Case Report

How to approach a colleague's error: a journey from moral knowledge to moral action

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Keywords: *Colleague's error; Medical error; Ethical framework.*

Introduction

Medical errors are an important and challenging issues in the health system and should therefore be considered ethically and legally. In this case report, a colleague's error was examined and the ethical and legal dimensions of its disclosure were discussed.

This case report presents various aspects of a colleague's error disclosure in a framework using a review of studies as a practical guide. Medical errors are among the challenges of the health-care system that usually occur due to human error and the poor design of health-care systems. Evidence indicates that since medical errors are common and widespread, many patients experience complications while receiving health-care services (1).

Patients have the right to know what has gone wrong in their treatment process not only to facilitate the decision whether to continue the treatment and compensate for the damage caused, but also to maintain trust in the health-care system (2).

The World Health Organization estimated in 2018 that preventable medical errors caused harm to 10% of all patients receiving medical care (3). In middle-income nations, the rate of adverse events is 8%, 83% of which can be avoided (3). Medical error rates range from 1% to 40% according to various studies. In the United States, such errors are the third leading cause of death

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Received: *4 Dec 2022*
Accepted: *1 May 2023*
Published: *13 Jun 2023*

Citation to this article:
Khaleghparast S, Maleki M, Gholampour Dehaki M, Homami S, Sadooghiasl A, Mazloomzadeh S, Shamsi Gooshki E. How to approach a colleague's error: a journey from moral knowledge to moral action. J Med Ethics Hist Med. 2023; 16:2.

The low rate of documented medical errors in Iran may reflect the inaccurate reporting system of medical practitioners' errors and not necessarily a low incidence rate (5). Various reasons could be cited for negligence in reporting medical errors, including the belief that reporting errors would erode public trust and confidence in the medical community. Despite the increasing awareness of and attention to medical errors, few studies have dealt with the issue from an ethical point of view.

Facing a medical error causes a person to be exposed to ethical questions concerning error disclosure, such as: Who should disclose the error? When and how much should be disclosed? What are the conditions of disclosure? and What are the rights and responsibilities of each stakeholder in the disclosure process? In addition, there are differences between disclosing self-errors and the errors of other health-care providers. In order to answer each of the above questions a decision will need to be made, but various factors (such as the decision-making situation) affect the process and the results (6). For instance, in an ethical situation we use ethical decision making, a process in which people use their moral principles to determine the rightness or wrongness of a specific issue. Ethical decision making requires a framework that can be relied on, as well as a model for using these principles to deal with moral issues (7).

Various models have been introduced for ethical decision making. In this research we will try to analyse the case of an error made by a colleague using a step-by-step approach on how to deal with the issue.

The Clinical Case

A 60-year-old man underwent coronary artery bypass graft (CABG) and aortic valve replacement (AVR) surgeries. An X-ray on the morning following the surgery showed a piece of surgical gauze left mistakenly inside the patient's chest. He was retransferred to the operating room where the gauze was successfully removed.

While several ethical questions could be raised about this case, we concentrate on a rather important one regarding the disclosure of the error to the patient. In this case we examine the issue of whether the surgeon should inform the patient about the medical error before transferring him to the operating room for the second time.

Case Analysis and Discussion

Our method for analyzing this clinical ethics case is an innovative use of some theoretical approaches in the field of moral development and moral psychology. This framework is a journey from

theory to practice in analyzing such cases and includes 6 major steps based on the James Rest model and Lawrence Kohlberg's approach and theory for moral development (Diagram 1) (8, 9).

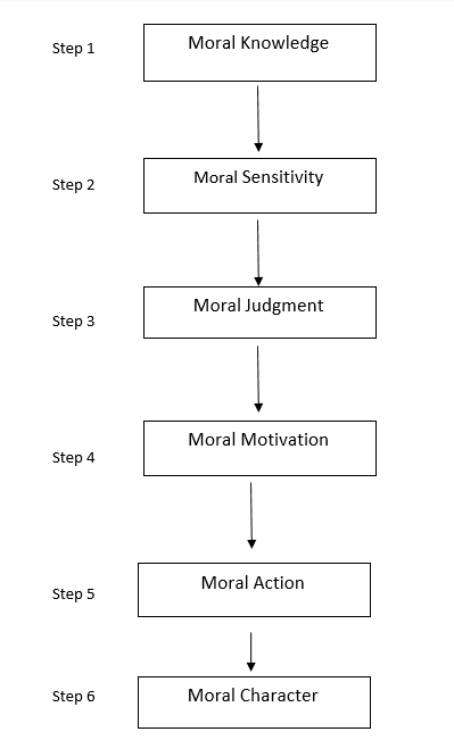

Diagram 1. Action-oriented approach to medical ethics

The first step in this framework is moral knowledge and continues with moral sensitivity, moral judgment, moral motivation and moral action. Forming a moral character could be the final output of the model. The process starts when a health-care provider encounters an ethical question during clinical practice. Such questions usually arise when the moral agents have some knowledge of the ethical aspects of their acts. As knowledge about related ethical issues increases, more ethical questions and challenges are simply resolved by present guidelines and therefore there is no need for further moral deliberations. Such issues gradually become integrated in the daily practices of health-care workers as they basically use their knowledge to do the right thing. For example, based on the present professional ethics guidelines, health-care providers are required to obtain informed consent from surgery candidates. This is a guideline that almost every surgeon knows and follows prior to surgery. Therefore, if the existing knowledge about clinical ethics is sufficient and there is no major

challenge in terms of execution, the first step in approaching clinical ethics cases would be to act based on the available knowledge.

Step 1 in this approach requires searching the existing ethical knowledge and guidelines about medical errors in order to find a clear answer. We recommend reading the "*General Guidelines on Professional Ethics for Medical Practitioners Affiliated with the Medical Council of the Islamic Republic of Iran"*, published in 2018 (10). Chapter 9 contains 4 articles regarding medical staff's awareness of common errors in their field, taking responsibility for one's error, compensating for the damage caused by the error, and respecting the dignity and professional status of colleagues (10). While the contents of the present guidelines provided by the Medical Council imply that the medical error should be disclosed to the patients, if the attending physician thinks that the guideline does not provide a clear instruction, he/she can be making is not straightforward and *a priori* knowledge of ethical standards cannot help the moral agent to decide, another process of moral decision-making will start. This process begins with a kind of emotional conflict called moral distress. Feeling such distress indicates moral sensitivity, which is handled in step 2 (8).

In this case the attending physician has enough sensitivity to moral issues to realize that disclosing the medical error to the patient is ethical and needs to be deliberated. As a rule, steps 1 and 2 are necessary to determine whether we have the answer to our ethical question or we need to start the process of moral judgment.

Step 3 is the most complicated and deliberative part in the process toward moral action. It necessitates making moral judgments and comprises the following 10 stages (Diagram 2) (8)

In stage I the biomedical/anthropological context should be determined. We need to know what type of error has occurred. Leaving surgical gauze at the surgery site is a sentinel event demanding immediate action to prevent serious complications such as infection (11). This stage mainly requires being sure about the context and its clarification. Some of the questions to be asked in this case are: Has an error really occurred? How did the error occur? Whose error was is? and What are the harms and burdens of such an error for the patient? In the present case, the patient underwent CABG and AVR during the same surgery. The length of the surgery required hand-over to a second nursing team halfway through, leading to an error in counting gauze pieces and leaving one of them at the surgical site.

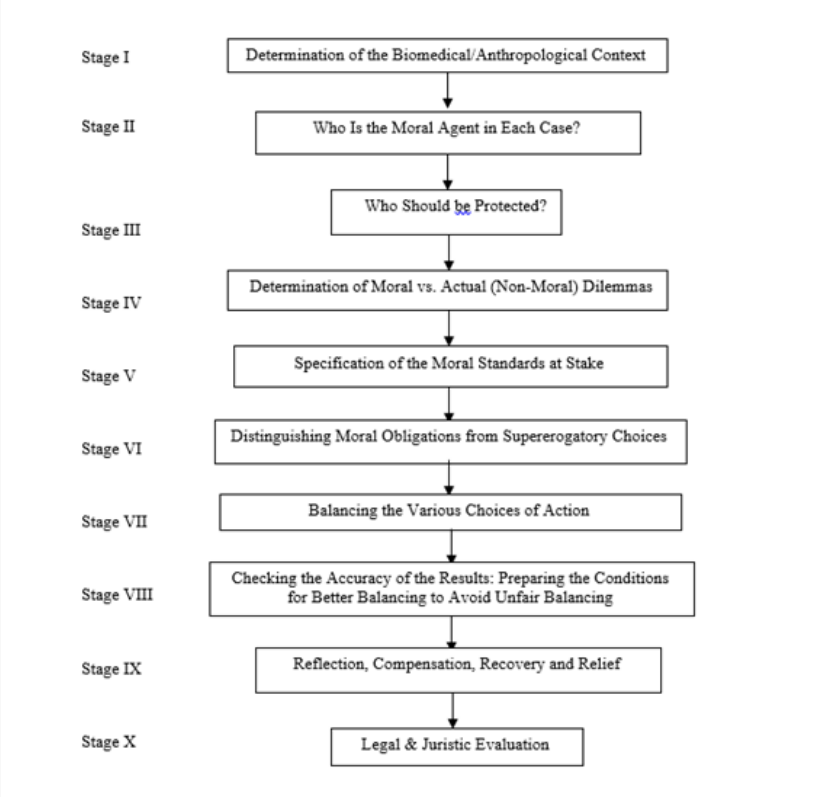

Diagram 2. Moral judgment framework

The Treatment Affair Deputyship of the Iranian Ministry of Health and Medical Education issued the "Never Events" directive in 2017. Leaving any device, including gauze, scissors and forceps, inside the patient's body is among the 28 medical errors that must never happen in health-care centers. In our case, the significance of noticing and following up on the issue is abundantly clear.

In stage II we need to determine who the moral agent in each case is, that is, who ought to decide how to proceed. Different members of a medical team may be involved in one clinical ethics case, and because of their moral sensitivity, they may experience moral distress. It is important to note that not all people who feel moral distress should respond to the situation, and therefore in this stage it is necessary to determine who the main decision-maker is. Although making decisions concerning an ethical issue such as a colleague's error is best done by a team and after consulting clinical ethics committees or services, it should be clarified who has the main role in delivering the moral action. In our case, although the operation team members such as the circulating personnel and surgery

assistants were responsible for counting the gauzes during the surgery, due to the central role of the attending physician as the surgeon, he/she should inform the patient or his family about the event and discuss the situation.

In stage III we are faced with the question of who should receive protection. Usually many players and stakeholders are involved in clinical settings, for instance patients and their families, physicians, nurses, other health-care workers, hospital managers, medical students and residents, and even the society as a whole. Although we need to consider all affected parties, it is essential to explore which one of the involved players should be prioritized for protection in the decision-making process. In the present case, it seems that the patient and the circulating nurse are prioritized players who need to be protected from harm. The justification for special protection for the nurse is that the patient and the family might hold the perpetrator solely responsible if the circulating nurse is named.

In stage IV we need to make sure that we have in fact a real moral dilemma. A moral dilemma is a situation where two or more ethical standards, principles, rules, values, etc., compete. In the case of disclosing a medical error it is possible to assume that a moral dilemma exists.

While some maintain that not telling the patient and the family the truth constitutes a breach of trust or may impose a psychological harm, others take the opposite view (Table 1).

Table 1. The arguments for and against full disclosure of errors to patients and families

Proponents of Disclosing the Error	*Opponents of Disclosing the Error*
• The patient's right to be informed of his/her condition • Supporting the patients in making decisions related to their treatment process • The possibility of receiving timely and appropriate treatment • Improving physician-patient communication • Rebuilding trust in the medical community	• Causing severe emotional distress for the health-care provider • Creating anxiety and worry for the patient and his/her family • Reducing the patient's trust in the doctor's ability • The possibility of increasing complaints to the court

In stage V a list of competing moral standards at stake should be specified and listed. In this case, non-maleficence, veracity, respect for autonomy, patient-physician trust, and public trust in the medical profession should be taken into account as ethical principles. For example, introducing the responsible nurse may put her/him in danger in some social contexts, but refusal to name the perpetrator might hurt the patient's feelings.

Therefore, all individuals affected by this decision should be taken into consideration.

In stage VI moral obligations should be distinguished from supererogatory choices. It is important to note that like any other field, there is a possibility of error in the medical profession.

In stage VII the competing moral standards, rules and principles should be balanced to guide the decision making. For this purpose, we need to weigh the various standards listed in the previous stages. Albeit hard, a balance should be struck between respecting patients' autonomy and right - as well as their families' right - to be informed of the error made by one's colleagues on one hand, and preserving the colleagues' safety and reputation while maintaining the physician-patient trust on the other.

In stage VIII we need to test the accuracy of our conclusions through some balancing strategies, mainly introduced by Beauchamp and Childress (12). The safety and reputation of the circulating nurse could be preserved through a complete explanation of the situation to the patient, including issues such as the inevitability of errors in medical practice, the systemic nature of such errors, and the intention of the medical team and the hospital to offer compensation and do everything possible to repair the harm. At the same time, we can argue that it is not possible to hide the error because another operation will need to be performed to remove the gauze, so hiding the fact may further disrupt the mutual patient-physician trust and also the trust in the profession and the institution. It is clear that in case of hiding the main reason for the second operation, the medical team will be lying to the patient, which is ethically unacceptable. Therefore, it is safe to conclude that the right action in this case would be to disclose the medical error before performing the second operation.

In stage IX the process of reflection, compensation, recovery and relief should commence. Here we need to deliberate on various ways of decreasing the impact of our moral judgments on different stakeholders. These deliberations would result in plans for compensation, recovery and minimizing the negative consequences of the decision on all involved parties. To illustrate the process, we present the following explanation to the patient and his family:

"It's the system's fault, not the individual's. As a legal entity, the hospital accepts that there's been an error and will have to compensate. The least we can do is apologize and perform the second operation for free."

In addition, the patient and his family should be given a chance for legal action: they can sue the

staff or the medical center. The medical center authorities should carry out the necessary legal evaluation and consider disciplinary assessment or resource allocation if needed (8).

In stage X we need to make sure that our final judgment is compatible with the existing laws and regulations, and if it is not, we will need to resolve the issue by applying another type of moral judgment. Being committed to the law could be a *prima facie* duty and in most cases we are obligated to follow the legal instructions. However, there are situations in which moral judgment is not accepted by the law and therefore following it could be a supererogatory act.

After forming the judgment and determining the right moral action, it is time for step 4 of our framework, which covers moral motivation. We know that in many cases where we know what would be the right thing to do, the main problem is lack of motivation for taking the morally right action. This step requires that we analyze the possible motivations behind doing or not doing the morally right thing. In our case we need to consider the factors that contribute to nondisclosure of the error, including personal and institutional factors. Understanding such motivations would pave the way to moral action. The theory of moral development mainly introduced by Lawrence Kohlberg provides an interesting ground for the understanding and categorization of various motivations that can be considered while analyzing clinical ethics cases. In this case fear of litigation would be one motivation of the medical team for not disclosing the medical error.

Avoiding similar errors in the future requires the medical personnel to have adequate moral motivation. Still, a doctor's moral motivation to report an error hinges on the hospital's approach to medical errors. For instance, does the medical center hold the individual responsible, or is there a systemic approach? Are errors reported in the hospital? Do higher authorities react to an error? Hospitals' due attention to such issues morally motivates individuals.

Step 5 includes delivery of the morally acceptable act. In this step we know what the moral action is, but we are also aware that it could be done in various ways. In this case if we consider informing the patient about a medical error that necessitates anther operation, the "bad news" could be delivered in different ways. Dealing with a colleague's error is best done in the presence of a team. The process should commence by offering the patient and his family an apology, which relies on non-verbal communication skills such as appropriate posture with the purpose of

ameliorating the patient's and his family's distress and reducing the risk of future complaints. The medical center should offer reassurances not only by showing due diligence in actively working on the problem, but also through providing compensation for the costs and damages. Also, caution should be exercised not to hurt the dignity of one's colleagues while informing the patient and his family about the error. With respect to the present case, we would recommend the following line of communication:

"We've detected an external object in the X-ray, indicating that you need another surgery. I can't say for sure, but a piece of surgical gauze might have been left behind at the surgery site. To be sure, we need to open up the site."

Non-deterministic sentences are highly recommended in this scenario. Nevertheless, once the corrective procedure is performed successfully, the patient and his family should be fully informed about what transpired during the operation. We could envisage the following line of communication with regard to this patient:

"Three people are responsible for distributing and counting surgery gauze: the surgeon, the circulating nurse, and the scrub nurse. It was a long surgery, and a working shift change brought about this unfortunate error." And finally, repeated moral actions should instill moral character in the medical staff in step 6 (the last step) (8).

Conclusion

Based on this analysis, the doctor must inform the patient and his family of the medical error in this case. Although disclosure of the medical error to the patient could compromise the doctor-patient relationship, concealing the truth entails a more significant consequence, that is, the patient and his family may lose trust in the medical community. Such a scenario rings particularly true when the patient or the health-care system discovers the error. What should also be considered in this context is that informing the patient and his family of the error could be a case of breaking bad news, demanding certain communication skills to protect the patient from adverse health consequences (13). It is highly advisable that the medical error be viewed systemically. In our case, the error did not occur solely as a result of negligence on the part of the circulating nurse, but the management system is to blame as well. The circulating nurse evidently needs to be replaced during long surgeries, and therefore a management review of the error should investigate the staff's working shift and determine error will be adequately addressed as long as they

are deemed inconsequential and swept under the proverbial rug. Indeed, if disclosing medical errors becomes the norm in health-care centers and the system supports those who do it, care receivers will appreciate that the medical team are as prone to mistakes as other professionals, and the patient-doctor trust will not be breached. Furthermore, a record of the medical error should be kept in the patient's file to prevent reoccurrence. Needless to say that the patient should not bear the burden of the financial costs incurred by the error. Finally, in the spirit of transparency, a sign could be placed in the operating rooms saying, "It has been .... days since we left behind an instrument in the patient's body. Errors happen, but we try to reduce them."

Conflict of Interests

The authors declare that there is no conflict of interests.

Ethical Considerations

This article has been approved by the research ethics board at Rajaie Cardiovascular, Medical and Research Center (IR.RHC.REC.1401.058).

Acknowledgements

There are no Acknowledgements

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