Abstract: This paper analyses the relationship between religion and the field of medicine and health care in light of other recent studies. Generally, religion and spirituality have a positive impact on disease. For patients diagnosed with malignancies and chronic diseases, religion is an important dimension of healing. From ancient times, God has been considered an inspiration for the physician’s knowledge and healing resources. Some authors have proposed a brief history of spiritual and religious states that the doctor can apply to his patient. Religiosity and spirituality allow patients to receive better social support and to benefit greatly from resources provided by religious organizations (cultural activities, jobs, and health care counseling). The two terms “religion” and “spirituality” have different meanings but are always in connection. Many studies emphasize that people with greater religiosity and spirituality have a lower prevalence of depression and suicide, better quality of life, and greater survival. Additionally the article discusses the complementary health care benefits of religious fasting. Caloric and protein restrictions promoted by religious fasting were associated with improvement in control or prophylaxis of many diseases and with longevity.

Key Words: religion, medicine, spirituality, divinity, transcendence, patient, well-being, self-esteem, self-concept clarity, religious fasting
Introduction

The relationship between medicine and religion is one of the oldest approaches to healthcare, although its importance has recently been reconsidered. As Daniel Sulmasy stated, “Religion is the oldest form of medical practice,” and in recent years there has been a great resurgence of interest in the healing potential of spirituality and religion. A number of recent studies indicate that religious practice was associated with some healthcare skills, such as discipline and persistence, that facilitate the intervention of preventive medicine. Religion and spirituality could have a potential positive impact on mental aspects of diseases and healthcare and could influence the quality and length of life. In practice, patients who believe in the healing power of religion can have a better prognosis of the condition treated. A multimodal approach to human health can help doctors and clinicians to assure the comfort of patients on multiple perspectives: biomedical, spiritual, philosophical, and sociological. Complementary and alternative medicine are more related to religion and spirituality, but there are not many studies regarding religious characteristics of alternative medicine practitioners.

Religion and spirituality are also important aspects of mental health. A psychological exploration of the variations in beliefs and expressions of distress in treated patients is important. The study of mind-body relations has begun to dissect the complex mechanisms by which the brain can influence peripheral biology and how the relationship between doctor and patient could influence the patient’s psychological state. Being a major component of human communities, religions can be involved in providing recommendations (if not entire public policies) on various modern treatments (e.g., organ transplantation, of which every major religion has stated a position), and it is preferable to entertain a dialogue between religion and medicine than to solve dogmatic misunderstandings of patients. Finally, religion has become an alternative for patients diagnosed with malignancies or for those emigrating to a new country and experiencing stressors like a new language, adaptation, finance challenges, and solitude, although more empirical studies investigating these correlations are needed.

Spirituality and religion – the terms

The terms “religion” and “spirituality” are not superimposable. Spirituality has a dimension conferred by the importance of ancestral origin, contained in human beings. The term religion is directly linked to different types of beliefs and rituals and customizes them. However, when suffering is caused by an organic disease, the spiritual dimension of human being is amplified, with a definite tendency to deepen the religious
ideas and practices. At the beginning, religion was, first of all, a matter of impulse and feeling. In other periods of history, the cognition and the rational element have been dominant. In his book, “Reason and Belief,” Brand Blanshard noted that, in moral judgment and life, there was a long struggle between reason and feeling.6

Daniel Sulmasy defines spirituality as the way in which a person uses divinity to make a connection between his own being and transcendence.7 By contrast, a religion is composed by many rituals and practices that are respected by a community in their relationship with the transcendent. In this respect, spirituality can be seen as a form of belief in God, but in ways designed to fit the individual. In industrialized countries, especially in the US, many people consider themselves spiritual but not religious. They are still part of some particular religious communities, where they can practice their rituals diligently and keep their minds and souls open to divinity. Sometimes, patients who became seriously ill can reassess the importance of faith and religious practices. In the relationship between doctor and patient, spirituality expands its meaning, bringing into discussion the spiritual qualities of the healer like compassion and gentleness and the patient’s optimism and courage in the face of disease. Compassion and positive intention should complete the everyday activities of healthcare professionals.8

The major distinction between religiosity and spirituality was also suggested by Thoresen and Harris (2002) and cited by Lim and Yi (2009)9. In this opinion, religiosity reflects a social and institutional nature, whereas spirituality is related more to individual trust and experience. The differences could be highlighted by conducting surveys:

- spirituality could be investigated with a range of questions about peace, transcendence, joy, and compassion;
- questions about religiosity should emphasize the practice of participating at religious ceremonies and meeting certain canons.

However, in many cases, the two entities are not mutually exclusive, but complementary. The relationship between religion and spirituality becomes more significant when social support is needed to help patients.

Even though the Cambridge dictionary defines spirituality as the quality of being concerned with deep religious feelings and beliefs rather than physical aspects of life,10 the most important component of the term refers to a specific attribute of human existence that is not present in every person. Larson mentioned the positive influence of religiosity on physical and mental health.11

The relationship between health and spirituality is discussed in many recent articles that attempt to define its concept and religious differentiation. As a consequence, the rate of publications on related matters has increased by 688% over the last 30 years.12 In an original article, published in 2010, Eltica de Jager Meezenbroek summarizes the definitions of the concept of spirituality proposed by various authors13:
• “the way in which people understand and live their lives in view of their ultimate meaning and value”14
• “a subjective experience of the sacred”15
• “a quality that goes beyond religious affiliation, that strives for inspirations, reverence, awe, meaning and purpose, even in those who do not believe in any good.”16.

In this paper, the authors show the importance of utilizing a variety of questionnaires in order to assess components of spiritual or religious characteristics that define a person, especially in people suffering of chronic or life-threatening disease. Questionnaires exploring the religiosity of a person may be applied especially in those regions where a monotheistic experience is predominant and believing in God or experience of God is prevalent.17 In other regions, like many countries in Western Europe, although many people do not believe in God, they are interested in spirituality. The authors focused on spirituality questionnaires that transcend a specific religion and are suitable for both religious and non-religious people. Six multidimensional spirituality questionnaires were discussed, evaluating psychometric qualities, item formulation, and possible confusion with physical and psychological well-being questions18:

• Spirituality Assessment Scale (SAS)19
• Spiritual Involvement and Beliefs Scale (SIBS)20
• Spiritual Transcendence Scale (STS)21
• Spiritual Well-Being Questionnaire (SWBQ)22
• Prague Spirituality Questionnaire (PSQ)23
• WHOQOL Spirituality, Religion and Personal Beliefs (WHOQOL SRPB).24

Given the conclusions of these recent articles, the differences between spirituality and religion should be interpreted in a nuanced way: spirituality has the broadest meaning, one that transcends any particular religion.

**Spirituality and religion in the physician-patient relationship**

In ancient times, treatments were religious rituals and the traditional tribal healer was the shaman. The importance of healing was recognized in the West, where the Judeo-Christian heritage has been dominant. In the period of ancient Judaism, “scientific Hippocratic medicine” was introduced and the moral legitimacy of healing by physicians rather than priests was recognized.25 According to the Jewish view, later adopted by early Christianity, God was considered an inspiration for the physician’s knowledge and healing resources, alternative and herbal medicine being closely related to religion and the power of prayer.
As William Osler said, “Faith has always been an essential factor in the practice of medicine,” and for humanistic medicine, mind, body, and spirit are integrally connected. In the 17th and 18th centuries, for the field of psychiatry, religious and spiritual activity was believed to be central to cure. In the late 19th and early 20th century the work was based on the psychoanalysis introduced by Sigmund Freud. After that, a new era began when psychiatrists introduced oral medication and chlorpromazine was discovered in 1954. In the mid-1990s began the “age of empowerment and consumerism” that continues today. In this sense, human encounter with modern medical technology can be seen as a move away from religion and spirituality, since it takes into account more than the total amount of biological life and lack of value in death. The modern world puts emphasis on “biotechnology of immortality,” introducing techniques such as organ transplantation, organ freezing and removal of stem cells or the cloning process. At the European level, following the resolution of the European Parliament, the representatives of churches and organizations of civil society decided to take part in this effort to find legal ways of promotion and implementation of organ transplantation.

Sometimes patients who are seriously ill become more religious and raise many questions about the meaning of life, suffering, death, and afterlife. Many patients want their spiritual needs addressed by their physician directly. Considering demographic factors, it was demonstrated that association between race and religiosity is variable: Levine et al., using data from four national surveys of religiosity, found a positive association between African-American race and religiosity. Doctors and psychiatrists should adapt existing therapies to a patient’s spiritual level and type of religion. This could be important because every patient wants to be treated as an individual, not as a case of a manifesting disease. Patients, made vulnerable by their illnesses, have a trust relationship with their physician, who made a commitment to seek the patient’s wellbeing and protect the patient from harm. Patients must feel respected by their physician, who has to state the first ethical guideline because patients have their own distinctive values and spiritual issues.

Some authors offer a brief history of spiritual and religious status that the doctor can apply to his patient. Puchalski and colleagues proposed that patients be asked the following four questions:

- Do you consider yourself spiritual or religious?
- How important are these beliefs to you, and do they influence how you care for yourself?
- Do you belong to a spiritual community?
- How might health care providers address any needs in this area?

Some authors have produced sets of questions, grouped by an acronym, to evaluate, in short, the spiritual and religious status of the patient. Two such acronyms are presented in table 1.
FICA (Puchalski 35)

F: Faith and beliefs
I: Importance of spirituality in the patient’s life
C: Spiritual community of support
A: How does the patient wish spiritual issues to be addressed in his or her care?

SPIRIT (Maugans 33)

S: Spiritual belief system
P: Personal spirituality
I: Integration with a spiritual community
R: Ritualized practices and restrictions
I: Implications for medical care
T: Terminal events planning

Table 1. Two examples of spiritual history customized by the acronym, (Daniel P. Sulmasy, 2009)

Using the data of Puchalski and Maugans (table 1), a consensus panel of the American College of Physicians has proposed four simple questions that physicians could ask patients 34:

- Is faith (religion, spirituality) important to you?
- Has faith been important to you at other times in your life?
- Do you have someone to talk to about religious matters?
- Would you like to explore religious, spiritual matters with someone?

When physician and patient are religious, even if they belong to different religions, there can be joint efforts to harness the power of faith healing. But, the most indicated practice is to follow the patient’s lead. Clinicians need to have more extensive conversations with religious and nonreligious patients in order to define their needs and understand their sources of spiritual support. Clinicians could explore the patient’s genuine need but not pushing religiosity; sometimes, contacting the patient’s religious community is sufficient. Other patients may belong to some sort of humanistic organization and they may find solace in poetry, music, or art.35

A 2009 article assesses the importance of psychological and religious support to two disadvantaged groups (immigrants or breast cancer survivor women) in a population of Korean origin.36 In a study regarding the spiritual needs of cancer survivors, 83% responded that they had religious faith.37 Immigrants also tend to search for religious belief systems...
as a venue to retrieve and exchange diverse information. The study concluded that cancer experience requires medical treatment as well as psychological and emotional support that provide comfort and reduce the stress of illness and consequences. Patients also need educational programs containing information about the disease, type of treatment, and side effects. Religiosity and spirituality allow patients to receive better social support and to benefit greatly from resources provided by religious organizations (cultural activities, jobs and health care counseling). After immigrating, many members of American community tend more frequently to search for establishing relations with churches and belief systems. Lim Jung-won explained how important it is for Korean Americans to have connections with Korean churches where they can meet other Koreans and speak Korean.

Another way in which religion actually does impact human life is the way in which it influences the state of physical and intellectual well-being. According to Jones (2004)\textsuperscript{38} and Blazek\textsuperscript{39}, there is substantial evidence that people’s religiosity is linked to some positive mental outcomes like self-esteem, self-concept clarity, and well-being. In 1990, Campbell introduced the term “self-concept clarity,” which defined a person’s ability to clearly define his association with a high belief and faith and proving stability, determination, and conscientiousness.\textsuperscript{40} After that, research showed that a high level of self-concept clarity is correlated with mental health and self-esteem.

The relationship between religiousness and well-being was the subject of several meta-analyses. In 1985, a meta-analysis conducted by Witter et al.\textsuperscript{41} revealed that religiousness was weakly but positively associated with subjective well-being ($r = 0.16$). In 2003, Smith et al.\textsuperscript{42} showed a negative relationship between intrinsic religiousness and depressive symptoms. In opposition, extrinsic religiousness was associated with poorer mental health and depressive symptoms.

More recently, Steger and Frazier (2005) published several studies about the relationship between religious behaviors, life satisfaction, meaning in life, and well-being. They emphasized that “religious individuals might feel greater well-being because they derive meaning in life from their religious feelings and activities.”\textsuperscript{43} In another study, led by her own team, Magdalena Blazek pinpointed more clearly the features of the extrinsic type of religious orientation. Extrinsic religious orientation is an instrumental approach to religion that does not help someone to better define personal goals and to find the true meaning of life. For this reason, this religious approach is correlated with low self-esteem and low well-being.

The relationship between medicine and religion has also been developed on the other side, with some countries initiating pilot medical curricula including religious education for future doctors. Such pilot medical school programs have been started especially in some of the
countries where religion plays an important role in community life, such as the US. Thus, 83% of Americans confessed that “God is highly important in their life,” 79% of respondents believed that spiritual faith can help doctors to cure diseases, and 63% felt that physicians should ask patients about their spiritual and religious beliefs. The authors developed and piloted a workshop on spirituality and medicine that included all 105 second-year students and all 60 primary care residents in the 2000-2001 academic year. Various objectives were carried out for every group of students:

- design and distribution of the spiritual assessment pocket card
- inclusion of the spiritual assessment during the medical anamnesis (the FICA questionnaire proposed by Puchalski was used for spiritual assessment)
- discussions about the differences between religion and spirituality and about studies associating religion and spirituality with health or illness
- debate on the possible implication and participation of pastoral services in the patient healthcare program.

After the end of the evaluation, the results indicated a modest effect on medical students and residents regarding the importance of completing the medical history together with a spiritual and religious one. The most important achievement was the possibility of better identifying the patients in need of significant spiritual support to overcome the disease.

In a similar study, the knowledge and attitude of nurses regarding the spiritual and religious support for patients healthcare were evaluated. For nurses, fear of offending patients and lack of time were the most common barriers to initiating such a discussion with their patients. Lack of available time is a feature of modern medical systems, overtaken as they are by administrative and bureaucratic issues. According to traditional concepts, nurses are trained to help patients and alleviate their suffering. The authors said that “nurses are not only responsible for the patient’s material dimension when delivering care; the patient is a live being who suffers in his/her whole: body, mind and spirit.”

Studies show that most nurses and more than half of the professors from the nursing school considered the teaching of spiritual care during medical courses as important and necessary.

The health-related effects of religious fasting

Fasting, defined as a partial or total abstention from prohibited foods, is a potential non-pharmacological intervention with religious implications for improving health and increasing longevity. Medical literature describes three types of restrictions associated with fasting:
caloric restriction (CR): reduction of kilocalorie intake by a certain percentage (typically 20 – 40%) of ad libitum consumption
alternate-day fasting (ADF): alternating 24-hour periods (during the “feast period” the food is consumed ad libitum while during the “fast period” food consumption is restricted; water is allowed ad libitum during all times)
dietary restriction (DR): reduction of one or more components of dietary intake, especially animal protein, with minimal to no reduction in total kilocalorie intake.

In normal conditions, the food intake is in a relative energy balance with immediate needs. When caloric intake is greater, the metabolism has an anabolic phase and the substrate is stored as glycogen, fat, and structural proteins. This phase is mediated by insulin and lasts for approximately four or five hours. After this begins the catabolic phase: the liver releases glucose, and adipose tissue release glycerol from lipolysis. Catabolic metabolism is controlled by regulatory hormones like glucagon, epinephrine, cortisol, and growth hormone. In normal individuals, in the days of Ramadan, there is a slight fall in average blood glucose levels and an average weight loss of 1.7-3.8 kg. These considerations about the influences on metabolism are more important in patients with diabetes, and for this category, the Organization of the Islamic Conference has published special recommendations. Diabetics in high risk groups (for example, those with a history of recurrent hypoglycemia, poor glycemic control, with advanced complications like diabetic nephropathy and retinopathy) are prohibited from fasting.46

For several religions such as Hinduism, Buddhism, Judaism, Islam, Seventh-Day-Adventism, and Orthodox Christianity, religious fasting is considered a time of great spiritual growth, when approximation of faith and divine contemplation is facilitated.

Ramadan fasting is similar to ADF because both fasts incorporate feast and fast periods. Each year, during the holy month of Ramadan, which lasts between 28 and 30 days, eating and drinking are forbidden from sunrise (Sahur) to sunset (Iftar). Muslims consume a greater variety of foods during Ramadan compared with the rest of the year, and sugary foods and drinks are consumed more frequently. In the period of Ramadan fasting, the faithful consume one large meal after sunset and one lighter meal before dawn, and smoking is forbidden. Few definitive conclusions can be made regarding the effects of Ramadan fasting on human health, because the data about the quantity and quality of food is not uniformly reported.47

For Greek Orthodox Christians, consumption of cheese, eggs, fish, meat, milk, and olive oil is restricted for 180 – 200 days each year, when the faithful eat only bread, fruits, vegetables, nuts, seafood, and snails. The fasting days are all Wednesday and Friday, 40 days during the Nativity fast, 48 days during Lent, and 15 days during Assumption. This period is
considered a variant of vegetarianism and also of DR. In sum, Greek Orthodox Christian fasting appears to:

- lower body mass
- increase carbohydrate intake and decrease intake of protein, total and saturated fat
- increase fiber intake
- not modify the intake of most vitamins and minerals, although riboflavin and calcium intake appear to decrease, and magnesium intake appears to increase
- mention mixed findings about hematological variables and blood pressure.

In the study of Sarri et al., it was showed that religious adherence to a periodic vegetarian Mediterranean-style diet did not significantly influence blood pressure levels, but same authors reported a beneficial contribution to lipid profile and possible impact on obesity.48 Several studies support the finding that the dietary intervention could also influence apolipoprotein E polymorphism, and the possibility that subjects carrying the ε4 allele are the most responsive to low fat diets.49

The Daniel fast was inspired by the biblical story of Daniel who requested permission to consume nothing but vegetables and water for 10 days and another period of 21 days without meat and wine. The Daniel fast is a form of DR and resembles a vegan diet restricted to fruits, vegetables, whole grains, legumes, nuts, seeds, and oil. In one study that examined the health-related effects of the Daniel fast, significant improvements in blood pressure, lipid profile, biomarkers of oxidative stress, as well as a decrease in insulin levels and C reactive protein were reported.

Numerous researchers have recognized the beneficial role of the Mediterranean diet in cardiovascular diseases, and the protective effect in terms of cancer and longevity have also been noted. In addition, supplementary studies have associated religiosity with good health. Recently, Chliaoutakis et al. found that faithful Orthodox Christians adopt healthier lifestyles and that religion has a substantial impact on mental and physical health-related behaviors.

Some of the interest in the potential health benefits of fasting was initiated when clinical and experimental studies were found to show that caloric restriction could improve health and extend lifespan. Caloric restriction is the reduction of caloric intake - typically by 20 - 40% of ad libitum consumption - while maintaining adequate nutrient intake. Caloric restriction reduces the morbidity for many diseases like autoimmune diseases, atherosclerosis, cardiomyopathies, cancer, diabetes, renal diseases, neurodegenerative and respiratory diseases, and consequently results in increased longevity.50 Cardiovascular and metabolic systems are significantly influenced by long fasting periods and caloric restrictions, which apparently:

- lower total cholesterol, triglycerides51
- normalise blood pressure
- stabilize carotid intima-media thickness, a marker of atherosclerosis
- attenuate the age-related decline in diastolic function of the heart
- promote glucoregulatory health: circulating insulin and glucose levels decrease while insulin sensitivity increases
- attenuate oxidative stress.

In addition, in elderly persons with low-calorie diets, increased neurological and memory performance were reported. A negative aspect appears to be an increase in the loss of bone and muscle mass after a long period of caloric restriction.

Conclusion

This study has explored some aspects of the possible positive impact of religion on various mental and physical health outcomes, including physician-patient spiritual interaction. Doctors and clinicians should not “prescribe” religious cures but they may learn about the ways in which religion and spirituality could influence a patient’s disease, duration, and quality of life. Although it is not appropriate for every patient, the physician could extend the history in order to ask important ideas about the spiritual dimension of a patient’s life. Participation in religious organizations has been associated with increased consumption of fruits and vegetables and decreased consumption of fatty food; many recent papers have evaluated the influences of fasting periods on physical health. In modern practice, religious fasting is not only a period of spiritual growth but also a time of improvement in mental and health status.

Notes:

8 Davidson, 389.
17 Meezenbroek et al., 2.
18 Meezenbroek et al., 5.
19 J. W. Howden, Development and psychometric characteristics of the spirituality assessment scale, (Ann Arbor: Texas Woman’s University, UMI Dissertation Services, 1992).

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