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Practice Perspectives and Medical Decision-Making in Medical Residents: Gender Differences. A Preliminary Report

Cheri Geckler

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Publications Office - Wellesley Centers for Women
Wellesley College, 106 Central Street, Wellesley, MA 02481
Phone: 781-283-2510 Fax: 781-283-2504

Abstract

The science of medicine has demonstrated unprecedented success during the past several decades, yet the humane aspect of medical practice has been less integral to the culture of clinical medicine. At issue is the conviction that clinicians have become excessively impersonal in caring for patients, resulting in a backlash of patient frustration and alienation. Given the vast degree of structural reorganization now in progress, including the influx of females into this once male dominated profession, gender differences in professional practice philosophy and medical decision-making were examined as part of a larger study. To this end, a small subsample of 20 residents (10 females,10 males) were randomly selected from a larger pool of resident subjects. Specific attention was focused on 1) career choice and significant professional experiences and 2) the relationships among priority criteria in a hypothetical medical case and level of empathy, sex role identity (gender) and biological sex. Results indicated general satisfaction with career choice, a motivating desire to help others, and a pervasive concern with the degree of aggressiveness in medical interventions and quality of life. In terms of medical decision-making, biological sex, psychological gender and/or level of empathy influenced the priority placed on information classified as physiological or psychosocial. A majority of females, many of whom were classified as feminine sex role identitfiers, favored psychosocial information. Most of the males were either masculine or androgynous sex role identifies and were evenly divided between placing a priority on physiological or psychosocial information. Androgynous females and males were also evenly divided in informational priorities. Psychosocial emphasizers tended to rank high in empathy. The results were considered quite preliminary due to the small subject number. However it was argued that as individual cornerstones in a rapidly changing industry, physician values and treatment standards are critical to qualilty health care.

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"Whereas good intentions without the skills to realize them are medically useless, skills without humane intentions are morally dangerous"

-Robert Arnold, 1987

...."the character of the physician is an irreducible factor in the healing relationship. How he or she interprets the moral principles, selects the values that will predominate and shapes self-interest will be more important than how the moral principles are formulated and described"

- Edmund Pellegrino and David Thomasma (1993)

Although the science of medicine has demonstrated unparalleled success during the past three decades, the humane aspect of medical treatment has been less integral to the culture of clinical medicine and education. At issue is the conviction that clinicians have become enormously remote, impersonal and instrumental in their care of patients, resulting in a backlash of patient frustration and alienation, despite frequently successful treatment. As a result, during the past decade, medical schools around the country have initiated innovative curricula designed to educate more humanistic physicians. As individual cornerstones in this vast industry, the essentail values and practice standards of physicians are critical to the quality of health care. To further explore this issue, an empirical study was designed to elucidate personal practice philosophies, select personality characteristics, decision-making strategies and ethical sophistication in a group of 65 medical residents (Stagno, Geckler, Smith, in progress). Subjects were in their second or third year of post graduate training, specializing in either internal medicine or family practice. This paper is an initial analysis of data from a subgroup of 20 male and female residents. The major

focus will be the climate of medical practice today and its effect on the physician-patient relationship.

During the past several decades, the framework for medical practice has become increasingly complex and multidimensional (Starr, 1982). The profession has become more fragmented through subspecialization and subjected to increasing scrutiny and control by external forces, including government and business organizations. Further complicating the current state of medical practice is the ambiguous quality of ethical codes used by physicians to structure their approach to patient care. The prevailing practice guide in today's medicine is an ethic of impartiality, autonomy and equality between physician and patient in relation to medical care (Sharpe, 1992). Although this is more of an ideal than a reality, it serves as a useful guide for clinical practice, which is predictably complex and fraught with conflicting pressures. When viewed broadly, the current ethic is consistent with a normative, justice-based conceptualization of sociomoral relations and an instrumental, masculine orientation (Stagno,et al 1993). Furthermore, it is grounded in a Kantian deontology where individuals are viewed as autonomous, inherently valuable and worthy of respect by virtue of their humanity (Sharpe, 1992). According to this structure, decisions are made on the basis of rational, universally applicable and impartial considerations (Kant, 1971).

This justice-based model of medical practice evolved primarily in response to a growing concensus by an increasingly educated public that the prior framework, paternalism, was intrusive and unjustly constraining to individual choice. In other words, paternalism placed power and decision-making authority almost exclusively in the hands of the physician. Patients, in turn, were assigned a passive, dependent role where they were expected to defer to the physician's knowledge and expertise. Concepts such as informed consent, self determination and mutual decision-making were not within the patient province until the later part of this century, when individual rights were gradually asserted and self determination was legislated. The

physician-patient relationship, guided by paternalism, envisioned the physician as an omnipotent authority. According to the justice-based approach of today's medicine, this relationship is theoretically more balanced, by virtue of integrating patient preferences into the decision-making equation. However, this "power-sharing", justice-based ethic has not translated into mutually satisfactory connections between patients and physicians. More often than not, medical encounters are viewed as contacts between strangers and issues of control rather than trust often prevail (Sharpe, 1992). Given the vulnerable status associated with illness and overwhelming desire to trust, which is often made difficult by preoccupied physicians and hasty referrals to unfamiliar specialists, this dynamic is not surprising. In fact, the relationship between patients and physicians is more substantially more complex than a simple contract between two autonomous, equally powerful individuals (Pellegrino and Thomasma, 1988).

To rectify the problems of a rights oriented approach, the incorporation of an ethic of fiduciary beneficience has been cogently argued by bioethicist-physician, Edmond Pellegrino and bioethicist, David Thomasma (1988, 1993). In this model, medicine is conceptualized as a moral enterprise, based on three major factors: the nature of illness, the nonproprietary quality of medical knowledge and responsibilities associated with the professional code of practice, such as the Hippocratic Oath. The first factor considers a patient's loss of freedom as a function of dependence upon another's specialized knowledge and skill. The second factor entails the physician's obligation to utilize knowledge gained through training for the benefit of the patient rather than as a means of self enhancement. The third factor involves the physician's responsibility to further a patient's good and do no harm. Pelligrino and Thomasma view the physician-patient relationship as a covenent, where the patient's welfare is held in trust by the physician. This model is similar to Carol Gilligan's moral construct of caring and responsibility that was formulated in response to Kohlberg's rights oriented theory of moral development (1982). In Gilligan's model, an emphasis is placed on the interdependence of human life, connectedness and responsivity to one another. Moral failure, according to this construct, is

precipitated by detachment, indifference and insensitivity to the uniqueness of individual persons (Sharpe, 1992). This structure of "caring" clearly acknowledges inequality in the physician-patient relationship and supports the former's sensitivity to the latter's expectations and needs, in contrast to the rights oriented framework where an emphasis is placed on relational equality and autonomy.

The issue of gender becomes relevant when one considers that a caring or interpersonal orientation predominates in females and a justice or instrumental orientation predominates in males, according to several investigators (Gilligan, 1982, Jordan, 1991, Stimpson, 1991, Katz, et al 1993). This is not to suggest that such categorizations are simply defined by biological sex and rigid socialization processes. Rather, cultural processes help define the parameters of socialization which have variable degrees of influence depending upon the experiences of individual males and females. Given the historical dominance of males in the medical profession and the stereotypic characterization of medicine as instrumental, technologically driven and impersonal, the impact of a growing number of women physicians merits consideratio. The question is whether this select group of females developed a stereotyped feminine perspective prior to medical training, and if so, whether this perspective will remain salient or relevant to adopted practice standards following the lengthy training process in a male dominated profession. Or in contrast, given the element of self selection into a medical career, compounded by the rigorous admissions process and corresponding tendency to choose individuals who are similar to the existing pool of physicians, most females in medicine may be male identified and instrumental (Notman and Nadelson, 1988). Or females may present as a very differentiated group of individuals. What effect the influx of females will have on the salience and perceived relevance of fiduciary beneficicence as a primary practice guide, compared to an ethic of autonomy and rights is unknown. It may be that gender differences are in fact minimal and personal practice philosophies are virtually unrelated to the sex or gender identity of the physician. The intense, protracted process of training within a unique professional culture, may diminish any major initial differences . Indeed, Guinier, et al (1994) reported a gradual decline in female-male attitudinal differences in the period between enrollment

and graduation from law school. How aspiring physicians define themselves in relation to patients is critical to future quality of care. Further, the ways in which young physicians conceptualize the physician-patient relationship can profoundly affect their patients' medical experience.

Thus far two major areas of influence on professional identity formation are thought to include the formal curriculum, specifically coursework in biomedical ethics, and the "informal curriculum", or socialization/modeling process within the professional environment. Over the course of training students learn what behaviors are accepted or rejected by the culture of clinical medicine. In the former domain, very few medical schools included any formal coursework in medical ethics prior to 1970 (Fox, 1995). Yet by 1994, every medical school in this country included some form of ethics education, primarily as a result of external pressures created by patient dissatisfaction, increased commercialization of the profession and perhaps malpractice litigation. The traditional model of medical ethics taught in most medical schools often includes material on ethical theory (e.g. utilitarianism), moral principles (e.g., justice), ethical codes (e.g. Hippocratic) and numerous clinical topics such as euthanasia, medical futility and confidentiality (Fox, 1995). The didatic format ranges from lectures and small group discussions to clinical case presentations and ward consults. However, to date minimal attention has been focused on the quality and degree of influence created by formal coursework. Similarly, little effort has been devoted to measuring students' subsequent capacity to apply bioethical knowledge to concrete clinical situations (Self, 1989). The second learning approach, involving professional socialization, attributes most of a young physician's professional identity and understanding of the physician-patient relationship to informal, daily experiences in clinical settings (Hafferty and Franks, 1994). According to this perspective, clinically active physicians serve as both supervisors and role models for students. Similarly, students learn how to cope with the stress and pressure associated with being a physician through role modeling and feedback from teacher-physicians. Unfortunately, it is not uncommon for patients to become stereotyped,

objectified and seen as perpetrators of stress, frustration and overwork rather than seen as subjects of beneficience and fiduciary responsiblity (Hafferty and Franks, 1994, Shem, 1978). In this context, the influence of formal coursework in bioethics may be so divergent from tangible experiences as to dilute the intended impact of the former and accentuate the uncontrolled impact of the latter on professional attitudes. No known studies have directly addressed this issue, although several have reported a marked decline in initial idealism and humanistic tendencies in many medical students over the course of training. The replacement of optimism and concern by pragmatism and cynicism by graduation time is notable (Coombs, 1978, Whittenmore, et al, 1985).

The objective of this report is to describe a range of perspectives and professional experiences in a small subgroup of medical residents who are nearing completion of training, and identify gender related trends in decision-making processes. The specific goals of this preliminary report include:

1. An examination of the reasons for selecting a career in medicine, career satisfaction, top priorities in life, exposure to ethical dilemmas, and significant professional experiences.

2. An analysis of the type of information residents considered valuable to making a complex patient-related treatment decision.

3. A determination of whether the method used by physicians to resolve the complex dilemma is associated with level of empathy, sex role identity and male or female sex.

METHOD

Subjects:

The data was collected from a 20 subject subsample (10 female, 10 male, mean age 28 years), drawn from a larger sample of 65 medical residents. The entire sample has not yet been studied in detail; an initial examination suggests that these subjects are representative of the whole in terms of academic background, top priorities, and professional aspirations Subjects were voluntary participants who were recruited by a letter sent to all second and third year residents in internal medicine and family practice at one east coast and three midwestern training hospitals. A stipend of $50.00 was provided upon completing the interview and written materials. This study was approved by the Institutional Review Board of all participating institutions.

Procedures:

Investigators administered the protocol of measures and the semi-structured interview at the subjects' respective hospitals to ensure privacy and confidentiality. Each interview was audiotaped and transcribed verbatim between March 1994 and April 1995. The length of each interview ranged from one to two hours, depending upon the amount of information offered by each participant. As part of the protocol, each subject was also provided with a hypothetical clinical situation involving diagnosis and treatment based decision-making. Following this segment, each subject was given a packet of questionaires to be filled out at a later date and returned to the interviewer by mail. The stipend was sent following receipt of all questionaires.

Measures:

Empathy: This characteristic was measured by the Interpersonal Reactivity Index (Davis, 1980) which conceptualizes empathy as a multidimensional construct. It involves a 28 item, self report questionaire consisting of four 7-item subscales, each of which measures a specific aspect of empathy. The Empathic Concern scale measures the tendency to experience feelings of

warmth, compassion and concern for other people. The Personal Distress scale measures typical emotional reactions oriented toward feelings of personal unease and discomfort in response to the situations of others. The Perspective-taking scale assesses the tendency to adopt the viewpoint of others in everyday life. The Fantasy scale measures the tendency to transpose oneself into the feelings and activities of others in books and films. The Empathic Concern scale was the pivotal measure in this repot.

Sex Role Identity: Psychological gender was measured by the Bem Sex Role Inventory (Bem, 1981). This measure includes 60 personality characteristics: 20 are designated as stereotypically feminine, 0 as stereotypically masculine and 20 as neutral filler items. The classification of each item was formulated on the basis of cultural definitions of sex-typed social desireability. Each subject is asked to rank each characteristic on a seven point scale in terms of self-descriptiveness. Masculinity and femininity are defined as two separate dimensions. One's sex role identity can be designated as androgynous (rank high in both masculine and feminine), undifferentiated (rank low in both categories), masculine (high in masculine category) or feminine (rank high in feminine category).

Medical decision-making: A hypothetical clinical vignette, devised by Pearlman, et al (1982) was selected to measure the type of information respondents considered valuable to reaching a treatment decision. Twenty-five pieces of information were available and each was rated by the respondant on a scale of 0-7, with 7 being most important. The information was divided into three categories; physiological, psychosocial and professional consultation. The vignette concerns an elderly gentleman with a history of chronic obstructive pulmonary disease who is admitted to the emergency room. Six hours following arrival, the patient is described as increasingly fatigued and struggling with his breathing. After the respondent has sorted the items containing additional information, she/he must decide whether to intubate or allow to die, yielding information regarding medical decision-making and material considered integral to that decision.

Semi-structured interview on personal background and practice philosophy: To gain a greater understanding of each individual by learning more about interests, professional aspirations and significant professional experiences, a 27 item semi-structured interview was devised. The questions were intentionally open ended, allowing each individual to expand as desired. A partial list of questions includes: what made you decide to go to medical school, how would you describe yourself to yourself, what are the top priorities in your life, what factors influenced your speciality choice, describe a situation that represented a moral or ethical dilemma for you, what is important in your professional role, what are the characteristic of an ideal physician,and have you had an academic mentor. Demographic information, including age, sex, marital status, religious affiliation and formal didactic experience in bioethics was collected as well.

PRELIMINARY RESULTS

Qualitative Data (semi-structured interview):

Males and females responded similarly to questions concerning self descriptors, career choice, top priorities and career satisfaction. Self descriptors included driven, hardworking, perfectionistic, adaptable, friendly, intense and intelligent. This suggests self perceived capacities to focus, and adjust to situational parameters, and a commitment to high performance standards.

In terms of career choice, both females and males expressed an interest in medicine by virtue of wanting to help people and desire to combine a talent in science with a challenging profession that was well respected and humanistically oriented. All of the males and 8 of the 10 females expressed satisfaction with their career choice.

Expressed priorities in life for both females and males placed family or marital relationships as most important. Career and personal happiness were variably ranked second or third.

Male and female differences were clearly evident in response to questions regarding professional role and specialty choice. Nine males indicated a desire to "be a good doctor by making people better". In marked contrast, one male described the importance of "never losing one's sense of caring for the patient and the willingness to devote time to him or her". Most of the female responses were similar to this last response. Females consistently described a sense of interpersonal concern, through statements such as "desire to help the patient feel good, to provide the best care possible and trying not to become so wrapped up in the science that you forget what the patient is experiencing". In terms of specialty choice in internal medicine or family practice, females expressed a desire to care for patients, to teach, to keep patients in the best possible health and to establish a relationship with patients allowing one to follow them over time. Males, in contrast, were less interpersonally oriented and more focused on the intellectual challenge and prestige associated with the speciality. Even one family practice resident in this sample expressed his interest in eventually working in public health or epidemology. This context affords very limited, if any, sustained contact with patients.

What clearly emerged in this small sample was a strong interpersonal orientation by all of the females and only one male. Interestingly, most males simply expressed an instrumental goal of "making patients better" without spontaneously integrating humanistic aspects of patient management, unlike most of the females.

Ethical dilemmas experienced in training appeared generally similar for both males and females. Situations within the intensive care unit, where patients were critically ill and costs were substantial, were identified most often. Residents in both groups expressed some puzzlement over the rigor with which staff physicians tried to sustain life. One male noted that more attention should be devoted to "quality of life rather than simply life for life's sake". Unlike many of the faculty physicians, the new generation of physicians appear more comfortable with integrating issues of resource allocation into the treatment equation. Another male shared his feelings about

active euthanasia in the intensive care unit. He found this course of management difficult, saying that "people who are for active euthanasia really scare me because the line cannot be drawn clearly". Moreover, he noted that as a resident "you are so busy, so stressed out....it's not only this guy, it's another guy who is crashing and another who has systemic breakdown. You don't have time to think about emotions. You are just in a survival mode of operation and this has always bothered me". In this case, the resident seems to be seeking some clarity, possibly in the form of explicit guidelines, in a setting of enormous complexity and ambiguity.

Clear gender differences were evident in descriptions of personally meaningful experiences. Males often focused on diagnostic and treatment-related successes. In contrast, females tended to focus on interpersonal issues. Several examples citing the importance of communication were given. One internal medicine resident shared her thoughts about a 94 year old woman, "the patient did not want a lot done, she said, ` I had a great life, don't prolong my agony'. And I remember she sort of drifted off into a coma and I watched her heart rate go down. I was affected by it, watching her die, very affected by it. This... taught me to be very gentle and very caring with patients...I watched the nurse holding her hand, and that really affected me". Another female resident conveyed the importance of taking time to explain complex, often difficult issues to patients; the situation involved with an elderly women who wanted everything done despite the consensus by attending physicians that further treatment would be futile..." I would have tried to see what (the patient's) fears were or what were her unresolved issues...I think it was communication...no one really ever spoke to her...she was fully competent and aware...that is worrisome that no one really sat down with her". A third female resident reinforced the notion that physicians are obliged to elucidate complex issues for family members "I think the physician has a duty to present a non-emotional picture of what is realistic and help people, guide people into acceptance of reality (in cases of high expense and medically recognized futility)...the actual act of communication often is a real barrier".

Quantitative Data (Objective Measures)

Results of the Bem Sex Role Inventory for 10 males, categorized 6 as androgynous, 3 as masculine and 1 as undifferentiated. In the group of 10 females group, 4 were androgynous, 2 masculine and 4 feminine.

In the clinical case example involving an elderly gentleman with chronic obstructive pulmonary disease, 7 of 10 females gave preference to psychosocial information and 3 to physiological information. In the group of 10 males, 5 prioritized physiological information and 5 psychosocial material.

The relationship between medical decision-making (clinical case) and sex role identity was examined. Half of the androgynous residents, male and female, placed primary emphasis on psychosocial information. The other half gave primary emphasis to physiological information. Of the feminine identified subjects, one of four prioritized physiological information. In contrast, half of the masculine identified subjects emphasized the importance of psychosocial information.

tThe relationship between empathy and medical decision-making was subsequently examined. Of the individuals who ranked psychosocial information as most important, a large majority were high in empathy. In contrast, notably fewer of the physiologically based decision-makers ranked high in empathy.

Discussion

This small sample of medical residents presented as thoughtful and professionally dedicated individuals. Most appeared satisfied with their career choice and described family as a top priority in life. A majority of subjects, including females and males, expressed ambivalence or confusion over intensive treatments for many critically ill patients. Several issues appeared relevant in this

context, including quality of life, cost of treatment and prolonged suffering by the patient. A greater than expected number of residents were knowlegable and concerned about care-related economic realities and cost-benefit considerations. The contrast between the emerging emphasis on economic realities and a prior indifference to them may have led to divergent perspectives between residents and older staff physicians in terms of how much intervention should be provided. However, earlier studies have also found that residents are often substantially less inclined to provide rigorous interventions on a protracted basis, due in part, to less clinical experience in terms of favorable long-term outcomes, more overwork and fatigue, and more intimate awareness of the patient's experiences, including pain and suffering (Alexander, 1985, Pearlman, et al, 1987).

Sex-based differences in role responsibilities and significant experiences were generally consistent with traditional models describing females as more interpersonally oriented and caring and males as more instrumental and achievement oriented (Bem, 1981, Gilligan, 1982, Katz,et al, 1993). These results were unexpected, given the rigors of premedical education, the high number of instrumental personality attributes in medical applicants, and the tendency to admit individuals, both males and females, who are similar to a existing pools of clinicians (Cartwright, 1972, Nadelson, 1983). Similarly, given the rigorous socialization process associated with medical training, greater homogenization of perspectives was expected (Guinier, et al, 1994, Hafferty and Franks, 1994). Sex role identity, measured by the Bem, underscored fairly clear distinctions, given that most of the males were classified as either androgynous or masculine, while fewer females were similarly categorized. Notably, 4 of the 10 females and none of the males endorsed a feminine sex role identity. Again, given the structure of clinical medicine, it was surprising to find that nearly half of the females in this small sample endorsed a feminine sex role identity.

A recent study identified a series of personality shifts as a function of age in female physicians (Cartwright and WInk, 1994). Specifically, between age 24 and 46, individuals

became less concerned about making a positive impression and tended to question their duties and responsibilities. It may be that our small subsample of feminine identifiers felt less compelled to adhere to normative expectations in clinical medicine and could acknowledge their caring and interpersonally oriented characteristics. In support of this notion, Notman and Nadelson (1988) report that women physicians tend to value intimacy and attachments more than their male counterparts. As practioners in a healing profession, this orientation may have been indirectly self-reinforcing through regular patient contact, despite a predictable lack of support for these qualities by supervising physicians. Alternately, this small group of females may have had unique mentoring experiences that promoted these characteristics. Interestingly, most of these individuals also described themselves as perfectionistic and achievement oriented in the interview , an orientation which is consistent with a more typical physician personality profile. It will be important to determine whether this preliminary pattern prevails in the larger population of subjects.

The associations among empathy, sex role identity and medical decision-making were complex. A majority of the females ranked high in empathy and also gave priority to psychosocial information in the hypothetical clinical case. Of this group, nearly all were classified as feminine or androgynous. Of the males, half gave priority to psychosocial information. A large majority of these males were classified as androgynous, although fewer ranked high in empathy relative to the females. These results were generally within expectations, based on sex and psychological gender differences reported in the literature (Gilligan, 1982, Jordan, et al, 1991, Finegold, 1994). Although some earlier claims of gender differences in personality have been diluted by new sophisticated analyses such as meta-analysis, many of the female characteristics, classified under "relatedness" have stimulated renewed interest (Katz, et al, 1993). This may include empathy and several of the psychosocial considerations identified here. Furthermore, this may provide an interesting and clarifying complement to sex role identity in further differentiating individuals. For the purposes of this preliminary study, when individuals are considered in the context of

extended professionalization and limited clinical autonomy, the presence of even small sex and psychological gender differences in medical decision making and level of empathy was somewhat unexpected. It was also interesting that nearly half of the females in this small group endorsed a feminine sex role identify. Again, due to limited sample size, these findings must be considered quite preliminary. The entire sample of 65 residents must be examined and statistically analyzed before more definitive statements are made.

This analysis provides an initial impression of decision-making processes and associated personal attributes in emergent physicians. Since the number of subjects studied in this sample is very small, the question of whether gender differences in medical decision-making truly exist has not been fully answered. Similarly, the identification of related or explanatory factors remains relatively open ended at this point, although future analyses of the entire data base should provide useful information.Granting the assumption that some of the identified trends are maintained, expressed concerns over a lack of empathy and dearth of humanistic sensitivity in today's medicine, precipitated by tecnological interventions and increased commercialization of the profession, may be less of an issue for this generation of physicians (Nadelson, 1993). The major issue appears to be how empathic tendencies may be encouraged and applied in current practice settings. Similarly, issue of how medical schools can educate physicians to become more humanistic and less instrumental in caring for patients will be important over the long term. Given significant economic pressure on physicians in institutional settings, particularly investor-owned managed care facilities, to increase their case loads and limit "unnecessary" interventions, many clinicians may find themselves in unusually difficult positions (Kassirer, 1995, Rodwin, 1995). A close examination of medical ethics courses and their perceived relevance by both students and practicing physicians is critical.

There has been some activity in academic medicine to revise and restructure existing programs. For example, Harvard Medical School introduced the New Pathways program for the

expressed purpose of educating more humanistic physicians (Tosteston, et al, 1994). Evaluation of participating students revealed improvements in interpersonal skills and humanistic attitudes, including level of empathy, tolerance of ambiguity, communication and affective awareness in students (Moore, et al, 1994). Similarly, the recently established Doctoring Curriculum at UCLA School of Medicine was formulated to enhance students' understanding of ethical and bio-psychological issues in patient care (Wilkes, et al. 1994). In effect, academic medicine has begun to address some of the difficulties associated with earlier educational approaches by introducing more innovative, humanistically oriented curricula. However, frequent examination of existing programs is crucial to facilitate continuity and coherence between learning environments and applied practice settings. It is ultimately the pattern of values, attitudes and behaviors of medical educators and their students that will determine the quality of care for individual patients.

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