
Background and Purpose. Purtilo, Guccione, and others have noted that increased clinical autonomy for physical therapists presents more complex ethical dilemmas. The body of literature examining physical therapy ethics, however, is relatively small and has not been analyzed. The primary purposes of this research were: (1) to use multiple perspectives to describe and analyze literature examining ethics in physical therapy from 1970 to 2000, (2) to develop a model to describe the evolution of knowledge of ethics in physical therapy during this period, and (3) to compare the proposed model with the evolutionary models proposed by Purtilo in physical therapy and by Pellegrino in bioethics. Sample. The sample consisted of peer-reviewed journal articles cited in the MEDLINE or Cumulative Index to Nursing and Allied Health Literature (CINAHL) databases between 1970 and 2000 or referenced in Ethics in Physical Therapy. Methods. A two-phase mixed quantitative and qualitative method was used to analyze publications. In the quantitative phase, the author sorted publications into a priori categories, including approach to ethics, author, decade, country of publication, role of the physical therapist, and component of morality. During the qualitative phase of the research, the author analyzed and sorted the publications to identify common themes, patterns, similarities, and evolutionary trends. These findings were compared with the evolutionary models of Pellegrino and Purtilo. Results. The 90 publications meeting inclusion criteria were predominantly philosophical, using the “principles” perspective; focused on the patient/client management role of the physical therapist; and addressed the moral judgment component of moral behavior. As predicted by Purtilo’s model, the focus of identity evolved from self-identity to patient-focused identity, with increasing representation of societal identity. Recurrent themes included the need to further identify and clarify physical therapists’ ethical dilemmas, the interrelationship between clinical and ethical decision making, and the changing relationship with patients. Discussion and Conclusion. Although knowledge of ethics grew steadily between 1970 and 2000, this retrospective analysis identified gaps in our current knowledge. Further research is needed to address the unique ethical problems commonly encountered in all 5 roles of the physical therapist; patient perspectives on ethical issues in physical therapy; variety in ethical approaches; factors affecting moral judgment, sensitivity, motivation, and courage; and cultural dimensions of ethical practice in physical therapy. [Swisher LL. A retrospective analysis of ethics knowledge in physical therapy (1970–2000). Phys Ther. 2002;82:692–706.]

Key Words: Morality, Physical therapy profession, Professional ethics, Research.

Laura Lee Swisher
Over the last 30 years, physical therapists have sought a more autonomous clinical decision-making role within the health care system.\(^1,2\) Leaders within physical therapy have repeatedly noted that increased autonomy brings more complex ethical dilemmas and responsibility.\(^3-7\) Charles Magistro warned in 1989: “As physical therapists assume a more autonomous role in health care delivery, ethical judgments will play an increasingly important role in the gamut of clinical decisions a physical therapist will have to make.”\(^8\) Significantly, Magistro framed ethical decision making as part of clinical decision making. Building on Magistro’s insights, Clawson described ethical decision making as a “component” of clinical decision making,\(^8\) arguing that “physical therapists must try harder to assimilate ethical theory into their daily decision-making.”\(^8\)

Recent studies in physical therapy expertise support the notion that moral knowledge is embedded in the fabric of everyday physical therapy decision making.\(^9,10\) Ethical decision making and moral virtue are dimensions of clinical expertise rather than separate steps in the process of providing physical therapy. A physical therapist, for example, who encounters signs of physical abuse during the examination of a patient faces a problem that is both clinical and ethical. Because ethical issues are embedded within clinical encounters, each health care profession encounters different ethical dilemmas and problems. Ruth Purtilo,\(^5,6\) the first to focus attention on the unique nature of physical therapists’ ethical dilemmas, identified the need to determine the ethical issues encountered by physical therapists.

Despite increasing recognition of the ethical dimensions of physical therapy practice, Guccione’s 1980 report on a survey of ethical issues in physical therapy practice indicated little progress in this area of study, and he observed that the “ethical dimension of actual clinical practice is not well-documented in the literature.”\(^7\) In the same report, he noted that “[t]he need to identify and clarify ethical issues within a health profession increases as the profession assumes responsibility for those areas of direct care in its domain.”\(^7\) Guccione issued this warning:

The educational implication of this data is inescapable: in order to meet all the challenges of clinical practice, physical therapy students must be taught how to make ethical as well as clinical judgments. To prepare future clinicians less adequately could jeopardize the integrity and the autonomy that physical therapy as a health profession has so arduously worked to achieve.\(^7\)

Nearly 2 decades later, Triezenberg observed, “During the 1980s and 1990s, however, there were still very few articles that addressed ethical issues in physical therapy.”\(^11\)

The limited attention given to ethical issues in the physical therapy literature poses particular problems in the current managed care environment. As professionals, I believe, physical therapists have historically placed fidelity to their patients as their first priority. Under managed care, however, physical therapists are asked to balance fiscal accountability with the professional obligation to fidelity.\(^12\) When the managed care provider approves only 6 outpatient physical therapy visits for a 16-year-old after traumatic brain injury, the situation simultaneously presents a clinical and ethical dilemma. How can the patient achieve maximum rehabilitation potential? To what extent should the therapist advocate

**References:**

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2. This article was submitted August 17, 2001, and was accepted January 22, 2002.
for the patient? If the managed care company provides incentives for cost containment, the physical therapist may also have a dilemma between fidelity to the patient and economic self-interest or even organizational survival. Given the ethical dilemmas posed by managed care, Purtilo's and Guccione's concern that moral knowledge should keep pace with the increasing complexity and evolving professional autonomy of the physical therapy profession appears to be even more relevant.

Since the 1970s, physical therapy has continued to evolve in terms of professional autonomy (freedom and independence in making and implementing professional judgments). However, it is legitimate to ask whether knowledge of ethics in physical therapy has kept pace with the increasing challenges delineated by Magistro, Purtilo, Guccione, and others. The answer to this question, in my view, requires an understanding of ethics as a discipline, the development of professional ethics in physical therapy, and the changing context of bioethics in the United States.

The discipline of ethics provides one perspective for understanding the evolution of physical ethics. The field of ethics typically divides the study of ethics into philosophical or normative ethics and descriptive or social scientific ethics. Philosophical ethics is concerned with what people ought to do and how they ought to conduct themselves (normative or prescriptive ethics), as well as the rational basis for these types of decisions (metaethics or analytic ethics). The philosophical approach to ethics embraces the deontological, utilitarian, care, virtue, and principles approaches. Social scientific or descriptive ethics focuses on studying human ethical behavior with social scientific or empirical tools. The 2 ethical approaches also differ in purpose and goal. The goal of philosophical ethics is to prescribe action, to shed light on what “ought” to happen. The goal of social scientific or descriptive ethics, however, is to explore what “is.” The ethical problem of truth telling highlights the differences between the 2 approaches. In social scientific ethics, a psychologist or social scientist might analyze the influence of social and contextual factors in telling the truth (What is the prevalence of not telling the truth in specific contexts, and what factors affect whether people tell the truth?). Philosophical ethics, however, is concerned with prescribing human action (Under what conditions is one obligated to tell or not to tell the truth?) and with moral judgments about truth telling (It is always right to tell the truth, or not telling the truth has negative consequences.).

Recently, a number of ethicists have called for an approach that brings together the philosophical and social scientific perspectives. Nelson noted, “The common picture of the relationship between bioethics and the social sciences oversimplifies the relationships between the moral, the empirical, and the conceptual.” Similarly, Zussman observed that both philosophical and social scientific approaches have normative and empirical dimensions: “The best work in both disciplines should recognize the different ways in which they each join normative reflection and empirical description.” To make an ethical decision requires normative commitments and factual information. As Nelson and Zussman implied, the traditional model of ethics that rigidly separates facts from values represents a limited model of ethical behavior.

The unidimensional nature of ethical behavior implied by either a strictly philosophic or social scientific ethic points to the need for a multidimensional model of ethical behavior to blend normative and empirical elements. Working from a psychological perspective, James Rest developed the Four Component Model of Moral Behavior. Rest’s model contends that ethical behavior involves at least 4 psychological components: ethical sensitivity (recognizing and interpreting situations), moral judgment (making a decision about right or wrong and determining a course of action), moral motivation (putting ethical values before other values), and moral courage (persevering against adversity). He emphasized that the components are not steps but psychological processes that may overlap and occur simultaneously.

In describing the evolution of bioethics, Pellegrino has also identified this blending of the philosophical and social scientific. According to Pellegrino, the metamorphosis of bioethics embraces 3 time periods, with each having its own unique thread and language: the era of proto-bioethics, the era of philosophical bioethics, and the era of global bioethics. Pellegrino stated, “In the proto-bioethics period [1960 to 1972], the language of human values predominated; in the era of bioethics philosophically construed [1972 to 1985], it was the language of philosophical ethics; and in the era of bioethics globally construed [1985 to present], the social and behavioral sciences have gained greater prominence.” Pellegrino noted that the period of philosophical ethics relied heavily on the ethical approach called “principlism” (or the “four principles approach”). The principles perspective uses the philosophical concepts of common morality as the basis for making decisions: autonomy, beneficence, nonmaleficence, and justice. Ultimately, the focus on philosophical ethical principles was not adequate to the complexity of psychosocial, economic, sociological, legal, cultural, religious, and organizational factors involved in moral dilemmas. Pellegrino contended that attention to each of the 3 threads (human values, philo-
Ethics in the physical therapy profession as the “seeds” of globally multidimensional. Philosophy because moral problems are inherently multidimensional. Philosophical ethics, and social and behavioral sciences) is critical in the emerging interdisciplinary synthesis of global bioethics because moral problems are inherently multidimensional. Purtilo has described the evolution of professional ethics in the physical therapy profession as the “seeds” of care and accountability adapting to the changing social environment. In contrast to Pellegrino’s focus on the language and methods used in each period, Purtilo’s model focuses on the commitments (care) and duties and responsibilities (accountability) inherent in professional relationships. During the period of self-identity (beginning with the 1935 American Physical Therapy Association Code of Ethics), professional ethics, in Purtilo’s opinion, focused on establishing commitment and accountability to other health care professionals. In the period of patient-focused identity (1950s to the present), according to Purtilo, ethics focused on “establishing a true partnership with patients as persons” against a social backdrop of increasing emphasis on patients rights and teamwork in health care. Purtilo described an emerging future period, the period of societal identity, as blending the 2 previous seasons. According to Purtilo, the primary ethical task of the new period of societal identity would be to “establish the moral foundations for a true professional partnering with the larger community of citizens and institutions.” Figure 1 compares Purtilo’s 3 periods of physical therapy ethics with Pellegrino’s 3 periods of bioethics.

The primary purposes of my research were: (1) to use multiple perspectives to describe and analyze the literature examining ethics in physical therapy from 1970 to 2000, (2) to develop a model to describe the evolution of knowledge of ethics in physical therapy during this period, and (3) to compare the proposed model to the evolutionary models proposed by Purtilo in physical therapy and by Pellegrino in bioethics. The multiple perspectives used to analyze and describe the literature examining ethics in physical therapy included ethical approaches, issues and topics, components of moral behavior, role of the physical therapist, and evolutionary period. Figure 2 presents a diagrammatic representation of the model of analysis used in this study.

**Method**

**Sample**

The sample consisted of peer-reviewed journal articles cited in the MEDLINE or Cumulative Index to Nursing and Allied Health Literature (CINAHL) electronic database indexes between 1970 and July 2000 and relevant peer-reviewed journal articles published or referenced in the 2-volume set, *Ethics in Physical Therapy*. For the purposes of this study, the term “physical therapy ethics” meant explicit reflection on right or wrong behavior in performing the professional role of the physical therapist. There is some debate as to whether the terms “ethics” and “morality” may be distinguished. Those who distinguish ethics from morality note that ethics involves systematic or conscious rational reflection. Morality refers to the complex of personal and social rules and values and guides human conduct. To add to the confusion, the adjective forms of these terms are often used interchangeably. Because the topic of interest of my study was the body of knowledge that consciously reflects on right and wrong behavior in the professional role of the physical therapist, the term “ethics” was most appropriate for this task. Although some people distinguish between the adjectives “ethical” and “moral,” the terms are used interchangeably throughout the text.

Inclusion criteria were: (1) English-language article; (2) publication in a peer-reviewed journal between 1970 and July 2000; (3) physical therapy ethics as an explicit major subject, topic, or key word; (4) primary target audience of physical therapy professionals or rehabilitation professionals, including physical therapists; and (5) referenced or published in MEDLINE, CINAHL, or *Ethics in Physical Therapy*. Because the overall purpose of the study was to examine advances in knowledge of ethics in physical therapy in the United States, the
sample excluded routine publication of professional codes of ethics, standards, or position statements and non-peer-reviewed journal articles. Additional exclusion criteria were: (1) non-English language, (2) major topic not related to physical therapy ethics, (3) non-physical therapy target audience, (4) letters to the editor, or (5) editorials.

Procedure
During the summer of 2000, a literature search was conducted using the terms "physical therapy" and ethics-related terms (eg, "ethics," "morality," "moral," "autonomy," "confidentiality," "informed consent," "moral reasoning," "moral judgment," "justice," "paternalism," "care," "duty," "responsibility," "discrimination," "attitudes," "values") for the specified time periods. The search used multiple terms because of the lack of agreement on the terms "ethics" and "morality," the paucity of literature using the key word "ethics," and the desire to include appropriate publications from all approaches. Regardless of terminology, publications that did not consciously reflect on ethics were excluded from the sample. Because the CINAHL electronic database did not begin until 1982, the CINAHL index was searched by hand for the years 1970 through 1982.

A two-phase mixed quantitative and qualitative research method was used to analyze publications. I made notes on each publication related to the descriptive categories and qualitative codes. In the quantitative phase, I used descriptive techniques to identify the number of publications by author, country of publication, and journal of publication. I then categorized publications into a priori categories, including ethical approach, decade, component of morality, physical therapy period (focus of identity), bioethics period (thread), and primary role of the physical therapist as described in the Guide to Physical Therapist Practice (patient client management, administration, critical inquiry, education, consultation). To determine periods according to the evolutionary models of Purtilo and Pellegrino, each article was classified as representing Purtilo's self-identity, patient-focused identity, or societal identity and Pellegrino's thread of values, philosophical ethics, or social science. Although I performed numerous data sorts from a variety of perspectives, the discussion in this article is limited to the elements described in the purpose statement and illustrated in Figure 2. Following entry of data onto a computer spreadsheet, the SPSS® statistical software program was used to compute descriptive statistics.

One data sort involved categorizing each publication according to component or morality using Rest's Four Component Model. Because some overlap exists among moral sensitivity, moral judgment, moral motivation, and moral courage, the determining factor in classification was the purpose of the article. For example, Coy described the use of the principle of autonomy in making decisions about informed consent. Although the discussion of informed consent might also help the therapist recognize and interpret situations involving informed consent (moral sensitivity), the primary intention of the publication was to discuss the ethical foundation for making decisions about informed consent (moral judgment). Publications that focused on more than one component were classified as addressing multiple components. The article "Understanding Ethical Issues: The Physical Therapist as Ethicist" by Purtilo looked at both moral judgment and moral sensitivity and fit into this category.

Qualitative analysis generally followed the format of Miles and Huberman in assigning codes, making notes, sorting, and sifting to identify themes. During this phase of the research, I clarified descriptive results and identified

* SPSS Inc, 233 S Wacker Dr, Chicago, IL 60606.
themes, patterns, and similarities within the publications. For example, I used a number of different a priori categories to sort the publications by issue or topic. These categories included philosophical principles (autonomy, justice, beneficence, veracity, confidentiality, and informed consent), setting, and focus of relationships. Documents that did not fit into the existing categories were analyzed to develop final categories. After determining issues for each article, the data were sorted into 3 decades and analyzed to determine topical themes for each decade.

Because one purpose of my study was to analyze evolutionary trends in the physical therapy literature on ethics in the United States, publications that focused on topics unique to settings outside the United States were excluded from that portion of the analysis. Nine of the 90 publications fell into this category. Publications in foreign journals or written by authors outside of the United States were not automatically excluded from the study because I felt that the reader in the United States could apply the information to a different setting. For example, Haswell addressed changes in informed consent procedures for manual therapy of the cervical spine in Australia. Although the details of Australian policies may or may not be relevant to practice in the United States, the ethical dilemmas are not entirely different. In brief, at least some ethical issues in physical therapy transcend national boundaries.

**Results**

Ninety articles published in 25 peer-reviewed journals between 1970 and July 2000 met the inclusion criteria. The total number of authors (including second to sixth authors) was 83. Figure 3 illustrates the number of publications and journals in each decade and indicates a significant increase in number of publications and journals during the most recent decade.

Physical therapists served as first author of most publications (78.2%). Nine authors served as first author of half of the publications, and 3 authors (Purtilo, Sim, Barnitt, and others) were first author of 33.3% of all publications (Tab. 1). Of the 25 journals in this sample, *Physical Therapy* published the highest number (n=36 or 40%).

**Approach**

Sorting publications into the 2 a priori categories (philosophical and social scientific) based on the ethical approach used indicated that 43.2% used a philosophical approach and 33.3% used a social scientific approach (Tab. 2). An analysis of the remaining publications produced 3 other approaches. The third category, professional/historical documents, included published conference addresses and historical reviews. Examples of the professional/historical category were the May McMillan Lectures of Ruth Wood and Eugene Michels and descriptions of the historical development (eg, code of ethics). The fourth emergent category (theoretical) contained publications that developed a theoretical model linking physical therapy practice and ethics. For example, Jensen et al developed a model of physical therapy expertise that embraced moral virtue. Sim and others compared models of health based on their ability to provide a foundation for ethical decision making. A final category of approach used legal concepts to interpret a policy or law. As indicated by Table 2, the philosophical approach was the most common in the first 2 decades studied. However, the percentage of articles using a social scientific approach increased with each decade, and there

<table>
<thead>
<tr>
<th>Author (Country of Residence)</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ruth Purtilo (United States)</td>
<td>15</td>
<td>16.67</td>
</tr>
<tr>
<td>Julius Sim (United Kingdom)</td>
<td>10</td>
<td>11.11</td>
</tr>
<tr>
<td>Rosemary Barnitt* (United Kingdom)</td>
<td>5</td>
<td>5.56</td>
</tr>
<tr>
<td>Sandy Elkin (New Zealand)</td>
<td>4</td>
<td>4.44</td>
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<td>Eugene Michels (United States)</td>
<td>3</td>
<td>3.33</td>
</tr>
<tr>
<td>John Banja* (United States)</td>
<td>2</td>
<td>2.22</td>
</tr>
<tr>
<td>Claudette Finley (United States)</td>
<td>2</td>
<td>2.22</td>
</tr>
<tr>
<td>David Thommasma* (United States)</td>
<td>2</td>
<td>2.22</td>
</tr>
<tr>
<td>Herman Triezenberg (United States)</td>
<td>2</td>
<td>2.22</td>
</tr>
<tr>
<td>First authors of single publications</td>
<td>45</td>
<td>50.00</td>
</tr>
<tr>
<td>Total</td>
<td>90</td>
<td>99.99</td>
</tr>
</tbody>
</table>

* Asterisk indicates author is not a physical therapist.

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* References 3-11,14,15,35,39-112.
### Table 2.
**Ethics Approach**

<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>Philosophical</td>
<td>6 (42.9%)</td>
<td>11 (45.8%)</td>
<td>18 (41.9%)</td>
<td>35 (43.2%)</td>
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<tr>
<td>Social scientific</td>
<td>3 (21.4%)</td>
<td>6 (25.0%)</td>
<td>18 (41.9%)</td>
<td>27 (33.3%)</td>
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<tr>
<td>Professional/historical</td>
<td>5 (35.7%)</td>
<td>6 (25.0%)</td>
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<td>11 (13.6%)</td>
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<td>Law/policy interpretation</td>
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<td>1 (4.2%)</td>
<td>1 (2.3%)</td>
<td>2 (2.5%)</td>
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<td>Theoretical</td>
<td>0</td>
<td>0</td>
<td>6 (14.0%)</td>
<td>6 (7.4%)</td>
</tr>
</tbody>
</table>

*Values represent the number (percentage) of publications within the specified time periods (excludes publications with a focus specific to settings outside the United States).

### Table 3.
**Issues and Topics Listed by Corresponding Author**

<table>
<thead>
<tr>
<th>Issue or Topic</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethical role, responsibilities, obligations</td>
<td>Magistro, Singleton, Richardson, Wood, Purtilo, Sim and Purtilo, Michels, Bellner, Thomasma, Hoghead</td>
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<tr>
<td></td>
<td>Historical</td>
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<td></td>
<td>Moral decision-making process</td>
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<td></td>
<td>Identification of ethical issues</td>
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<td></td>
<td>Ethical principles</td>
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<td></td>
<td>Informed consent/truth telling</td>
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<td></td>
<td>Confidentiality</td>
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<td></td>
<td>Research ethics</td>
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<tr>
<td></td>
<td>Relationship to patient</td>
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<tr>
<td></td>
<td>Interprofessional relationships</td>
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<tr>
<td></td>
<td>Ethics education</td>
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<tr>
<td></td>
<td>Conflict of interest/&quot;double agent&quot;</td>
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<tr>
<td></td>
<td>Patients' rights</td>
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<tr>
<td></td>
<td>Allocation of resources/reimbursement</td>
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<tr>
<td></td>
<td>Legal Issues</td>
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<tr>
<td></td>
<td>Health care organization, policy, system</td>
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<tr>
<td></td>
<td>Discrimination, bias, prejudice</td>
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<tr>
<td></td>
<td>Age</td>
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<td></td>
<td>Gender</td>
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<td></td>
<td>Sexual harassment</td>
</tr>
<tr>
<td></td>
<td>Disability</td>
</tr>
</tbody>
</table>

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were equal percentages of articles from the philosophical and social scientific perspectives from 1990 to 2000. The theoretical approach did not appear until the most recent time period.

Within the 43.2% of publications in which the authors used a philosophical approach, there were a variety of ethical perspectives: principles, virtue ethics, care-based or case study approaches, or combination approaches. Although it was not possible to categorize each publication, most authors (n=21 or 60% of the philosophical category) used a principles approach. In the entire sample of 90 articles, one author used a care perspective,65 one author used a virtue perspective,66 and one author used a narrative perspective.61

**Issue or Topic**

Table 3 lists the publications in the sample by issue or topic. Full elaboration of findings from the analysis of each topical category is beyond the scope of this article. For the purposes of this article, discussion focuses on themes within each decade and 3 selected topical themes as they developed across the entire time period: identification of ethical issues, relationship between clinical and ethical decision making, and relationship to patients or clients. These 3 themes are highlighted because they presented recurrent patterns or questions in physical therapy ethics during this 30-year period.

Topical themes of the decade 1970–1979 were establishing the role of the physical therapist as ethical decision-maker, informed consent, research ethics, teaching physical therapy ethics, and the historical context of physical therapy ethics. From 1980 to 1989, authors focused on themes of applying philosophical principles to ethical problems, justice in resource allocation, informed consent, and the ethical responsibility of autonomous practice. Themes for the most recent period (1990–2000) included managed care and scarce resources, prejudice and discrimination, and the evolving relationship between physical therapists and patients. This theme of the evolving relationship was seen in new theoretical models of the physical therapist role, in concern over the effects of managed care, in reflection over the effects of discrimination, and in new notions of the therapist’s relationship to the patient.

In each decade, at least one publication delineated the need to further identify or clarify the types of ethical issues encountered by physical therapists. During the 1970s, Purtilo observed that allied health care workers encounter unique ethical issues, noting that “the specific ethical questions which arise vary from field to field according to the particulars of their roles.”62(p14) Gucione, in 1980, identified 4 groups of ethical concerns: “choice to treat, obligations deriving from the patient-therapist contract, moral obligation and economic issues, and a physical therapist’s relationship with other health professionals.”67(p1267) In 1996, Triezenberg11 reported on a Delphi study of ethics experts that identified current and future ethical issues in physical therapy. In a 1998 study of occupational therapists’ and physical therapists’ ethical dilemmas in the United Kingdom, Barnitt59 found different themes in the ethical dilemmas of the 2 groups. While physical therapists were concerned about resource limitations and effectiveness of treatment, the ethical dilemmas of occupational therapists focused on dangerous patient behavior and unprofessional staff behavior. However, type of ethical dilemmas also differed by setting. A previous study by Barnitt63 showed that “truth telling” presented ethical dilemmas for both occupational therapists and physical therapists. Barnitt and Partridge’s61 subsequent study of occupational therapists’ and physical therapists’ moral reasoning further reinforced the importance of the context of ethical dilemmas.

A second recurring theme in the literature was the interrelationship between clinical and ethical decision making. As previously discussed, a number of the authors recognized that clinical decisions have associated ethical ramifications. Across the 3 decades, there was an increasing recognition that ethical decisions are an integral part of clinical decision making. Purtilo observed: “Increased skill in making ethically sound decisions begins by being able to recognize which components have a moral quality to them.”65(p242) During the period 1980 to 1989, Magistro,6 Singleton,4 and Wood14 each spoke of the ethical demands that changes in clinical roles would bring. Reinforcing the thoughts of Clawson,6 Haswell observed in the most recent decade that “ethical decision making must take place as a component of clinical decision making.”56(p151) Similarly, the theoretical models developed during the 1990s by Jensen et al9 and Sim56 emphasized the inextricable relationship between clinical and ethical decision making.

A third recurring theme in the literature was that of changing relationships with patients. Reporting to the emphasis on informed consent and the patient’s right to know, Ramsden65 in 1975, recognized the need to discard traditional hierarchical relationships with patients. Ramsden stated, “Suggested here is that the traditional authority must be replaced by a shared decision-making process between patient and practitioner.”83(p137) The work of Purtilo demonstrated a constant reframing of relationships, posing autonomy as a “valid moral standard” that is nevertheless “not sufficient”113(p321) and subordinate to empowerment of the patient.114 Similarly, Meier and Purtilo66 suggested a model of mutual respect similar to friendship in relating to patients. Bellner67 developed the notion of profes-
Table 4.
Component of Moral Behavior

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<tbody>
<tr>
<td>Moral sensitivity</td>
<td>6 (42.9%)</td>
<td>6 (25.0%)</td>
<td>18 (41.9%)</td>
<td>30 (37.0%)</td>
</tr>
<tr>
<td>Moral judgment</td>
<td>3 (21.4%)</td>
<td>17 (70.8%)</td>
<td>22 (51.2%)</td>
<td>42 (51.9%)</td>
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<tr>
<td>Moral motivation</td>
<td>1 (7.1%)</td>
<td>0</td>
<td>1 (2.3%)</td>
<td>2 (2.5%)</td>
</tr>
<tr>
<td>Moral courage</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Multiple components</td>
<td>4 (28.6%)</td>
<td>1 (4.2%)</td>
<td>2 (4.7%)</td>
<td>5 (6.2%)</td>
</tr>
</tbody>
</table>

*Values represent the number (percentage) of publications within the specified time periods (excludes publications with a focus specific to settings outside the United States).

Table 5.
Role of the Physical Therapist

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Patient/client manage</td>
<td>4 (28.6%)</td>
<td>10 (41.7%)</td>
<td>25 (58.1%)</td>
<td>39 (48.1%)</td>
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<td>Critical inquiry</td>
<td>3 (21.4%)</td>
<td>3 (12.5%)</td>
<td>2 (4.7%)</td>
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<tr>
<td>Administrator</td>
<td>2 (14.3%)</td>
<td>1 (4.2%)</td>
<td>4 (9.3%)</td>
<td>7 (8.6%)</td>
</tr>
<tr>
<td>Education</td>
<td>2 (14.3%)</td>
<td>1 (4.2%)</td>
<td>5 (11.6%)</td>
<td>8 (9.9%)</td>
</tr>
<tr>
<td>Consultant</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Multiple roles</td>
<td>3 (21.4%)</td>
<td>9 (37.5%)</td>
<td>7 (16.3%)</td>
<td>19 (23.5%)</td>
</tr>
</tbody>
</table>

*Values represent the number (percentage) of publications within the specified time periods (excludes publications with a focus specific to settings outside the United States).

Table 6.
Evolutionary Periods of Pellegrino and Purtilo

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Pellegrino's periods</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Values</td>
<td>1 (7.1%)</td>
<td>3 (12.5%)</td>
<td>25 (58.1%)</td>
<td>39 (48.1%)</td>
</tr>
<tr>
<td>Philosophical ethics</td>
<td>12 (85.7%)</td>
<td>20 (83.3%)</td>
<td>26 (60.5%)</td>
<td>58 (71.6%)</td>
</tr>
<tr>
<td>Social scientific</td>
<td>1 (7.1%)</td>
<td>1 (4.2%)</td>
<td>16 (37.2%)</td>
<td>18 (22.2%)</td>
</tr>
<tr>
<td>Purtilo's periods</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-identity</td>
<td>6 (42.9%)</td>
<td>1 (4.2%)</td>
<td>0</td>
<td>7 (8.6%)</td>
</tr>
<tr>
<td>Patient-focused</td>
<td>6 (42.9%)</td>
<td>17 (70.8%)</td>
<td>24 (55.8%)</td>
<td>47 (58%)</td>
</tr>
<tr>
<td>Identity</td>
<td>2 (14.3%)</td>
<td>6 (25%)</td>
<td>19 (44.2%)</td>
<td>27 (33.3%)</td>
</tr>
</tbody>
</table>

*Values represent the number (percentage) of publications within the specified time periods (excludes publications with a focus specific to settings outside the United States).

Four Components of Morality
As indicated in Table 4, in a majority of publications in the sample (51.9%), authors emphasized moral judgment. The focus on moral judgment was greatest during the decade 1980–1989 when 70.8% of publications dealt with moral judgment. In a few publications, authors addressed moral motivation, and no publication focused on moral courage.

Role of the Physical Therapist
Most authors either explicitly or implicitly emphasized the patient/client management, critical inquiry, educator, or administrative roles of the physical therapist (Tab. 5). In almost half (48.1%) of the publications, authors focused on the patient/client management role. None directly addressed the consultant role. Across the...
Table 7.
Descriptive Model of the Evolution of Knowledge of Ethics in Physical Therapy

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Approach</strong></td>
<td>Philosophical*</td>
<td>Philosophical</td>
<td>Philosophical and social scientific (equal numbers)</td>
</tr>
<tr>
<td><strong>Component of moral behavior</strong></td>
<td>Professional/historical</td>
<td>Moral judgment</td>
<td>Moral judgment</td>
</tr>
<tr>
<td><strong>Issues and topics</strong></td>
<td>Moral sensitivity</td>
<td>Applying principles to physical therapy problems</td>
<td>Managed care and scarce resources</td>
</tr>
<tr>
<td></td>
<td>Historical context</td>
<td>Justice in resource allocation</td>
<td>Discrimination and prejudice</td>
</tr>
<tr>
<td></td>
<td>Physical therapist as ethical decision-maker</td>
<td>Informed consent</td>
<td>Relationship between physical therapist and patient/client</td>
</tr>
<tr>
<td></td>
<td>Teaching ethics</td>
<td>Ethical responsibility of autonomous practice</td>
<td>Theoretical models of physical therapy embracing ethics</td>
</tr>
<tr>
<td></td>
<td>Research and informed consent</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Role of the physical therapist</strong></td>
<td>Patient/client management</td>
<td>Patient/client management</td>
<td>Patient/client management</td>
</tr>
<tr>
<td></td>
<td>Critical inquiry</td>
<td>Critical inquiry</td>
<td>Educator</td>
</tr>
<tr>
<td></td>
<td>Administrator</td>
<td></td>
<td>Administrator</td>
</tr>
<tr>
<td></td>
<td>Educator</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Identity (Purtilo)</strong></td>
<td>Self-identity and patient-focused</td>
<td>Patient-focused</td>
<td>Patient-focused (growing societal)</td>
</tr>
<tr>
<td><strong>Thread/language (Pellegrino)</strong></td>
<td>Philosophical ethics</td>
<td>Philosophical ethics</td>
<td>Philosophical ethics</td>
</tr>
<tr>
<td><strong>Recurring themes</strong></td>
<td>Need to identify the ethical issues encountered by physical therapists</td>
<td>Close relationship between clinical and ethical decision making</td>
<td>Social scientific ethics</td>
</tr>
</tbody>
</table>

* Asterisk indicates patterns of focus listed in descending order of frequency from most frequent to least frequent.

30-year time period, Purtilo repeatedly emphasized the importance of the role of the physical therapist as policymaker and the necessity to "become involved in the formation, review, and refinement of health policy at the institutional, local, regional, and national levels." Evolutionary Periods (Purtilo and Pellegrino)

Overall, the majority of the sample represented Purtilo’s patient-focused identity (58%) and Pellegrino’s philosophical ethics thread (71.6%). However, as indicated in Table 6, there were differences among the decades.

As predicted by Purtilo, publications from the self-identity focus gradually decreased and totally disappeared by 1990 in the United States. During the period of self-identity, Purtilo and Thomasma and Pisanelchi established the ethical decision-making role of the physical therapist and emphasized the unique nature of the ethical problems encountered by the physical therapist. The patient-focused perspective was most heavily represented in the decade of the 1980s. For example, Coy and Sim discussed the concept of informed consent. The societal focus progressively increased, reaching its highest proportion in the 1990s. Mattingly’s discussion of the mother-fetal dyad from a policy systems perspective and the myriad reflections on the impact of managed care are representatives of the societal focus.

Like Purtilo’s patient-focused identity, Pellegrino’s philosophical thread was more influential during the first 2 decades. While Davis’s discussion of the affective aspects of education provides an example of Pellegrino’s period of values, the sociological perspective on cultural aspects of patient education by Padilla and Brown and numerous descriptive studies represent the third social scientific period. Although the philosophical thread was still dominant during the period 1990 to 2000, the social scientific thread reached its peak during this period. This general direction of development supports Pellegrino’s pattern and coincides with results obtained in examining ethical approaches.

Descriptive Model of the Evolution of Knowledge of Ethics in Physical Therapy

Table 7 provides a descriptive framework based on the findings of this study and summarizes the changing patterns of focus of physical therapy literature on ethics over the period 1970 to July 2000.

Discussion and Conclusion

In my retrospective study, I analyzed literature on ethics in physical therapy between 1970 and 2000. Over the 3 decades covered by the study, there was an increase in the number of articles and social scientific studies. Results suggested that knowledge of ethics in physical therapy was predominantly philosophical in approach, from the principles perspective, written by a limited
number of authors, focused on the patient/client management role of the physical therapist, and addressed the moral judgment component of moral behavior. As predicted by Purtilo's model, the focus of identity in these publications evolved from one of self-identity to patient-focused identity, with increasing representation of societal identity. Although the focus of articles changed over the 3 decades, 3 recurrent themes across the entire 30 years were: (1) the need to further identify and clarify physical therapists' ethical dilemmas, (2) the interrelationship between clinical and ethical decision making, and (3) the changing relationship of therapists with their patients.

My analysis of the publications generally supported Pellegrino's idea of movement from philosophical approaches toward the social scientific approach. However, there were differences between the evolutionary patterns of bioethics and physical therapy ethics. Pellegrino25 had described the 1980s as a period of "anti-principlism" in medical ethics, indicating a move away from principles toward a variety of other approaches. For example, medicine and nursing applied developmental approaches to moral reasoning.115-118 Other disciplines tried non-principle types of approaches to ethics: care, virtue, case-based, and narrative. Although there was an increase in articles based on the social scientific approach, only 3 authors used alternative philosophical approaches—one from a care perspective,65 one from a virtue perspective,66 and one from a narrative perspective.

One of the themes across all 3 decades was that of increasing mutuality and movement away from hierarchical models of physical therapists' relationships with patients. However, no publication in the sample addressed the perspective of the patient or client on ethical issues in physical therapy. Responding to Triezenberg's study, Purtilo stated:

There is a possibility that what professionals identify as important ethical issues are not judged similarly by patients. Because our raison d'être is to provide good patient care, the ethical issues have significance only if patients are indeed benefited by our concerns with such issues. Sociologists and others have leveled the criticism against professionals that much of what we do is in our own self-interest rather than for the benefit of the patients we "profess" to be serving or the society that allows us privileges in exchange for our services. It would be a useful exercise to compare Triezenberg's identification of ethical issues with issues perceived by patients to present ethical dilemmas in the physical therapy context.

In studying research ethics, Barnitt and Partridge found that research participants experienced concerns or disappointment about their involvement in that research. Similar studies with physical therapists' patients and clients could provide greater insight into ethical aspects of physical therapy. Dialogue with patients could also provide important information about cultural dimensions of ethical dilemmas, an area largely unexplored in this sample except in the context of discrimination.

My findings highlight some gaps in the existing physical therapy knowledge base. Although there were an increasing number of studies focusing on ethical issues, few studies attempted to define the ethical issues physical therapists routinely encounter. Indeed, I found only 5 publications of this nature authored by Guccione,7 Triezenberg,11 Barnitt,59,63 and Barnitt and Partridge.61 This lack of clarifying studies may provide evidence that, in answer to Purtilo and Guccione, knowledge of ethics may not have kept pace with increasing clinical autonomy. In combination with the steady growth of descriptive studies, the lack of studies specifying the unique ethical dilemmas faced by physical therapists may also support the need for a theoretical framework to guide further research. Because of the complex nature of articles dealing with ethical issues seen in practice, particularly autonomous practice, the possibility exists that some articles were missed.

Results of this study should be interpreted within the context of its limitations. The sample contained only peer-reviewed literature. Although PT Magazine published a series of ethics articles from 1993 to 1996, these articles were not included in the study because the journal is not peer reviewed. A second limitation relates to the categories of analysis and process of classification. A priori categories for analysis were derived from the fields of ethics, medicine, psychology, and physical therapy. However, quantitative and qualitative analysis involved considerable interpretation by the author. It is possible that a different researcher might reach other conclusions based on the same data. An additional limitation relates to the sample and inclusion criteria. The particular databases and search strategies used in this research also may have influenced these results. Because the focus of this research was on physical therapy literature, the search did not identify a study of moral reasoning by Brockett et al120 indexed in a social science database or publications with key words related more globally to all rehabilitation providers.115,114,120,121 Inclusion of editorials and perspective articles also might have yielded additional publications.

This article began by posing the question: Has ethical knowledge in physical therapy kept pace with the challenges of increasing professional autonomy? Although the body of knowledge of ethics in physical therapy grew steadily from 1970 to 2000, this retrospective analysis
identified gaps in our current knowledge and suggests directions for future exploration. Further research should address the unique ethical problems commonly encountered in all 5 roles of the physical therapist; patient perspectives on ethical issues in physical therapy; variety in ethical approaches; factors affecting moral judgment, sensitivity, motivation, and courage; and cultural dimensions of ethical practice in physical therapy. Adequately addressing gaps in our knowledge of ethics will require both philosophical and social scientific research. Because ethical action is a complex multidimensional process that is embedded within clinical encounters, research into physical therapy ethics might benefit from a multidimensional framework to guide inquiry.

The model of ethics discussed in this article could serve as an appropriate theoretical guide for future ethics research and education because it is a multidimensional model that integrates philosophical and social scientific approaches. This model could be used to develop 4 different sets of questions to research in physical therapy ethics. The first set of questions would focus on moral sensitivity. What are the ethical issues that physical therapists routinely encounter? What ethical issues are frequently overlooked by physical therapists? How does organizational context or setting influence recognition or interpretation of ethical issues? A second set of research questions would focus on moral judgment. What type of moral reasoning do physical therapists use? Does gender, religion, or culture influence moral judgments? What should a physical therapist do in response to frequently encountered ethical dilemmas? What level of informed consent is necessary before spinal mobilization or other interventions? The following questions address moral motivation: (1) Do physical therapists' view of the professional role cause them to advocate for their patients? and (2) What organizational, contextual, or policy factors act as barriers or resources to ethical behavior? In researching moral courage, one might explore the following areas: (1) Who are moral exemplars in physical therapy? (2) What are the qualities of moral exemplars? (3) What factors influence some therapists to overcome obstacles to moral behavior? and (4) What are the important implementation skills in situations of adversity?

The model of ethics discussed in the article also could assist in integrating the normative and social scientific aspects of ethical questions in physical therapy. For example, the results of my study suggest that autonomy has been extensively explored as a philosophical principle in physical therapy. However, we have little data about the unique problems that physical therapists or their patients encounter with regard to autonomy. This type of research ultimately could provide data for normative judgments about patient autonomy. Proost et al studied nursing home residents' experience of autonomy. Describing their model as "changing autonomy," they identified 3 dimensions of autonomy (self-determination, independence, and self-care), and they delineated factors that facilitate and constrain patient autonomy in this setting. Similar research could help physical therapists to understand the myriad of factors that influence patient autonomy in a variety of settings and contexts. This type of research also could provide valuable information to guide decisions about the content and emphasis of curricular content in professional education.

A major purpose of my study was to identify evolutionary trends in the literature on ethics in physical therapy from 1970 to 2000. Results of this research indicate that knowledge of ethics in physical therapy changed in approach, topics, and focus of identity during this time period, with an increase in social scientific study and in societal focus. During the most recent decade, social scientific publications achieved a balance with the previously dominant philosophical publications. However, few studies blended the 2 approaches. The model of ethics discussed in this article could provide a framework to guide research on ethics in physical therapy by blending philosophical and social scientific approaches and providing a broad framework to integrate normative and empirical investigation. The results of my study point to the need for further research in the area of physical therapy ethics and perhaps suggest that ethics research could benefit from a research agenda similar to the Clinical Research Agenda for Physical Therapy developed by the American Physical Therapy Association to address clinical questions. Given the close relationship between clinical and ethical decision making, research in the ethical role of the physical therapist is a necessary complement to questions within the Clinical Research Agenda for Physical Therapy. This type of research agenda could ensure that knowledge of ethics in physical therapy continues to grow, builds on previous knowledge, and responds to the needs of the profession.

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