

Midwest Surgical Association

Presidential Address: Can prayer help surgery?

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KEYWORDS:

Prayer;
Surgery;
Surgeon;
Professionalism

Surgeons use chemotherapy and radiation as adjuvant therapies to surgery, working synergistically to cure cancers. We believe that neoadjuvant therapy can help our surgical outcomes. Despite the good results we have achieved, our patients want better. There has been a plethora of Internet searches by our patients looking for ways to improve their surgical results. Like other alternative therapies to aid surgery, prayer has become increasingly popular among patients in the United States.^{1,2} Can prayer really help our patients, either by affecting their surgical outcomes or at least by creating a perioperative relaxation response to alleviate their anxiety? Should surgeons pray for the health of their patients? Does prayer with patients detract from or enhance the relationship between surgeons and their patients? Is engaging in prayer with patients outside the realm of professional ethics? These are questions that I would like to address today.

The historical foundation for prayer to aid in healing is replete in the Torah, the Bible, and the Qur'an. Health is directly related to prayer and spiritualism in the Hebrew Torah. In the Bible, there are 42 accounts of healing by Jesus in the Gospels alone. Luke, who is credited for the third Gospel, was a physician. Prayer for healing is integral to the teachings of Mohammed in the Qur'an. For well over 1,000 years, the only physicians in Western civilization were Christian monks or Muslim physicians who invoked prayer to aid medicine and surgery. The fabric of prayer and

medicine were woven together. The pendulum swung the other way as religion and medicine took divergent paths during the Renaissance. In the past 15 years, the pendulum may be swinging back, evidenced by the press publishing numerous articles on prayer and health—not so much on faith healing but on prayer working together with modern medicine to promote well-being. Articles in *Time* and *Newsweek* reflect the explosion of manuscripts published in the medical and surgical literature. A MEDLINE search from 1950 to 1995 revealed only 212 articles published about prayer aiding healing, compared with 855 in just the past 15 years. There are 46 prospective randomized series on prayer aiding medicine and surgery in the Cochrane database. Studies that show benefit to prayer and healing do not favor one religion over another.^{3,4} Equal healing benefit has been demonstrated whether the prayer is Hindu or Buddhist, Catholic or Protestant, Jewish or Muslim.

There are different types of prayer that may work together with surgery to promote healing. The forms of prayer range from meditation to traditional ritualistic prayer (such as the Lord's prayer) to colloquial petitionary prayer. Prayer can be directed, asking for something very specific such as a quick surgical recovery, or nondirected, requesting that God's will be done. Also, prayer can be offered for oneself or on someone else's behalf, so-called intercessory prayer. Numerous surgical studies have focused on intercessory or distant healing prayer.^{3–5} Some have surveyed surgeons to see if they pray for their patients.¹ Others have analyzed the effects of patient prayer alone or surgeons engaging in prayer together with their patients.^{6–12}

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Manuscript received July 18, 2010; revised manuscript August 10, 2010



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Can medical science prove the benefit of prayer to improve the result of an operation? I refer you to the latest Cochrane review on this topic.⁵ This 69-page manuscript is a meta-analysis of 10 prospective randomized studies on intercessory prayer to help the efforts of modern medicine involving over 7,000 patients. Some studies in this meta-analysis showed benefit, while others did not. The conclusion of the authors was that there is no indisputable proof that intercessory prayer lowers surgical complications or improves mortality rates. Why is it that not all studies demonstrate prayer benefit? Unfortunately, most of these studies have flaws in their methods. The investigators assume that while the “prayed-for patients” receive distant intercessory prayer from assigned prayers, their “control groups” are not prayed for by anyone. Wait a minute. Do patients not pray for themselves? How can researchers really think that a patient undergoing open-heart surgery is not going to pray for his or her health before and after the operation? Do the investigators think that the patients’ mothers and fathers, sisters and brothers, and their children or friends are all struck spiritually mute during this time of need? The point is that there is no control group. Somebody prayed for all of these patients. Thus, there can be no valid scientific comparison of so-called prayed-for and not-prayed-for surgical patients. Furthermore, are there factors that, as humans, we may never understand about prayer that affected the results of these prayer studies? For instance, does the religious devotion of the prayer intercessor or the holiness of the patient have any bearing on how God responds to prayer? Does God take into account the worthi-

ness of the cause? What happens when the outcome being prayed for is not in accord with the will of God? If it’s the time for a person to die, does prayer defer destiny? Religious scholars are still wrestling with these questions. So where does this leave us? The scientific foundation for prayer is not solid. There is no indisputable proof that prayer can aid in healing. Those who believe do so by faith alone. I’ve seen the power of prayer work together with surgery many times firsthand. An example of this was witnessing my father-in-law miraculously survive an aortic arch dissection, outliving his surgeon by 20 years.

Like me, many surgeons do believe that prayer can affect surgical outcome. In a recent survey, 38% of neurosurgeons in the state of Washington pray for the health of their patients, and 42% believe that prayer affects surgical results.¹ I’m sure that many of you have prayed for your patients’ health. Our patients certainly believe in the power of prayer to aid surgery. A 1996 *Time* magazine poll found that 82% of Americans believe that prayer could bring healing. In a 2008 study by the American Cancer Society, prayer was the most common method (61.4%) used by patients to supplement efforts by medical science.² Specifically for open-heart surgery, a study from the University of Alabama at Birmingham revealed prayer to be a coping mechanism among 96% of patients as a way to relieve their stress.⁶ Similar results were found from a 2009 study on cardiac surgery patients at the University of Michigan where prayer was used to relieve their anxiety as evidenced by quality-of-life analysis.⁷

There are physiologic effects of prayer that are measurable. For instance, single photon-emission computed tomographic brain scans demonstrate changes in blood flow during prayer, effectively deactivating a part of the parietal lobe where spatial relation brain cells dominate, creating a sense of transcendence.⁸ Prayer is known to accelerate brain waves on electroencephalography in a like fashion to transcendental meditation.⁹ Pressure regulators in blood vessels are also altered during prayer into a relaxation response.¹⁰ The measurable relaxation response induced by prayer can benefit our surgical patients.

In the United States, team prayer is common at sporting events when the results of a mere game are at stake. Shouldn’t prayer among members of a surgical team be commonplace when patients’ lives are at stake? At the center of this team are surgical patients. Shouldn’t they be given the option of participating in prayer with their surgeon? Do patients want their doctors to pray with them? A survey from a group of family physicians revealed that the more serious the medical condition, the more likely an offer to pray with a physician would be welcomed.¹¹ Patients view even what we consider to be minor surgery to be major for them. The poet Emily Dickinson says this well with her verse:

Surgeons must be very careful
When They Take the Knife!
Underneath Their Fine Incisions
Stirs the Culprit—*Life!*

Perceived life and death situations make surgery ripe for our patients to want to pray with their surgeons. Of 300 survey respondents in Oklahoma, 99% accepted prayer initiated by eye surgeons just before their operations.¹² Only 1% of patients stated that they would rather not have been offered prayer. Of patients accepting prayer, 90% felt that the prayer enhanced the relationship with their surgeons.

It is my practice to say a silent preoperative prayer for my patient at the scrub sink. I do extend an offer to pray with my patients in the preoperative area as well. After discussing the operation and answering any questions the patient may have, I say, "I know that some patients like to pray before surgery. If you would like me to pray with you, just ask." If they ask to pray, then I respond, "Would you like to lead?" I hope not to be coercive and realize that prayer in this instance must benefit the patient more than the surgeon. We then pray together in whatever manner the patient chooses. Sometimes patients ask me to lead in prayer. Since I do not volunteer my religious background and do not ask them theirs, I offer a prayer that is non-denominational. If asked, usually I pray, "God, please be with (patient's name) as he/she has surgery today. Guide the hearts, minds, and hands of all the members of the operating team. Please comfort (patient's name) as he/she recovers from surgery and let us do everything according to your will. Amen."

In my experience, roughly 2 of 3 men and 4 of 5 women were willing to share a preoperative prayer. I sought to more scientifically quantify the effects of prayer. After institutional review board approval, an anonymous survey was sent to 393 of my adult patients (208 men and 185 women) who underwent elective hernia repair ($n = 212$) colon cancer surgery ($n = 11$), breast cancer surgery ($n = 21$), laparoscopic cholecystectomy ($n = 124$), or emergent appendectomy ($n = 25$) over a 1-year period (June 2009 to May 2010). These constitute the mainstream of my operations as a general surgeon. The focus of the survey was on prayer acceptance, anxiety reduction, and effects on the surgeon-patient relationship. The survey asked if the offer of prayer with the surgeon was accepted or rejected and if the patient felt free to reject the offer and/or felt offended. If the patient prayed with the surgeon, he or she was asked to grade on a 5-point, Likert-type scale from "strongly disagree" to "strongly agree" whether he or she had preoperative anxiety and whether prayer alleviated that anxiety. Patients were also asked to agree or disagree on the same 5-point, Likert-type scale on whether they felt that prayer with the surgeon improved their operative outcomes and whether prayer enhanced their patient-surgeon relationships. Patients were asked to indicate their gender and type of operation and to include any comments they wished to share.

One hundred eighty-six patients responded (a 47% response rate). None felt coerced, as 100% felt free to reject the offer for prayer. Seventy-nine percent of them accepted the offer for prayer, 5% did not accept the offer, and 16%

did not remember being offered. The lost memory of a prayer offer in those 29 patients could be because the offer was made just before preoperative sedatives were given, with their known amnesic effect, or because the survey was retrospective up to 1 year later. Most of these patients wrote that they would have accepted prayer with the surgeon if the offer were made. Of the 10 patients rejecting the offer, 2 were Christian, 2 were agnostic, and 6 were atheistic. All 10 felt free to reject the offer, but 2 felt offended by the offer (both male atheists who had hernia operations). One of the 2 commented, "I don't pray and it made me think it was really bad going into surgery." Comments from some of the patients rejecting the offer to pray who were not offended were also noted: "I think prayer would be very helpful for some patients, but not for me"; "As long as the surgeon is respectful, and not assuming that everyone is religious, I think that prayer is a very nice thing to offer"; and "I prefer focusing on the surgeon's medical experience and insights over prayer." As a surgeon, I could not agree more that surgical expertise is more important than the offer to share a prayer with a patient, but why cannot a patient who desires prayer have both?

Of the 147 patients who responded as accepting the prayer offer, 91% identified themselves as Christians. Eighty-six percent of patients accepting the offer agreed that the prayer decreased their anxiety (57% strongly agreed). Three percent disagreed. Seventy-nine percent felt that the prayer affected their surgical outcomes in a positive way (52% strongly agreed). Two percent disagreed. Ninety-three percent agreed that the prayer affected their relationship with their surgeons in a positive way (67% strongly agreed). Two percent disagreed. Comments from patients who were atheists or agnostics who accepted the offer to pray with the surgeon included the following: "The offer to pray prior to surgery made me feel closer to my surgeon" and "I'm not a religious person, but was happy to accept the prayer offer. I thought it was great!" A patient who classified herself as a Wiccan/pagan wrote, "Because he was open-minded enough to a prayer within our different concepts of Divinity, I think it was helpful to me."

Christian patients accepting the prayer were very responsive with comments: "Any type of surgery is serious when you are going through it, even if it is minor, so prayer takes away a lot of worry and stress"; "The prayer invoked tranquility instantly"; "I felt so much more prepared to engage in the surgical portion of my treatment with this thoughtful prayer"; "The prayer with the surgeon was one of the most moving moments of my life. Sometimes, when all else fails, we need to touch our spiritual side"; "I was pleased that my surgeon had the courage to offer me prayer"; "I believe prayer builds a stronger bond between patient and doctor"; "I felt unified with my surgeon and it brought me a sense of peace in those moments just before my surgery"; and "Prayer lifted the surgical event to an act of transformation where body, mind, and soul were healed through the convergence of science and religion." Comments from Chris-

tians were not all supportive. One Catholic patient wrote, "Prayer slightly increased my anxiety as it felt like Last Rites. That being said, it didn't bother me enough where I felt it should not be offered to other patients." After seeing that anxiety was increased in a few patients by the prayer offer from this survey, I now preface my offer by stating, "Even though this is a relatively safe operation, I know that some patients like to say a prayer before surgery. If you would like me to pray with you, just ask."

The offer should be an opportunity for the surgeon, if he or she feels comfortable, to share the spirituality of their patients, and perhaps help alleviate their preoperative anxiety. It is not appropriate for this offer to be a religious soapbox from which the surgeon imposes his or her beliefs onto the vulnerable patient. Professionalism involves subordination of the physicians' own interests and religious views to those of the patients. Prayer shared by a surgeon and patient should reflect the beliefs of the patient, but what if the patient's prayer conflicts with the surgeon's spirituality? Surgical professionalism requires respect for cultural and religious diversity. The surgeon must respect patients' religious views even if they are in direct conflict with his or her own. I offered preoperative prayer to a patient who accepted, stating, "Sure, but I'm a witch." We held hands as she led us in her prayer. Surgical ethics demand the surgeon support the patient's prayer without confrontation, and without attempts at evangelization. Also the patient's privacy needs to be maintained. This can be challenging if the preoperative area consists of open bays separated only by curtains. On a different occasion, I found that my voice level was too loud as I had a patient in another preoperative bay overhear me praying with one of my patients. She said, "I know that you are not my surgeon, but I heard you pray with your patient. Would you mind praying with me?" Since that time, I have been more aware of the surroundings to keep the prayer experience private.

So, have I answered the question, "Can prayer help surgery?" While there is not conclusive scientific proof that prayer improves surgical outcomes, it certainly can help

relax an anxious preoperative patient and may help enhance the relationship between patient and surgeon. A surgeon must be comfortable with prayer to offer it. Professionalism can be maintained provided the prayer is offered in a non-confrontational manner and reflects the spirituality of the patient. Surgeons who want the best for their patients need to utilize every tool available, and to quote one of my patients, "Prayer is a powerful tool."

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