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ABSTRACT

Implementation of ethical principles in health care settings is an important tool for prioritizing well-being of patients in face of expanding treatment options, medical technologies and resources scarcity. This review discusses evaluation and theories of ethics, principles of medical ethics and strategies of their inculcation in healthcare professional practices. Non-maleficence, beneficence, patient's autonomy and justice are recognized basic principles of medical ethics for regulating the actions and behaviors of healthcare professionals. They are aimed at increasing patient's well-beings through preventing physical and moral harm, maximizing benefits of diagnostic and therapeutic interventions, ensuring patients preferences for a specific treatment or diagnostic method and access to healthcare facilities with equality and equity. Deviation from these principles leads to professionally unethical practice with ultimate physical and moral harm to patients. Principles of medical ethics are legal in nature and can be inculcated in healthcare professionals through inclusion in courses, ethical committee's establishment, trainings and conferences. Ethical competency, transparency, integrity and respect towards patients are the prime requisites for medical ethically skilled professionals.

In conclusion, ethical principles should be implemented in their true spirits so the patients can get maximum clinical outcomes of treatments with higher physical and moral safety and cost-effectiveness.

INTRODUCTION

Demands for considerations of ethical principles in health care settings have been increased recently due various factors such as limited resources, expansions in the options for treatment, need for prioritization and current advancements in medical technologies (1). To meet the needs arising due to these developments, various ethical principles have been designed in order to regulate the actions and behaviors of healthcare professionals with ultimate goal of improving well-being of patients (2). Members of the healthcare team, doctors, nurses and pharmacists, have certain obligations and responsibilities towards patients, colleagues and society at large, thus their training and education on ethical principles help resolving ethical issues encountered in their daily practice (3).

Ethical principles in medical practices encompass the applications of both moral values and conducts of healthcare professionals, thus ethical behavior is explained both in terms of the moral values and principles of professional conduct (4). The body of moral values basically demands logical and critical thinking skills for tackling and evaluating ethical issues. Moral principles include equality, honesty, diversity, fairness, individual rights, and dignity (5) as shown in Figure 1. The professional or ethical conduct is the set of instructions set by the respective authority bodies for carrying out certain procedures according to already established principles (6). In healthcare systems, principles of ethical conduct are set for focusing on the virtues and moral obligations with an ultimate aim of benefiting and

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developing the ethical professional relationship among the healthcare community team and patients' (7). Ethical principles in healthcare systems are implemented for achieving certain specified goads. These principles are aimed to achieve two-fold goals that include firstly the establishment of the standard form of responsibilities including the core issues of the healthcare professionals clearly. Secondly, they are aimed at establishing and guiding the health care professionals on their behavior towards the patients, colleagues and society (8).

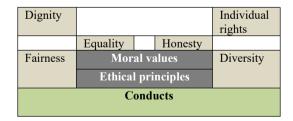


Figure 1. Body of moral values as integral part of ethical principles for healthcare system

Factors such as limited resources, expansions in the options for treatment, need for prioritization and current advancements in medical technologies have led to the need of design and implementation of certain ethical principles in healthcare systems. These principles are aimed at improving the patient's overall health as well as regulating relationship

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between members of the healthcare systems. Moreover, the freedom of patients for choosing treatment and medical procedure among the available choices has limited the legal spectrum for healthcare professionals. The privacy and respect issues of the patients from diverse cultural and geographical backgrounds most often lead to complications for the health professionals. It is necessary on the part of all members of healthcare professionals to be familiar with ethical principles so complications can be avoided, and the patients can get better clinical outcomes of the suggested treatments or medical procedures. This review has been undertaken for discussing the current concepts, practices and implementation of ethical principles in healthcare settings.

Origin and concepts of ethics

Ethical principles in healthcare settings are the applications of principles, ethical theories, guidelines and rules in issues arising clinical practices. Thus, it becomes imperative for healthcare professionals to be familiar with basic groundings of ethical theories and principles so they can be able to develop methods for handling the arising issues effectively during their clinical practices (9). The origin of moral ethical principles is dated back to Aristotle (384-322 BCE) where he used the term "ethikos" for explaining the "customs". Aristotle was of the opinion of using ethics with intent of improving the quality of human life. The evolution in ethics occurred as a result of reaction to new events or human Various theories have been actions or inactions (10). established for describing ethics in general, but they can be related to the ethical principles for practice in healthcare settings. Among them, the theory of consequentialism is related to the ethical analysis that defines the correctness of actions on the basis of their consequences (11). Simply, when an action produces good results then is it is ethical and if it produces bad results, then it is said to be unethical. This theory is ambiguous as certain actions produce both god and bad results simultaneously. Moreover, it is difficult to define which effect of the applied action is good and which one is bad. In contrast to consequentiallism, the theory of deontology analyzes the correctness of actions on the basis of fulfilling of the duties performed by individuals (12). According to this theory, individuals have certain obligations towards others, and if they fulfill their specified obligations, then they are said to be ethical. Theory of virtue ethics focuses the moral qualities of individuals rather than their acts. This approach requires the individuals to have cultivated in them the moral values and trying to cultivate these in others (13). Normative theory of ethics requires the individuals to be moral upright and professionally competent

Ethical principles in healthcare settings

Most commonly employed ethical principles in healthcare settings were popularized by Beauchamp and Childress in their book "Principles of Biomedical Ethics" (14). This approach considers the four basic principles as indicator for the basic values that are equally important and should be followed strictly (9). Though the framework of these principles is commonly applied to relationship between the patients and physicians, it is believed that this obligation is transferred to healthcare settings through healthcare professionals (15). These principles include non-malfeasance, beneficence, justice and patient autonym (Figure 2) which are discussed in detail in the following section.

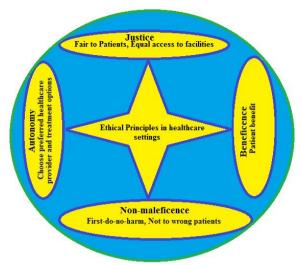


Figure 2: Schematic presentation of four principles employed in healthcare settings

Non-maleficence

The principle of non-maleficence in medical ethics is commonly linked to a much-known principle of "First Do No Harm". Thus, non-maleficence is intended for rendering an obligation on the members of healthcare team not to inflict any harm on any individual (16). This principle is employed in medical ethics to prevent or minimize harm to patients in many ways as shown in Figure 3. Non-maleficence is one of the key principles in the ethics employed in healthcare settings for clinical practice. Errors in medical practice have been reported to be the third leading cause of deaths in USA (17). The common errors in medical practice have been debated extensively and have been found to include adverse effects of medications, thromboembolisms and central line infections (18). The consideration for the principle of nonmaleficence is also important during the diagnosis of patients. Sharing results of diagnosis with the patients is a delicate process and requires the healthcare professional to be highly prudent in this regard (19). Harm to the patients in terms of emotional burden as a result of diagnosis results can be minimized via a thorough approach for breaking the results of diagnosis. This can in turn attenuate the negative effects on the quality of life of patients (20).

Similarly, sharing of insufficient information about the treatment or diagnosis strategies can also cause harm to patients in terms of their emotional burden. Thus they should be given complete information so they can fell more competent in taking a right decision (21). Harm towards patients can also be minimized or prevented by considering the preferences of patients for a certain treatment or diagnosis options. These preferences are highly determined by personal values, cultural background and religious beliefs of the patients (22). The physicians are thus required to consider the principle of non-maleficence in such situation for avoiding emotional or religious burden on the part of the patients. Owing to the increasing number of patients, the healthcare systems become more complex, and thus the opportunities for harming patients unintentionally increase. Though, almost all the clinicians are aware of such, still they should be regularly reminded of the occurrence of such medical errors that result in the harming of patients. Administrative and bureaucratic interference can further hamper the nurses and physicians effects for minimizing the harm to patients, thus resulting in sense of powerlessness and moral injury (23).

Consideration of the principle of non-maleficence becomes very important when it comes to the privacy of the patients.

Sharing the data of a patient with an individual that is not concerned with it is believed to harm the concerned patient, thus this practice becomes unethical owing to violation of the principle of non-maleficence. This extends the principle of non-maleficence from "First Do No Harm" to the "duty not to wrong patients". The healthcare settings of the present times have multiples partners, thus they should be particularly cautioned about the patients privacy by not sharing their data with irrelevant individuals or partners (24). The principle of non-maleficence is not limited to preventing or minimizing physical or emotional harms to the patients. The current medical or clinical practices are focusing on the cost-effectiveness of the treatment strategies so the efficient can get maximum clinical efficacy at low costs. Thus, it is imperative on the part of the healthcare members to rationalize the treatment options in terms of their costeffectiveness in order to prevent or minimize the unjustified economic burden on patients (15).



Figure 3: Schematic representation of considerations of the principle of non-maleficence

Beneficence

The principle of beneficence explains that everything should be directed towards the best interest of the patient. Patients come to the clinical practitioners in order to get maximum improvements in their health, thus this leads to the consideration of the principle of beneficence. Beneficence focuses on benefitting patients' comfort, health, potential and welfare such as encouraging patient for vaccination and quitting smoking (25). The principle makes the members of healthcare teams for contributing to the patient's welfare through therapeutic interventions that directly confer benefit to the patients. However, benefits to the patients can also be given in other ways except therapeutic interventions. The culture, beliefs and values can be modified for achieving benefits of the intended therapies. For instance, certain patients may show their disapproval towards the physician's preferred therapy due to their misconception about the physician's preferred therapy. The physicians can handle this situation while handling patients with capacity of understanding the reasons of physician's preference for a certain therapy. However, benefits to the patients having no such capacity are not considered under the principle of beneficence, rather they are considered under an overarching concept of best interests. This situation is mostly concerned with incapacitated patient including minors and neonates where other responsible individuals decide on their behalf in their best interests (16, 26). The understanding of best interests becomes highly difficult when clinical outcomes of therapies and preferences or values expressed by the responsible individuals on behalf of the incapacitated patients. It is especially difficult in case the patients are minor or neonate as they are incapable of expressing their preferences values and wishes. In such case, the beliefs, values and culture of the family in which the neonates born or grow should be considered (27-30).

Compromise on the principle of beneficence in healthcare settings results in various conflicts which in turn lead to moral injuries in patients. Beneficence is said to be violated when the treatment cost exceeds the financial limits of a patient. There should be proper consideration of pharmaceutical pricing so to avoid this moral compromise or unethical practice in other words. Apart from the financial burden, the negative impact due to moral injuries can be highly devastating for the health of patients. In case physicians need replacement of some old medications with newer but costly ones, they must consider the costeffectiveness as their top priority. Violation of the beneficence principle may occur when the patients become unable to purchase the new costly medicines due to their limited financial resources (23, 31). In conclusion, the principle of beneficence obligates the members of the healthcare teams for the benefits of the patients through prescription of rational and cost-effective therapies with preferences of the patients will intact.

Patient's Autonomy

The principle of respecting autonomy describes that individuals having capacity are free to make their own decisions while the providers have a moral obligation of respecting their right of making their own decisions. The autonomy of the patients often becomes vulnerable in the course of clinician-patient relationships. Thus, the principle of patient's autonomy is always placed at the forefront of ethical concerns in healthcare settings (32, 33). In a more realistic approach, autonomy of the patients relates to their rational capacity for making their own decision freely (16). Every individual patient has the right for expressing her/ his preferences about therapies. Moreover, they are free to accept or reject any therapy or diagnosis suggested by their physicians. To employ the principle of autonomy, members of the healthcare teams are ethically required to respect the choices of the patients for medical interventions (26). The principle of autonomy permits the patient to be active in their daily routine through expressing concerns, participation in decision making process, asking questions, addressing anxieties and fears, expressing values, wishes, values, hopes and desires (34).

The main limitation of the principle of autonomy is the treatment of neonate as they are vulnerable and are not able to express their preferences. However, this can be addressed through taking their parents as their guarantors. In this case, the parents are supported by the best knowledge of clinicians concerned with the treatment of the neonates. It is including in the ethics of the concerned clinicians to prudently inform the parents and act professionally while considering all other medical ethics of justice, beneficence and non-maleficence. The real needs of the neonates for effective diagnosis and treatment can be only known when there is a sincere and strong dialogue between the parents and clinicians (26). Moreover, there are some patients having possible minor cognitive deficits that leave them incompetent of making wise decisions or participate actively in the decision making process (35). Thus, it becomes a challenging task for the clinicians to obtain the patient's autonomy in a more productive manner due to lack of means for direct communications. Assisted communication important for individuals facing difficulties in conveying their wishes or preferences (36, 37).

Justice

The principle of justice in medical ethics is primarily related to distribution of healthcare facilities in fair and equitable manner. To employ the principle of justice in medical ethics according to its true spirit, it requires rationing and prioritization of the competing claims (16). The principle of justice can be divided into different sub-categories such as distributive justice i.e. fair distribution of scarce resources, rights-based justice i.e. respects for people's rights and legal justice i.e. respect for laws. Wise distribution of resources and granting health facilities with equality and equity is always a challenging task for healthcare professionals. Though almost every constitution of the world claims the right of treatment with equality and equity, however, the actual practice is different what is claimed. Various factors such as place, age, ethical background, social status, sexual and cultural preferences, legal capacity and disability, insurance cover and hospital budgets affect the principle of justice in medical ethics. The principle of justice has been included in the medical ethics in order to regulate the above mentioned aspects and to avoid any form of discrimination and (26). Violation of the principle of justice in medical practice not only results in physical harm to the patients, but also causes a moral harm. Moral injury takes place in patients when the ideals of equal access to health facilities conflict with the better reality of medical care based on discrimination, especially along socioeconomic lines (23).

Inculcating ethical principles in healthcare professionals

Inculcating ethical principles in healthcare professionals should be based on education. Subjects containing components of ethical principles should be included in curriculum of medicine, pharmacy and nursing education. Education of ethical principles during study course will assist the healthcare professionals to understand the core principles regarding pharmaceutical and medical ethics. It will also assist them in gaining insights regarding the best ways to deal with the patients and the public (38). Moreover, inculcation of ethical principles in healthcare professions can also be efficiently achieved through establishment of ethical committees, ethical rounds as well as organizing conferences on the subject matter. Furthermore, The ethical principles can also be inculcated in the curriculum of medically based academic institutions, and through innovative web-based learning programs (39, 40). Being an inherently moral profession, healthcare professionals are required to be morally strong. They are more often confronted by diverse moral issues during their practice in clinic. In recent times, various moral deliberation methods have been designed and developed for supporting the healthcare professionals in situations of moral issues. Such methods have been found effective in inculcating the ability of resolving the moral issues in a more dialogical, reflective and constructive manner (41-43).

Ethical principles are intrinsically legal

The ethical principles are set for ensuring the minimum standards for medical practice; thus, they inherit a legal status for implementing the required standards. The moral and legal actions of the members of healthcare team are ensured through these principles which involve the patient and the healthcare system. Moreover, the legality of these principles ensures the involvement of other health professionals such as pharmacist for playing their important role in healthcare settings. The ethical principles of healthcare systems provide the patients as well members of healthcare team for exercising their legal action if needed (44). Basically, they are regarded as tools of authentication of the profession (45). In other words, they are documented set of rules delivered by an association to its members and

organizations to assist them to perform their activities in conformity with its main principles and ethical standards (46).

Ethical Competency: A prime requisite for addressing ethical issues

Ethical competency which is also known as moral competency is considered one of the important components required on the part of the healthcare professionals (47). It consists of the attitudes, knowledge and skills required for addressing the ethical issues (48). Another consideration defies it as the ability of a moral agent to identify ethical dimensions and value conflicts, ability of choosing one value over another employing logical reasoning as well as the ability of acting according to the decided lines of action (49). Moreover, ethical competency is the sum of personal characteristics, capabilities of taking actions according to the judgments based on the rules and principles and familiarity with ethical guidelines and laws (50). Though there is a little bit difference in terminologies and definitions used for ethical competency, it is an important factor for enabling the healthcare professionals to make professionally wise and value-based decisions for implementing sustainable patients care based on ethical principles (51). Furthermore, it prevents the healthcare professionals from making ethically obscure actions that results in the mistreatment of patients (52, 53). Respect and integrity are also closely associated with legal competency. Respect is the process of evaluating or treating other persons in a particular way. It also involves an appreciation for the individuals and consideration regarding the concerned individuals. Therefore, healthcare workers should believe that all people around them have equal rights and respect and dignity which are the key factors in their communication and interaction practices (54). The term integrity is strongly associated with honesty and transparency of the individual during his/her service period. It is based on a positive moral code which should not be violated and adulterated. In addition, integrity also ensures stability of the moral behavior even though the system changes (55).

Conclusion

There has rapid expansion in the availability of multiple treatment options due to introduction of newer technologies. Moreover, the available resources are becoming scarce owing to increasing population and epidemic diseases. Ethical principles in medical practices are intended to shape the moral values and professional conduct of the members of healthcare teams in order to prioritize the well-being of patients seeking medical or diagnostic interventions in healthcare settings. These principles aim at preventing physical and moral harm to patients, maximizing benefits of diagnostic and therapeutic interventions, ensuring patients preferences for a specific treatment or diagnostic method and access of patients to healthcare facilities with equality and equity. Principles of medical ethics should be inculcated in healthcare professionals through their inclusion in courses, establishment ethical committees, trainings and conferences. To achieve maximum therapeutic effects for the patients with higher safety levels and at low cost, ethical principles should be implemented according to their true spirits in healthcare settings.

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Conflict of interests

All the authors declare no conflict of interests

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