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ABSTRACT
        A study analyzed documents developed through major studies,
commissions, and research efforts in pharmacy education to determine the
conceptual frameworks upon which health profession education programs are
built. Researchers conducted a content analysis of each document by
organizing the sentences, words, and phrases contained in separate units of
information. Data for each document were grouped into three world view
categories—technical, practical, or emancipatory—based on Habermas' work of
knowledge-constitutive interests and Grundy's application of these ideas to
curriculum as guides for dealing with instruction and teaching. Each study
was classified as having a major, minor, and/or implied conceptual
orientation based upon the quantity of data in each worldview category, tone
and metaphors identified, and recommendations proposed. Findings suggested
that each worldview had been incorporated into these studies with varying
degrees of emphasis and clarity. The trend was to challenge educators to
shift the curriculum from a purely technical focus to a practical
perspective. A subset of recommendations encouraged inclusion of the
emancipatory view. Movement had been made toward more field-based instruction
and application of knowledge, but the major model for pharmacy education
remained technical and involved classroom lectures with the teacher as the
dispenser of knowledge and the student as receiver. (Appendixes include three
tables and a description of the metaphors derived from the
studies/commissions.) (YLB)

CURRICULAR DEVELOPMENT IN HEALTH PROFESSIONS:

UNDERSTANDING OUR BASIC ASSUMPTIONS

Roundtable Presented at:

American Educational Research Association

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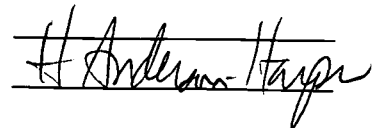Auburn University, AL 36849

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Introduction

Health professions education programs are undergoing dramatic changes: shrinking public and private funds, greater call for accountability, new opportunities for policy dialogue and the need to better prepare health professions students to deal with patient needs. Further in its February 1993 report, the Pew Commission states that the training of health professionals is more out of sync with the needs of the emerging health care system(1). The Pew Commission asserts that although the biomedical and clinical sciences training is being done well, many important qualities and skills are missing. The Pew Commission recommended competencies (Table 1) that all health professionals ought to possess if they are to satisfactorily meet the health needs of the public in the next century.

Several studies and commissions have made recommendations for improvement, transformation, and development of colleges of pharmacy. There has been an assumption that recommendations from these studies and commissions would result in the transformation of the pharmacy school curricula and the profession. It is the premise of these authors that present discussions and actions related to the revision of pharmacy curricula, as well as those of the past, have not achieved this goal because change efforts have not been properly focused. While goals, missions, and objectives have been created, thee has been little discussion of the underlying constructs around which these elements are based.

The authors believe understanding the underlying conceptual constructs will enable us to better comprehend the present status, and possible directions for the future of pharmacy education. Such an analysis can expand our capacity to not only understand what curriculum is, but also to begin to consider more comprehensively what it might be. The points of view

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presented are based on Habermas' (2) work of knowledge - constitutive interests- technical, practical and emancipatory; and Grundy's (3) application of these ideas to curriculum as guides for dealing with instruction and teaching. These three world views (summarized in Table 2) represent the ways in which human beings frame their world and their understanding of it. These world views provide a basis for making decisions about the roles and relationships between teacher and learner, the learning environment, and how learning is defined and assessed.

Methodology

The authors began the study by conducting a speculative analysis of the documents developed through major studies, commissions, and research efforts in pharmacy education. This involved reading each document as a whole to get a "feel" for its central message(4). Next, documents were examined via content analysis by organizing the sentences, words, and phrases contained in separate units of information(4). Particular attention was given to metaphoric language, which often conveys underlying premises without actually using language that specifically identifies a world view(5). For example, a statement such as "teachers should be viewed as guides in the learning process" would point to a practical view of education in which the teacher facilitates the learning process. Data for each document were grouped into the three world view categories: technical, practical or emancipatory. One researcher conducted the initial analysis and coding process. A second researcher, familiar with the studies, reviewed the coded data and classifications. A third researcher reviewed the conclusions and identified any areas of disagreement. All disagreements were resolved through dialogue and review of the data. At times data were re-examined in context to be sure the interpretation of separated units of information maintained the original contextual meaning.

The study or commission was then classified as having a major, minor and/or implied conceptual orientation based upon the quantity of data in each world view category, the tone and metaphors identified, and the recommendations proposed. If a particular theoretical perspective appeared to be present throughout the study or commission and contained major recommendations related to that perspective, it was categorized as being a "major" conceptual orientation of the study. If a perspective was present in a limited manner, it was labeled as being a minor orientation. Finally, if the theoretical view was indicated but was not explicitly stated, it was classified as being an implied orientation. A description of the metaphors derived from these study/commissions is in Appendix A.

Results

Findings related to an analysis of pharmacy education reports and commissions suggest that each of these world views has been incorporated into these studies with varying degrees of emphasis and clarity. These findings are summarized in Table 3.

Discussions and Conclusions

It is apparent from these findings that throughout the history of pharmacy education there has been a trend to challenge educators to shift the curriculum from a purely technical focus to a practical perspective. There has even been a subset of recommendations encouraging inclusion of the emancipatory view. Although there has been some movement toward more field-based instruction and application of knowledge, the major model for pharmacy education today remains technical and involves classroom lectures with the teacher as the dispenser of knowledge and the student as the receiver of it.

Curricular development and evaluation is not only specific to pharmacy education, but all health professions education is in transition. As the PEW report stated, the evolving nature of our health care system will require health professionals with different skills, attitudes and values. It will also mean that the boundaries of the health professions will change more rapidly than at any time in the past century, creating a growing demand for the skills of collaboration, effective communication, and teamwork. This will mean that the content of professional school curricula must be revised to include new competencies that focus on collaborative patient care.

All of us must become adept at coping with change and becoming more flexible in addressing the educational needs of students and our profession. This will require that we adopt attitudes and operational modes built upon continuous inquiry about what we are doing, why we are doing it, and how we can do it better. These world views provide a basis for making decisions about the roles and relationships between teacher and learner, the learning environment and how learning is defined and assessed.

The results of this study may provide a model for others in the health care field to re-examine what they have done. It is hoped that this roundtable discussion can help uncover the conceptual frameworks upon which all health profession education is built, to provide future directions for curriculum development/evaluation and collaboration of health profession education.

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Table 1. Pew Commission Summary of Competencies for 2005

Care for the Community's Health — understand the determinants of health and work with others in the community to integrate range of activities that promote, protect, and improve the health of he community. Appreciate the growing diversity of the population, and understand health status and health care needs in the context of different cultural values.

Provide Contemporary Clinical Care — Acquire and retain up-to-date clinical skills and apply them to meet the public's health care needs.

Participate in the Emerging System and Accommodate Expanded Accountability — function in the new health care settings and interdisciplinary tem arrangements designed to meet the primary health care needs of the public, and emphasize high-quality, cost-effective, integrated services. Respond to increasing levels of public, governmental, and third-party participation in, and scrutiny of, the shape and direction of the health care system

Ensure Cost-Effective Care and Use Technology Appropriately — Establish cost and quality objectives for the health care process and understand and apply increasingly complex and often costly technology appropriately.

Practice Prevention and Promote Healthy Lifestyles — Emphasize primary and secondary preventive strategies for all people and help individuals, families, and communities maintain and promote healthy behaviors.

Involve Patients and Families in the Decision-making process — Expect patients and their families to participate actively both in decisions regarding their personal health care and in evaluating its quality and acceptability.

Manage Information and Continue to Learn — Manage and continuously use scientific, technological, and patient information to maintain professional competence and relevance throughout practice life.

Table 2. Grundy's Three Curricular Orientations

	Technical	Practical	Emancipatory
Curriculum As:	Product	Practice	Praxis
Philosophical Issue:	Control	Interaction	Autonomy & Responsibility
Student Role:	Passive Receiver	Creating Meaning	Directing Learning
Teacher Role:	Director	Facilitator & Guide	Co-Learner
Student Assessment:	Meeting pre-determined objectives	Applying knowledge	Creating knowledge, Enlightenment

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Table 3. Conceptual Orientations of Selected Pharmacy Education Studies

Year	Study or Commission	Major	Minor	Implied
1913	The Pharmaceutical Syllabus	Technical	Practical	Emancipatory
1927	Basic Material for a Pharmaceutical Curriculum	Technical	Practical	Emancipatory
1946	General Report of the Pharmaceutical Survey	Practical	Technical	Emancipatory
1952	The Pharmaceutical Curriculum	Technical	Practical	
1967	Drug-Use Control by Donald Brodie[5]	Practical	Emancipatory / Technical	
1975	Pharmacists for the Future	Practical	Technical	
1993	Commission to Implement Change	Practical	Emancipatory	

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[5] Although Brodie is not a study or commission, his work is included because of its significant impact upon the profession.

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CONCEPTUAL ORIENTATIONS OF PAST PHARMACY EDUCATION STUDIES

The Pharmaceutical Syllabus (1913)

Purpose: To identify the minimum standards for the courses within a pharmacy school curriculum.

Key Metaphors/Language:

- Outlined courses with predetermined objectives using the language "provide, implant, cover and study." (Major - Technical)
- Recommended that students apply knowledge in laboratory settings. (Minor -Practical)
- Made the statement "... a syllabus, like a living language, is necessarily in [the] process of constant change. It must not be used to dam the flow of increasing knowledge either of fact or practice." (Implied - Emancipatory)

Basic Material for a Pharmaceutical Curriculum (1927)

Purpose: Used a process called "functional curriculum construction" to objectively design a curriculum that was based on actual practice activities. The process of functional curriculum construction was a means for meeting the needs of society.

Key Metaphors:

- The use of predetermined objectives and terminology indicated that the instructor was a source of knowledge and the student was passive. (Major - Technical)
- Stated that "... part of the skill needed in the use of the information may be gained in the store through practical experience." (Minor - Practical)
- Stated that "...owes it to himself, his profession, and his community to continue to study and grow in information and skill after he is graduated from college. It is his duty to read professional journals with alert attention to new ideas." (Implied - Emancipatory)

General Report of the Pharmaceutical Survey (1946)

Purpose: To assemble the important facts relating to pharmaceutical education, practice, services and trade; to interpret those facts; and to develop proposals for the betterment of pharmacy as a profession and as a public service.

Key Metaphors:

- Stated that "...sufficient time must be allowed for the student to achieve mastery of the

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subjects he studies. The goal should be assimilation by the student to the point where the principles become so much a part of his intellectual processes that he employs them almost automatically. Obviously, mere memorization, the inevitable result of an overloaded curriculum, does not prepare one to practice a profession." (Major - Practical)

- Recommended that "...the use of discussion methods and individualized instruction in place of the largely outmoded lecture method." (Major - Practical)
- Still focused upon memorization as part of the process. (Minor - Technical)
- Stated that "opportunities for the student to follow his own professional and personal interests..." (Implied - Emancipatory)

The Pharmaceutical Curriculum (1952)

Purpose: To recommend different curricula of varying lengths and content with the intent that one be adopted by the profession. *The Pharmaceutical Curriculum* was an elaboration on the curriculum portion of the *General Report of the Pharmaceutical Survey* (1946).

Key Metaphors:

- Recommended that a specific set of courses and program length be adopted among all schools of pharmacy providing uniformity among curriculum. (Major - Technical)
- Recommended the importance of including general education components in the curriculum as a means of facilitating the development of the values and communication skills necessary for the successful practice of pharmacy. (Minor - Practical)

Drug-Use Control (1967)

Purpose: The introduction and further definition of Drug-Use Control, which Brodie defined as "...that system of knowledge, understanding, judgments, procedures, skills, controls, and ethics that assures optimal safety in the distribution and use of medication."

Key Metaphors:

- Made reference to understanding a system of knowledge and applying it through judgments. (Major - Practical)
- Was concerned with ethics and judgment. (Minor - Emancipatory)
  Made reference to skills, procedures and controls associated to pharmacy practice. (Minor - Technical)

Pharmacists for the Future (1975)

Purpose: To examine pharmacy practice and pharmacy education and make recommendations to improve the education and training of pharmacists so that, ultimately, some of the drug-related problems might be solved and the public better served.

Key Metaphors:

- Recommended that students be taught based upon what a pharmacist must "do well," which included both process and product. (Major - Practical)
- Used terminology regarding the educational process consistent with a passive student. (Minor - Technical)
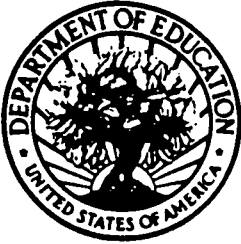
Commission to Implement Change (1993)

Purpose: To provide guidance to pharmaceutical education about how to revise the curriculum to prepare students to meet the changing health care needs of society.

Key Metaphors:

- Recommended that "...teaching must be achieved through educational processes which involve students as active learners. Teachers must view themselves as coaches and facilitators rather than merely as providers and interpreters of information." (Major - Practical)
- Recommended that "...a major responsibility of pharmacy educators is to shift the burden of learning from the teacher to the student." (Minor - Emancipatory)

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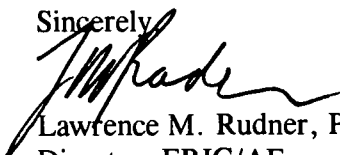
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