

Reverse Paternalism in Medical and Clinical Engineering Practice

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Abstract— Professions are governed by ethical frameworks of moral standards each within its own professional boundaries. So often boundaries intersect and present ethical challenges that should be dealt with from the point of view of more than one professional ethical standard; such as in the case of engineering and medicine. As the medical profession depends more and more on medical equipment for treatment and diagnosis, medical decisions present ethical dilemmas to the clinical engineer responsible for the purchase and maintenance of medical equipment. One of these challenges is related to paternalism, which is the act of interfering with a person's autonomy by making decisions for them claiming that it is "for their own good". This problem is universal, but more prevalent in countries where education and awareness are limited. In Lebanon for example, ethical challenges are widely spread in the field of medicine, though they are not being discussed in the literature. Throughout time, paternalism has found its way to turn into a new form, termed and defined for as reverse paternalism. Reverse paternalism refers to the act of sacrificing one's autonomy and self-determination and giving another person or group the right for making decisions on their behalf. Some people, as moral agents, are giving up their autonomy and rights for making decisions to medical practitioners because "they know better". The main focus of this paper is therefore on reverse paternalism that will be investigated as an ethical dilemma. What exactly is Reverse Paternalism? What might be possible causations that led to its emergence? Are there regulations that restrict such kind of paternalism? Are medical practitioners to blame in such cases? And to what extent is there auditing over what happens in hospitals, private clinics, medical centers and institutions? We focus on Lebanon and try to compare it to other countries. Our aim is to shed light on this ethical dilemma and highlight how serious and wide spread it has become, by providing statistical data we have collected.

Keywords – *professionalism; medical ethics; engineering ethics; medicine; paternalism; reverse paternalism.*

I. INTRODUCTION

This study builds on a previous study identifying reverse paternalism in engineering and medicine as an emerging dilemma in developing countries such as the case of Lebanon [1]. This paper introduces more information about the issue.

Different occupations and professions exist within different societies across the globe. People get educated to major in their fields of interest and decide to become professionals or not, because not all occupations are professions. A profession is a group of individuals in the same occupation voluntarily organized to earn a living by openly serving a moral idea in the most morally permissible way [2]. Lawyers, professors, scientists, doctors, engineers, etc., are all considered to constantly find themselves in positions of taking decisions that most probably will have impact on many people's lives. They are said to be the ones that 'know better', because people tend to turn to them when it comes to life-dependant decisions. Consideration of professional or non-professional occupations differ from country to country. In Lebanon, they are considered professionals, and to govern their behavior, moralities or moral standards have been arisen as guidelines for those professionals throughout their career. In general, we find three types of ethics, common morality, personal morality, and professional ethics. Common morality is the set of standards that is shared by almost everyone, personal ethics are those that contribute to moral beliefs that each person hold, whereas professional ethics are the set of standards adopted by professionals with certain characteristics [2]. These characteristics include formal codes, focus on important profession's issues, can have negative/positive dimensions, and most importantly, they take precedence over personal morality [2]. Each profession should include a basic methodology for deciding what is morally right and what is morally wrong in one's professional conduct to qualify whether an action is right or wrong. This normative ethics and principles lead to the codes of ethics that demonstrate the accountabilities and duties of each

profession and when these codes are followed, the field flourishes and brings changes to the field and the world as well. Unfortunately, there is no existence of an ideal society, despite the presence of ethical codes and rules, society will face deviations from the proper standards that are stated. What would be even more challenging is the normalization of deviance from what is allowed. Normative ethics and standards are ought to be embedded in societies, so that professions are built on an ethical base. An ethical base is important in order to practice the profession in all legal, ethical and safe ways possible. As mentioned previously, there is a difference between personal ethics and professional ethics. What might be ethical in a person's opinion must not be allowable at one's workplace. Therefore, it is very important to differentiate and control one's ability to have both. Ethical codes of standards are thus an obligation to protect workers, and society as a whole, as well as keep them as safe as possible. As a professional, one has the duty to keep their society prioritized. Deviations from those standards are proportional to risk and inversely proportional to safety. The increase of deviation from proper standards increases safety risks. Whenever one is in a position of doing harm, normalizing this act by doing it numerous times, there is automatically an increase of risk on themselves, as well as the ones surrounding them. This increase compromises safety mandated by the codes of ethics and standards. In other words, ethical challenges are based on deviation from ethical norms and codes. First of all, one has to identify a profession, then categorize each occupation as a profession or not, which is normally dependent on the country. In some countries, engineering counts as a profession and therefore has specific norms of codes of ethics governing this profession, and in other countries such as in the USA, engineering is not a profession. We mainly find two models of professionalism, the business model, and the professionalism model. Priorities of the business model are mainly monetary, making profit within the boundaries set by law, gain monopoly over certain services to increase profit, and persuade governmental regulators that a great deal of autonomy is granted in the workplace [2]. The professionalism model includes an implicit trust relationship with the public known as the Social Contract, which will be focused on thoroughly throughout our study regarding the field of engineering and medicine. The model focuses on holding paramount the public's safety, health and welfare, and might only seek monopoly if it is to protect the public from incompetent providers for example [2].

In countries where engineering and medicine are professions governed by codes of ethics, it is important to shed light on what is known as a "Social Contract". This contract is conducted between a professional such as an engineer, and between the public. It is a contract that ensures trust between them, maintaining the public's health, safety and welfare prioritized, and guaranteeing that those professionals will do what is possible to keep that trust built up. "What does an engineer do when no one is looking?" Everyone in the society that has the ability of rational decision-making is a moral agent. Moral agency leads to acts of responsibility, and a moral agent is therefore responsible

for their actions. An engineer, furthermore, is ethically responsible for the decisions that are taken concerning the society. The social contract is of high importance because it includes the engineer and the people they work with. This does not only apply to engineers, but also to the individuals in society. They are moral agents as soon as they take rational decisions and take responsibility for them. Engineers are concerned with accountability for what they have done in the past, present and will do in the future. They are not only obliged to adhere to regulatory norms and standard practices of engineering, but also to satisfy the standard of reasonable care. Since there are two types of responsibility, professional responsibility and liability [2]. Any intentionally, recklessly or negligently caused harm will have consequences, and they will be held accountable or legally responsible for them. The standard of care is a demanding norm that goes beyond what is asked to be done by professional engineers. Safety, competency, efficiency, quality and responsibility are all examples included in the standards that need to be applied by professionals. What might hold engineers back from acting responsible can be attributed to self-interest, self-deception or ignorance. Engineers should not have egocentric tendencies, a microscopic vision or an uncritical acceptance of authority, that decreases the engineer's sense of personal accountability for consequences for the public. Engineers are expected to respect professional confidentiality and honesty at work, and any form of dishonesty is an impediment to being professionally trustworthy as they should be according to the social contract. Engineers have responsibilities and duties of providing what is best and beneficial for the public. In any case of harm, they are obliged to announce and make sure everyone is aware of that harm. They are in charge of alerting, informing and advising the public and avoid any conflict of interest, because health and safety of the public always comes first.

This brings us to a point where we realize how much of unethical behavior occurs in our societies. Every field faces ethical challenges, and in fields like engineering or more precisely, clinical engineering, where technology and medicine merge, ethical challenges are more likely to be encountered because of the implications that are present. Implications might be personal, such as the impediments we have mentioned previously, meaning that engineers or doctors are causing these challenges. On the other side, there can be cultural and religious factors, depending on the type of society and the traditions or religious rules they are used to or abide by, meaning that ethical challenges arise from the public itself. Despite the fact that both parties might be causing ethical dilemmas, there is no excuse of not trying to solve these dilemmas, by finding at least middle-way solutions. This means that we must first identify the problem we are addressing. The interaction of clinical engineers heads towards patients as well as doctors, and their duties regard their responsibility to the safety of both by gaining more insight of the nature of the doctor-patient relationship. A doctor-patient relationship is said to have certain characteristics governed by ethical guidelines. These guidelines are important in order to prevent ethical dilemmas that might turn into legal problems. When mentioning this

kind of relationship, paternalism is often an obvious challenge noticed in many societies, areas and fields. Paternalism, the act of interfering with a person's autonomy by making decisions for them, claiming for them to be "for their own good" [2]. Paternalism can be defined but is very difficult to be outlined, as it not only depends on medical facts, but also needs to take patient's views and judgements into consideration. This is why one should pay attention to where the patients come from, what culture or religion they follow, what beliefs and traditions they have. Doctors are ought to have more knowledge about the medical conditions of their patients, but this does not imply for them to act as if "they know better" when it comes to decision-making, especially life decisions. Paternalism is therefore an act that makes doctors take decisions for their patients regardless of the reasons. Ideally speaking, doctors would make decisions for their patients in order to save their lives, but in a materialistic world reality, there is a high chance of finding people that are more self-centered and aim for their own benefits. Instead of looking out for what is best for their patients, they search for a way of benefiting from each case. Patients who put trust in their doctors, believe in the fact that they know better and are afraid of not doing as they have been told to do. This gives rise to a phenomenon that has barely being addressed and has never been identified as an ethical challenge. Reverse paternalism, is when a patient sacrifices their autonomy and self-determination by giving another person (most probably their doctor) the right for making decisions for them. There are many reasons that might make patients act that way, and it is very important to shed light on it and categorize it as being something ethically wrong. Even though physicians might have wider knowledge about the medical status, it is not for sure that their priority is always the patient. Medicine, in general, is a field that is subject to ethical complications and this makes it more vulnerable to ethical dilemmas. Reverse paternalism is another way of saying that patients are encouraging paternalism and making it easier for physicians to act that way, without even considering the possible consequences. Sometimes it is done intentionally, and very often it is done unintentionally, without noticing that one is actually compromising his or her moral agency.

A study performed in Lebanon, a rather developing country, has shown substantial proof of the presence of reverse paternalism [1]. It is of high interest, to study the phenomena in other areas as well, including developed, developing, and underdeveloped countries. It is also important to focus on the fact that engineers have responsibility towards the awareness of the public of such dilemmas, especially when related to medical fields, such as the doctor-patient relationship.

In Section II of this paper, an overview of the diversities in ethics from around the world is presented. There are differences in the background and history of the way ethical regulations have been made in Africa, Asia or the Western countries. In Section III, the main types of professional ethics are identified, starting from Bioethics, to Medical ethics, and Engineering ethics, and of course the definition and duties of the Bioethical Engineer. It provides an

explanation of the responsibilities of engineers in general, and clinical engineers in specific. Section IV defines paternalism and explains the extent of it in our society, by giving examples of a specific topic (the increase of C-sections in Lebanon). It shows how paternalism is encouraged by the patients themselves and triggered clinical engineers to identify a new ethical dilemma named reverse paternalism. It also explains the decision-making process and how it should be applied. Section V comprises the importance of informed consents in the fields of medicine and engineering. The survey we have done is represented in part B of that section, which shows the quantification of reverse paternalism in Lebanon. Section VI finally closes the article with a conclusion we have made about this issue concerning Lebanon. We also gave recommendations and mentioned what our aim as future work will be considering this subject in other societies.

II. DIVERSITY OF ETHICS WORLDWIDE

Ethics can be classified into a variety of categories, either as professional and non-professional, or with respect to cultural, religious, or even moral interpretation. It is a group of principles, values, rules and regulations, beliefs, morals and rules of conduct [2]; a group that organizes either the goals, or the actions that need to be implemented for certain achievements. Ethics can also be described as a system of moral principles that differentiate between what is right and wrong, a norm of conducts that recommends concepts of acceptable and unacceptable behavior [1].

When analyzing ethics one must take into consideration that it has diverse perspectives depending on each area of interest, because ethics are local. There are countries that have their ethical norms of conduct affected by their culture rather than the main religion governing their area. Then there is western and non-western ethics, each having different ethical expectations. Studies that compare ethics in countries with different cultural dimensions, show that these dimensions could serve as predictors of the ethical standards desired in a specific society [3]. National culture plays a fundamental role in forming cultural values [3]. Ethics is the discipline that examines one's moral standards as well as the moral standards of a society. Whenever a subject is to be analyzed based on ethical standards or rules in any society, one has to take into account on what these rules are based on. As mentioned before, each society has their ethics embedded in different ideas or beliefs.

In most of Africa, a group of societies has evolved ethical systems to guide social and moral behavior. African philosophers have been evolving their values for the last three decades in order to make some contribution to the understanding of African ethical thinking. So, through their critical analyses and arguments, philosophers try to explain, sharpen, clarify or even enlarge the understanding of the concepts and issues of morality. In order to do so, one has to approach this subject by an inquiry into African moral language and search for the word 'ethics' in the different African languages. It is interesting to mention that most of the languages in Africa do not have a direct equivalent of the word 'ethics' or 'morality' [4]. But what is even more

interesting and relevant to our study, is that, the African religion is traditionally characterized to be a mystic religion [4]. This indicates that African ethics is independent of religion and makes it an autonomous moral system. It is correct to regard African religion as ethical, instead of regarding African ethics as religious.

Moral personhood is attained in the later years by carrying out the obligations that transform one from the it-status of early childhood into the ethical mature personhood. Thus, one can say that the concept of a person in African thought embodies ethical presuppositions. Different societies in Africa have various definitions for the word "person". A central notion would be that an individual can be a human being without being a person. Even though, it must be noted that not being a person does not withdraw any right as a human being. Not being a person simply implies not having a good character, if used normatively. But how is a good character defined? How do African ethics define and differentiate between right and wrong? According to traditional thinkers, a good character is built up by deeds, habits, and behavior patterns considered by the society as worthwhile because of their consequences for human welfare [4]. Generosity, truthfulness, faithfulness, respect, justice, honesty, hospitality, etc., are examples of the goods that give a person a good character in the African society. This again implies that African ethics is humanist, thus a moral system that is preoccupied with human welfare. According to Monica Wilson, "The basis of morality was fulfillment of obligation to kinsmen and neighbors, and living in amity with them" [5]. An important statement was made by Edwin Smith claiming that the norm of right and wrong is custom; that is, the good is that which receives the community's approval; the bad is that which is disapproved. The right builds up society; the wrong tears it down. One is social; the other is anti-social [6].

Criteria for ethics vary from culture to culture and field to field. The south Asian culture is a conglomeration of many religions such as Hinduism, Buddhism, Islam and Christianity [7]. Thus, ethical principles are mainly influenced by the culture of the south Asian countries. In terms of medical ethics, these civilizations have been influenced lately by the Western medicine during the colonial period [7]. When mentioning the field of medical ethics, the Hippocratic Oath is what comes first to the mind as well as the tenets of the early religious healing traditions of the West. There are also several Asian traditions of ethical tenets governing the physician-patient relationship [8]. In the field of contemporary medical ethics, the first codes of ethics were developed by the doctors in the USA in the first meeting of the American Medical Association (AMA) in 1846. The impact of science and technology increased and traditional ethics have changed into an interdisciplinary field involving lawyers, historians, theologians, social scientists, physicians and other health professionals [9]. Every culture is ought to have an ordered moral system or set of norms to guide the behavior of their citizens. These are most of the times a reflection of both the nature of morality and the culture's own moral repertoire, mostly religion and theology. They have also played an active role in the enterprise of the

early Greek approaches and trajectories for the ethical life and vice versa [10]. Certain movements in recent times have sought to return to the ancient Greek insights (from Aristotle to the Stoics) to avert the crisis that some writers, such as Foucault following Nietzsche, argument has been precipitated by the codes of Christian moralism and rationalism of the (European) Enlightenment [10].

When intellectuals in India come together to talk about ethics in Indian tradition they ask one very important question: "Has there ever been ethics in India?" [10]. Indian thinkers recognized morality's pervasiveness throughout human life and culture, and did not shy away from inquiry into the nature of morality of 'right' and 'wrong' or 'good' and 'bad'. In Indian philosophy, one begins with the practices that are embedded in all human cognitive and aesthetic forms [10]. Thus, we can assign India as a civilization whose roots recede into antiquity, and expected to have a variety of ethical systems within the Indian tradition. The notion of ethics in India has undergone significant shifts in meaning and emphasis over the long history of Indian philosophical speculation [10]. This is also true with respect to Western ethics where classical and modern moral philosophy is sharply distinguished by the work of Henry Sidwick in his *Method of Ethics* [10].

As a conclusion, ethics can be identified as well as defined in many ways, but what Western, Asian, African and most of the countries agree on, is that ethics serves as guidance for their societies to distinguish between 'good' and 'bad'. Differences lie in the extent of how much of culture and religion influences these ethical regulations.

III. THE MAIN TYPES OF PROFESSIONAL ETHICS

This study's main objective concerns ethics in the field of biomedical/clinical engineering, the intersection of bioethics, medical ethics and engineering ethics (Figure 1). In order to understand bioethics from an engineering perspective, the three will be defined, as well as a description of the relationship and contribution to one another, will be provided. An explanation of the ethical frame of each field will be given by demonstrating their standards and codes of ethics, in addition to their ethical relation in a clinical engineering context. Most importantly, there will be a detailed description of the applications, principles, and ethical requirements of clinical engineering, leading to the profession of bioethical engineering. A principle is a basic truth that is used as a basis for ethical reasoning by guiding a specific action or behavior, also helping in assisting moral agents in making moral decisions where its guidance is more general than that of laws [2].

A. Bioethics, Medical Ethics, and Engineering Ethics

Bioethics is an activity; it is a shared, reflective examination of ethical issues in health care, health science, and health policy [1]. It is a discussion and a relatively new field that emerged due to new medical technologies and legal cases that have thrown up ethical issues. Bioethics is a multidisciplinary, where bioethicists are clinically, legally and philosophically 'informed', by learning from doctors and other scientists that work in clinical and research areas of

biomedicine. It is a discussion that is often sparked with new developments due to the enhancements of clinical scientific technologies, but also raises new questions about old issues.

Medical ethics is a system of morals and principles being applied to situations that are specific to the medical world and the practice of medicine. It formally considers the morality of medical decision-making and addresses thereby the wide ethical principles that impact not only physicians and healthcare providers, but also the patients [11]. It also concerns the code of ethics of healthcare providers. Ethics in general can be seen as systemic rules or principles that point out the right and wrong of actions, in addition to the good and bad of the motives and ends of these actions. Another definition would be that it is a moral construct focused on the medical issues of medical practitioners, stating the principles of proper professional conduct concerning the rights as well as the duties of physicians, patients, and fellow practitioners, in addition to the care of patients and in relation to their families [12]. What is important to notice, is that the history of medical ethics goes far beyond that of bioethics, since it began with the Hippocratic Oath. "To treat the ill to the best of one's ability, to preserve a patient's privacy, to teach the secrets of medicine to the next generation, etc..." [13]. Medical ethics has four commonly accepted principles excerpted from Beauchamp and Childress [14]:

1. Principle of respect for autonomy
2. Principle of non-maleficence
3. Principle of beneficence
4. Principle of justice

Engineering ethics stands for the set of ethical standards and principles ruling the behavior of engineers in their title role as professionals. The term profession has been presented in the introduction and will be explained later on in relation to bioethical engineers. A profession is motivated by either economic self-interest (business model) that makes the social practice or occupation concerned with making profits, or by ethical commitment (professional model), which makes professionals agree to regulate their practice in accordance to promoting the public good [2]. In the engineering profession, the ethical commitment of an engineer must overshadow the business and profit model because they agree to regulate themselves by high standards of technical competence and ethical practice so that their main goal remains in the area of the decent and fair of the public. The professional codes of ethics have been documented by several professional engineering societies, such as the National Society of Professional Engineers (NSPE), the American Society of Mechanical Engineers (ASME), the Institute of Electrical and Electronics Engineers (IEEE) and the American Society of Biomedical Engineers (ASBME). The idea of ethical codes is rather uniform. A code can be general "Using their knowledge and skill for the enhancement of human welfare", or specific "Engineers shall hold paramount the safety, health, and welfare of the public" [2]. According to the preamble stated in the National Society for Professional Engineers (NSPE) [2]:

Engineering is an important and learned profession. As members of this profession, engineers are expected to exhibit the highest standards of honesty and integrity. Engineering

has a direct and vital impact on the quality of life for all people. Accordingly, the services provided by engineers require honesty, impartiality, fairness, and equity, and must be dedicated to the protection of the public health, safety, and welfare. Engineers must perform under a standard of professional behavior that requires adherence to the highest principles of ethical conduct.

All of which brings us back to the point that an engineer should always be devoted to the protection of public health, safety and well-being; even if it takes going beyond what an engineer is expected to do.

B. Biomedical Engineering Ethics

Biomedical Engineering is the application of engineering principles and techniques on medicine and biology [1]. It comprises design and problem solving skills of engineering with medical and biological sciences to enhance the quality of people's life, by evolving medical health care and technology. Clinical Engineering is a sub-specialty of Biomedical Engineering concerned with healthcare delivery. Each profession is ought to include a basic methodology for deciding what is morally right and what is morally wrong in one's professional conduct [1]. Ethics is therefore a central concept and not a peripheral one, because its principles guide biomedical engineers to recognize ethical problems and attempt to solve them. This is why there is a code of ethics that emphasizes the major canons for biomedical engineers, helping them to recognize, think critically and engulf the ethical problems they might face. One important thing is the responsibility they have towards their profession as well as them being fully attentive of the potential for their professional knowledge and skills to affect health and human life. Public health, safety, and well-being are paramount considerations, and ethical responsibilities incorporate those of engineers and medical practitioners. Thus, the moral obligations of medicine and biomedical engineering diverge due to the specialized nature of both practices. It should be noted that biomedical engineers are considered as indirect practitioners; the technologies and techniques they advance co-determine medical practice and affect the medical field as well [15]. Three types of ethics are manifested in biomedical engineering: *Professional ethics*, *Patient ethics*, and *Natural & Human ethics* [14]. Honesty, fairness, and not publishing false data comprise professional ethics. Honesty and confidentiality are necessary to allow engineers to conduct research with patients comprising patient ethics. Preserving the standards of nature and not crossing the line between enhancing one's quality of life and changing their traits comprise natural and human ethics. Again, Respect for autonomy, beneficence, non-maleficence, and justice, are the most widely used frameworks and provide an extensive consideration for biomedical engineering ethics while analyzing bioethical issues.

C. The Bioethical Engineer

Since the professional does profess, he asks that he trusted. The client is not a true judge of the value of the service he receives; furthermore, the problems and affairs of men are such that the best of professional advice and action will not always solve them ... The client is to trust the professional; he must tell him all secrets which bear upon the affairs in hand. He must trust his judgement and skill. [16]

Everett C. Hughes

All kinds of professions are somehow related to bioethics, especially engineers and physicians who work to enhance the quality of life, care for the public's health and safety. There is a need for bioethical sensibilities in the engineering codes of ethics such as those just mentioned. What is always expected from any professional in any field, is trust and reliability. Honesty, confidentiality and many other forms of honesty are of high importance in engineers. Society demands and puts trust in the professionals they deal with, from medical to engineering to legal and other professionals. Not only are they expected to be current and capable, but also honest, especially when undergoing medical treatment and dealing with healthcare providers, such as physicians, nurses, emergency personnel and others. Society cedes a substantial amount of trust to a relatively small group of experts; the professionals in increasingly complex and complicated disciplines that have grown out of the technological advances that began in the middle of the twentieth century and grew exponentially in its waning decades [16]. There is a continuum among science, engineering and technology, because many health problems require interrelated harmony among doctors, clinical engineers, and technicians [16]. Ethics related to these fields, are bioethics that govern what is clearly wrong and clearly right.

All engineering projects are communal; there would be no computers, there would be no airplanes, there would not even be civilization, if engineering were a solitary activity. What follows? It follows that we must be able to rely on other engineers; we must be able to trust their work. That is, it follows that there is a principle which binds engineering together, because without it the individual engineer would be helpless. This principle is truthfulness. [16]

Joseph Bronowski

In order to gain the trust of a whole society, an engineer should first be able to meet the trustworthiness of the engineering community, which is articulated by the engineering profession through the codes of ethics. We have mentioned before that a good engineer is an engineer that has the traits of a professional character. A character that might go beyond what is asked from, in order to possess pride in technical excellence, social awareness and environmental consciousness [2]. Since there must be

professional harmony between engineers, such as clinical engineers, medical practitioners, and physicians, the relationship should be based on honesty, trust and reliability, towards themselves and the society. In order to be trustworthy, engineers also have to be professionally responsible as well as legally. Engineers should be held accountable for not only what has been done in the past, but what will happen in the future. "What does an engineer do when no one is looking?" a social contract of professional intrinsic ethics controls this kind of contract between an engineer and society as a whole. A good clinical engineer knows that he is accountable for what is happening with patients when undergoing any kind of medical procedure. They satisfy a norm called the standard of care, which goes beyond basic job responsibilities as defined by employment terms. According to the preamble of the code of ethics of the National Society for Professional Engineers (NSPE):

Engineering is an important and learned profession. As members of this profession, engineers are expected to exhibit the highest standards of honesty and integrity. Engineering has a direct and vital impact on the quality of life for all people. Accordingly, the services provided by engineers require honesty, impartiality, fairness, and equity, and must be dedicated to the protection of the public health, safety, and welfare. Engineers must perform under a standard of professional behavior that requires adherence to the highest principles of ethical conduct.

IV. FROM PATERNALISM TO REVERSE PATERNALISM

Professionals possess the knowledge that qualifies them to be superior in the field they work in. For example, medical doctors have more scientific and medical information, which might be a reason for them to act paternalistically. Paternalism is by definition, the interference of a state or a person with another person's autonomy. This is motivated by the claim that this interference will provide benefit or protect from harm. Paternalism can take place in different areas of our personal and public life. It can be reasonable, when being protective and it can be unacceptable, when being beneficial for the wrong party. What we will focus on is medical paternalism, because as clinical engineers it is of our concern to provide safety and health for patients that undergo medical procedures, since there is always contact with any kind of medical equipment. In addition to that, biomedical/clinical engineers are in interaction not only with doctors, nurses, clinical research departments, etc., but also patients (Figure 1). Moreover, as professional engineers, it is of our responsibility to protect and provide safety for these patients. This is why we have to make sure that paternalism does not completely incapacitate patients' ability to make decisions. There lies an even bigger problem in the fact that paternalism is being asked for. For reasons, we are trying to find out, patients are giving physicians the opportunity to make decisions for them and thereby give up their moral agency. They do not realize that in some cases physicians might take advantage of those patients who leave their choices to the

doctors they trust, blindly. Even though paternalism can sometimes be the correct way of handling patients, it is ethically unacceptable to not involve them in the decision-making process.

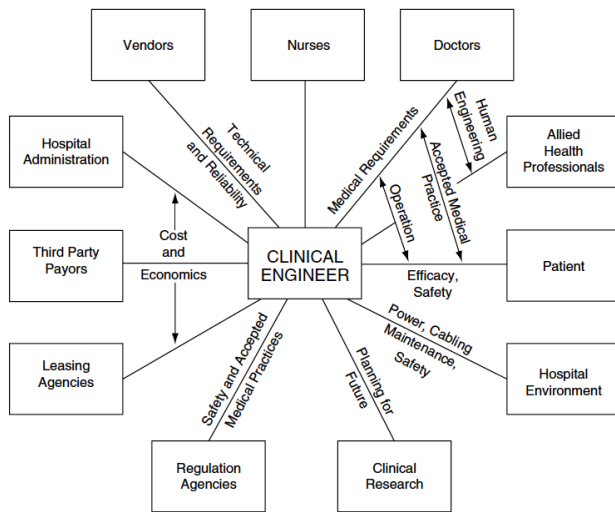


Figure 1. Diagram Illustration of the interaction of a Clinical Engineer [17].

A. Paternalism in our society

Every moral agent can reason, make rational decisions and form self-interested judgments based on concepts of right and wrong conduct, being therefore responsible for their actions [2]. Moral responsibility for one's actions is based on the concept of autonomy, that refers to the aptitude of a balanced individual to make an educated an un-coerced decision. In ethics, autonomy refers to a person's capacity for self-determination and decision-making in the context of moral choices and making decisions based on a course of action out of respect for moral duty [14]. Paternalistic interventions are categorized into legitimate and illegitimate. They are legitimate when the patient is incapable of making an autonomous and voluntary decision. This implies that being or acting paternalistically needs certain conditions and is not always acceptable or even allowable.

Medicine is facing a transformation for relocating the authority of decision making from physicians to patients. This is noted by a comparison of the ethical codes of the American Medical Association (AMA) in the last two centuries. In article II of the 1847 AMA ethical code entitled "Obligations of patients to their physicians", the following statement was found in Section 6 [13]:

"The obedience of a patient to the prescriptions of his physician should be prompt and implicit. He should never permit his own crude opinions as to their fitness, to influence his attention to them. A failure in one particular case may render an otherwise judicious treatment dangerous, and even fatal."

In contrast, AMA's opinion in 1990 on "Fundamental Elements of the Patient-Physician Relationship" now states a radically different position [18]:

"The patient has the right to make decisions regarding the health care that is recommended by his or her physician.

Accordingly, patients may accept or refuse any recommended medical treatment."

Today, the principle of patient autonomy and self-determination has emerged as the dominant ethos in health care, threatening in many instances to totally eclipse the principle of medical beneficence [18]. Sometimes, doctors act paternalistically by not explaining in a detailed manner why a patient needs to undergo certain treatments, because in their opinion "they know better" and patients most often will not understand. A pregnant woman sees her doctor regularly and begins to trust her, so when that doctor tells her that she needs to undergo caesarean operation instead of giving birth naturally, she would believe her. What matters to her is the safety and health of her child. But what is so dangerous about this issue, is that many women do not ask why. They do not pay attention to the fact that many doctors have so much self-interest that they only care for how much money they can make out of this operation. Women do not ask for all the information they deserve to know in order to understand the advantages and disadvantages or side effects of any treatment or surgery. This kind of "marketing" is very common in Lebanon and the rate of C-section (CS) patients is rising unbelievably, most of which are performed for nonmedical reasons. C-sections were introduced in clinical practice as a life saving procedure for the mother and the baby. In 1985, the World Health Organization (WHO) stated: "There is no justification for any region to have CS rates higher than 10-15%" [19]. According to a study done in 2010, about the global numbers and costs of additionally needed and unnecessary Caesarean Sections performed per year, Lebanon is among the countries that have a rate of above 15% of C-sections with a percentage of 23.3% [20]. The rate of CSs in Lebanon is the highest in the Arab region, and the rates are still rising. In 2013, the Ministry of Public Health (MoPH) covered a rate of 44-45% CSs of total deliveries. Along with the Syrian crisis, the women delivering their babies in Lebanon by CSs is 35%, according to the UNHCR (collected data from the hospitals Syrian women were admitted to) which is higher than the rate in Syria (23%) [21]. Again showing an increase in comparison to the acceptable rate given by WHO (15%). WHO stated that they do not recommend achieving a specific rate at population level anymore, but urges focusing on the medical needs of women and the indications that necessitate the procedure [22]. In order to reduce the rate of unnecessary or repeated CSs, Vaginal Birth after CSs (VBAC) is rising in developing countries, whereas in Lebanon this rate is only of 7%. Which is relatively low and indicates that women who undergo CSs are more likely to undergo repeated CSs due to the refusal of most physicians to perform VBAC [23].

What we are addressing, is the right of patients to decide and gain full knowledge about their medical conditions. In this case, women must gain full knowledge about the risks they will have to handle when the CSs are unnecessary. They can result in major health risks and various complications for mothers and newborns, which might lead to significant burdens on health care systems [24]. Multiple systematic reviews indicated increase in adverse health consequences such as the need for antibiotic treatment [25]; neonatal

intensive care unit admission [26]; blood transfusion [27]; hysterectomy [28]; and sometimes death [29], in addition to many others. Thus, acting paternalistically as a physician in such cases is not always beneficial for the patient. Factors that might lead to doctors advising women to go through CSs are the absence of national guidelines, diversity in medical schools (diversified practices and absence of unified medical standards in the field of maternal healthcare [30]), opposition of powerful stakeholders (opposing standardized regulations that aim to reduce the rate of CSs in the country [31]), absence of law, need for strengthened primary healthcare, unregulated medical practice, presence of medical insurance (women with medical insurance are more likely to have CSs than others [32]), higher hospitalization costs and benefits [33] as well as higher procedural costs and revenues [34]. Which implies that CSs ensure excessive profits for hospitals as they require higher bed occupancy and longer hospital stays that subsequently result from programmed births, which in turn increases the benefits of the hospital and leads to an increase in CSs rate. In Lebanon, the coverage of CSs by the MoPH and the National Social Security Fund (NSSF) insurance schemes and physician reimbursement are higher than those of vaginal or normal deliveries, which is of course associated with the preference of health providers to do more CSs [29]. This is evidence of practiced paternalism in Lebanon by medical physicians towards their pregnant patients of performing unnecessary CSs for the benefits of their own. Paternalism is a pure realm of applied ethics, and raises many ethical and theoretical questions. How should we think about individual autonomy and its limits? What is the trade-off, if any, between regard for the welfare of another and respect for their right to make their own decisions? When does a physician have the right to be paternalistic? We have started our study in Lebanon, which seems to be one of the countries that suffer from medical paternalism. Traditional cultures across the world empower family members and doctors alike to “protect” patients from knowing the truth of their medical condition or by ruling their medical decisions as well. In countries like Japan, Iran, Turkey, Saudi Arabia, Kuwait and Lebanon, these views are strongly tied to social norms and traditions that topple the western conception. Ethics does shed light on the concept of paternalism, in particularly medical paternalism, but what we have noticed is that there has been a reverse of paternalism coming from the patients themselves.

B. Reverse paternalism

As we have made clear, about the long practiced medical paternalism that doctors tend to make decisions for their patients. This is how they take advantage of their position as specialists having the power to reach personal achievements. We have identified an emerging ethical dilemma concerning the doctor-patient relationship that shows how patients themselves are encouraging the act of medical paternalism. This ethical issue is commonly present in the field of medicine in a developing country like Lebanon and termed it for the first time as reverse paternalism. Reverse paternalism refers to the act of sacrificing one’s autonomy and self-determination and giving another person or group

the right for making decisions on their behalf [1]. Whenever a patient refuses to choose a treatment procedure among other procedures and trusts the doctor to choose for them, we have a case of reverse paternalism. People have not acknowledged the severity of the presence of such an ethical issue yet. One of the reasons is the absence of regulations that specific to reverse paternalism that restrict physicians’ unethical behavior towards their patients. There is a lack of auditing and supervision over what happens in hospitals or clinics. What was also been noticed is that patients are not usually advised to seek second opinions about certain medical treatments or procedures. Many patients show too much dependence on their doctors, others are ignorant and do not seek information about their medical situation other than what their doctors tell them, some do not have the courage to question their doctors. Most of the time patients trust their physicians too much. Patients’ educational level, medical experiences, financial status and psychological states can play a huge role in enhancing this kind of paternalism. Paternalism induces power imbalance between health professionals and patients. Doctors have the medical knowledge that makes them superior to patients in making decisions as mentioned before. A decision-making process is a process of selecting a belief or a course of action among various alternative choices. There are seven main steps that highlight the importance of patients’ moral agency. These steps also include the principle of an informed consent of which we will provide a detailed explanation in the following section. Patients are advised to surrender to an epistemic authority. It is the process of selecting a belief or a course of action among various alternative choices. It is very important for patients to be aware of how this can be done.

The main steps are:

1. Identify decision to be made
2. Gather relevant information
3. Identify alternatives
4. Weigh evidence
5. Choose among alternatives
6. Take action
7. Review decision and consequences

Table I, as shown in the Appendix, illustrates a comparison between how decision-making should occur and how it is done in Lebanon [1]. The description of how it is happening in Lebanon is only generalized and points out how important it is to solve this issue and search for recommendations. Reasons are numerous and most of them might be of cultural sources. There is a strong relationship of dominance and affection between the way decisions are made and the cultural perceptions. Each culture brings its own views and values to the health care system, which alters health care beliefs, health practices and the nature of doctor-patient relationships [1]. Mutual respect and appreciation of roles is the basic guideline on which a healthy relationship should be based on. Professionals should not abuse their position by manipulating or coercing patients against their will, so patients must not coerce professionals to go against their fundamental ethical convictions and professional values [35].

C. Clinical Engineers and Reverse Paternalism

Biomedical/Clinical engineers have a range of interactions in which they might be required to engage in a hospital setting (Figure 1). In cooperation with doctors, they share duties towards patients. They are involved in medical operations and accepted medical practices between the doctor and the patient to ensure efficacy and safety. Thus, clinical engineers must act in a patient-centered manner and apply engineering principles in managing medical systems and devices in the patient setting. Since engineers are responsible for decisions taken about particular designs that will affect the lives of patients and financial well-being of many people, give professional advice, they are obliged to regard responsibility towards the health and safety of patients. As biomedical engineers, the current doctor-patient relationship presented in our society, has triggered our sense of responsibility. Reverse paternalism is an ethical dilemma that interferes with decisions taken by engineers working in the medical field. It is of our duty to alert and inform the public so their moral agency keeps protected. We have therefore, for the first time, identified, quantified and discussed this issue by assigning it as a problem in various fields such as medical diagnosis and treatment in Lebanon. So if someone asks if engineers really do have patients, in order to be concerned for an issue such as reverse paternalism, the answer is clearly yes. In the fourth canon of the National Society of Professional Engineers (NSPE) it is stated that [16]:

Engineers shall act for each employer or client as faithful agents or trustees.

Furthermore, the preamble to the NSPE code affirms:

Engineering has a direct and vital impact on the quality of life for all people. Biomedical engineers design and test devices to be used to treat diseases and to ameliorate the quality of life of individual patients [16]. Thus, the real clients of clinical engineers are physicians, but being the trustee of the public, the devices and systems must hold paramount health, safety, and welfare. This makes patients indirect clients of engineers. At a minimum, engineers are part of the team that supports the physician, who in turn treats the patient. Which implies that the clinical engineer is held responsible to both, the client (physician) and patient (recipient of the engineered system) [16].

V. INFORMED CONSENTS IN MEDICINE AND ENGINEERING

We will take a closer look at the concept of informed consents. The principle of autonomy implies that a patient has the capacity to act intentionally, with understanding and without controlling influences that would influence a free and voluntary act. Which is the basis for the practice of informed consents. It is important to shed light on this process after noticing that this is still unknown to a large portion of the public.

A. The importance of informed consents

Informed consents can be defined as the process that gets a patient's permission before being subjected to healthcare

interventions. The patient is requested to consent before receiving therapy, or a clinical researcher asks a research applicant before signing them up into clinical trial. It comprises a clear appreciation and understanding of the facts, implications and consequences of the specific therapy, surgery or trial as well as providing all relevant facts. A physician is obliged to give a detailed explanation of every step of a treatment, the reason and possible side effects to the patient, and thereby get their permission. This is done by providing them with a document that contains all the information the patient has to be aware of in order to accurately go through the decision-making process we have explained previously. Certainly, no information should be kept from the patient so that they are able to form a rational decision and avoid severe ethical issues arising from the lack of sufficient data. Informed consents are another way of respecting moral agents' autonomy and right of taking decisions related to their health. Mental disability, sleep deprivation, Alzheimer's disease or being in a coma, or immaturity are cases of limited moral agency, implying that other individuals are certified to give consent on their behalf, such as parents, siblings, or legal guardians of a child. Informed consents can be divided into two parts, one containing the information specific to what type of medical intervention, and the second one comprising the consent. The information component refers to disclosure of information and comprehension of what is disclosed giving the patient the chance to consider its contents in their decision-making process. The consent component refers to that the decision about to be made is voluntary and permission is given to proceed. Note that informed consents are collected according to guidelines from the fields of medical and research ethics [1]. We have found out by a survey we will provide in the next section, that many patients have never received neither heard of informed consents. Which is ethically unacceptable especially in cases of surgeries and medical interventions with probable side effects. Permission is often taken verbally if not paternalistically, and what we are concerned about is the fact that many of those cases are results of reverse paternalistic cases.

Informed consents should be seen as protection not only for the patients, but physicians as well. It is evidence that patients are aware of all the possible outcomes and have fully understood what and why is going to happen, and what might happen if this intervention is not taking place. However, many practitioners believe that patients may thus be better served if efforts are directed instead of finding ways of minimizing hard paternalism without too great of compromise on patient's freedom [18]. This argument is yet to be validated from an ethical perspective.

B. Survey

The purpose of this survey is to examine the presence of the suggested phenomenon in Lebanon and to assess to what extent it is present in the field of medicine. Based on the results we may indicate if it is spread out in the Lebanese society. If yes, the next step would be to alert the public and suggest some regulations to restrict this kind of paternalism.

The following hypothesis is formulated to achieve the objectives of the present study: A new kind of paternalism is emerging in the field of medicine in Lebanon, termed as reverse paternalism.

The study was conducted on a representative sample of 85 patients in the region of Beirut. The patients are a selection of males and females with diversity in age and education (Table II, as shown in the Appendix, represents a sample of the questionnaire). The questionnaire consists of 20 items each with five alternative responses: strongly disagree, disagree, neutral, agree, and strongly agree. The items are related to the following concepts:

1. Patient's autonomy
2. Decision making process

The questionnaire comprises a variety of questions that refer to a paradigm of reverse paternalism or the absence of reverse paternalism, as well as a neutral point of view. Figures 2-a, b, c and d give an illustration of the age, gender, marital status, employment status, and educational level. A total of 85 patients have answered 20 questions. Each question was analyzed in order to categorize it. Questions 1, 4, 6, 7, 8, 10, 12 and 15 are direct questions referring to reverse paternalism. The questions can be separated into two types, 10 positive questions and 10 inversed questions (meaning the opposite of the positive ones). As Figure 3 shows, 85% ask their doctors about suggested treatments or procedures. 70% disagree with their doctors not involving them in decisions about their treatments (Figure 4). Only 53% do not allow their doctors to choose on their behalf, 19% have a neutral opinion, which means that 28% allow their doctors to take decisions for them (Figure 5). Figure 6 illustrates how 38% agree that it is ethically permissible for doctors to act paternalistically with their patients. When asked if they refuse to let their doctors take decisions for them, 44% disagreed (Figure 7).

As most of the results indicate the existence of weak reverse paternalism, we took a closer look at the age and educational level of those who showed tendency towards reverse paternalism. Some of the patients that are in the age of 40-60 years have a lower educational level, due to the complications of war Lebanon has faced, also showing tendency towards reversing paternalism. We chose a patient to ask about his last visit to a doctor. This patient is a married employed male of age between 40-60 years with an elementary educational level. He was asked about how much he trusts his doctor and how much he believes in what he prescribes as treatments. He agreed on telling us what his problem was and what was prescribed, and when we asked him if he knows what each drug is for he said no: "He is a very good doctor and I am sure he knows what is best for me to get better." Again, we took a closer look at the questionnaire this patient has filled and noticed that they do not quite match the way he really acts.

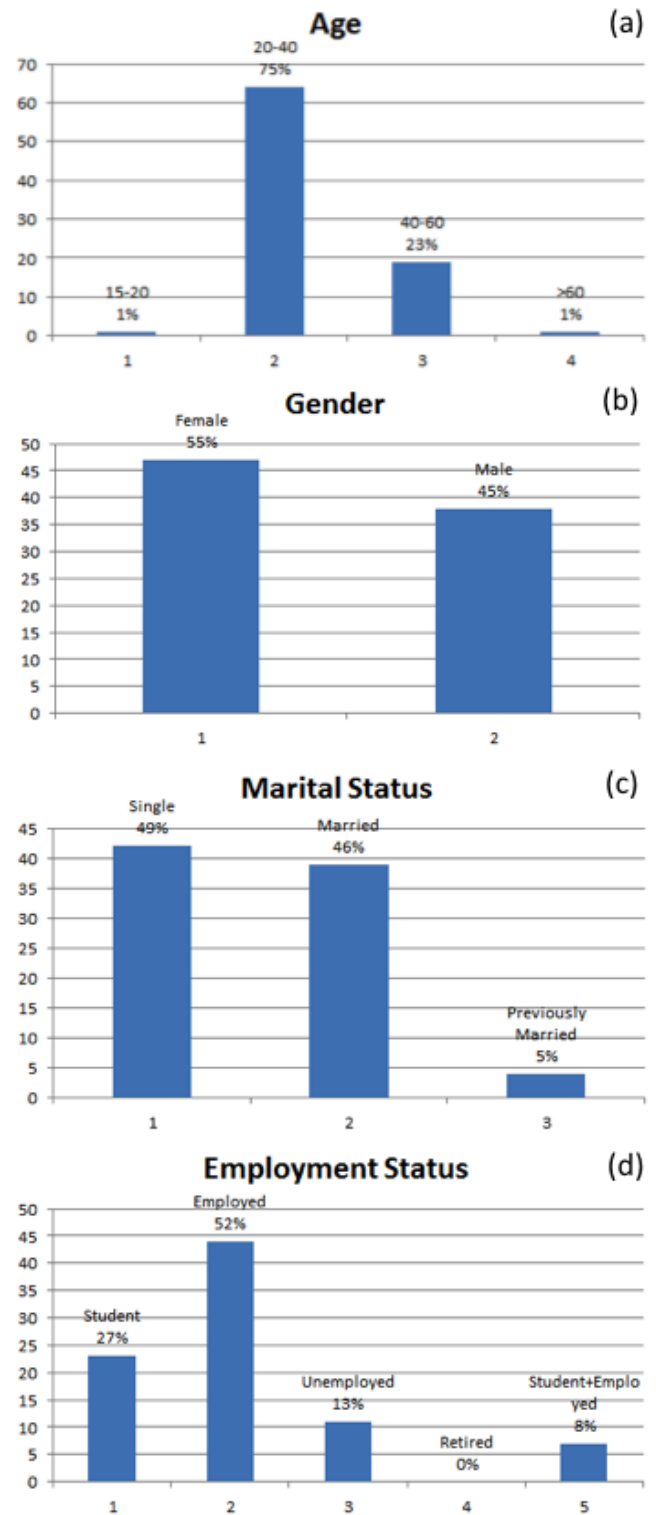


Figure 2. An overview of the personal information and diversity of surveyed patients, in terms of (a) age, (b) gender, (c) marital status, and (d) employment status.

I never ask my Dr. for information about a suggested treatment/ procedure

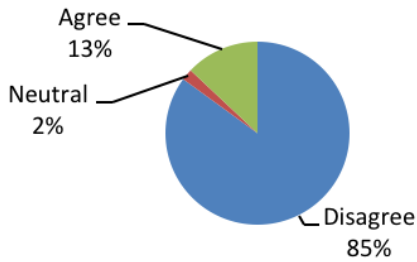


Figure 3. Illustration of how many patients ask for information.

I want my Dr. to choose on my behalf

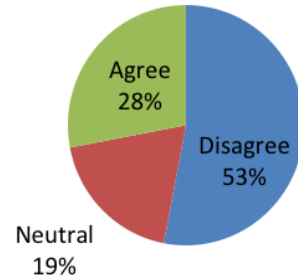


Figure 6. Patients that want their doctor to choose and decide on their behalf.

I do not want my Dr. to involve me in decisions about my treatment

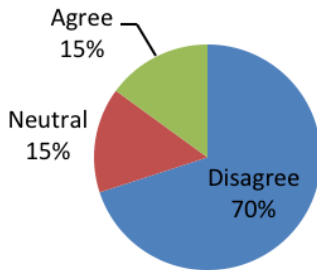


Figure 4. Patients' disagreement on not being involved in decision-making processes.

It is ethically permissible for patients to allow Drs. To act paternalistically

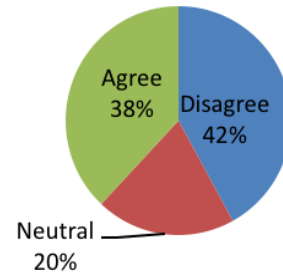


Figure 7. The percentage of patients who find it ethically permissible for doctors to act paternalistically.

I have a successful shared-decision making relationship with my Dr.

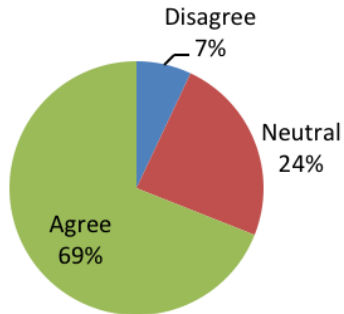


Figure 5. Patients that say that they have a successful shared-decision making process with their doctors.

I refuse to let my Dr. choose on my behalf

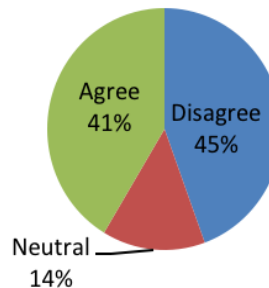


Figure 8. The patients that refuse to let their doctors choose on their behalf.

VI. CONCLUSION

Living in a society where professionals are considered trustees most of the public believe in, it is important to pay attention to the ethical issues that may be encountered. Patients trust their doctors sometimes too much, which can lead to the emergence of new phenomena in ethics. Paternalism is a long-known dilemma that is widely present in our society, but what we have noticed is that paternalism is not as hard to be achieved as it once was. By encouraging it by patients, doctors find it much easier nowadays. This refers to a new ethical dilemma termed as reverse paternalism. When we first started to gather information we had to look at it from different perspectives. Is paternalism a bad thing to do? Can reverse paternalism have positive aspects? So, we started interviewing people and with time had a clearer view at what is really happening in our society. We already knew that culture and religion play major roles in the decision-making processes patients undergo, and knew that there are many other factors that make patients tend to trust their doctors sometimes blindly. Though the outcome of the survey showed weak reverse paternalism according to the collected and compiled data, but the fact that it is present is a problem itself. The absence of regulations specific to reverse paternalism that can restrict the physicians' unethical behavior towards patients is one of the most difficult problems to solve. It is difficult in a society where doctors take advantage of their patients, thus a society that is losing faith in humanity. In Lebanon, medical practitioners lack the sense of responsibility due to the lack of auditing and supervision over what happens in hospitals/clinics. Who is to blame? The doctors or the patients themselves? A good test for their responsibility is the question "Do physicians commit to ethical or legal standards when there is no supervision?" and it seems that most doctors fail this test! It is the same question that must trigger the consciousness of engineers when asking "What does an engineer do when no one is looking?" we must always remember that there is a social contract between the public and us, promising health, safety and welfare.

As we have mentioned, some of the questions were answered in ways patients only "wish" to act in real life. But what is important is that it started to raise awareness and open the eyes of those who were involved in our study. As engineers it is our responsibility to alert people, inform them about the challenges they might face and advise in order to help. We have started in Lebanon and wish to reach other countries where this might be happening too.

Thus, recommendations must be provided to control this ethical dilemma. Ethical guidance that governs the behavior of doctors and patients in cases of reverse paternalism should be developed. Highlighting the importance of consent before any medical intervention is another recommendation. This can be done by the organization of seminars for patients to raise their awareness of having the right to get all the information they need as moral agents. This is an ethical issue that should not only be acknowledged in Lebanon, but in all societies that suffer from reverse paternalism.

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APPENDIX

Table I. The Decision Making Process.

Process steps	Description of each step	Application of each step in Lebanon
Identify decision to be made	Go through an internal process of trying to define clearly the nature of the decision you must make.	Patients realize that there is a decision to be made but instead of going through an internal process, they immediately ask their physicians for advices and what to do.
Gather relevant information	Most decisions require collecting pertinent information. The real trick in this step is to know what information is needed the best sources of this information, and how to go about getting it. Some information must be sought from within you through a process of self-assessment; other information must be sought from outside yourself-from books, people, and a variety of other sources. This step, therefore, involves both internal and external "work".	Many people do now know where to look for information or whom to ask. Others try to get information from people with similar experiences instead of researching properly. The process of self-assessment is sometimes not clear to certain patients.
Identify alternatives	Through the process of collecting information you will probably identify several possible paths of action, or alternatives. You may also use your imagination and information to construct new alternatives. In this step of the decision-making process, you will list all possible and desirable alternatives.	Many patients ask their physicians for alternatives, but do not know where to look for information other than their healthcare practitioners, which is the same problem found in step 2.
Weigh evidence	You draw on your information and emotions to imagine what it would be like if you carried out each of the alternatives to the end. You must evaluate whether the need identified in Step 1 would be helped or solved through the use of each alternative. In going through this difficult internal process, you begin to favor certain alternatives, which appear to have higher potential for reaching your goal. Eventually you are able to place the alternatives in priority order, based upon your own value system.	The challenge in this step is that many patients do not even reach this step. But helping them reach this point would make it easier for them to be able to imagine themselves in certain situations.
Choose among alternatives	Once you have weighed all the evidence, you are ready to select the alternative, which seems to be best suited to you. You may even choose a combination of alternatives.	What is done here, is that most patients only take into account the alternatives their physicians have told them, so when left with a number of alternatives they are lost when confronting decisions on their own. (Only if physicians haven't been paternalistic when implying what alternative to choose).
Take action	You now take some positive action, which begins to implement the alternative you chose in Step 5.	This is where patients return to reverse paternalism and let their health care practitioners choose what alternative to choose and implement.
Review decisions and consequences	In the last step you experience the results of your decision and evaluate whether or not it has "solved" the need you identified in Step 1. If it has, you may stay with this decision for some period of time. If the decision has not resolved the identified need, you may repeat certain steps of the process in order to make a new decision. You may, for example, gather more detailed or somewhat different information or discover additional alternatives on which to base your decision.	This depends on what type of decision was made. If the decision has not resolved the identified need, if a surgery has not been successful, patients often blame their physicians. These physicians however, have been told to decide for them, which is why shared-decision making is of highest importance.

Table II Patient Questionnaire

Answer questions as they relate to you.

Check the box(es) that are most applicable to you.

8) About You

a) 1. Your Age

- Below 15
- 15-20
- 20-40
- 40-60
- Above 60

b) 2. Your Gender

- Female
- Male

c) 3. Your Marital Status

- Single
- Married
- Previously Married

d) 4. Your Employment status

- Student
- Employed
- Unemployed
- Retired

e) 5. Your Educational level

- Elementary
- Intermediary
- High School
- College

9) Doctor-patient Relationship

Please complete the following questionnaire by circling the appropriate answer.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I never ask my doctors for information about a suggested treatment/procedure	1	2	3	4	5
I seek multiple opinions before selecting a surgery/treatment	1	2	3	4	5
I am confident that my doctors provides me the best treatment	1	2	3	4	5
I don't want my doctor to involve me in decisions about my treatment	1	2	3	4	5
I have a successful shared-decision making relationship with my doctor	1	2	3	4	5
I want my doctor to choose on my behalf	1	2	3	4	5
Doctors know best for patients and they have to decide for them	1	2	3	4	5
It is ethically permissible for patients to allow doctors to act paternalistically	1	2	3	4	5
In critical cases I prefer my doctor to choose on my behalf	1	2	3	4	5
I trust my doctor in everything he/she says because he/she is well-known to be the best in his/her field	1	2	3	4	5
I always ask my doctor for information about a suggested treatment/procedure	1	2	3	4	5
It is not necessary to seek multiple opinions before selecting a surgery/treatment	1	2	3	4	5
I don't trust my doctor's ability to provide the best treatment for me	1	2	3	4	5
I want my doctor to involve me in decisions about my treatment	1	2	3	4	5
My doctor-patient relationship lacks a successful shared-decision making process	1	2	3	4	5
I refuse to let my doctor choose on my behalf	1	2	3	4	5
Even though doctors know better, they don't have the right to choose for patients	1	2	3	4	5
It is not ethically permissible for patients to allow doctors to act paternalistically	1	2	3	4	5
I prefer to take all my medical decisions by myself	1	2	3	4	5
I don't trust my doctor completely just because he/she is known to be the best in his/her field	1	2	3	4	5