" prayer.

Conclusions

There is a distinct difference between prayer studies conducted in the West and those largely emanating from Iran. In the West there has been a drive to demonstrate that prayer has a clinical effect comparable to drugs and so to act as a proof of a "higher being" or of some extra-corporeal force influencing health. In Iran the discourse has been about the benefits of prayer as a psychological support and the need for clinicians to be open to these effects and even to actively pray for their patients. There is, of course, a place for both approaches, but it is to be hoped that a more open mind will be seen in western hospitals where prayer and spiritual support for patients are brought centre stage rather than considered something from a previous age. Clearly there are links between feelings of isolation and the benefits that a sense of spiritual well-being can bring and this is likely to play a part in the apparent benefits of prayer. [40] Of course rigorous studies are needed but they need to be conducted in an appropriate way which takes account of the expertise related to prayer which exists in the religious world.

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