Health Information Ethics in the Light of Two Prominent World Religions - Islam and Christianity

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Abstract

Background: Health information is an integral part of the healthcare process. It constitutes the most important information quantitatively handled by the healthcare system and the most relevant, qualitatively. It is in this information that descriptions of care activities and production are based. Health information ethics deals with questions of wrong and right, resulting from the use of both manual and technologies in managing patient's health records and health information. This paper reviews salient verses of the Scriptures directly related to health information ethics.

Methods: Related verses of Al-Qur'ãn, Sunnah and the Bible were employed to support statements on health information ethics.

Results: Healthcare providers have a duty to keep confidential, any information pertaining to the representation of a patient. This serves the purpose of encouraging patients to speak frankly about their reason for seeking care. The patients' health records and hospital-held health information is a crucial tool in the management of patient's health and life processes. It is also a means to enhance medical evaluation, healthcare research and public health trust however, it is being threatened by woes of technological advancement and unethical behaviour of healthcare providers/other stakeholders.

Conclusion: Al-Qurãn, the Sunnah and the Bible are the source of all knowledge. These scriptures have prescribed how to responsibly and professionally protect patients' health records and information. It is hoped that relevant stakeholders would go by the dictates in the Scriptures in order to restore the ethical values in health information management with a view to enhancing healthcare services and improving public health.

Keywords: Health information; Health information ethics; Health information management; Medical confidentiality; Patient's rights

Introduction

A person's medical history is made up of data that shows their health journey, from symptoms and diagnoses to treatments and outcomes. A patient's history, tests, scans, clinical details, personal information and notes are all part of their health record. We can look at a patient's health record to see how their health has changed over time, or we can look at a bigger picture of many health records to see how the health of a group of people has changed and how different medical actions can improve health

outcomes[1]. For healthcare structures, health information is the most important and relevant type of information, because it tells us about the health condition of patients and the actions and procedures that have been done on them. This is the information that supports the descriptions of care activities and production. Health information is a key part of the care process. It raises questions about its own validity, the responsibility to inform and the right to ignore. It is a legal, technical, and ethical requirement[2].

Ethics, in contrast, is the examination of morality, thoughtful and methodical inquiry into, and evaluation of moral choices and actions. The study of ethics equips healthcare providers to identify challenging situations and to respond to them in a reasonable and ethical way. Often, ethics sets higher standards of conduct than the law, and sometimes ethics demands that healthcare providers disobey laws that require immoral behaviour[3]. Ethics has been defined as a

disciplined reflection about moral behaviour and character. In the scripture, such reflection is always guided by beliefs about God's will and ways and by commitments to be loyal to God. In Islam, Al-Qur'an and the Sunnah of the Prophet ﷺ are the two main sources of jurisprudence, while the Bible is the primary source in Christianity[4-7].

Even though medical curricula include ethical teaching, healthcare providers still have gaps in their knowledge of ethics. By learning from the issues and cases that healthcare professionals face, they can see how the ethical principles apply to their everyday practice. Being more aware would help a healthcare professional deal with the clinical ethical situation better, thus, improving the quality of clinical care process[8]. Religion and medicine have many shared goals, functions and actions, no matter what the secular laws or rules say. It has been confirmed that religion is inseparable from

medicine[9]. Al-Qur'an, the Sunnah and the Bible have influenced billions of people[4-7]. This study seeks to explore how the ethical handling of health information is influenced by Islamic and Christian teachings. The study will critically analyze relevant scriptures and ethical guidelines from both religions to understand their implications on health information management practices. The review aims to highlight similarities and differences in ethical perspectives and how they might inform or challenge current health information practices.

Methodology

This critical review will rely on the Qur'an and Hadith for Islam, and the Bible for Christianity, as the main sources. Scholarly commentaries and exegeses that concentrate on health, ethics, and information privacy will be especially relevant. Articles, guidelines, and books that explore ethical issues in healthcare, particularly those related to privacy, confidentiality, and information

handling were sourced from PubMed, Google Scholar, and specific religious academic databases. Works that contrast Islamic and Christian perspectives on ethics and their practical applications in healthcare settings will be included to provide a fair view. Study inclusion criteria were materials published in English, scholarly articles, books, and official religious texts examining the ethics of health information management within Islam and Christianity. Exclusion criteria were non-peer-reviewed articles, outdated texts that do not represent current ethical or religious understanding, and sources that do not directly deal with health information ethics.

The researchers conducted an extensive literature review to collect data from the above-mentioned sources. Through respectful, scholarly neutrality, objectivity, and precise interpretation of religious texts and practices, thematic analysis was applied to identify common themes, ethical

principles, and guidelines that emerge from the religious texts and scholarly literature. Themes were classified based on their focus and as relevant and comparable to the health ethics. Comparative analysis of the results from Islamic and Christian sources was employed to discuss how these religious ethical standards correspond to or differ from secular legal standards and professional guidelines in healthcare. Lastly, the practical implications of findings were discussed for healthcare providers to support or challenge existing legal frameworks and professional ethics in health information management.

Results and Discussion

Ethics for healthcare professionals

All organizations have a goal, a vision that guides their actions as stated in their mission statement. Today, it is essential that organizations create a clear statement on code of ethics, which is a set of guidelines that determine what is right and wrong behaviour in the organization[10]. This is especially important in healthcare systems, where human life and health are at stake. Clients, patrons and healthcare consumers favour dealing with organizations and healthcare facilities that maintain high level of ethical and moral standards of practice. Table 1 reported the seven principles that form the foundation of healthcare professionals' learning framework[11]. These are described and discussed in the light of the two prominent world religions:

1. Non-maleficence

The principle of non-maleficence simply means to "prevent harm" or as commonly said "do no harm". This principle states that a healthcare professional should act in a way that he or she does not inflict harm, even if his or her patient or client requests it. In following this principle, it is important to take into account the following:

i.   Will no one be harmed by the proposed intervention?

ii.   Are especially children prevented

Table 1: Seven ethical standards for the professional conduct of healthcare providers

Ethical Principle	Definition	Relevance in Healthcare
Non-maleficence	The principle of non-maleficence asserts that healthcare professionals should act in a way that does not cause harm.	Ensures that actions taken do not harm the patient, even if requested.
Beneficence	The obligation to produce benefit and perform acts of charity, kindness, and mercy.	Promotes active contribution to the welfare of patients by alleviating pain and suffering, and aiding the sick and injured.
Health Maximization	Combines non-maleficence and beneficence, viewed through both deontological and consequentialist lenses.	Encourages actions that maximize health outcomes by weighing moral duties and the consequences of actions.
Efficiency	Recognizes the limitation of resources and the need to allocate them in a manner that maximizes health benefits.	Addresses the allocation of finite resources to meet the extensive health needs effectively.
Respect for Autonomy	Emphasizes the importance of respecting patient autonomy in decisions about their health care.	Balances professional guidance with respecting patients' rights to make informed decisions about their own care.
Justice	The principle of justice relates to fairness and the equitable distribution of health resources.	Ensures fair access to healthcare services, promoting equity in treatment and resource distribution.
Proportionality	Demands that individual freedom and wider social goods are weighed and balanced in a proportionate manner.	Guides healthcare decisions by considering the proportionate benefits and detriments to both the individual and society.

from harm?

Islam considers the principle of avoiding harm so essential that it has a specific legal maxim "darar yuzaal". This means that harm is to be eliminated and that it has precedence over an action with a similar benefit12. Another tradition attributed directly to the Prophet ﷺ and accepted by the jurists from nearly all schools of thoughts in Islamic jurisprudence states that in Islam, 'no harm shall be caused or returned'. In the 17th Chapter of Al-Qur'ãn, Allaah says: 'Do not kill your children for fear of poverty…; And do not approach unlawful sexual intercourse…; And do not kill the soul which Allaah has forbidden except for a just cause…; And do not go near the property of the orphan except in the best way; And give

full measure when you measure…; And do not follow what you have no knowledge of…; And do not walk on the earth arrogantly…; All these are evil and disliked in the sight of thy Lord.' (Surat Isra'il 17:31-38). In the Bible, the Ten Commandments state that (Exodus 20:13-17) are the following prohibitions: "You shall not murder"; "You shall not commit adultery"; "You shall not steal"; "You shall not testify falsely against your neighbor"; "You shall not desire your neighbor's house; you shall not desire your neighbor's wife, or his male servant, or his female servant, or his ox, or his donkey, or anything that belongs to your neighbor". These are clear messages of non-maleficence.

2. Beneficence

The principle of doing good for the individual patient is related to non-harm. The healthcare provider who cares shows generosity, tenderness and compassion, assists those who are injured, sick or dying, and alleviates pains

and suffering. To apply this principle, the following questions arise:

i.   Is the act of doing any good to every single person taking part in this intervention?

ii.   Overall, for both non-maleficence and beneficence, is it possible to assess whether more benefit than harm is produced by intervening (or not intervening) and, if so, on what side (benefit or harm) does the equation finally fall?

3. Health maximization

Non-maleficence and beneficence can be understood in both deontological and consequentiality terms. Yet, as principles, they do not seem to go to the core of public health values. Maximizing health is certainly in line with the Scripture. Allaah says categorically in Al-Qur'an: '…*and do not throw yourself into destruction*', (al-Baqarah 2:195). The Bible also says that we are to take

good care of our bodies (I Corinthians) as they are the temple of the Holy Spirit.

Questions in mind:

i. Is the proposed intervention effective and evidence-based?

ii. Does it improve population health?

iii. Does it have a sustainable, long-term effect on the public's health?

iv. Is there a community added value to the proposed intervention?

4. Efficiency

There are always more health needs than resources to address those needs. In fact, no public health system (or healthcare system) in the world has enough resources. These two statements imply that using scarce health resources efficiently is a moral obligation. Therefore, a moral principle of efficiency would require, for example, the use of the evidence base and the conduct of cost-benefit analyses to determine what should be done and how to do it. In Islam, squandering

resources is forbidden as Allaah says: 'And do not waste, for Allaah does not like the wasteful'. (Al-An'am 6:141). The Bible says: 'Be very careful, then, how you live—not as unwise but as wise, making the most of every opportunity, because the days are evil.' Ephseians 5:15-16.

Questions in mind:

i. Is the proposed intervention cost-effective?

ii. Awareness of scarcity of public money; saved money can be used for other goods and services.

5. Respect for autonomy

The principles of non-maleficence and beneficence, which reflect a caring attitude towards the patient, are balanced by the respect for the patient's autonomy, who the healthcare professional is trying to help. The principle of respect for autonomy also applies to the wider context of public health. It is very important for Muslims, who Allaah tells to say: 'Indeed, we belong to Allaah and indeed,

to Him we will return'. (al-Baqarah 2:156). The Bible also says that 'Don't you realize that your body is the temple of the Holy Spirit, who lives in you and was given to you by God? You do not belong to yourself, for God bought you with a high price. So you must honour God with your body', (I Cor. 6:19-20). 'For you are free, yet you are God's slaves, so don't use your freedom as an excuse to do evil', (I Peter 2:16) . Questions in mind:

i.   Does the intervention refrain from employing coercion and manipulation? Does it foster free choice?

ii.   Is there really 'informed consent' to take part in the intervention?

iii.   Is self-responsibility not only demanded but also possible for every person?

iv.   Are privacy and personal data respected?

v.   If the intervention is paternalistic, is this justifiable?

vi.   Does the intervention promote the exercise of autonomy?

6.   Justice

One way to think of the principle of justice (or 'social justice') is to base it on the fundamental value of human autonomy. Allaah says: 'O you who believe! Be firm in upholding justice and be witnesses for Allaah, even if it goes against yourselves or against parents or relatives. Whether he be rich or poor, Allaah is more mindful of them both than you are. Therefore, do not follow low desires so that you can be fair'. (An-Nisaa' 4:135). The Bible also says: 'This is what the Lord of Heaven's Army says: Judge honestly, and show compassion and kindness to one another'. (Zechariah 7:9).

Questions in mind:

i.   Is no one (including third parties) stigmatized, discriminated against or

excluded as a consequence of the proposed intervention?

ii. Is the institution proposing the intervention publicly justified and acting transparently?

iii. Is the proposed intervention not putting sub-populations at risks of being excluded from social benefits and/or universal access to health care?

iv. Does the intervention exacerbate social and health inequalities (inequities)?

v. Does it fight inequalities (inequities)?

vi. Does the intervention consider and support vulnerable sub-populations (e.g. migrants)?

vii. Does the intervention promote rather than endanger fair (and real) equality of opportunity and participation in social action?

viii. Does the intervention refrain from eroding a sense of social cohesion and solidarity?

7. Proportionality

The principle of proportionality is clearly a normative one. It requires that when balancing individual liberty with broader social benefits, considerations will be done in a proportional way. Yet grace (God's unmerited favour) was given to each one of us (not randomly, but in different ways) according to the measure of Almighty God' (bountiful and generous) gifts. Questions in mind:

i. Is the intervention the least infringing of possible alternatives?

ii. Are costs and utility proportional?

Ethics and Worship

Relationship between ethics and worship shows that ethics is about the real, worship is about the unreal. Ethics is about the tangible, worship about the spiritual. In short, ethics knows that people are bad; worship tries to

make them good. Worship commemorates the past, ethics empowers the present and prepares for the future[13]. Allaah says in Surat ad-Duhã 93:9 that: '*So the orphan, oppress not'*. The Prophet ﷺ said: '*A Muslim is a brother of another Muslim, so he should not oppress him, nor should he hand him over to an oppressor. Whoever fulfilled the need of his brother, Allaah will fulfil his needs, whoever brought his (Muslim) brother out of discomfort, Allaah will bring him out of discomforts of the Day of Resurrection, and whoever screened a Muslim, Allaah will screen him on the Day of Resurrection.* (Sahih Bukhãri 3[43:622). The Bible says "*You must not oppress foreigners (strangers). You know what it is to be a foreigner, for yourselves were once foreigners in the land of Egypt',* (Exodus 23:9).

In this case, the patients can be likened to the strangers. Healthcare providers should see the patients as part of the same family and give the best of care to their patients. Do unto others what you wish to be done unto you. Healthcare providers are as well, human beings like their patients, who can fall sick at any time. When afflicted with illness in or around their own facilities, they need other colleagues to care for them. They are therefore a similitude of the strangers described in the Scripture. It becomes worrisome, when they fall ill in another territory as they become full strangers and need help and professional expertise of another set of healthcare providers.

In today's healthcare environment, autonomy and informed consent are absent from the interface between the physician and his patient because, the physician is reticent about information sharing even when the patient is uniquely trained and placed to understand and appreciate the complexities of his medical condition[14,15]. The traditional method of protecting individual privacy in such collections is to de-identify or ano-

nymize the data so that users cannot connect any particular[16].

Health information management and patients' health records

Health information management (HIM) is the field that deals with the management of health records. It is the profession that aims to ensure the effective management of patient health information and hospital-held data that are essential for providing high quality care and treatment to the public. Health information management professionals are healthcare providers who work to improve the quality of healthcare by making sure that the best information is available for any healthcare decision by managing healthcare data and information resources[17]. Managing patient health records and health information is crucial for advancing medical care, public health and science. Therefore, it is important to develop an ethical framework for the management of health information. This will help to avoid the tendency to treat patients as

mere data and healthcare providers as mere data collectors, and also resolve moral conflicts in the healthcare information context[18].

The Scripture is the foundation of health information management. Essentials of patient's health information as enshrined in the Scriptures include first, completeness. A patient's health information must be comprehensive enough to contain all necessary details to be able to identify the patient and justify the treatment therefrom. Loosely borrowing from the characteristics of the Scriptures, it is clearly stated in Al-Qur'an that: '*We have not left out anything in the Book'.* (Al-An'am 6:138). The Bible also shares the same characteristics of completeness with health information, which gives credence to its scriptural status. The second element is timeliness. Healthcare quality requires that the right information be available at the right time to support patient care and health system decision making. No

matter how well documented a patient's health information is, it is of no value once it is not available on point-of-care. When asked our beloved Prophet ﷺ, which act is the best? He ﷺ, replied thus: '*AsSalaat at their fixed times, being dutiful to parents, striving (jihad) in the way of Allaah* (Sahih Bukhãri). In the same vein, documentation of care process must take place as promptly as the care process is taking place. Otherwise, vital information may be lost if documentation of care process is delayed to a later time. '*For everything, there is a time prescribed*', says Allaah in Ar-Raad 13:38. The Bible says: F*or everything, there is a season, a time for every activity under heaven; a time to be born and a time to die; a time to plant and a time to harvest',* (Ecclesiastes 3:1-2).

The third essential element of health information is accuracy. Accuracy has been described as the quality of correctness as to fact and precision, as to detail in information resources and the delivery of information

services.   Accuracy or precision of health information is derived from the Scripture. Al-Qur'ãn's accuracy and precision is described in Aal Imrãn 3:7 as follows: '*It is He who has sent down to you (O Muhammad), the Book; in it are verses (that are) precise; they are the foundation of the Book'.* The Bible in its own right is precise and accurate in its statements and recordings. The fourth quality of health information is consistency. This is the quality of being in agreement or in conformity with provisions or exiting practice.   This is especially in healthcare system, where there are international best practices such that care processes are the same irrespective of location   and   time.   The   Bible   also corroborates the consistency quality of health information (Leviticus 5:2, Isaiah 43:3). Prophet Muhammad ﷺ   in one of the traditions said: '*The most beloved deeds of Allaah are the most consistent of them even if they are few',* *(Bukhari & Muslim)*.

The fifth quality is reliability. Reliability means that the health information is to be the same information about the same patient even as written by different care providers[19]. The health records or health information must be reliable enough to identify the patient, justify the treatment and the reason for seeking healthcare. According to the Islamic teaching, it was insured that the wordings of the text of Al-Qur'ãn available today corresponds exactly to the literal, infallible, perfect, timeless, absolute and unadulterated word of Allaah revealed to Prophet Muhammad[20]. Reliability of God's word is also documented in many verses of the Bible (Lamentations 3:22, 23, Isaiah 12:1). Another major quality or essential element of health information is accessibility. One major purpose of keeping the patients' health records is for easy retrieval and accessibility. Of what value is a well-documented records and a well-kept records that is not retrievable on point-of-care? The

beauty of good health records management practice is the ability to make patient's health records available on point-of-care. The Scripture that contains the word of Almighty Allaah is accessible to all and sundry irrespective of race, clan and location. That informs the universality of the words of God just like His knowledge. Al-Qurãn and the Bible are ubiquitous and hardly can one find any individual on earth, who has not heard of the God's word.

The ethical obligations of the HIM professionals include to safeguard the confidentiality, privacy and security of health information, appropriate disclosure of health information, development, use, and maintenance of health information systems and ensuring the accessibility and integrity of health information. Below is the Code of Ethics for Health Information Management Professionals as published and revised by AHIMA[21].

i.   Advocate, uphold and defend the consumer's right to privacy and the doctrine of confidentiality in the use and disclosure of information;

ii. Put service and the health and welfare of persons before self-interest and conduct oneself in the practice of the profession so as to bring honor to oneself, their peers, and to the health information management profession;

iii. Preserve, protect and secure personal health information in any form or medium and hold in the highest regard, health information and other information of a confidential nature obtained in an official capacity, taking into account, the applicable statutes and regulations;

iv. Refuse to participate in or conceal unethical practices or procedures and report such practices;

v.   Use technology, data and information resources in the way they are intended to be used;

vi. Advocate for appropriate uses of information resources across the healthcare system;

vii. Recruit and mentor students, peers and colleagues to develop and strengthen professional workforce;

viii. Represent the profession to the public in a positive manner;

ix. Advance health information management knowledge and practice through continuing education, research, publications, and presentations;

x.   Perform honorably, health information management association responsibilities, either appointed or elected, and preserve the confidentiality of any privileged information made known in any official capacity;

xi.   State truthfully and accurately, one's credentials, professional education, and experiences;

xii.   Facilitate interdisciplinary collaboration in situations supporting ethical health information principles;

xiii.   Respect the inherent dignity and worth of every person.

Similarly, the International Medical Informatics Association (IMIA)[22] stipulates the following principles for health information ethics:

i.   Principle of Information-Privacy and Disposition: All persons and group of persons have a fundamental right to privacy, and hence to control over the collection, storage, access, use, communication, manipulation, linkage and disposition of data about themselves.

ii.   Principle of Openness: The collection, storage, access, use, communication, manipulation, linkage and disposition of personal data must be disclosed in an appropriate and timely fashion to the subject or subjects of those data.

iii.   Principle of Security: Data that have been legitimately collected about persons or groups of persons should be protected by all reasonable and appropriate measures against loss degradation, unauthorized destruction, access, use, manipulation, linkage, modification or communication.

iv.   Principle of Access: The subjects of electronic health records have the right of access to those records and the right to correct them with respect to its accurateness, completeness and relevance.

v.   Principle of Legitimate Infringement: The fundamental right of privacy and of control over the collection, storage, access, use, manipulation, linkage, communication and disposition of personal data is conditioned only by the

legitimate, appropriate and relevant data-needs of a free, responsible and democratic society, and by the equal and competing rights of others.

vi. Principle of the Least Intrusive Alternative: Any infringement of the privacy rights of a person or group of persons, and of their right of control over data about them, may only occur in the least intrusive fashion and with a minimum of interference with the rights of the affected parties.

vii. Principle of Accountability: Any infringement of the privacy rights of a person or group of persons, and of the right to control over data about them, must be justified to the latter in good time and in an appropriate fashion.

A code of ethics does not ensure ethical behaviour. Also, a code of ethics cannot resolve all ethical problems or conflicts or capture the variety and complexity involved in trying to make ethical decisions within a moral community. A code of ethics rather sets out values and ethical principles that a HIM professional can aspire to and by which behaviour can be judged. Ethical behaviour comes from a personal pledge to engage in ethical practice[21].

Medical confidentiality

Confidentiality is a set of rules or a promise that restricts access or imposes limits on certain types of information. Lawyers often have a legal duty to keep anything related to the representation of a client confidential. This helps the clients to speak openly about their cases23. In healthcare context, confidentiality usually applies to conversations between practitioners and patients. The medical ethics has traditionally regarded the duty of confidentiality as a core principle of medical practice[23]. Confidentiality is the foundation of medical ethics. It is the ethical key to good treatment and it is essential to build trust between clinicians and patients. Without such trust,

patients may not reveal all relevant information especially, about risky behaviour[24]. From the patient's perspective, confidentiality is the expectation that what is done or said will be kept private, and that there will be strict limits on information release[25]. Confidentiality is sometimes used synonymously with privacy in relation to medical data, but they are different concepts. By definition, privacy is the protection of patients from any disclosure of personal health data, by providing security for the patient and the patient's health records, while confidentiality is the sharing of information only with those who need to know i.e. selective use of information obtained from and about a patient26. When patients seek healthcare services to improve their condition, they need to disclose a lot of data to the caregivers, who need to record it. To get such useful data, the patient needs to be assured and reassured that the information given will stay confidential. Otherwise, the

patient may withhold vital information, which may affect the quality-of-care provided[26]. Although HIM professionals have the main responsibility of upholding the principles of medical confidentiality, this responsibility is also a professional obligation of all healthcare providers. Safeguarding health information is crucial to human security.

Islam respects the privacy and security of individuals and acknowledges their need for personal space. Islam forbids any intrusion or access without permission, even when it comes to entering someone's house. Allaah says: 'O you who have believed, do not enter houses other than your own houses until you ascertain welcome and greet their inhabitants. That is the best for you; perhaps you will be reminded'. An-Nur 24:27. The Bible also affirms the principles of medical confidentiality, privacy, secrecy and transparency in Proverbs 11:13 that: 'A gossip goes around telling secrets, but those

who are trustworthy can keep a confidence'. These are also emphasized as vital elements of health information management in the scripture.

Health Information Management professionals have a duty to uphold the principles of medical confidentiality, respect personal values, ensure proper informed consent, when information needs to be shared and should anonymize information appropriately as when required. This is crucial to safeguard the dignity of stakeholders in HIM and healthcare delivery system. Confidentiality is also the ethical foundation of good treatment as it creates a comfortable environment for the patients, who seek care. However, there have been instances of breach of this valuable information, which has caused serious worries among patients, who are the subjects of the records.

For example, research reveals that dentists often breached professional confidentiality by sharing clinical case information with their assistants, friends and spouses[27]. Healthcare providers in South Australian eroded the trust of patients by releasing information without authorization, patients from Minnesota had worries mainly about inappropriate access and possible misuse of their data by employers and insurers[28,29]. In Massachusetts, patients expressed concern about the potential of electronic health information exchange despite their excitement over its implementation and in Nigeria, on the other hand, healthcare professionals only released authorized part of the health information to those who were authorized to receive it and agreed that not all relatives of the patients should have free access to the records without consent, regardless of their relationship[26,30,31]. In Nigeria also, healthcare providers did not have a deep understanding of their own responsibilities for upholding the principles of medical confidentiality[26,32]. Other

healthcare providers regarded the promotion of the principles of medical confidentiality as sole responsibilities of HIM professionals[26,31,32]. Moreover, the management of patient health records and health information is not fully restricted to trained HIM professionals in Nigeria. This situation creates risks to provider-patient relationship, medical confidentiality and research[33].

The "oaths" of medicine contain a rich and broad history of medical ethics. These oaths cover different aspects of time (from around 2000 B.C., Code of Hammurabi), of ethnicity (Arabic, European, and Chinese), of world views (Hindu, Jewish, Islamic), and of Greek influences (Hippocrates). Seven principles are repeatedly mentioned:

i.   First of all, do no harm,

ii.   Respect for human life,

iii. The alleviation of suffering,

iv.   The right to truth,

v.   The right to informed consent,

vi.   The right to die with dignity and

vii. Confidentiality of the physician-patient relationship.

The first six of the above principles do not appear to contradict Scripture, but absolute confidentiality of the physician-patient relationship might pose a problem. The principle of confidentiality is needed to protect information that is essential for intimate relationships; however, speaking carefully and at the right time and place to break a confidence may save a neighbor's life. The hard choice of whether to "be quiet" in keeping a confidence or to "speak up" and justly decide the proper person, place and time of speech therefore requires the Wisdom of Nabiyy Suleiman known as Solomon in the Bible. If a minor asks a believing health worker for advice about getting an abortion, should her parents be informed without her consent? In a time of widespread computerization of health records, how can a physician keep the secrecy of these records

when more people (third party payers, quality assurance committees, utilization review, etc.) have access to sensitive health information[34]?

Rutecki and Geib also argued that confidentiality is very important in medicine and needs safeguards[34]. They suggested that healthcare providers should be aware of the appropriate protections for computerized information. They recommended that information should not be shared with third parties without patient permission or notification, especially if it is sensitive. They advised that information given to healthcare providers by minors should be treated differently because of biblical principles related to the authority of parents, sanctity of marriage and importance of the family[34]. This is especially relevant when consent laws for abortion and birth control do not require parental notification. They asserted that notifying parents in the case of abortion is clear because of the threat to unborn life.

Confidentiality is a relative good that should be carefully protected by the believing healthcare providers. However, it has limits when a confidence puts someone else's life at risk.

Health information ethics

Health information ethics concerns the moral issues that arise from using both manual and technological methods to handle patient's health records and hospital-held information. Access to strong data-sets, which include information on many patients and control subjects, is essential for answering many significant public health research questions[14]. Therefore, the Internet has had a major impact on the field of healthcare, as it has enabled greater access to medical data. This new technology has also caused changes in the behaviour of the actors, ethical considerations and, thus, outcomes, such as[2]:

i.   making it possible to access the whole body of health information that is rich but, inconsistent in terms of quality;

ii. increasing the number of health information exchanges via e-mail;

iii. creating "cyberpatients" through forums dedicated to health;

iv. developing projects to circulate medical data over a network;

v. increasing awareness on the part of citizens and patients about the quality of healthcare offered and easier access for these individuals to healthcare-related education;

vi. creating a guidance tool in the system (putting the addresses and rates of healthcare professions, the platforms for urgent situations, the performance of healthcare, etc. online);

vii. contributing to epidemiological monitoring; and

viii. causing healthcare and healthcare product providers to change and progress.

Medical secrecy is emphasized in three articles of the French medical deontological code[2]:

i. Art. 4 Paragraph 1: "Professional secrecy, imposed in the interest of patients, is required of every physician in the conditions established by law;"

ii. Art. 72 Paragraph 1: "The physician must ensure that the individuals, who contribute to the patient care are instructed in their obligations with regard to professional secrecy and that they comply with these obligations;"

iii. Art. 73 Paragraph 1: "The physician must protect against any indiscretion medical documents concerning individuals he has treated or examined, whatever the content or format of these documents".

Medical ethics is the guiding principle for all healthcare providers, based on their moral

commitment to promote information ethics. They must show this in their behavior and their effort to cultivate a virtuous character. There is clear evidence that ethical aspects are essential in public health informatics, due to the risk of data tampering and unlimited access to data. However, ethics is often overlooked and undervalued[35]. Even when informed consent is required to release health information, recent advances in information technologies have rendered informed consent ineffective, due to the increased possibilities for information access[35]. If ethical issues are disregarded in the development of public health information systems, the public health may face more challenges, because of the complex nature of public health and the difficulty of defining policies for data sharing[35]. The Internet is a valuable resource for consumers, but to make the most of it, it is necessary to ensure the quality of information, or at least, to help consumers to evaluate the quality of information. Quality

management of health information on the Internet relies on "bottom-up" mechanisms and mainly, rests on four pillars - the " E's"[36]:

i.   Educating consumers,

ii. Encouraging self-regulation of health information providers,

iii. Evaluating information by third parties, and

iv. Enforcement, in case of fraudulent or positively harmful information.

Privacy has become a growing concern in recent years as it seems to be increasingly threatened. Every new device that connects the world more also creates possibilities for privacy breaches. Recent business cases with privacy uncertainties are mainly related to information technology. For example, cloud computing and information storage put huge amounts of personal data in a place where even if the data collection and storage is protected by privacy laws, the data can be processed and linked to reveal a lot[37]. Online health records are convenient for healthcare

providers and valuable for medical researchers, but their economic worth makes them a tempting business asset either to target customers for product advertising or to reject service to potentially high risk clients[37]. Concerning the access to health information by third parties, the ethical issue of patients feeling hurt and betrayed by the inappropriate use of their data and the violation of their privacy could be solved by applying the trust agreement and the medical contract18. Patients are becoming aware of the use of their health records in research and they prefer to give specific informed consent each time their health records are used for such and other secondary purposes, so healthcare providers need to be more careful in terms of proper ethical considerations[32].

Electronic health records (EHRs) are a recent innovation in health information management that has improved the speed and efficiency of processing, sharing, and using health information for continuous care and

smooth communication among care providers. These technologies have solved the old problems of slow information retrieval, missing notes, excessive retention and have enabled the collection of large health data for evidence-based medicine. However, this also comes with potential ethical and social risks, such as threats to health information privacy, threats to the social reputation of the patients' groups, and threats to the ethical principle of voluntary participation in biomedical research[14]. The use of EHRs has many advantages, but it also entails challenges related to the creation, development, and maintenance of health information in electronic form. The technologies have many important benefits, but the future of healthcare requires that their challenges be acknowledged and properly addressed or mitigated. Electronic health record capabilities must be optimized to enhance communication and improve quality,

safety, efficiency, and effectiveness of healthcare and healthcare delivery systems[38].

Conclusion

The health records and information that hospitals keep are essential for managing the health and life processes of patients. They also help to improve medical assessment, healthcare research and public health confidence. However, they face challenges from technological development and unethical conduct of healthcare providers/other stakeholders. The scriptures of Al-Qurãn, the Sunnah and the Bible are the source of all wisdom as they contain the principles and aspects of health information ethics. The scriptures have given guidance on how to protect patients' health records and information responsibly and professionally. It is expected that relevant stakeholders would follow the guidance in the Scriptures to restore the ethical values in health information management and enhance healthcare services and public health. It is

recommended that HIM professionals and other healthcare providers should adhere to the ethics and etiquette of their respective professions.

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Authors Contribution:

AIT conceived of the study, initiated its design, participated in data abstraction and coordination and drafted the final manuscript. SQB, MLM, MO, EYS and AAA participated in data abstraction and coordination and reviewed the final manuscript.

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