

Essay

Moral Reasoning and its Implications for Pharmacy Education

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A major goal of schools of pharmacy is to graduate well-trained pharmacists who possess both the requisite technical skills needed to be competent pharmacists and who are able and willing to provide patient-focused care. Doing so benefits pharmacy's major stakeholders: the institution, the pharmacy organization, the patient and society. Moral reasoning is grounded in the cognitive moral development field and attempts to explain the human decision-making process prior to behavior. Why is training in moral reasoning important for pharmacy students? It is important because students at higher levels of moral development may demonstrate an increased probability of adhering to a higher level of patient-focused care. This paper discusses and answers the following questions:

1. What is moral reasoning?
2. Why is training in moral reasoning important to pharmacy education and can it be measured?
3. How is moral reasoning related to clinical decision-making?
4. How can moral reasoning be fostered in pharmacy students?

Keywords: Moral reasoning; Pharmacy education; Patient-focused care; Ethics

INTRODUCTION

A major goal of schools of pharmacy is to graduate well-trained pharmacists who possess both the requisite technical skills needed to be competent pharmacists and who are able and willing to provide patient-focused care. Doing so benefits pharmacy's major stakeholders: the institution, the pharmacy organization, the patient, and society. A basic question that can be asked is, "Are there educational interventions schools of pharmacy can incorporate

into pharmacy curricula that can foster students' embracing of patient-focused care behavior?" For purposes of this paper, patient-focused care will be used to denote clinical performance characteristics such as medical knowledge, task organization and interpersonal relations (Elstein and Lindenfeld, 1979).

It is a fervent hope of pharmacy schools to produce moral pharmacists; that is pharmacists who are compassionate and put the interests of their patients above their self-interest. But often, the present health-care system places pressures on pharmacists to behave in ways that may conflict with professional values and behaviors. For example, if pharmacy organizations reward pharmacists for volume (and not for patient-focused care), their milieus may indicate that dispensing prescriptions takes precedence over providing patient-focused care. Therefore, situational pressures, such as those based on the organizational reward system, may foster an organizational climate and culture that says "to be successful in this organization, I must do the things that get rewarded." This reward system perspective suggests that employees in organizations "seek information concerning what activities are rewarded, and then seek to do (or pretend to do) those things often to the virtual exclusion of activities not rewarded" (Kerr, 1975).

Partly because of pressures to reward behaviors that may conflict with professional behavior (e.g. prescription volume versus patient-focused care), training pharmacy students in moral reasoning is a worthwhile endeavor for pharmacy schools. Why? Because individuals at lower levels of moral

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reasoning are often more likely to succumb to the situational pressures inherent in the workplace (Leming, 1978; Grover, 1993). Furthermore, workers who score lower on moral reasoning may possess a proclivity to acquiesce to the perceived demands of their organization in the face of conflicting and/or ambiguous circumstances. As pharmacy moves closer to the patient-focused care model, opportunities for complex ethical dilemmas will increase (Haddad, 1991). When tasks are non-standardized and ill-defined, as is often the case in the provision of pharmaceutical care, individuals at higher levels of moral reasoning may have better conceptual tools for handling an ethical or social dilemma (Rest, 1994). Moral reasoning refers to how individuals organize their activities in such a manner so as to further human welfare (Rest, 1990).

The major goals of this paper are to discuss and answer the following questions:

- (1) What is moral reasoning?
- (2) Why is training in moral reasoning important to pharmacy education and can it be measured?
- (3) How is moral reasoning related to clinical decision-making?
- (4) How can moral reasoning be fostered in pharmacy students?

The remainder of this paper is organized as follows. First, the literature pertaining to moral reasoning and its assessment is reviewed; the importance of moral reasoning to pharmacy education is discussed, along with how one's moral development can be subject to measurement; empirical studies are reviewed that demonstrate a significant and pragmatic link between moral development and health professionals' clinical performance; one type of educational intervention that has been shown to foster moral development is discussed (specifically, a pharmacy case that exhibits an ethical dilemma is discussed and the different levels of thinking are assessed within the parameters of moral reasoning); and finally, the pros and cons of using moral reasoning as one criterion in the admission of pharmacy students to pharmacy schools is discussed.

COGNITIVE MORAL DEVELOPMENT

Cognitive moral development was developed by Lawrence Kohlberg (1969) and emanates from the field of cognitive development. It provides a theory that explains the human decision-making process prior to behavior. Rather than being concerned with what is socially or morally right or wrong, moral reasoning is concerned with the processes individuals go through to arrive at decisions. It is a stage

theory of moral development. Kohlberg, based on the extensive interviewing and observation of adolescents, derived a model that conceptualized ethical judgment based on a series of developmental stages. Cognitive moral development is cognitive in that it attempts to explain how a person thinks (in contrast to an emphasis on emotions or learned associations). It is structural in that it describes an underlying innate mental process. For example, the opinion, "pharmacists should not participate in the dosing or dispensing of lethal injections in the case of capital punishment" may be identical for a 22-year old pharmacy student and a 12-year old child. However, the reasoning processes to arrive at that identical decision may be very different.

Cognitive moral development is developmental in that thinking skills require advancement along a stage-sequence continuum of cognitive levels. Kohlberg's theory of moral development posits that individuals advance along a stage-sequence continuum that represents a series of cognitive levels akin to the rungs of a ladder. Most individuals move upward through these developmental levels beginning with what is termed "pre-conventional morality" to the second, termed "conventional morality" and sometimes to the highest level, called "post-conventional morality." Each level has two developmental stages, and individuals progress upward in an invariant sequence. In other words, an individual progresses from stage to stage in a logical sequence. Theoretically, stages cannot be skipped. Rest (1994) states that one way in which to view the stages of cognitive moral development is to view them as six conceptions of how best to organize social cooperation in society. Table I provides highlights of the six stages.

A pharmacist at the pre-conventional level of moral reasoning thinks predominantly within

TABLE I Six stages viewed as conceptions of cooperation

Stages	
Level 1	
1	The morality of obedience: Do what you are told
2	The morality of instrumental egoism and simple exchange: Let's make a deal
Level 2	
3	The morality of interpersonal concordance: Be considerate, nice, and kind, and you'll make friends
4	The morality of law and duty to the social order: Everyone in society is obligated to and protected by the law
Level 3	
5	The morality of consensus-building procedures: You are obligated by the arrangements that are agreed to by due process procedures
6	The morality of non-arbitrary social cooperation: Morality is defined by how rational and impartial people would ideally organize cooperation

As reported on page five in Rest and Narvaez (1994) *Moral Development in the Professions*.

the framework of "what is in my best interest," regardless of the behavioral effects on others." The focus is on the self at this level. For example, the pre-conventional pharmacist may provide a very low level of patient care if the costs of doing so (i.e. time) outweigh the benefits (i.e. "I'm not getting anything extra for counseling").

The focus at the conventional level of moral reasoning is on relationships. It is realized that life is more than a series of one-shot deals (i.e. "I'll scratch your back if you scratch mine"). Living requires establishing relationships built on mutual trust. Conventional pharmacists would attempt to provide a level of patient focused care consistent with state and federal laws. However, the conventional pharmacist would likely relinquish some care when faced with moderate situational pressures (e.g. increased workload, organizational reward system).

The post-conventional individual's resolution to social or moral dilemmas is guided by self-chosen or ethical principles. Laws are usually valid because they rest on principles. However, when laws are perceived to violate these principles, the post-conventional person acts in accordance with his or her own (for example, Martin Luther King's jailing during the civil rights movement of the 1960s). The post-conventional pharmacist would probably provide a high level of patient care, despite being faced with moderate situational pressures. In the face of significant negative pressures to the provision of patient-focused care, the post-conventional pharmacist would probably leave the community pharmacy.

ASSESSING COGNITIVE MORAL DEVELOPMENT

The two most commonly used instruments for assessing an individual's level of moral development are the Moral Judgment Interview (MJI) and the Defining Issues Test (DIT). The MJI was developed by Kohlberg and his colleagues and includes a semi-structured interview where subjects are asked about several hypothetical moral dilemmas. Particular attention is paid to the subject's rationale for saying why a particular line of action is more morally justified than another. What the subject says is transcribed and compared to examples and criteria in a scoring guide. The scoring guide lists arguments at the various stages, and the scorer's job is to match a subject's responses with the criteria in the scoring guide. As a result, a single global Stage score is given.

The DIT was developed by James Rest (1979). Rather than analyzing individual interview responses by a trained rater as in the MJI, the DIT is a multiple choice test that can be group administered and computer scored. In the DIT a subject is first presented with a hypothetical moral

dilemma. The subject's task is to evaluate among twelve items those that raise the most important considerations for deciding the case. While DIT results are consistent with Kohlberg's stage sequence model, its primary measures are based on distribution of ethical capacities rather than a single stage score. It is discerned from the MJI in that the DIT is recognition based, while the MJI is production based. Stated differently, the MJI asks a subject to spontaneously generate a solution to a dilemma, whereas the DIT is a recognition task. Additionally, the MJI requires a judge to interpret a subject's responses whereas the DIT requires a subject to classify his or her own responses, thus making it more objective (Rest, 1990).

The most widely used and reliable score on the DIT is the "P" score, which is "the relative importance a subject gives to principled moral considerations while making a decision about moral dilemmas" (Rest, 1979). Hence, the "P" (principled) score indicates the percent of a subject's reasoning conducted at the highest level of Kohlberg's model (post-conventional).

Rest (1979) defines any individual with a DIT P% of 50 or greater as thinking primarily at the Principled or Post-conventional level of moral reasoning (or the way moral philosophers conceptualize problems). A DIT P% score below 50 indicates that the subject is not conceptualizing moral problems the way moral philosophers conceptualize them. Thus, people with low moral judgment scores often oversimplify real life situations. Although they may have exemplary technical skills, they frequently find themselves involved in complex ethical problems over their heads (Rest, 1994). Table II reports the average DIT scores of different groups of individuals who have taken the DIT over the past 20 years. For example, an euthanasia dilemma involves a woman, dying of cancer and in great

TABLE II Group average DIT scores

P-Score	Group
65.2	Moral philosophy and political science graduate students
59.8	Liberal protestant seminarians
52.2	Law students
50.2	Medical students
49.2	Practicing physicians
47.6	Dental students
46.3	Staff nurses
42.8	Graduate students in business
42.3	College students
41.6	Navy enlisted men
40.0	Adults in general
36.7	Pharmacy students
31.8	Senior high school students
21.9	Junior high school students
18.9	Institutionalized delinquents

Modified from Rest and Narvaez (1994), p. 14. *Moral Development in the Professions* (see Rest, 1994).

pain, who asks her doctor to give her enough morphine to kill her (Rest, 1990). Whether or not one thinks the doctor should or should not give the patient an overdose of morphine is immaterial to the logic behind that decision. A higher level of moral reasoning requires that the individual ask questions such as, "Is helping to end another's life ever a responsible act of cooperation?" A lower level reasoning justification might be "whether the doctor will be sued for malpractice." Thus, two individuals could both be in favor of giving the overdose of morphine, but have two very different rationales for the same position.

THE IMPORTANCE OF MORAL DEVELOPMENT TO PHARMACY EDUCATION

There are two major reasons why moral reasoning is important to pharmacy education. First, educational interventions in pharmacy schools may enhance student moral development. It has been shown that peer discussion of moral dilemmas may foster moral development (Penn, 1990; Rest, 1994; Self *et al.*, 1998; Latif, 2000).

Rest (1986), in a review of 57 DIT studies concerning the effect of education interventions, concluded that peer discussion of moral dilemmas facilitates modest growth in moral judgment. The logic behind this is that dilemma discussion gives students practice in moral problem solving. It provides them with an opportunity to understand and to appreciate higher levels of moral arguments made by their peers. Interestingly, the empirical evidence suggests that interventions longer than 12 weeks do not seem to have any more of an impact on moral reasoning than do interventions of three to 12 weeks (Rest, 1986). However, durations less than three weeks appear to be ineffective.

Penn (1990) argues that student moral reasoning can be enhanced by directly teaching the component skills of moral reasoning. Component skills of moral reasoning include skills of logic, role taking, and justice operations. The generality of Penn's approach was tested by McNeel (1994). The results from a sample of 28 students reported significant moral growth in ethical reasoning capabilities. Participants' growth in principled reasoning, as measured by the DIT, increased from a pre-test score of 41.7 to a post-test score of 50.6.

Armstrong (1993) administered a pre-DIT and post-DIT survey of moral development of students who voluntarily took a one semester accounting course in ethics and professionalism. Results showed that students who elected to take the ethics course had significantly higher DITs by the end of the course.

Self *et al.* (1992) used the DIT to assess the hypothesis that the formal teaching of medical ethics promotes a significant increase in the growth of moral reasoning in medical students. Results were significant ($p < 0.005$).

Self and Olivarez (1993) used the DIT for evaluation of a project using film discussions for teaching medical humanities. The design of the study was as follows:

- (1) A control group of first-year medical students with no exposure to the film discussion.
- (2) A group of first-year medical students who participated in weekly 1-h film discussions during the fall quarter.
- (3) A group of first-year medical students who participated in weekly 1-h film discussions during both the fall and winter quarters.

Pre-DIT and post-DIT measurements of ethical reasoning skills showed statistically significant increases in moral reasoning scores of course subjects for both the one quarter ($p < 0.002$) and the two quarter groups ($p < 0.007$) of film exposures. This compared to the control group with no exposure to the film discussions ($p < 0.109$).

A study in pharmacy education examined the relationship between ethical dilemma discussion and moral development (Latif, 2000). A pre- and post-DIT was administered to 96 second year pharmacy students in the United States. The DIT was administered at the beginning and the end of a semester in a required communications course. A significant portion of the laboratory component of the course consisted of ethical dilemma discussions concerning pharmacy cases that presented ethical dilemmas (e.g. "Dispensing drugs used in Capital Punishment cases"). It was shown that students' moral reasoning score increased significantly over the semester long course. It was concluded that moral reasoning skills are both teachable and measurable, and that ethical dilemma discussion may foster moral development.

A second reason that moral development is important to pharmacy education has to do with its significant and pragmatic link to clinical performance. Studies in medicine, nursing, physical therapy, veterinary medicine and pharmacy have demonstrated that those individuals at higher levels of moral development seem predisposed to behaving in a more professional manner concerning clinical decision-making (Sheehan *et al.*, 1980; Krichbaum *et al.*, 1994; Sisola, 1995; Latif *et al.*, 1998). Higher-level moral reasoners appear to possess the conceptual tools needed for making sense and for discovering optimal resolutions when faced with ethical dilemmas. These empirical studies have demonstrated that those individuals more

advanced in moral development may have a greater inclination to provide patient-focused care than those at lower levels of moral development. A more detailed description of the link between moral reasoning and clinical decision-making appear elsewhere (Latif *et al.*, 1998; Latif, 2002).

FROM THEORY TO CLASSROOM PRACTICE: LEADING A DILEMMA DISCUSSION

Often, the best way to understand the dilemma approach is to practice leading a small group of students in discussing an actual dilemma. The method described for leading this moral dilemma discussion is based on the Kohlberg approach. A moral dilemma should involve two (or more) moral principles. These principles should be about equal in importance, but should imply mutually-exclusive courses of action (Oser, 1986). Dilemmas should be open-ended problems which present a conflict between the rights and responsibilities of the involved characters. These characters are faced with a situation which students are asked to resolve.

One way to present a dilemma (such as the following on "mislabeling medication") is to read it twice to students at normal speed.

Responding to a Physician's Request to Mislabel a Patient's Prescription

Melissa Miller is a pharmacist at Davis Hospital ambulatory-care pharmacy. Steve Jacobs, a psychiatrist, called Pharmacist Miller with a question about the adverse effects of a newly marketed antidepressant. During this conversation, Dr Jacobs mentioned that one of his patients, David Duffy, would need to get a prescription filled at the ambulatory-care pharmacy. Mr Duffy has been a patient of Dr Jacobs for the past 15 years. According to Dr Jacobs, Mr Duffy will not take the antipsychotic Eldol, but he is willing to take Stilaton. Unfortunately, Stilaton is not effective for Mr Duffy. For the past few years, Dr Jacobs has been getting a local community pharmacist, Jim Doherty, to dispense Eldol concentrate labeled as Stilaton concentrate. (In this state, drug names are required to appear on all prescriptions dispensed to patients.) Dr Jones wanted to know whether Pharmacist Miller would label Mr Duffy's drug similarly.

When Pharmacist Miller questioned the ethics of this practice and its legality in their state, Dr Jacobs told her that mislabeling the drug in this particular instance was not unethical or illegal because it was being done for the good of the patient. Dr Jacobs told Pharmacist Miller that he had always included with each prescription a letter to Pharmacist Doherty in which he, the physician, assumed full responsibility for the prescription; he suggested that he would do the same for Pharmacist Miller (*Am. J. Hosp. Pharm.*, 48 (1991) 296-300, Clyne *et al.*, 1991).

After the second reading, the first step is to make sure that all students are tuned in by asking them to re-tell the story and present their perception of the problem. Next, students are asked, "Should Pharmacist Miller mislabel the drug solution as Dr Jacobs

requests?" Students are then asked to form two groups according to their answers: those who think Pharmacist Miller should mislabel the drug solution (PRO group) and those who think he should not (CON group). Those who cannot decide are grouped with the "CON" group. Grouping students according to their answer to this question helps students to feel comfortable and fosters a climate of trust and cooperation. The second part of this question requires that each group justify its answer (i.e. why or why not?). Since CMD is concerned with the processes individuals go through to arrive at decisions rather than the actual behavior, each group may comprise students at different levels of moral development. The next step is to dictate additional open-ended questions that may elicit different levels of moral argument. For example, the above case may include the following questions (accompanied by a characterization of the level of moral reasoning used):

- (1) Is it actually right or wrong for Pharmacist Miller to mislabel the drug solution? *Conventional level*
 - (1a) Why is it right or wrong?
- (2) Does Pharmacist Miller have a duty to the patient, David Duffy, to mislabel the drug solution? *Conventional level*
 - (2a) Why or why not?
- (3) Would mislabeling in this case bring about more total good for society? *Post-conventional level*
 - (3a) Why or why not?
- (4) What are the chances of Pharmacist Miller getting caught, and is the risk worth it? *Pre-conventional level*
 - (4a) Why or why not?
- (5) Can society afford to allow health professionals to deceive their patients, no matter what the outcome? *Post-conventional level*
 - (5a) Why or why not?

Each group should discuss and write down their reasons for answering the questions in the dilemma. As discussed previously, the interest is in the processes one goes through to arrive at decisions. The teacher's role is simply to facilitate. Each of the questions represents different levels of moral reasoning. These questions give students practice at moral reasoning about value issues. Thus, students learn to acknowledge diversity of opinion, probe assumptions, and to value "reasons" as a source of support. Next the PRO and CON groups challenge each other's opinion concerning whether or not Pharmacist Miller should mislabel the drug solution. According to Powers *et al.*, three principles should be remembered and followed during moral dilemma discussion (Power *et al.*, 1989):

- (1) Respect the dignity of all students, regardless of their opinion concerning the dilemma.
- (2) Every student has an inalienable right to speak freely about anything he or she wants during discussions.
- (3) Members of the group cannot be forced to speak, but those who do speak should be sincere about what they say.

The PRO and CON challenge allows students to appreciate a public debate on moral issues. In addition, students learn to assertively voice their opinions and to present the reasons behind them succinctly. Finally, students learn to distinguish between the argument advanced by a peer and the quality of the peer as a person.

CONCLUSION

The reality of the present day work environment often places pressure on pharmacists to behave in a manner that may conflict with the profession's code of ethics and professional behavior. Both theory and empirical evidence suggests that those health professionals at higher levels of moral development may be less likely to acquiesce to situational pressures found in the work place. This paper describes one method that pharmacy educators can utilize that has been demonstrated to enhance students' moral development. By practicing ethical dilemma discussions throughout the pharmacy curriculum, there is compelling evidence that Doctor of Pharmacy students will be more likely to behave in a professional manner when faced with ethical dilemmas in the work place.

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