Ethical Considerations in Clinical Reasoning: The Impact of Technology and Cost Containment

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This article raises, but does not answer, the kinds of questions that need to be asked by responsible occupational therapists in the 1980s—ethical questions that deal with technological advances on the one hand and limited resources on the other. The article examines moral dilemmas that practitioners and students face when making clinical decisions in a climate where technology and cost containment may overshadow the needs of the individual patient. A review of the literature on clinical reasoning, technology, and cost containment provides the background for a discussion of specific issues of quality of life for the occupational therapist. Implications for education and practice are presented, with suggestions for further consideration.

The complex nature of clinical reasoning has intrigued and plagued physicians, philosophers, psychologists, and educators since the time of Hippocrates, when doctors first insisted on the importance of observation of patients, refined by reason. Many disciplines have rightfully claimed a stake in the work on clinical reasoning. The debate on whether to label clinical reasoning art or science continues in the growing tension between what Elstein (1976) calls the scientific-actuarial and the artist-intuitionist models of clinical judgment. While the former attempts to use logic or decision theory to transform the process into a respectable science, the latter declares that it is an art, not subject to scientific analysis, and that it can be improved only as one might increase one’s skill at painting or music. Rogers (1983) has settled the argument by proposing, “Without science, clinical inquiry is not systematic; without ethics, it is not responsible; without art, it is not convincing” (p. 616). Using her thoughts as a guide, it seems safe to say that clinical reasoning incorporates scientific and artistic elements directed to a specific practical end: a right action for a particular patient, given that person’s situation at the time of the decision (Pellegrino & Thomasma, 1981). Since this process calls for judgment and decision making as well, the ethical elements must be equally recognized as significant factors.

Within the last decade, ethical issues have assumed increasing importance in clinical decisions. To date, the fundamental questions about effective clinical reasoning remain unanswered. In fact, they are further complicated by questions that are deeply troubling, often with multiple, conflicting opinions. In the current climate of high technology, cost containment, accountability, and quality assurance, clinicians and students must grapple with strong external pressures that can easily overshadow the needs of the individual who is perilously balancing on the threshold between autonomy, self-determination, and competence on one side and disability, dependence, and possibly death on the other.

In the 1950s the teaching of ethics still dealt mainly with such issues as not accepting gratuities from patients and not sitting on patients’ beds. Now students are engaged early in their professional education in discussions of justice surrounding allocation of scarce resources. “Who shall be treated when not all can be treated?” has become a question of immediate relevance to students in their first encounters with extreme staff shortages. The sword of cost containment hangs over the heads of students and their supervisors when a monetary value is placed on human life. Hippocrates’ basic, timeless admonition, “above all, do no harm,” has an added dimension since tech-
nological advances have created an increasing population of survivors of heroic life-saving efforts for whom issues of quality of life are central. As occupational therapists approach the last decade of the 20th century, they are forced to reexamine personal and professional values and goals that have been the key

tone of their clinical reasoning as health professionals. Engelhardt (1986) graphically describes the tensions experienced by all highly developed scientific and technological societies. He states:

we are at present committed to providing the best of care, equally to all, while maintaining provider and receiver choice, though at the same time engaging in cost containment. It should be clear that one cannot pursue all of these four goals at the same time. We confront a conflict of values and goals. (p. 40)

This conflict becomes apparent in the education of students who are faced with baffling clinical problems that call for special reasoning, judgment, and decision making. Observing students on the arduous journey from patient history through the satisfactory resolution of a problem heightens one’s awareness of the number of competing variables that vie for attention. It also points up our limited understanding of the intellectual and emotional processes involved in clinical reasoning.

The purpose of this article is to examine moral dilemmas that confront occupational therapy practitioners and students as they approach clinical decisions in a climate where technology and cost containment efforts may overshadow the needs of the individual patient. The discussion seeks to acknowledge the forceful presence of ethical issues that must be addressed in the teaching and application of clinical reasoning.

Literature Review

Clinical Reasoning

A review of the recent health care literature on clinical reasoning reveals the pervasive nature of ethical questions raised by practitioners in several disciplines. Earlier work on clinical reasoning rarely covered these issues. Up to the late 1960s there was a paucity of empirical data on clinical reasoning. In the 1970s the most definitive work was carried out by Elstein, Shulman, and Sprafka (1978), who studied the clinical reasoning of physicians in an environment that approximated medical practice. They hoped to understand the skills, strategies, competencies, or attributes that characterize the performance of skilled clinicians in order to improve or accelerate the manner in which medical students might learn to master those skills. They also explored the differences between medical problem solving and the psychological investigations of cognitive processes that had characterized all studies of problem solving in the 1950s and 1960s. These earlier studies looked at such artificial tasks for learning and cognition as rats in mazes, cats in problem boxes, and humans with memory drums. The scientists created novel situations that did not allow earlier experiences to influence the subject’s performance. Elstein and his associates, along with other medical educators, postulated that clinical problem solving does rely heavily on past experience and the particular features of the problem being approached. These features are characterized by ambiguity, uncertainty, and inconsistency and call for development of a limited number of hunches or hypotheses to be tested in selecting the “best fit” solution for the problem at hand. Several other features distinguish clinical reasoning from general reasoning: For the health professional, there is not one right answer but, rather, multiple options, all of which may be resolutions or compromises and not solutions that are correct for all time. Similarly, clinical reasoning generally begins with incomplete information, and the reasoning is adjusted as new information is acquired or retrieved. This has led an anonymous, somewhat cynical thinker to define clinical reasoning as “the process of making adequate decisions with inadequate information” (Elstein, Shulman, & Sprafka, 1978, p. VIII).

In her Eleanor Clarke Slagle lecture, Rogers (1983) deplored the limited attention given to explicating the thinking that guides practice, despite the obvious importance of clinical judgment in the occupational therapy process. She developed an “intellectual device” (p. 602) for viewing the scientific, ethical, and artistic dimensions of clinical reasoning from the questions the therapist seeks to answer through clinical inquiry. Her model was based on a scheme of clinical judgment in medicine presented by Pellegrino and Thomasma (1981). Because of its relevance to the ethical questions presented here, this scheme for analysis of clinical judgment is further developed in this article.

To date, the only descriptive research on occupational therapists’ clinical reasoning is the groundbreaking pilot study by Rogers and Masagatani (1982) of 10 therapists engaged in assessment of patients with physical problems in medical settings. The therapists’ perspective for assessment focused on musculoskeletal and self-care functions, and they appeared to experience difficulty in giving reasons for their actions and explaining how they proceeded from one step to the next. Most recently, Pelland (1987) described a method of teaching clinical reasoning for treatment planning. Gillette and Mattingly (1987) reported on current clinical reasoning research in
which therapists are observed during treatment and later view themselves on videotape while they explain the rationales for their actions. However, among all of these studies only the 1982 Slagle lecture (Rogers, 1983) examined the ethical components.

The model proposed earlier by Pellegrino (1979) is useful for analysis of clinical judgment. He asks three generic questions that must be answered if the process of clinical judgment is to be complete and authentic: What can be wrong? What can be done? What should be done? The first question, What can be wrong? yields a diagnostic answer which, in the case of occupational therapy, is a functional profile: What can this person do? What can't he or she do, and why? The second question, What can be done? is a therapeutic one that allows the occupational therapist to suggest a multitude of potential options that might benefit the patient, given the current problem, the patient's life-style and goals, and the prognosis. The third question, What should be done? moves the process out of the scientific into the value-laden realm. Here many factors must be weighed against each other: quality of life, dignity of death, and expense to society and patient, balanced with the personal values of the patient, the personal and professional values of the therapist and other health professionals, and the expectations of the treatment setting. What should be done also calls for an examination of what should not be done, what might be done, and what must be done.

In making the right decisions for an individual patient, the personal, social, economic, and psychological characteristics of the patient must be simultaneously considered (Pellegrino, 1979). All of this is familiar territory to the occupational therapist. However, to what extent therapists weigh the pros and cons of making judgments about choice of treatment has not been documented.

Technology

The impact of technology on clinical reasoning is receiving increasing attention in lay and professional publications. Clinical technology differs from industrial technology by its proximity to the patient (Thoma, 1986). This may engender fear in the patients, especially if the technology is mismanaged or not understood by them. Thomasma (1984) suggests that "the focus upon life-prolongation by using machines and life-support systems leads to an image of man as increasingly dependent" (p. 38). On the other hand, the use of computerized systems (automated diagnosis and automated treatment) may lead to loss of contact with health care personnel. The danger in both situations is the worship of technology, which may result in the personnel's admiration of the machine and neglect of the patient.

The use of artificial devices to prolong life has been widely debated in lay and professional literature. This use may result in a vision of individuals as technological products. Sidler (1986) states that "almost any aspect of human activity that has been impaired could potentially be aided to some degree through the use of microcomputers as processors, manipulators or controllers" (p. 56).

It must not be construed from the preceding that the beneficial aspects of technology are not clearly recognized. The advent of the computer has dramatically enlarged the scope of occupational therapists' effectiveness; other types of rehabilitation technology have also contributed immeasurably to the quality of life of severely disabled individuals (see American Journal of Occupational Therapy, Special Issue, Nov. 1987). However, since the focus of this article is on ethical considerations, interventions that are clearly beneficial are not discussed.

Cost Containment

The literature on cost containment also raises ethical concerns. Richards (1984) proposed that hospitals have become rationing agents who are asked to make moral choices that are actually political and social responsibilities. Availability of care has been restricted by economics and payer decisions and by individual characteristics of the patient, such as age, ethnic origin, or health status. No matter what is done, Richards contended, someone will get hurt. On the same theme, OT Week ("HCFA faces . . . ," 1987) reported that, as a result of delegating primary decision-making authority to private fiscal intermediaries without adequate supervision or regulatory mandate, Medicare patients and providers of home health care services are faced with "irrational and unexplained coverage determinations" (p. 12). These fail to take into consideration the needs of the individual patient, the attending physician's opinion, and community medical practice.

The President's Commission for the Study of Ethical Problems in Medicine and Biomedical Research (1983b) was charged by Congress to address the ethical implications of differences in the availability of health services. After 3 years of study, the commission concluded that society has an ethical obligation to ensure equitable access to an adequate level of health care without excessive burdens. However, the definition of these concepts was left to society.

In summary, the impact of regulatory, technological measures has drastically affected the context in which clinical reasoning must take place. Clinical reasoning alone is not enough; there must be moral reasoning as well in order to focus on the precise nature of the patient's problem and identify the conflicts and their origin.
Quality of Life

The changing nature of practice has brought these issues into the day-to-day reality of the practitioner. For the occupational therapist, clinical reasoning has generally been conceptualized as a model that aims to shift autonomy, control, and responsibility from the professional back to the patient. Occupational therapy students learn to reason in a framework where the "just right" amount of challenge (Rogers, 1982, p. 712) is presented to the patient for eliciting physiological and psychological output toward the highest level of independence possible. This emphasizes the congruence of the clinical decision with the individual's particular position at that time. It is an upbeat, optimistic approach that views the patient and therapist as working together toward a previously set, mutually determined goal. However, the therapist has increasingly less control over whom to treat, when, and how. While life-saving measures have restored life to many people who had already relinquished control and care to others, economic realities have placed time and justification constraints on the health professional in attempting to meet previously agreed goals. It is difficult to set realistic priorities that have some meaning for the patient when the patient's length of hospital stay has been determined on the basis of a diagnostic category that denies the individuality of patients in general as well as the specific needs of that particular person. Equally, goals for increased quality of life begin to sound hollow when patients' lives are governed by the fear of power failures that could extinguish life or the fear of discharge before survival skills have been attained.

Quality of life has always been a difficult concept to define and measure. It can only be described individually by each person and depends on present lifestyle, past experience, hopes for the future, dreams and ambitions. It must take into account the impact of illness and treatment (Calman, 1984). Policing of regulations regarding informed consent may be limited to merely checking the record for the presence of a signed consent to proceed. Patients are rarely given opportunities to examine the choices or the consequences. By the very fact that they are human beings holding out hope to those in their care, health professionals may guide patients toward a choice in favor of a new technique or treatment without full exploration of the consequences. Thomasson (1986) suggested that the informed consent process does not clearly inform patients or families that the end result might be a state of existence worse than the previous state. "The patient is neither brought to a better quality of life than he had before the operation nor left alone peacefully to die" (p. 1477)

As both a blessing and a curse, technology has removed the inevitability of death from incurable illness or serious injury a step farther and has thereby increased the complexity and the value conflicts that need to be addressed. Schoenberg (1984) raised this point with a probing question:

"Life may be sustained by respirators, cardiac stimulators and other technology, draining the emotional and financial resources of the family, straining overtaxed facilities and scarce personnel of hospitals and creating emotional problems for caretakers. Is it the physician's responsibility to preserve a patient's life, simply because advances make it possible to accomplish? (p. 216)

Although occupational therapists are generally not on the front line of decisions about saving lives, they are on the front line in dealing with the consequences of life-saving measures and the technological measures that make survival possible. When an already heavy caseload is further taxed by the addition of a patient who is comatose after a head injury or an 87-year-old patient who has just survived the third cerebrovascular accident through heroic life-saving measures, the occupational therapist comes face to face with some of the most difficult quality-of-life questions. Although answers to scientific questions may be found in accumulating data and testing hypotheses, technical questions are resolved by coming to grips with values and making value judgments (Rogers, 1983). Here, especially, students and practitioners need to examine more closely their own moral, cultural, and religious views about living and dying, dependence and independence, and quality of life in order to design therapeutic programs that preserve their patients' values and represent a mutual understanding between themselves and the patient (Rogers, 1983).

One of the decisions of the President's Commission for the Study of Ethical Problems (1983a) was that "no one has an obligation to provide treatment that would, in his judgment, be countertherapeutic" (p. 44). However, the decision to treat or not to treat must also include an evaluation of the meaning of existence with varying impairments. Great variation exists among these essentially evaluative elements between patients, their families, physicians, and other health professionals and policy makers.

Ethics is not just what one does, but why one does it (Churchill & Cross, 1986). Here, again, the ethical responsibility is to be concerned for the quality of life experienced by the patient, in spite of trends toward an emphasis on technique and objectivism (Yerxa, 1980). It is also the therapist's responsibility to examine questions of dependence caused by using machines and life support systems to prolong life. To what extent are questions about self-determination and autonomy relevant when the patient is dependent on a machine for every heartbeat?
Financial Constraints

The question of health care costs and their ethical implications has received considerable attention from all service providers. A widely shared view has been that if one can do something in health care to assist a patient, it should be done. Now that principle is being examined. Which treatment should be funded? For whom? At whose expense? (Richards, 1984). Further, who is to decide eligibility, who is to pay for the costs incurred, and what regulatory guidelines are necessary?

A major ethical issue, and one that is all too familiar to occupational therapists, is the denial of treatment to a medically qualified person because of inability to pay or ineligibility for third-party payment. Of equal importance is the concern about federal regulations, such as the 1982 Health Care Financing Administration ruling that requires 3 hours of occupational therapy or physical therapy per day for rehabilitation patients. Such concentrated treatment may not increase the patients' progress but may merely increase the cost of rehabilitation ("Length of Stay," 1987). The moral dilemma here, as Intaglia and Hollander (1987) pointed out, is deciding what to do when a patient does not really need another hour of occupational therapy. In this situation, occupational therapists are faced with the moral dilemma of whether to comply with the regulation when their clinical experience and professional judgment cause them to question the underlying tenet that more has to be better. This becomes a problem particularly when the diagnosis-related group (DRG) determination has discharged the patients "sicker and sooner" from an acute care setting and the patients are therefore less able to be engaged in an intensive 3-hour schedule of therapy.

A further issue is raised in the patient-therapist relationship when the patient must pay for part or all of the care out of pocket. To what extent are patients made aware of alternate delivery systems and plans so that they can decide whether occupational therapy might be of greater value to them than some other service? Each of these issues presents therapists with weighty ethical questions that challenge their reasoning and their integrity.

Implications for Education and Practice

An approach to dealing with moral, ethical dilemmas needs to be incorporated into the repertoire of all practitioners. Early in their education and repeatedly in practice there must be open acknowledgment that it may not always be possible to decide the right thing to do in a clinical situation. In fact, there may not be one best decision, but merely one that is the better of several less desirable options. It is possible, however, to assure that the options have been considered in a systematic way, through open communication, awareness of feelings and values, and clarification of the issues involved.

For the occupational therapist, there are recurring paradoxes and resulting dilemmas that call for a response: having the knowledge, the clinical judgment, and the technical expertise but not the funding to enhance a patient's quality of life; having limited amounts of time or resources and deciding who is entitled to them; having the tools of science and struggling not to be entrapped by them. These realities seem far removed from the idealism that is a normal developmental step for students. They see themselves becoming paragons of intellectual ability, moral integrity, and creative skill, dealing wisely and humbly with every patient's special needs and omnipotently confronting and solving patient problems. At the same time, they are subject to feelings of helplessness that surface during early encounters with patients. These feelings are confirmed by witnessing inconsistency, ambiguity, and instability in moral dilemmas in which there are at least two compelling alternatives (Harron, Burnside, & Beauchamp, 1983). Most disquieting is the patient's tenuous situation. Students yearn for some security and consistency, and they lack the two ingredients that might offer a sense of direction: facts and experience. Feelings of ineffectuality may result in anger toward the patient, followed by feelings of guilt (Schoenberg & Carr, 1984). Faculty and clinicians, recalling their own struggles at a similar stage, must be able to retrace with the student their own developmental steps in gaining a more realistic perspective on the limits of power, as well as the potential for helping to effect change in a cold, uncaring health system.

A useful and timely learning experience that brings ethical questions closer to reality for students also depicts the diversity of personal, ethical, and moral values. This is a class exercise that asks students to rank seven patients who have been referred to occupational therapy for a variety of acute medical and psychosocial problems. The patients are of varying ages and have differing social support systems. Students are told that, because of staff shortages, only two patients can be accepted for immediate treatment. Whom will they select? Why? In the discussion that follows there are as many different choices as there are students. Some will select the child, because she has a lifetime ahead of her; others may select the young mother who must be discharged next week; still others will choose the old man who is near death and whose quality of life needs should be met. Each
student builds a strong case for his or her decision—a choice that reflects personal, ethical, and moral values about life.

The most helpful role models for students and practitioners are those who can openly discuss their own feelings about ethical questions and who can help others carefully examine their responsibilities to the patient, their employer, the profession, and, ultimately, to themselves. Over the past several years, students have repeatedly underscored their need to talk about ethical issues in an environment that permits open exploration of questions for which there are no clear answers. Although they initially expressed anxiety about the lack of certainty in planning for patients, they later welcomed the opportunity to have a faculty member challenge them in exploring all sides of an issue.

Every individual has deeply rooted values and beliefs about what is right and wrong and the kinds of decisions with which one can and cannot live. The norms and attitudes of different occupational therapists reflect the pluralism of attitudes and ethical norms in society. For this reason, important decisions based on value judgments should not be made independently, but rather in a group of colleagues. As practitioners move out of the social structure of the institution and have fewer opportunities for obtaining a variety of opinions, they may find themselves isolated and helpless when faced with ethical questions. The importance of finding mentors or a community of colleagues with whom to raise the questions cannot be overemphasized. Increasingly, all health professionals are recognizing the need for further access to the study of ethics and the logical analysis of ethical problems to guide them in making the most moral, humane decisions for their patients. Scientists have found ways to sustain life; now society must assume responsibility for supporting and nurturing that life. Clearly, these questions will not go away; rather, they must be accepted as a sobering legacy for the 21st century.

Conclusion

This article has examined moral, ethical questions facing health professionals in a time of high technology and cost containment efforts. Clinical reasoning in 1988 requires far more extensive preparation of occupational therapists in areas that up to a few years ago were left to other disciplines, such as business, law, and economics. This calls for a close partnership of clinicians and educators. Students and practitioners need opportunities for reasoning about issues and for considering the external pressures and internal value systems that will affect judgment. Occupational therapy personnel need to learn to live with questions of conscience as part of their professional responsibility.

References

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**Cordelia Myers Writer's Award**

The American Occupational Therapy Association is pleased to announce that Mary Jo Pelland McGuire has been chosen to receive the Cordelia Myers Writer's Award of *The American Journal of Occupational Therapy* for the 1987 volume year. Her paper, "A Conceptual Model for the Instruction and Supervision of Treatment Planning," which was published in the June issue, was considered by the journal's editorial board to be a strong piece of professional writing by a first-time contributor to the journal during the 12-month period.

The journal's editorial board and the staff extend their congratulations to Mrs. McGuire.