WHEN MUST A PATIENT SEEK HEALTHCARE? BRINGING THE PERSPECTIVES OF ISLAMIC JURISTS AND CLINICIANS INTO DIALOGUE

by Omar Qureshi and Aasim I. Padela

Abstract. Muslim physicians and Islamic jurists analyze the moral dimensions of biomedicine using different tools and processes. While the deliberations of these two classes of experts involve judgments about the deliverables of the other's respective fields, Islamic jurists and Muslim physicians rarely engage in discussions about the constructs and epistemic frameworks that motivate their analyses. The lack of dialogue creates gaps in knowledge and leads to imprecise guidance. In order to address these discursive and conceptual gaps we describe the sources of knowledge and reasoning employed by Islamic jurists and clinicians to resolve the question of when a patient must seek healthcare. As we examine both the scriptural evidence and legal reasoning of jurists and the types of medical evidence used by clinicians to address the same question, we draw attention to the epistemic frameworks and constructs at play and identify how constructs from one field may sharpen the deliberative exercises of the other. Hence our work advances discourses at the intersection of Islam and medicine and offers building blocks for a comprehensive Islamic framework that fully integrates the deliverables of medical science within the deliberations of Islamic jurists.

Keywords: bioethics; harm; *ijtihad* (study of Islamic principles to derive legal opinions from the law); Islamic law; medical decision making; moral reasoning; Shar'iah

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Seeking healthcare within the confines of contemporary biomedicine presents profound challenges to religiously devout patients. The current practice of medicine largely draws its understandings of the body, illness, cure, and disease from a post-Enlightenment intellectual heritage where

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scientific data are separated from religious metaphysics, and contemporary medical training reflects this separation by teaching a "secular" practice to healthcare practitioners. As a result, physicians rarely learn about the faith commitments that might inform the healthcare behaviors and decisions of patients, nor do they gain knowledge about how religious authorities evaluate clinical treatments in light of religious doctrines and values. This knowledge gap is made more conspicuous by the fact that religious beliefs, values, and identity impact many aspects of health behaviors and healthcare delivery. Indeed, a growing body of research demonstrates that religious beliefs and values inform a wide variety of health behaviors and healthcare decisions, and that religious values impact health outcomes in many diverse patient populations (Koenig 2008; Padela and Curlin 2013). Given the salience of religion to health and healthcare, clinicians who cannot successfully engage with their patients' religious understandings and frameworks may be poorly equipped to adhere to the preferred model of the patient–doctor relationship where the physician helps to elucidate the types of values embodied by specific healthcare choices and aims to help the patient determine and choose the best health-related values that can be realized in the clinical situation; a physician's lack of understanding about his patients' religious values and frameworks would frustrate nuanced discussions and religiously concordant healthcare decisions (Emanuel and Emanuel 1992).

The knowledge gap at the intersection of religion and medicine is more profound for the Muslim community (particularly patients and those residing in a minority context) because not only do most clinicians (Muslim and non-Muslim) have insufficient training in the religious dimensions of health and healthcare, but religious leaders (whether local Imāms, academicians, or traditionally trained *ulama*) rarely have sufficient medical understanding to attend to the moral dimensions and ethical challenges of biomedicine. For example, a recent national survey of 255 American Muslim clinicians found that while only two had degrees in Islamic law, most physicians rarely or never sought guidance from Islamic jurists and from Islamic juridical council decrees on bioethics when facing ethical dilemmas in medicine; and the majority neither consulted books on Islamic bioethics or attended Islamic bioethics workshops and seminars (Mahdi et al. 2016). Importantly, the majority of survey respondents in this study rated as high on most measures of religiosity and noted that Islamic values influence their medical practice, suggesting that Islamic ethico-legal[1] knowledge deficiencies may be greater in other less religious Muslim clinician groups. While these data are limited in their generalizability and speak only to the Islamic ethics and law knowledge of American Muslim clinicians, they provide insight into the knowledge gaps at the intersection of Islam and biomedicine that plague practicing physicians. Nonetheless, Muslim clinicians attend to the bioethical needs of the Muslim community and those

who provide healthcare to Muslim patients. Muslim physicians may do so via authoring position papers and journal articles, or through providing consultations to local Imāms and community members, and also within the confines of the patient–doctor relationship (see for example Albar 1996, 2007; Fadel et al. 2005; Rady, Verheijde, and Ali 2009; Afshar and Bagheri 2011; Chamsi-Pasha and Albar 2015). Yet these outputs may be problematic given the lack of knowledge of the Islamic tradition Muslim physicians might have, as suggested by a recent review of Islamic bioethics papers in the medical literature. That review of over fifty years of articles found that less than five percent mention sources of Islamic ethics and law and less than ten percent report multiple Islamic ethico-legal positions (Shanawani and Khalil 2008).

While detailed studies of the medical knowledge of Islamic jurists are lacking, some studies suggest that jurists might not be sufficiently learned about medical science and healthcare practices to fully account for these fields in their ethico-legal pronouncements (Padela, Shanawani, and Arozullah 2011; Padela, Arozullah, and Moosa 2013; Moosa 2012; Ghaly 2015). For example, Ghaly's research about specialist Islamic juridical councils finds that jurists rely upon the testimony of physicians for nearly all of their biomedical knowledge and rarely investigate physicians' claims about scientific data and medicine (Ghaly 2015). Padela's studies of the bioethics-related verdicts from these academies regarding brain death further illustrate conceptual ambiguities and a lack of specificity that render juridical verdicts difficult to apply in medical practice (Padela et al. 2013). Consequently, although Islamic scholars must account for biomedical data and social practices in order to formulate Islamic perspectives on bioethics, deficient understandings of biomedicine and an underdeveloped techno-scientific conceptual vocabulary challenge their ability to address the needs of healthcare stakeholders.

Experts from fields that bridge healthcare and the Islamic tradition, such as Muslim chaplains, might be able to bridge the aforementioned knowledge gaps. These experts, however, are rare and their competencies at the intersection of Islam and medicine are variable; there are few Muslim healthcare chaplaincy programs in the United States and the curricula in Islamic theology and law of these training programs varies considerably (Gilliat-Ray, Pattison, and Ali 2013).

In summary, both Muslim clinicians and jurists have to place the practices of the medical profession into "Islamic" ethico-legal categories while taking into account the social conditions of healthcare. However, it appears that Muslim clinicians, in general, are challenged in doing so because of deficiencies in their knowledge of Islamic ethics and law and that jurists' decrees are, broadly-speaking, frustrated by their inadequate understanding of biomedical concepts and healthcare practices. Even so, both classes of experts remain sequestered in their disciplinary circles and continue to

address the moral dimensions of biomedicine and serve as resources for patients and other healthcare stakeholders.

The present article aims to fill in knowledge gaps at the intersection of Islamic law and the practice of medicine in order to enhance the work of jurists, clinicians, and others working at this interface. We will examine the reasoning exercises of clinicians and Islamic jurists with respect to the question of whether (and when) one should seek medical treatment. Our inquiry will begin by exploring the ethico-legal status of seeking medical treatment from the perspective of the four classical Sunnī Islamic legal schools (pl. *madhāhib*; sing. *madhhab*) and will underscore how medical knowledge, and consequently the deliverables of modern science, are conceived by jurists. To provide greater insight into epistemic frameworks impacting juridical assessments of the moral status of the seeking of medical treatment, we will next discuss notions of knowledge and certainty within the Islamic intellectual tradition. Subsequently, we will discuss notions of knowledge and research evidence within medicine in order to gain insight into how the medical community assesses its own practices. This exploration will pave the way for a discussion of an Islamic conception of harm, since the removal of harm undergirds both juridical and medical practices and ethical theories. We will conclude by commenting on how methods from the medical sciences can help inform Islamic ethico-legal constructs, and how these might inform medical practice. By drawing attention to the epistemic frames, data sources, methodological constructs, and reasoning exercises of these often "silo-ed" disciplinary experts, this article aims to uncover avenues for critical and nuanced dialogue between clinicians and jurists over the ethico-legal evaluation of healthcare. Such dialogue will, in turn, allow physicians, jurists and other stakeholders to better apply diverse methodologies in analyzing the moral dimensions of biomedicine.

Islamic Juridical Views on the Obligation for Muslims to Seek Medical Treatment

Before describing Islamic juristic positions on the moral status of seeking medical care, a few caveats regarding the proceeding analyses must be noted. Islam is divided into two major theological sects: Sunnī and Shīʿī, with approximately 85 percent of Muslims considering themselves to be Sunnī (Pew Research Center 2009) While Sunnī and Shīʿī theology share much in common, they diverge on who they consider as authorities on scriptural interpretation, the role of reason in setting moral values, and methods for assessing scriptural authenticity. For example, a salient feature that sets apart the Sunnī and Shīʿī schools of law is the Shīʿī notion of an infallible Imāmate which carries over into ethico-legal theory because the statements of the Imāms represent an authoritative source of law. Consequently Sunnī and Shīʿī sects have their own distinctive moral theology (*uṣūl al-fiqh*).[2]

This article will focus on only on the Sunnī schools of law, which are the authors' area of expertise and because the Sunnī schools share the same moral theological frameworks and mutually recognize each other's truth claims, thereby allowing a coherent presentation. A *madhhab*, or a school of law, in the Islamic legal tradition consists of a body of legal opinions and hermeneutics developed by the eponymous founder of the school. The term applies to the founder's legal opinions as well as the opinion of jurists who subscribed to the hermeneutic of the school. The four extant Sunnī schools of law are the Ḥanafī, Mālikī, Shafiʿī, and Ḥanbalī. Within the extant Shiʿī tradition there are two schools of law: Jaʿfarī and Zaydī.

Furthermore, our presentation will be restricted to discussing positions propounded within the Sunnī schools of law and not cover opinions of Sunnī jurists working outside of the traditional legal school framework. Within a legal school, one encounters a variety of positions on any given issue or set of issues. Sunnī schools have developed a framework for navigating this diversity. The framework provides a hierarchy of authorities and a classification schema that allows for navigating the various opinions within a school. For example, the term *al-aẓhar* refers to the strongest position among the various legal positions held by al-Shafiʿī on a particular issue, whereas the term *al-aṣaḥ* refers to the most correct position among the various positions held by those jurists associated with al-Shafiʿī's legal school but not of Imām al-Shafiʿī himself. Additionally, jurists and their works have been identified as being authoritative within each school due to their reliability and sound scholarship. Each school of law has its own specific terminology and framework for navigating the multiplicity of legal opinions. In this study, we examine the authoritative works of each school and work with the positions that jurists of the school have identified as the strongest. We restrict the discussion to the classical positions recorded in legal manuals and instructional *fatāwā* manuals used within seminaries because these are a source of normativity. *Ad hoc fatāwā*, ethico-legal verdicts issued by trained jurists (*muftis*) on the other hand, often prioritize contingencies and can adopt nondominant stances from within the schools of law in order to resolve the ethical dilemma facing the person seeking the ethico-legal verdict. As such, *fatāwā* may represent exceptions to the rule and are not a main source of study for our purposes.

Prior to delving into the ethico-legal perspectives on seeking treatment, it is also important to recognize that Sunnī jurists of the Mālikī, Shafiʿī, and Ḥanbalī schools hold a five-fold moral classification of human acts: obligatory (*wājib*), recommended (*mandūb*), permissible (*mubāḥ*), offensive (*makrūh*), or forbidden (*ḥarām*). The Ḥanafī school, depending on the strength of the legal evidence, further divides the offensive category into two—prohibitively offensive (*makrūh taḥrīmi*) and merely offensive (*makrūh tanzīhi*), and they add another category of obligatory acts—prescribed (*farḍ*). (See Table 1.) Importantly, this classification of acts

Table 1. Classification of the Moral Status of Actions within Sunnī Islamic Law

Moral status	Supporting evidence from the textual or formal sources of Islamic law	Level of ethico- legal obligation upon the individual[**]
Farḍ[#]	Conclusive textual and contextual evidence from *Qur'an*, *Sunnah*, and/or *Ijmā'* that the action is rewarded in the hereafter	- To perform the action - To believe that the action is an obligation and nonperformance is a sin and punishable in the afterlife
Ḥarām	Conclusive textual and contextual evidence from *Qur'an*, *Sunnah*, and/or *Ijmā'* that the action is punishable in the hereafter	- To avoid the action - To believe that the action is forbidden and its performance is a sin and thereby punishable in the afterlife, while avoiding it is meritorious and rewarded
Wājib[#]	Conclusive textual or contextual evidence, but not both, from *Qur'an*, *Sunnah*, and/or *Ijmā'* that the action is rewarded in the hereafter	- To perform action - Not required to believe that the action is an obligation; however, one should expect reward for performance and consider that nonperformance may be punishable
Makrūh Taḥrīmi[*]	Conclusive textual or contextual evidence, but not both, from *Qur'an*, *Sunnah*, and/or *Ijmā'* that the action is punishable in the hereafter	- To avoid action - Not required to believe that the action is forbidden; however, one should expect reward for avoidance and consider that nonperformance may be punishable
Mandūb or Mustaḥabb	Textual evidence from the *Sunnah* suggests that the action is rewarded	- Encouraged to perform action - Not required to believe that the action is an obligation; however, one expects reward for performance

(*Continued*)

Table 1. Continued

Moral status	Supporting evidence from the textual or formal sources of Islamic law	Level of ethico- legal obligation upon the individual**
*Makrūh Tanzīhi**	Textual evidence from the *Sunnah* suggests that the action is reprehensible	- Discouraged to perform action - Not required to believe that the action is forbidden; however, one should expect reward for avoidance while performance is not held to be punishable
Mubāh	Inconclusive evidence that the action is rewarded or punished	- No obligation to perform or to avoid action

*These categories are exclusive to the Ḥanafī school of law. ** The classification presented here is based on the Ḥanafī school. # There are differences between these two categories within the Ḥanafī School but the other three Sunnī schools use the terms interchangeably.
Adapted from Arozullah and Kholwadia 2013.

affords that afterlife ramifications of an act, as gleaned from scriptural source-texts, are a significant factor in determining its moral status.

Key scriptural source-texts. Before discussing the ethico-legal assessments of the four Sunnī schools, it is important to highlight the key scriptural source-texts that fund the debates. The Qur'an unequivocally ascribes healing to an act of God. In this context, the Prophet Abraham is quoted as stating: "It is He [God] who cures me when I am ill" [26:80], thus establishing God as the sole healer ontologically. With respect to Prophetic directives, on one occasion the Prophet described a group of people who will enter paradise without reckoning saying that, "They have never allowed themselves to be treated by cauterization, nor divined the future by [observing] birds' flight, nor have resorted to [the magician's] charms. Rather, they have put their reliance in God alone" (al-Bukhārī 2002, 1610). Here the Prophet described the reward for avoiding cauterization, a common medical treatment at the time, as entry into paradise without being questioned by God. This statement is in tension with the Prophet's encouragement of his community to seek out medical treatment: "Seek medical treatment, for except for senility (*haram*), God has not created an illness except that He also created its cure" (al-Sijistānī 2009, 6:5). These statements suggest there to be either a recommendation or obligation to seek medical treatment, but also some reward for abstaining.

Indeed the first statement is one of many evidences that arguably suggest that relying on God alone, *tawakkul*, is preferable to seeking clinical therapy. *Tawakkul*, a theological virtue that is often mentioned in the Qur'ān and ḥadīth, is defined as having "confidence in God's providence and renouncing what people possess" (al-Jurjānī 2007, 133). It is a state of the soul where a person solely has expectations in God and does not have any expectations from humanity. *Tawakkul* has generated much discussion among Islamic theologians, jurists, and ethicists as to whether or not exercising this virtue entails abandoning action that would produce the outcome one desires. In other words, must a person not undertake any means towards the desired outcome to have *tawakkul,* and, conversely, does taking means (medical treatment in our case) violate one's complete reliance on God? Many ascetics hold that complete reliance requires that a person must not take any means to alter the condition they are in because doing so is acting against the decree of God. The different positions taken by Sunnī jurists regarding the preferred course of action when ill—taking the means (medicine) or trusting in God alone—in light of the strength of a particular individual's trust in God (as will be detailed below) demonstrates different views on the matter.

The Ḥanafī school of law. The position of the Ḥanafī school regarding seeking medical treatment when ill, as expressed in legal manuals (*mutūn*) such as *al-Mukhtār* of al-Mawṣilī (d. 683/1284) and *Multaqā al-Abḥur* of Ibrāhīm al-Ḥalabī (d. 956/1550), is that seeking medical treatment is permissible action; it is not obligatory even if abstaining results in death. Both texts state, for example, that whoever fasts and does not eat until he dies commits a sin, whereas one who refuses medical treatment until he dies does not commit a sin (Dāmād Afandī 1910, 2:525; al-Mawṣilī n.d., 2:409–410). Another genre of Islamic legal literature, *fatwa*-works, corroborates this position. *al-Fatāwā al-Hindiyyah* citing *Fatāwā Qādīkhān* states that if a doctor tells the patient that he needs a certain treatment, and the patient refuses the treatment until he dies, he does not commit a sin (Shaykh Niẓām 2009, 5:409). *Ta'līl* works detail the evidence and rationale behind this ethico-legal judgment. For example al-Mawṣilī's *al-Ikhtiyār*, his own commentary on *al-Mukhtār*, and Dāmād Afandī's *Majma ʿal-Anhur*, a commentary on *Multaqā al-Abḥur*, state that there is no sin upon the one who does not seek medical treatment "because there is no certainty that this treatment will cure him and it is possible that he will become well without treatment" (Dāmād Afandī 1910, 2:525; al-Mawṣilī n.d., 2:409–410). What we can say thus far, in light of this text, is that the ethico-legal position of this school emerges from concerns about the certainty one can reach regarding the clinical efficacy of medicine; in the Ḥanafī view, God would not make seeking medical care obligatory when there is the lack of certainty about the outcome of treatment.

Looking into further Hanafī manuals reveals details regarding the above position. Badr al-Dīn al-Simāwī's (d. 823/1420) *Jāmīʿal-Fuṣūlayn*, an influential reference work for Hanafī judges and muftis, expands on the qualification (*taqyīd*) of the above stated positions. The removal of harm resulting from an action, he states, is either certain (*maqtūʿun bihi*), probable (*maẓnūn*), or doubtful (*mawhūm*). Eating and drinking to relieve hunger and thirst (both representing harms) are examples of means whose results one is certain of and their abandonment is forbidden because death would surely ensue. Medical treatment, however, belongs to the second (probable) category and refusal is not forbidden.

Importantly, however, al-Simāwī also states that if an individual knows by personal experience that a specific treatment will remove the harm caused by disease then his certainty is taken into consideration and elevates the moral status of taking medicine to obligatory (al-Simāwī 1882). It appears that Hanafī jurists stipulate certainty regarding the removal of harm as the condition upon which seeking medical treatment becomes obligatory—that is, not seeking clinical treatment becomes a sin. And, at least according to al-Simāwī, the certainty of clinical efficacy is judged by the patients themselves. Consequently, whoever has certainty regarding the efficacy of harm removal is obligated to take the treatment. Furthermore, from the discussion of this issue among Hanafī jurists, the fact that a physician may inform a patient of their own certainty regarding a treatment has no bearing upon the moral status of the action to be taken by the patient. In summary, the default ruling of the school is that seeking medical treatment is permissible, and forgoing treatment is not sinful. The moral status is elevated to obligatory upon the condition of patient certainty regarding the removal of illness-related harms by means of the specific medical treatment. In subsequent sections we will discuss what qualifies as certain knowledge in Islamic epistemology and the definitions of harm within the tradition.

With respect to the relationship between varying levels of certainty about the removal of harm and the Islamic virtue of *tawakkul*, refusing to perform an act that certainly will remove harm is not deemed consistent with the virtue of *tawakkul.* And accepting a probable means of removal of harm does not negate *tawakkul*. Rather, abandoning a doubtful means of removing harm is consistent with *tawakkul*.

The Shafiʿī school of law. The foremost authorities on legal opinions in the Shafiʿī school of law are Ibn Ḥajar al-Haytamī (d. 974/1566–67) and Muḥammad ibn Aḥmad al-Ramlī (d. 1004/1596), whose legal opinions are found in their commentaries on the school's central legal text, *Minhāj al-Ṭālibīn* by al-Nawawī (d. 676/1277). Al-Haytamī comments:

> Seeking medical treatment is recommended based on the rigorously authenticated report (of the Prophet Muhammad), "Seek medical treatment. For, except for senility (*haram*), God has not created an illness except that He

> also created its cure." And in another rigorously authenticated transmission it states, "God has not sent an illness except that He also sent its cure." If one avoided medical treatment trusting [in God], then it is a virtuous act (*fa huwa faḍīlah*). The author (al-Nawawī) stated this. Al-Adhraʿī considered [a person not seeking treatment] to be superior explaining that if a person's trust is strong then it is better for him to not [seek medical treatment] but if [a person's reliance in God] is not [strong], then [seeking treatment] is better. He raised an objection to this [position] that the Prophet (God bless him and grant him peace) is the foremost of all who trust in God but he [still] sought out medical treatment. It will be said [in response] that this was done by him to show that legal nature of [seeking treatment].

> Qāḍī ʿĪyāḍ has transmitted that there is consensus (*ijmāʿ*) that seeking medical treatment is not obligatory. This [claim] is opposed by some scholars of our school holding that it is obligatory [to seek medical treatment] in the case of a person who had a wound that they feared would lead to death (*yukhāfu minhu al-talaf*). [The case of medical treatment being recommended] differs from it being obligatory such as in the case of swallowing wine when choking or to apply a dressing to the phlebotomy site because of the certainty of its benefit (*li tayaqqun nafʿihi*). (al-Shirwānī 1972, 3:182–183)

In this passage, the first issue al-Haytamī engages in, as does al-Ramlī in *Nihāyat al-Muḥtāj* (al-Ramlī 1967), is whether a Muslim in a state of illness should adopt the course of *tawakkul*, the virtue of consigning one's affairs to God, or seek out medical treatment. Some jurists held *tawakkul* to be preferred over seeking treatment, yet it is known that the Prophet sought out treatment when he was ill. Would his act of seeking treatment be interpreted as a lack of trust in God? Both jurists deny this possibility and interpret the Prophet's actions as "clarifying its [seeking medical treatment's] permissibility (*bayānan lil jawāz*)" and maintain *tawakkul* and abstaining to be preferable.

This interpretation of the Prophet's acts was not satisfactory to later Shafiʿī jurists such as al-Sayyid ʿUmar al-Baṣrī (d. 1037/1627) who notes, "It is evident that seeking medical treatment is superior because it is from his exemplary practice (*sunnah*), in word and deed. The claim that it was done to demonstrate its legality is a purely forced interpretation with no evidence to support it" (al-Shirwānī 1972, 3:182).

The weight of the school is behind the latter view and the prevailing position is that seeking medical treatment is a recommended act and preferred over simply entrusting one's affairs to God. Furthermore, seeking medical treatment does not indicate a lack of trust in God. Rather, seeking treatment is understood as being fully in line with a person's reliance on God because it is God Himself who, in addition to creating the illness, created its cure.

In addition to reliance on God, one's certitude regarding medical treatment efficacy also plays a significant role, if not a more significant role, in the jurists' reasoning. Shafiʿī theorists hold that when a verb is used by

the Lawgiver in its imperative form, it signifies the act as being obligatory as opposed to being recommended. Notably, the verb in the *ḥadīth* of the Prophet, "Seek medical treatment" is in its imperative form. So what makes jurists judge seeking medical treatment to be recommended and not obligatory as the grammar would indicate? Al-Ramlī explains "seeking treatment is not obligatory, contrary to [the case of] one compelled to eat from a corpse and [the case of one] washing down a morsel of food with wine, due to the lack of certainty (*al-qaṭʿ*) in it being effective, which is contrary to these two cases" (al-Ramlī 1967, 3:19). The lack of certainty about clinical efficacy led Shafiʿī jurists to designate seeking medical treatment as a recommended rather than an obligatory act.

However, according to Shafiʿī jurists seeking medical treatment is generally recommended; if certainty about clinical efficacy exists, then seeking that therapy becomes obligatory, and not seeking it sinful. Somewhat muddying the waters however is the position of some Shafiʿī jurists who allow for high probability (*al-ẓann al-ghālib*) of an illness (i.e., a harm) occurring as sufficient to make the act of not utilizing the treatment available sinful; consequently avoiding sickness becomes obligatory. For example, in the case of dry ablution (*tayammum*), Shafiʿī jurists state that if a physician informs a patient there is a high probability that using water will result in a person getting ill (*al-ghālib ḥusūl al-maraḍ*), then it is forbidden for one to use water for ablution and one is obliged to perform dry ablution instead (al-Shirwānī 1972). Using this line of reasoning, taking preventive health measures to reduce the likelihood of illness (vaccinations, for example) may indeed be obligatory. Further research into the distinctions between preventive and curative health measures as reflected in Shafiʿī law is needed.

In summary, Shafiʿī jurists see no contradiction between seeking medical treatment and trusting in God. Both the illness and its treatment are from God. Yet they hold seeking medical treatment to be a recommended act that only becomes obligatory when clinical efficacy is certain or highly probable (*ghalabat al-ẓann*). The clinical efficacy is ascertained on the basis of physician testimony or the patient's own perception. Giving credence to the physician's analyses represents an entry point for the deliverables of medical science and its rubric for assessing clinical efficacy to enter into juridical deliberations about the moral status of seeking medical treatment.

The Mālikī school of law. Similar to Ḥanafī jurists, Mālikī jurists view medical treatment to be a permissible act, meaning it carries no sin or reward (Ghaly 2010). Illustratively, the chief *mufti* of the Mālikī school in Upper Egypt, Aḥmad al-Dardīr (d. 1201/1786) stated that, "seeking medical treatment is permissible. It may be obligatory . . . the treatment's benefit should be known through the science of medicine. Additionally, further harm should not result [from taking treatment]" (al-Dardīr and

al-Sāwī 1972, 4:770). In this passage, al-Dardīr mentions the topic of certainty of benefit and states that clinical efficacy is to be determined by physicians. While he notes that seeking medical treatment can become obligatory he does not elaborate on what factors need to be present for treatment to become obligatory.

Other Mālikī jurists' deliberations, such as Muḥammad al-Khadīm, demonstrate the importance of epistemological frameworks in the interplay between the concepts of harm, and the virtue of *tawakkul*. Al-Khadīm uses the expression *izālatu-l ḍarar*, the means to remove harm, when referring to medical treatment, demonstrating that illness is considered a harm and its treatment as a means to remove harm. He classifies medical treatments into those whose efficacy medical experts are certain of, ones where clinical efficacy is probable (*maẓnūn*), and those treatments whose efficacy has not been established or has little evidence to support (*mawhūm*). Proceeding with this classification, he presents a framework for determining the ethico-legal status of seeking medical treatment that combines the virtue of trusting in God and knowledge of clinical efficacy. According to him, refraining from using medical treatment whose efficacy physicians are certain of does not qualify as trusting in God. Rather, seeking out treatment is completely in line with placing one's reliance on God. As a result, the ethico-legal ruling is that it is obligatory for a Muslim to use medical treatment when not doing so will have a (certain) fatal outcome (al-Khadīm 2011). As for treatment whose efficacy is *mawhūm*, in order for one's trust in God to be valid such a treatment should not be used. Mālikī jurists hold that this category of treatments is referred to by the Prophet when he was asked to describe people who place their trust in God and he replied, "They have never allowed themselves to be treated by cauterization, nor divined the future by [observing] birds' flight, nor have resorted to [the magician's] charms. Rather, they have put their trust in God alone" (al-Bukhārī 2002, 1610). All of these interventions are not substantiated by evidence and consequently fall in the *mawhūm* category. The second category of treatments, those that are *maẓnūn*, are recommended to be sought out and are not incompatible with placing one's trust in God. Al-Khadīm provides phlebotomy, cupping, and taking laxatives as examples of treatments that fall into this category.

An additional point needs to be made in comparing Mālikī and Shafiʿī juridical views. Jurists from both schools judge the ethico-legal nature of seeking medical treatment in light of the virtue of trust and the degree of knowledge of the effectiveness of the treatment. When considering trusting in God in relation to seeking medical treatment, Shafiʿī jurists emphasize the patient's ability to bear the harm caused by the illness. In other words, if the patient is able to bear patiently with the illness, then trust is the course to adopt in some situations. On the other hand, Mālikī jurists consider the virtue of trust in light of the efficacy of the treatment. If the treatment's

efficacy is established with certainty, then the path of trusting in God is to utilize the treatment, whereas if the efficacy of the treatment is not established, then refraining from such types of treatment is what the virtue of trust entails.

The Ḥanbalī school of law. Jurists of the Ḥanbalī school represent the other end of the juristic spectrum regarding the moral status of seeking medical treatment. The Damascene Ḥanbalī Ibn Mufliḥ (d. 884/1362) states that "seeking medical treatment is permissible; however, not utilizing it is more meritorious. [Imām Aḥmad; the school's originator] unequivocally stated this. In al-Marwūdhī's transmission, [Imām Aḥmad] said, 'Treatment is a dispensation. Not seeking out treatment is a degree higher than it'" (Ibn Mufliḥ 1996, 2:333). Ḥanbalī jurists give preference to the reward for a person to patiently bear the harm caused by the illness and interpret the imperative of the Prophet to seek out medical treatment not as an obligation but as general advice (*irshad*) without moral content.

Ibn Qudāma al-Maqdīsī (d. 620/1223), an earlier jurist and author of the compendium in Ḥanbalī law *al-Mughnī*, declares that using medical treatment is prohibited and sinful when "it is highly probable (*al-ghālib*) that drinking [medicine] or using it will end in fatal results or insanity" (Ibn Qudāmah 2007, 2:52). However, in the case where clinical efficacy is high and there are likely to be no detrimental side effects, then it is permissible to utilize the treatment. However, "it is possible that it [taking medicine] would still be prohibited because one is exposing himself to [the possibility of] death . . . . However, [I hold that] seeking such treatment would be permissible because it is feared that many medical treatments will result in [some] harm and it is only permissible [to use medical treatments] to avoid a condition that is more harmful" (Ibn Qudāmah 2007, 2:52). Notably, in elaborating his reasoning, Ibn Qudāma invokes the legal principles that harm must be removed (*al-ḍarar yuzāl*) and that a low or moderate degree of harm is given preference over a severe harm (*al-darar al-ashadd yuzal b-il-darar al-akhaff*). His reasoning resembles the modern bioethical construct of clinical equipoise, where a balance exists between two or more clinical choices unless a factor entailing benefit or harm favors one over the other.

In summary, the Islamic juridical discourse about whether a Muslim is obligated to seek medical treatment goes beyond scriptural reasoning to involve epistemic evaluations of clinical efficacy and reflections on what it means to avoid harms of illness. Furthermore, jurists consider the theological question of whether seeking medical treatment contravenes trust in God. A salient feature of the jurists' discourse is the lack of emphasis on quantitative descriptions of levels of harm and clinical efficacy. It is possible that this is intentional, because ambiguity begets a degree of flexibility in application. For certainty is a quality possessed by subjects, and this lack of exactitude allows a physician or a patient to arrive at certainty based

on their own particular circumstances. Another possibility is that the lack of emphasis on a quantitative standard is simply a reflection of the lack of precision with respect to efficacy medicine had at the time these classic positions were being formulated.

We believe that in the modern era Islamic jurists should investigate the quantitative standards of clinical efficacy and incorporate them into juristic deliberations regarding biomedicine. As we will touch upon shortly, contemporary medical practice has a sophisticated method for evaluating its own practices, and these frameworks can provide greater specificity to juridical rulings about when seeking medical care might be obligatory.

Prior to moving on to discussing how medical experts deliberate over whether and when a patient must seek medical treatment, a final comment on the relationship between trust in God and seeking medical treatment is warranted. As we have seen above, Sunnī jurists held that seeking medical treatment does not violate a person's reliance in God. In fact, Ḥanafī, Shafiʿī, and Mālikī jurists viewed seeking medical treatment as a confirmation of one's trust in God and, depending on the certainty of treatment, not seeking out medical treatment could qualify as a lack of trust in God. Only among Ḥanbalī jurists do we find a preference given for placing trust in God over seeking medical treatment. It is important to note that all jurists maintain that seeking medical treatment coheres with trusting in God only when the patient maintains the belief that it is God alone who is the healer.

Knowledge and Certainty in the Islamic Tradition

As seen above, the level of certainty attributed to the posited efficacy of medicine is key to judgments about the ethico-legal obligation of seeking treatment. Jurists treat the claims of medical science with a degree of skepticism, and certitude is demanded from medicine in order to certify a Muslim moral obligation to seek medical treatment. To understand the jurists' epistemic claims about medicine, the reader will benefit from a review of the definition of knowledge and the means of acquiring it as well as degrees of knowledge/levels of epistemic certitude as delineated by Islamic legal theorists. This overview will also help us to bring frameworks for assessing clinical certainty as judged by the tools of the medical sciences into conversation with Islamic thought.

In the Islamic ethico-legal sciences knowledge (*al-ʿilm*) refers to propositional knowledge. Ibrāhīm al-Bājurī (d. 1277/1861), for example, defines knowledge as "sheer perception (*idrāk*)" while others hold that knowledge refers to "the perception of a thing or a concept that is in correspondence to the thing itself" (al-Maydānī 1998, 123). Knowledge, according to this latter definition consists of a perception as well as the correspondence of this perception to the object of knowledge itself. The perception resides

in the subject and is susceptible to various degrees of conviction. When a subject is firm (*jāzim*) that the perception is in correspondence with the thing itself, then the subject possess certainty (*yaqīn*). This certainty is arrived at through evidence about the object of knowledge. Certainty here refers to a condition where the evidence for a belief generates in the subject a state where the contrary of the proposition cannot be true, that is the contrary state cannot correspond to the object of knowledge. In other words, certainty does not describe a proposition; rather, certainty refers to a state of a subject regarding a proposition. For example, a person (the subjective pole of knowledge) can have knowledge about the proposition "the balloon is red" only when they hold that the proposition corresponds in some way to the balloon (the objective pole of knowledge). The subject will attain certainty regarding this proposition if they have evidence that the balloon is red and its contrary, "the balloon is not red" cannot be possibly true.

Certainty exists on a spectrum, and there are propositions that have moral valence but need not be certainly held to be true by the subject (the moral agent). The term *al-ẓann al-rājiḥ* refers to propositions about which an individual holds a preponderant conviction (*al-i'tiqād al-rājiḥ*) regarding the correspondence to the thing itself while allowing the possibility of its contrary being true. For example, the subject may believe that the balloon is red, yet he is not totally certain about the evidence for the balloon being red (perhaps the subject has poor eyesight) and therefore there is a possibility that the balloon is not red. When the evidence that the proposition is true outweighs the evidence that the contrary might be true, the conviction is qualified as a preponderant one.

Continuing along the spectrum, doubt or uncertainty (*al-shakk*) represents "indecision between two contradictory propositions without determining one proposition over the other" (al-Jurjānī, 2007, 232). Again, uncertainty here does not refer to the truth-value of the proposition, the correspondence between the proposition and the object of knowledge itself; rather, uncertainty refers to the subject's inability to decide between the two contradictory propositions; the subject is suspended in judgment. An improbable conviction (*al-ẓann al-marjūḥ*, also known as *al-wahm*) refers to the subject having strong evidence that the contrary proposition, "the balloon is not red," is true. Lastly, the proposition "the balloon is red" is considered false (*bāṭil*) when the subject has evidence that indicates with certainty that the proposition does not correspond to the object of knowledge; for example when the object in question is not a balloon or the balloon is green (al-Maydānī 1998, 124–26).

Now that we understand the spectrum of certitude, we can discuss the types of propositions about which humans can reach certainty. Islamic theologians and logicians have identified six types of propositions regarding which a person can arrive at certainty:

(1) Self-evident logical truths or first principles (*al-awwalīyyāt*). These are *a priori* rational truths such as a person's knowledge of their own existence, and that the truth of one proposition implies the falsehood of its contrary. Importantly, this category of propositions does not rely upon sense perception (*al-ḥiss*).

(2) Propositions based upon a person's observations/perceptions of their own inward states (*al-mushāhadāt al-bāṭinah*). States such as hunger, fear, and thirst are implied by this type of propositions. An example would be "I am hungry" or "I ate because I was hungry."

(3) Empirical propositions known via the perceptive faculties of the external senses (*al-maḥsūsāt)*. This category covers propositions such as "the snow is white" and "the sun gives light."

(4) Empirical propositions that are ascertained through experience of the unchanging course of events in the natural world (*ittirād al-ādāt*) are termed *al-mujarrabāt.* Examples include "fire burns" and "bread satiates."

Differentiating between propositions known via experience, *al-mujarrabāt*, and those that are known via sensory perception, *al-maḥsūsāt*, al-Ghaẓālī states:

> Knowledge obtained through experience is known with certainty to the one who experiences it and people differ regarding this knowledge based on their difference in experience. For example, the physician's knowledge that scammony is a laxative is like your knowledge that water quenches thirst . . . these propositions are different than propositions known through sensory perception. For what the senses perceive is "this stone falling to the earth," but the proposition "all stones fall to the earth" is a general proposition, not a particular proposition and sense perception only generates specific propositions. Similarly, if one came upon a liquid and consumed it and consequently became intoxicated, one could not judge that this type of liquid intoxicates because sensory perception only perceives one specific event of drinking and intoxication. Making a judgment regarding the type of liquid is made by the intellect . . . by perceiving the phenomenon time after time, for knowledge is not obtained from a single occurrence. (al-Ghaẓālī n.d., 1:45)

In al-Ghaẓālī's understanding, both an expert and a layperson can reach certainty regarding classes of propositions within *al-mujarrabāt* depending on their particular experiences. A physician will have certainty regarding the proposition that scammony is a laxative because that certainty is arrived at after the physician observes on multiple occasions that the particular substance is associated with a particular effect. The repeated action allows for moving from a single observance based on the senses to a universal assertion, from *al-maḥsūsāt* to *al-mujarrabāt*. Importantly, the claim is a general one about a class of activities and not simply specific observation;

"fire burns," not "this fire burned so-and-so." According to al-Ghaẓāli, the difference between the proposition "this stone fell to the earth and "all stones fall to the earth" is a subtle syllogism (*qiyās khafī*) made by the subject after multiple observations of stones falling to the earth by the subject's senses. The syllogism, according to al-Ghaẓālī, takes the following form: "Were this not the cause that brings out the effect, it would not be observed in majority of cases, and were it coincidental, it would not be observed [in some cases]" (al-Ghaẓālī n.d., 1:46). Thus the observing of the cause along with the effect along with the nonobserving of the cause without the effect allows the subject to arrive at certainty regarding *al-mujarrabāt*. Furthermore, al-Ghaẓālī highlights the difference between an expert and a layperson where the layperson is exposed to a limited number of observations while the expert can draw upon a greater number of observations, and accordingly the expert can have greater certitude about a proposition.

(5) Mass-transmitted reports (*al-mutawātirāt*) about observable phenomena. An example of this type of proposition is "Chicago exists." These propositions are transmitted by such a large number of people such that we would consider it an impossibility for such a large number of people to conspire together and report a lie.

(6) Propositions generated from intuition (*al-ḥadsīyāt*). These propositions reference natural phenomenon but differ from *al-mujarrabāt* in that they are not directly observed/experienced by the subject and are intuited, for example, "the moon derives its light from the sun" (al-Ghaẓālī n.d).

Returning to claims about medical sciences, Islamic moral thinking sheds light on the verification and falsification of claims, which are a mainstay of modern hypothesis testing. The jurists' rulings seem to acknowledge that medical science might be able to deliver certainty about clinical efficacy, and when that is the case this evidence would undergird a moral obligation to seek treatment. However, Ḥanafī jurists hold that certainty over clinical efficacy is to be arrived at by the patient while the Shafiʿī and Mālikī schools admit physician claims regarding clinical efficacy. Since jurists of the Ḥanbalī school view refraining from therapy as praiseworthy, discussions regarding who is to determine clinical efficacy are superfluous. Certainly one could argue that the association between a specific therapy and removal of harm from illness can be observed by the patient in only a limited number of observations and thus, while certain in the mind of the patient, the claim might not be sufficient for making a universal claim of clinical efficacy. At the same time, admitting physicians' claims through intuition and empirical observation might substantiate claims of certainty over clinical efficacy. To demonstrate how this might operate let us work through a clinical scenario.

Imagine a 15-year-old patient with abdominal pain that migrated from the periumbilical area to the right lower quadrant over the past day along with nausea, anorexia, and fever. The patient could assert that he has abdominal pain, nausea, and loss of appetite (all inward states and therefore part of *al-mushāhadāt al-bāṭinah)* and this claim is treated as certain knowledge. From the patient's description of the pain and other symptoms, the physician may surmise that the pain is attributable to appendicitis. From the perspective of the physician, his observation of an association between the patient's symptoms and appendicitis in numerous other patients and from the available medical case reports provides the basis for the claim and therefore resides in the realm of *al-mujarrabāt,* and Islamically can be treated as certain. When the physician recommends surgery, qualitatively different types of claims are made. One claim might be that surgery would relieve that patient's symptoms (abdominal pain, nausea, anorexia, and fever). For this claim, the surgeon would draw upon his observation and that of his colleagues (through case studies in the medical literature, for example) that there is an association between the patient's specific symptoms abating and surgical treatment and that this assertion is also categorized within *al-mujarrabāt*. However, the recommendation of surgery for appendicitis is not routinely made because physicians hope to relieve symptoms. They claim that without such treatment the patient has a high risk of dying or suffering significant morbidity. Hence the claim is one of an association of death or significant morbidity when surgery is *not* performed. This empirical claim also resides in the realm of *al-mujarrabāt* due to repeated observations of the associative phenomenon by the surgeon and others. However, surgeons are also claiming that that surgical treatment is "life-saving," the contrapositive of "if surgery is not performed the patient might die." Combining repeated observations of the two distinct phenomena lends strength to the empirical claim. Physicians could also make an inductive claim— that is, from the realm of *al-ḥadsīyāt*— relating to the mechanism by which appendectomy saves life or forestalls death that lies outside of observation and is made without empirical bases.

From the patient's perspective (the moral agent), he could not himself claim certainty over the propositions that surgery is "life-saving" nor that without surgery he will die because of the lack of repeated observations; and, for jurists who base the moral obligatory nature of seeking medical treatment on the certainty of the patient, perhaps no definitive moral obligation exists in this case. For those who allow for physician claims of certainty there can be a moral obligation. Indeed the only association that the patient could claim certainty over is the association between surgery and pain relief, and that could only occur post-treatment because it is a one-time event and thus part of the *al-mushāhadāt al-bāṭinah.* Consequently, one could argue that the cautious approach taken by some jurists in not advocating a moral obligation to seek medical care can be explained by a

recognition of the fact that patients themselves are limited in their ability to be certain about clinical efficacy of treatment from the vantage point of Islamic epistemology. Furthermore, it is important is to recognize that clinicians make assertions using the terminology of likelihood and probability, and thereby admit an amount of uncertainty into their claims. Jurists appear to be cognizant of this uncertainty and hence believe medicine to be an uncertain science.

In addition, the Shafiʿī school's dominant position being that seeking clinical treatment is a meritorious act and not simply a permissible one gains support from this aforementioned epistemic framework. Recall that some Shafiʿī jurists allow for high probability to ground moral obligations and that the physician's assertion of high probability regarding clinical efficacy is sufficient grounds for moral obligation as well. Consequently, the deliverables of the medical science through empirical and or inductive claims gain entry into the Shafiʿī ethico-legal deliberation, supporting the elevation of seeking medical care from a permissible to a recommended act. Indeed the medical sciences can feasibly demonstrate a high probability of reduction of harm and benefit from clinical treatment, and a relaxing of the epistemic threshold required from the medical sciences can broaden the realm of moral obligation to seek medical treatment for Muslims.

Knowledge and Levels of Evidence in Contemporary Biomedicine

We now turn our attention to how clinical medicine assesses the certainty of its own claims. Similar to the way in which an Islamic jurist considers sources of knowledge and the epistemic certainty ascribed to them when deliberating over the ethico-legal status of seeking medical treatment, healthcare professionals also, ideally, take into account the limitations of the health research data upon which they base their clinical recommendations. In this section we describe data sources and levels of evidence based on the fields of clinical epidemiology and biostatistics and the best practices of evidence-based medicine (EBM). We will focus on the notion of risk, specifically the risk of nontreatment, as we address the question of when an individual must seek medical treatment. While we recognize that there are other models of decision making and other data sources that clinicians may take into consideration when making clinical recommendations, and acknowledge that our description is somewhat simplistic and idealized, EBM is a suitable starting point for comparing the reasoning exercises and data sources of jurists and clinicians.

Applying evidence-based medicine to a clinical question involves, at least, the following four steps: (1) clarifying the clinical question; (2) acquiring the evidence relevant to the question; (3) appraising the evidence; and (4) applying the evidence to clinical practice (Akobeng 2005; Straus

et al. 2005). In step 1, the clinician needs to clearly define the question and be as specific as possible so that the appropriate data can be gathered. Our clinical question— when must a patient seek medical treatment?— can be restated in the following two ways: (i) when are the risks of nontreatment of a medical condition significant enough that a physician should recommend treatment? and (ii) when are the benefits of treatment significant enough to outweigh the potential harms of therapy?

We begin by examining the first question and will then return briefly to address the second near the end of this section. Accordingly, the clinical question entails a quantitative assessment of risk, and a qualitative assessment of significant harm, from nontreatment. The health risks associated with nontreatment include not only risks to the patients themselves but may also include risks incurred by nontreatment upon communities and society. For example, not treating influenza entails a risk to the physical health of the patient through disease-specific morbidity and mortality; at the same time, however, nontreatment also involves health risks to the individuals that the patient interacts with because they are exposed to a communicable pathogen that might infect them. Consequently, the data sources needed to understand the risk of nontreatment of high blood pressure are different from assessing the health risks to a community when communicable diseases like whooping cough (pertussis) are left unmanaged. The qualitative assessment of "harm" is subject to patient and physician interpretation. Obviously, death and disability are significant harms, but pain, loss of work productivity, and other outcomes of disease might also be judged to be significant harms. Additionally, health scientists have developed measures for quality of life and economists have developed tools to assess financial costs of care that may be utilized to measure risks associated with nontreatment of diseases.

After specifying the level of risk and harms one is concerned about, the next step entails acquiring the best evidence available that provides these data. As foreshadowed above, the "best" evidence depends on the type of question being asked. When seeking data on the health outcomes associated with nontreatment, the best evidence comes from longitudinal cohort studies that follow patients with a disease over time and report on the instances of death, disability, and the like. While such studies may be available in the literature given rapid advances in medical treatments, such studies are rare because treatments are inevitably attempted. Furthermore, given the ever-changing personal and societal conditions that can affect one's health, air quality or economic status for example, data from longitudinal studies may not be applicable to the patient at hand due to differences in societal and personal conditions.

In addition to longitudinal cohort studies, the health literature might contain case reports which provide critical data on the harms of nontreatment. Case reports are detailed descriptions of a single or series of patient

courses of disease that provide insights into patterns of disease onset, typical symptoms, and results of attempted treatments. For rare conditions and circumstances where clinical trials (described below) and cohort studies are impractical, case reports provide critically important insight into the risks of nontreatment, albeit the patient(s) in the case report may be very different from the patient at hand in ways that impact the inferences that can be made.

Aside from these sources of evidence, placebo-controlled clinical trials can provide data on the risks and harms related to nontreatment. Clinical trials are the mainstay of research upon the clinical efficacy, and the real-world effectiveness, of treatment. Indeed, when determining the best treatment option for a particular condition, such as the treatment of high blood pressure, evidence from clinical trials in populations that contain people similar to the patient at hand that are randomized, controlled, and blinded are considered to provide the most "certain" and "accurate" information about treatment benefits. Randomization refers to the arbitrary allocation of medical treatment to research participants (noting that some participants may receive no treatment or a different treatment); "controlled" refers to the close monitoring of treatment allocation and the participant outcomes from treatment (and nontreatment); and "blinding" refers to a study design where neither the clinician nor the research participant are aware of whether the participant is receiving the therapeutic under study or whether they are receiving a placebo or other comparative treatment. The randomized and blinded allocation of clinical treatment and blinded reporting of outcomes reduces the likelihood that outcome differences between participants receiving the therapeutic and those who received another treatment or placebo are due to factors other than the difference between treatments. Since these trials often involve some participants not receiving any clinical therapy, a placebo control group, data from the placebo group provides insight into specific harms, and the estimated risks of those harms, with nontreatment. At the same time that rigorously conducted clinical trials provide evidence about the benefits of treatment and the harms of nontreatment, their results may not be generalizable to a particular patient because the characteristics of study participants may differ in meaningful ways from the patient at hand (Guyatt et al. 2014). Furthermore, with respect to the participants who did not undergo therapy, these participants are nonetheless closely monitored by healthcare staff and receive frequent check-ups which may confer health benefits in and of itself. Indeed there is evidence for a placebo effect that confers health benefits even when patients receive no clinically efficacious substance (Hróbjartsson and Gøtzsche 2003; Wampold et al. 2005; Colagiuri et al. 2015). Therefore, the harms and risks of nontreatment may be underestimated when relying on data from placebo control groups in clinical trials.

Returning to the question at hand—when are the risks of nontreatment of a medical condition significant enough that a physician should recommend treatment?—a healthcare professional will need to review cohort studies, case reports, and data from placebo control groups that match (or closely match) the clinical contexts of the patient. These data sources would provide objective evidence regarding the expected negative outcomes from nontreatment, and allow for calculating the probability (statistical risk) of such harms occurring in the patient at hand.

The third step involves appraising the evidence obtained. Similar to the juridical notion of knowledge requiring correspondence to reality, appraisal involves a close examination of the study designs and the statistical analyses employed by researchers to determine risks of nontreatment and clinical efficacy of therapy. This close reading is needed to ascertain what sorts of biases are introduced that may skew the research-reported outcomes of nontreatment away from the "truth." As foreshadowed above, if the population/individuals studied is/are different in important respects from the patient at hand, an element of bias exists and reported outcomes must be extrapolated onto the patient with caution. Appraising the evidence also involves an appreciation of what kinds of conclusions can be drawn from different types of research. For example, causal inferences (X leads to Y) are usually reserved for evidence from randomized clinical trials because of the ability of these trials to control for other variables or confounding factors. Confounding factors are patient features that can affect an outcome independent of the treatment (exposure) under study. Conclusions from cohort studies and case series are usually limited to associations or correlations, and one cannot posit causality on the bases of these types of research studies. For each clinical condition that potentially warrants healthcare seeking, the available evidence would be appraised for bias and potential confounding factors that would lead to interpreting the evidence with caution, because the true effect of nontreatment might be somewhat different than the data available from the study.

In the clinical domain, probability-based statistical analyses are used to report the likelihood of a particular negative outcome (the risks) of both treatment and nontreatment. Commonly used statistics include *p*-values and confidence intervals. *p*-values describe the probability of a research finding, whether in terms of clinical efficacy or of the risks of nontreatment being due to chance; confidence intervals describe the range of values surrounding the study's calculated risk or benefit that are likely to include the "true" risk or benefit. In general, the greater the number of participants in a clinical study, the more accurately one can make statistical assertions.

The final step, after obtaining and appraising the available research data, is to make a clinical recommendation regarding treatment. The clinician's overall assessment of the evidence informs the way in which patients' choice is presented and the lengths to which the clinician attempts to

persuade patients towards or away from treatment. If the evidence consistently showed significant harms with nontreatment (e.g., that seeking a clinical treatment would be life-saving), then the clinician would be empowered to make a clear recommendation toward therapy with a high degree of confidence in the data. However, if the research data was limited to a few studies or biased in ways that limit the extension of findings to the patient at hand, then recommendation for therapy would be offered with less certitude. It is important to note that shared decision making is considered the most ethical model of patient–physician interaction, whereby the physician presents the data about harms and risks of nontreatment to the patient after soliciting patient values regarding health and concerns about clinical treatment, and then the patient and physician together decide upon the best medical course of action (Emanuel and Emanuel 1992; Elwyn et al. 2012). This notion of shared decision making might inform Islamic juridical debates about whether the determination of certainty regarding clinical efficacy falls squarely upon the moral agent (the patient) or is one that can be shared between patients and clinicians. Importantly, it may be that, if the responsibility is shared, then the moral culpability is as well.

It is also important to note that there are quantitative limitations as well as subjectivity entailed in the process of making a clinical recommendation. A particular physician's assessment of the evidence is based on his or her prior knowledge of the research designs and statistical methods. If a clinician's grasp of research and statistical methods is limited, then his or her review of the health research data may have shortcomings and his or her clinical recommendation may be spurious. This knowledge is particularly important because the finding of research studies may conflict, and advanced understandings of research methods and statistics may be needed to determine the best course of action. Illustratively, summative analytic methods, such as meta-analyses of clinical trials, attempt to bring clarity to results by looking at trends across studies, but these methods also have limitations. While a clinician will likely not perform their own meta-analyses, they might seek out these other data sources in order to accurately assess the risks of nontreatment and benefits of treatment. Indeed, all statistical methods have innate margins of error and overarching assumptions that must be accounted for when making clinical recommendations. Additionally, research demonstrates that many factors—both constitutional and external—influence physician recommendations, and hence some variance in physician recommendations to patients is expected.

A commonly-used schema that grades the "quality" of research data used to make recommendations regarding the outcome of treatment or nontreatment is presented in Table 2. Evidence of Level I represents the best data upon which to make a recommendation, and Level V represents the least (Burns, Rohrich, and Chung 2011). After grading the evidence, a

Table 2. Levels of Evidence for Prognostic Studies

Level	Type of evidence
I	High-quality prospective cohort study with adequate power or a systematic review of these studies
II	Lesser quality prospective cohort, retrospective cohort study, untreated controls from an randomized clinical trial, or systematic review of these studies
III	Case-control study or systematic review of these studies
IV	Case series reports
V	Expert opinion; a single case report or clinical example; or evidence based on physiology

Adapted from Burns, Rohrich, and Chung 2011.

clinician next makes a qualitative judgment of how "strongly" to recommend treatment. Table 3 provides an example of a strength of recommendation rubric, in this case from the American Society of Plastic Surgeons, which takes into account levels of evidence (Burns et al. 2011). These rubrics for grading research data and making clinical recommendations resemble Islamic ethico-legal frameworks for grading scriptural evidences. Schools of Islamic law have developed criteria for assessing the quality of Prophetic traditions and on these bases consider how strongly they can be used to generate religious edicts. Each school of law has different criteria for assessing strength of evidence, adding to the inherent plurality of the Islamic legal canon.

In this section, we have implied that a clinician's recommendation for clinical treatment rests primarily on the assessment of potential harms associated with nontreatment. If high-quality research data notes significant harms with nontreatment and significant clinical efficacy, a physician may strongly recommend clinical treatment. At the same time, even if clinical efficacy data is marginal but there are few harms to treatment while the harms of nontreatment are significant, the physician will likely advocate initiating clinical treatment. Accordingly, we assert that the physician's chief goal is to prevent the occurrence of harm either from not getting treatment or from undergoing medical treatments with uncertain efficacy. Indeed, the cornerstone of the multiple codes of medical ethics is the principle of *primum non nocere*—first, do no harm. At the same time, however, it must be acknowledged that a physician (or patient) may accept greater potential harms with clinical treatment in the hope for significant benefits. An example of balancing harms with potential benefits is cancer treatment. In this context, avoiding harm may take a back seat to procuring benefits. For example a physician may advise a patient to take investigational chemotherapy with scant evidence for its clinical efficacy, but substantive

Table 3. Clinical Practice Recommendations

Grade	Descriptor	Qualifying evidence	Implications for clinical practice
A	Strong Recommendation	Level I evidence or consistent findings from multiple studies of levels II, III, or IV demonstrate harms from nontreatment and benefits from clinical treatment	Clinicians should persuade the patient towards clinical treatment unless a clear and compelling rationale for an alternative approach is present
B	Moderate Recommendation	Levels II, III, or IV evidence and findings are generally consistent about the harms from nontreatment and benefits from clinical treatment	Generally, clinicians should advise the patient to follow the clinical recommendation for treatment but should remain sensitive to other courses of action consistent with patient preferences
C	Optional	Levels II, III, or IV evidence, but findings are inconsistent about harms and benefits	Clinicians should be flexible in their clinical recommendations and patient preferences should have a substantial influencing role as the best course of action is decided upon
D	Optional	Level V evidence: Little or no systematic empirical evidence about harms and benefits	Clinicians should consider all options for treatment and nontreatment in their decision making and be alert to new published evidence that clarifies the balance of benefit versus harm, and patient preferences should have a substantial influencing role in the final course of action

Adapted from Burns, Rohrich, and Chung 2011.

data on the risk for severe infections post-treatment, with the hope of obtaining cancer-free survival.

This balancing of preventing and/or removing harm with procuring benefits finds analogues within the Islamic ethico-legal canon. According to many Islamic legists, preventing harm is the bedrock of Islamic law,

as we shall see further below. Considering how an Islamic conception of harm may provide ethical motivations for the contemporary practice of medicine will be the subject of our future work. Yet, in light of the frequent invoking of prevention of harm in Islamic jurists' discourse on the question of medical treatment, and this same ethical imperative motivating medical practices, we would like to briefly reflect on an Islamic conception of harm because it is fruitful for comparing the thought processes of legists and clinicians.

An Islamic Conception of Harm (*al-ḍarar*)

All Islamic jurists studied here consider illness to carry harms. For healthcare professionals, notions of harm and risk are largely defined in terms of health risks and harms to physical or mental health. Although the biopsychosocial model of medicine acknowledges social risks and harms that may accrue should one seek or forgo clinical treatment, by and large health research and medical practice focus on physical and mental health (Engel 1977). Furthermore, religious understandings of health and well-being, while perhaps not at the forefront of the clinician's mind, might nonetheless impact patient decisions to pursue or reject clinical treatment. The Islamic jurist, on the other hand, balances religious conceptions of health that extend considerations of one's well-being to the afterlife, and moves beyond thinking about the body and mind to considering the well-being of the soul.

In order to understand the concept of harm in the Islamic tradition and how it relates to juridical activities, we will begin by looking at the higher goods or objectives of the Sharīʿah (*maqāsid al-sharīʿah*). Lexically, the Sharīʿah signifies a place where water collects and people come to drink. It is because of this connotation that Khaled Abou El Fadl describes the broad meaning of the Sharīʿah as "the way or path to well-being or goodness, the life source for well-being and thriving existence, the fountain or source of nourishment, and the natural and innate ways and order created by God" (Abou El Fadl 2014, xxxii). Although a more expansive term, the Sharīʿah is frequently used synonymously with Islamic law (*fiqh*).

After inductively surveying all of the ordinances of the Sharīʿah, Islamic ethico-legal theorists identified five higher goods which the Sharīʿah aims to secure and preserve: religion (*dīn*), life (*nafs*), intellect (*ʿaql*), lineage (*nasal*), and wealth (*māl*) (al-Būṭī 2000). These five goods together constitute complete human well-being (*maṣāliḥ al-ʿibād*). The term *maṣlaḥa*, employed by Islamic legal theorists, refers to these five goods, whereas its contrary term *mafsada* connotes anything that is detrimental to achieving these goods. Lexically, the term *maṣlaḥa* denotes a thing being proper, sound, upright, good, just, and thriving, whereas the term *mafsadah* denotes its opposite, a thing being corrupt, bad, wrong, unrighteous, impaired, evil, waste, and

ruin. Technically defined, *maṣlaḥa* is "a quality of an act by which good, namely benefit (*al-nafʿ*) from the act, is obtained, in all or most cases, and for the public or individual groups. . . . [Whereas] a detriment (*mafsada*) connotes a quality of an act by which corruption, namely harm (*al-ḍarar*) is obtained, in all or most cases, and for the public or individual groups" (Ibn ʿĀshūr 2005, 63). Thus, a good or benefit (*maṣlaḥa*) is anything that promotes the obtaining of these five higher goods, whereas a detriment (*mafsada*) is that which does not promote, or promotes what is contrary to, the five higher goods. The prominent Shafiʿī legal theorist ʿIzz al-Dīn ibn ʿAbd al-Salām (d. 660/1262) summarized this point thus: "The Sharīʿah in its entirety is comprised of securing all types of goods (*maṣāliḥ*) . . . and warding off all types of detriments (*mafāsid*)" (Ibn ʿAbd al-Salām 2000, 1:39). Islamic jurists' conception of harm (*al-ḍarar*) is directly related to the concepts of *maṣlaḥa* and *mafsada*. In other words, a harm is that which is detrimental to any one of the higher goods of the Sharīʿah—religion (*dīn*), life (*nafs*), intellect (*ʿaql*), lineage (*nasal*), or wealth (*māl*). At the same time, a benefit (*al-nafʿ*) is equated with what is considered to be a good (*maṣlaḥa*).

In Ibn ʿAbd al-Salām's scheme of *maṣāliḥ* and *mafāsid*, each is further classified into those *maṣāliḥ* and *mafāsid* that relate to human existence in this world as well as the hereafter (*al-ākhira*), that is, life after death. The renowned ethico-legal theorist of the modern area al-Būṭī states that the Sharīʿah "is guaranteed to actualize both categories of human goods: those that relates to this world and the hereafter" (al-Būṭī 2000, 79). Since Sharīʿah ordinances relate to both the worldly and the hereafter dimensions of human existence, the question of whether the *maṣāliḥ* and *mafāsid* can be accurately known arises. Ibn ʿAbd al-Salām contends that "the majority of the goods of this world and its detriments are discernible by the intellect as are the goods and detriments of the Sharīʿah" (Ibn ʿAbd al-Salām 2000, 1:7). One example of a good and a detriment that relate to the worldly existence of human beings provided by Ibn ʿAbd al-Salām is health and sickness, as these two states only occur in a person's life in this world and not in a person's life after death. In related fashion, the science of medicine, which aims to preserve health and remove the harm of sickness, is also an example of a worldly good that is discernible by the intellect. Notably, the goods that relate to human existence in the hereafter, however, are not accessible to human beings and are known only through revelation. Indeed, Ibn ʿAbd al-Salām states "the goods of the Hereafter and its harms are only known by virtue of transmitted knowledge [from prophets]" (Ibn ʿAbd al-Salām 2000, 1:11). In other words, the *maṣāliḥ* and *mafāsid* of the life hereafter, such as acts resulting in reward and acts resulting in punishment, are not discernible by the human intellect alone and require God's revelation through prophets for humans to come to knowledge of them. Because of this need for scriptural guidance to assess harms and

benefits, and because the life hereafter is more important than this temporal existence, jurists privilege scriptural knowledge over the sciences of this world. This tendency helps to explain their stances on the obligation of seeking medical treatment, because medical knowledge is deemed unsure of its own claims about the harms and benefits of treatment in this world, whereas the Prophet's statements were viewed to provide greater certainty about harm and benefit in this world and, more importantly, in the next.

The aforementioned classification of the moral status of acts relates to the concepts of *maṣlaḥa* and *mafsada* in that the first three categories (obligatory and recommended) constitute a *maṣlaḥa* since they, by definition, promote one of the five higher goods of the Sharīʿah. The offensive and forbidden categories constitute a *mafsada* and a harm (*ḍarar*), because they are detrimental to one of the five higher Sharīʿah goods. As is evident in this framework, something harmful is conceived of in relation to the five higher goods and is not restricted to considering a person's life in this world, but also extends to what is harmful in the life hereafter. An Islamic bioethical schema therefore must attend to a broader notion of benefit and harm than that operative in contemporary medicine.

Concluding Remarks and Future Directions

In this article, we explored the question of whether (and when) an individual should seek medical treatment from the perspective of Islamic jurists and contemporary clinicians. We described how Islamic jurists and medical practitioners both employ epistemological frameworks that set conditions for certainty and evidence. We further highlighted the different sources of evidence these disciplinary experts use to make their recommendations about the pursuit of medical treatment— Qur'ānic verses, the Prophet Muhammad's statements on the part of jurists, and data from clinical studies on the part of clinicians. We also commented on the epistemic valence attached to these data. In describing the parallel paths from evidence to recommendation for each of these disciplinary experts we also commented on two concerns that similarly inform the deliberations of both classes of experts: (i) preventing or removing harm (or potential for harm) from illness by means of medical treatment, and (ii) certainty regarding the efficacy of clinical treatment. We believe that these two areas can serve as sites for rich, bidirectional dialogue between Islamic scholars and medical experts that holistically engages the deliverables of Islamic law and of biomedicine for mutual benefit. Before outlining some possible directions such engagements could take, a brief summary of the Sunnī juridical discourse regarding the moral status of seeking medical treatment is needed.

Islamic jurists sought to resolve tensions between rigorously authenticated scriptural source-texts. One the one hand there are texts that describe healing as one of God's acts and ascribe high merit to individuals who do

not seek clinical treatment, instead choosing to rely solely on God. On the other hand, there are Prophetic commands to seek medical care. While deliberating over these sources of moral guidance, jurists need to evaluate the "scientific" nature of medicine in order to ascribe epistemic authority to claims about clinical efficacy. In reviewing the epistemic frameworks and ethico-legal rulings of Islamic scholars, it appears that certainty over empirical propositions is possible, and that once certainty about clinical efficacy exists an ethico-legal obligation to seek that particular treatment may ensue. Notably, the prevailing opinions within the four Sunnī schools differ about whether certainty about clinical efficacy resides within the medical expert or the patient. As detailed above, the dominant position in the Ḥanafī and Malikī schools is that seeking medical treatment is permissible but not obligatory, while the Ḥanbalī school considers *tawakkul* to be more meritorious than seeking medical treatment, although seeking treatment is permissible. Shafiʿī jurists, on the other hand, view seeking medical treatment as a recommended act. Importantly, seeking treatment can become obligatory in the Shafiʿī and Malikī school when the clinician determines that the clinical treatment will certainly remove illness-related harm(s). It is important to keep in mind that we examined a single factor—certainty about clinical efficacy—that has an influence on the normative moral stance on seeking medical treatment. As we noted, extenuating circumstances and contextual factors can lead to verdicts that find seeking medical treatment to be obligatory or even prohibited. Future research should examine how contextual factors such as the nature of the illness in terms of its communicability, the socioeconomic status of the patient, the communal and social responsibilities of the patient, and other factors influence juridical reasoning and the moral evaluation of healthcare seeking.

We believe that the Islamic ethico-legal tradition and the biomedical sciences can benefit each other in mutually informing ways. While Islamic ethico-legal theory allows for evidence coming from the empirical sciences to meet the threshold for certain knowledge, Islamic juridical discourse is intentionally vague on demarcating the different degrees of certitude required when assessing the efficacy of medical treatment. We suggest that Islamic ethico-legal guidance can be sharpened by incorporating standards used in clinical epidemiology, biostatistics, and evidence-based medicine to judge clinical efficacy and the risks of nontreatment. Presently, while medical experts can claim that a specific treatment certainly removes the ensuing harm(s) of nontreatment, jurists often do not question the evidentiary bases of physician testimony,[3] and juridical councils too often defer to clinicians and rarely involve health researchers and other biomedical experts who might have greater insight into the limitations of medical "evidence" (Shaham 2010; Padela et al. 2011; Padela et al. 2013; Ghaly 2015). The openness of Islamic ethico-legal deliberation to the deliverables

of other sciences may thus lead to shortcomings in application; inaccurate claims from biomedical experts may contribute to ambiguities and inaccuracies within juridical assessments. We suggest that, at least for Islamic bioethics, clinical epidemiology and biostatistics can provide further nuance to Islamic ethico-legal deliberations. Creating linkages between levels of evidence (in the clinical sense) and Islamic injunctions about the obligation to seek a particular medical treatment appears eminently possible, and might allow for jurists to pen *fatāwa* (and possibly author new Islamic legal manuals) that take the present state of biomedical research into consideration. Similarly, jurists and biomedical scientists could work together to *a priori* specify the type of data required by Islamic law to make seeking clinical treatment in a specific scenario a moral obligation, for example taking porcine-based vaccines for pandemic flu. Such a specification may set in motion research agendas that seek to deliver that evidence base. In these and other ways a multitude of avenues exist for biomedical notions of risk, harm, and benefit to be leveraged within Islamic juridical discourses.

Another area that seems ripe for dialogue and critical reflection centers round the notion of preventing harm through medicine. Although preventing or removing harm is a core value for both jurists and clinicians, they each define and categorize harms in different ways. Considerations of harm for jurists extend to the afterlife, and their ethico-legal rulings focus on removing the possibility of afterlife sanction for Muslims. Thus, for example, prominent jurists eschew the use of porcine-based medical treatments or prohibit purchasing health insurance except under dire necessity (see Padela et al. 2014; Padela 2015). Similarly, Islamic legists generally stop short of declaring seeking medical treatment to be a moral obligation, for such a determination renders not seeking medical care to be a sin. For clinicians, considerations of harm largely revolve around harms to one's physical and mental health.

Dialogues over these divergent formulations of harm provide another site for mutual understanding, the sharing of knowledge, and better meeting the needs of the public not only regarding Islamically inflected scenarios but also from the perspective of other faiths and everyday clinical practice more generally. For example, if clinicians were more cognizant of the religious dimensions of healthcare seeking and how particular therapies might be perceived to entail spiritual harms, they might be better able to address such possibilities and work with patients and their possible religious advisors to select the best courses of treatment. The broadened notion of harm might spur clinicians to reimagine their internal motivations for, and the professional ethics of, their careers. At the same time, when jurists come to better understand how the principle of "first, do no harm" informs professional codes and medical practices, they can better calibrate their ethico-legal guidance to clinicians as they negotiate a complex web of personal and professional commitments (for example, how to

balance issues of conscience or permit carrying out Islamically controversial medical procedures in cases where only one specialist is available to a patient). In addition, bidirectional conversations around the notion of preventing harm may enable jurists and clinicians to develop frameworks that balance procuring benefits with preventing potential harms, thereby enhancing the life of individuals in light of there being different degrees and types of benefit and harm.

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Notes

1. In this article, we strategically use the term ethico-legal to refer to the Shar'iah sciences as whole and to refer to Islamic rulings (*aḥkam*) resulting from juridical (*usul al–fiqh* based) deliberations as well. We do so to highlight that Shar'iah rulings have ethical valence in that it is the labeling activity of God (through revelation) that provides ultimate moral value to human action, and because the Shari'ah injunctions attempt to extend this moral content to all human activity they have an ethical aspect. At the same time, the Shar'iah is not simply a moral law; rather, it has been and can be codified as or inform state law on the back of political authority. Hence, legal penalties in this world, in addition to afterlife ramifications, may accrue when Islamic laws are violated. We acknowledge there are many different streams of ethical reflection in the Islamic tradition, and that Islamic law is but one part of reflection. We also recognize that there are many types of "law" and that in the contemporary era classical configurations of Islamic law may not easily map onto the various systems of law operative today. We use the ethico-legal construction to highlight the imprecise fittings that demand further reading and reflection, because Islamic law is not simply a moral law divorced from political reality operative in the collective sub-conscious of Muslims, nor is it simply a worldly law only carrying sanction due to the backing of political authorities. For more detail on Islamic law and its relationship to Islamic ethics the reader is referred to Reinhart (1983) and Nyazee (1994).

2. We adopt Prof. Mohamed Fadel's (2008) usage of the English term moral theology to refer to the Islamic science of *uṣūl al-fiqh*. As Prof. Fadel notes, insofar as *uṣūl al-fiqh* is concerned with the scriptural sources of moral obligation, the processes of moral assessment, and moral epistemology, it is a moral science. And since *uṣūl al-fiqh* is primarily concerned with how God judges human acts and strives to reach the truth regarding moral propositions, it is a theological

discipline. Consequently the mapping of terms is apropos even if not precise. We use the terms "Islamic ethico-legal tradition" and "Islamic law" to refer to the notions of *fiqh* and *aḥkām taklīfiyya* interchangeably.

3. It is important to note that jurists and juridical councils at times did (and do) object to the claims of medical experts (see Stearns 2011).

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