Philosophy of Science for Nursing Practice
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Philosophy of Science for Nursing Practice
Concepts and Applications
SECOND EDITION

Michael D. Dahnke, PhD

H. Michael Dreher, PhD, RN, FAAN
To my parents William and Raymonde Dahnke and my husband and writing partner Michael Dreher.

—Michael D. Dahnke

To my life companion and now husband, the most generous man I have ever known.

—H. Michael Dreher
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Foreword

The average person might wonder why a nurse would be required to take a philosophy of science course and, at first thought, it might even sound odd. But with the recognition that nursing has had a long historical quest to be its own discipline and science-based profession, it is really not odd at all. The history of philosophy of science as a body of knowledge that constitutes its own academic discipline is relatively new. Many past PhD in nursing graduates probably remember reading the classic philosophy of science text by Kuhn, *The Structure of Scientific Revolutions* (1962), and wondering even then “how does this relate to nursing?” Kuhn himself likely had no real expectation that his seminal work was forging a new field, merging the history of philosophy with the history of science.

Now, with a burgeoning emphasis on evidence-based practice in nursing, we find ourselves foraging our own intersection of philosophy and nursing as we revisit the meaning of evidence, particularly clinical evidence. As I examine the state of doctoral nursing education, it is possible, particularly in Doctor of Nursing Practice (DNP) programs, that we find ourselves often putting the cart before the horse so to speak. Drs. Dahnke and Dreher, in their excellent second edition text, *Philosophy of Science for Nursing Practice: Concepts and Applications*, bring to the fore evidence-seeking nursing clinicians, practitioners, and scholars, in both our DNP and PhD programs. The graduate nursing student no longer has to ask: “Why are we studying philosophy?” The authors develop their thesis that a grounding in the understanding of questions such as “What is evidence?” “How is evidence derived?” and “How is the quest for evidence connected to scientifically-based clinical practice?” is critical to the development of practice-based disciplines like nursing.

Coauthored by a classically educated philosopher and a nursing scholar with postdoctoral research training, the text explores both contemporary philosophy of science thinking and the all-important connection to nursing that is lost in other texts aimed at a graduate nursing audience. Dahnke and Dreher’s language is approachable and invites the reader to think, to explore, and to even feel some affinity for the abstract or less concrete concepts that are at the heart of the tedious study that reading philosophy requires. The authors describe how doctoral coursework grounded in philosophy of science often shifts the thinking of the beginning doctoral student from the concrete to the abstract, a very essential transition in the trajectory of doctoral nursing education. I contend that this is a weakness in nursing education at all levels.
This tendency to embrace the concrete nursing action rather than the finely reasoned, less absolute clinical judgments starts when we fail our beginning fundamentals students. With them, we still stress the correct performance of procedures over the nuance and sound clinical reasoning that is necessary to actually implement procedures safely, ethically, and within the confines of the realities of modern nursing practice. We then perpetuate this with our graduate students when we emphasize evidence-based nursing without a full exploration of the ambiguities of care. With doctoral students, nursing faculty struggle with the degree to which philosophical underpinnings of nursing practice and science should be emphasized in the respective doctoral nursing curriculum.

Those experienced with doctoral nursing education, and those who are new to it, will find our DNP and PhD classrooms full of clinicians who have returned to graduate school because they are curious, they see clinical problems that remain unanswered, and many of them seek to improve our emerging health care system through doctoral education. We are also educating newly minted Bachelors of Science in Nursing Degree (BSNs) who will need additional exposure to the analytical skills necessary to provide advanced clinical care or specifically add to our body of knowledge. In order to improve practice and advance nursing science, both DNP and PhD students need a philosophical foundation from which to generate questions, to study them, and to arrive at some preliminary clinical finding or research hypothesis. These are essential steps for the development of best practices and impactful translational clinical nursing science. The nursing profession is not well served by superficially discussing or not discussing the important premises of what is a practice discipline, and what is observation or explanation or evidence. Dahnke and Dreher again provide an innovative presentation of this critical content, including an inclusion of philosophy of social science, which often is the real disciplinary origin of many DNP projects and PhD dissertations when interpersonal, therapeutic, or social interventions or variables are studied. We are reminded too that the demands of nursing inquiry in a practice discipline cannot always rely on the certainty of control and explanation. DNP programs aimed at reexamining how they prepare students to conduct and implement practice-based evidence and PhD programs aimed at how they prepare students to generate theory-driven evidence will both benefit from the challenging, often thought-provoking questions posed by this text. In the end, this book teaches readers to raise salient questions concerning evidence for DNP students engaged in translational work and PhD students engaged in theoretical research.

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Preface

In the first edition of this text, the concept of practice inquiry seemed to be the likeliest focus of Doctor of Nursing Practice (DNP) investigation at the practice doctorate level. Five years later, with this second edition, the emphasis is clearly more on DNP investigation that relies on some fundamental relationship with evidence-based practice and practice-based evidence. Although it is largely the expectation that the PhD student will generate evidence, some DNP programs actually prohibit this (or try to), while others are more comfortable with letting the DNP student formulate a question “grounded in practice” and then letting the question guide the methodology. Some programs have rigid requirements that the final work product be a “change project” or “implementation project.” The names of the different kinds of DNP final work products (including the most popular capstone project) are numerous and varied. In 2015, the American Association of Colleges of Nursing (AACN) made progress when they recommended the [new] title DNP Project. For the PhD, it is a simpler world—a dissertation, a doctoral dissertation, a thesis, or a doctoral thesis. In the United Kingdom, the names for professional/practice doctorates and the PhD final work product are the same; only the word count is larger for the PhD.

Long ago, we decided that at some point the profession would have to move this struggle forward, declare and better formalize the kinds of knowledge expected of DNP graduates. We decided to write a text that we thought would move toward this goal, while also writing a text that clearly embraced PhD inquiry because, in the end, both programs operate at a scholarly level in a practice discipline. Any doctoral nursing program, no matter the type, must address the fundamental principles underlying “inquiry” if its graduates are going to become stewards of the discipline and advance the profession.

This is a text on the philosophy of science and may be used in similar or different ways by both DNP and PhD programs. In a unique way in this text, we think that we have embedded the philosophy of science content into the context of practice, nursing’s evolution as a discipline, and philosophy’s essential underpinning to what we call practice knowledge development. We contend this is the output of formalized DNP inquiry, and PhD students can rightfully read the concluding chapter and ask whether PhD students are necessarily precluded from practice knowledge development in the way in which many DNP programs are emphatic that they are not preparing their graduates for empirical investigation or the generation of evidence.
Either way, we are not so sure science, or even practice-based science (or PhD vs. DNP inquiry), can be so precisely carved at the joints.

The nature of doctoral nursing education is presently in flux and a matter of debate. What type and degree of education regarding theory and research that practice doctorates in nursing need is presently an unsettled question. Although many nursing PhD programs include coursework on the philosophy of science, very few DNP programs have a stand-alone course devoted to this subject. However, most DNP programs do include some formal content on the philosophy of science (usually embedded in other related courses) and, of course, we see this as essential to having minimal competence in the underlying philosophical principles of “what is evidence?” A philosophical study like this one provides a further step into the basis of what students are learning; the essence and justification for what they are studying. There is obvious disagreement as to whether this further step is necessary or desirable. However, our review of the strongest DNP programs in the country indicates to us that coursework focusing on improving the critical inquiry of practitioners and other types of DNP students is increasing as the drive for more evidence-based practice knowledge and practice-based evidence knowledge impacts DNP curricula (and PhD curricula too).

This is not a text about nursing epistemology, although the concluding chapter breaks the ice on this topic by opening a discussion surrounding a practice epistemology for nursing; we think this is particularly relevant for Doctor of Nursing Practice programs. The final chapter is also provocative for PhD students as they question whether practice knowledge is empirical and whether their dissertation findings are expected to be ready for implementation—a burden (or, at minimum, a responsibility), yes, that practice knowledge demands. This text is both a contribution to this ongoing debate and a reader-friendly text on the philosophy of science. We assume minimal to no background in the formal study of philosophy for students and faculty who will use this book. Toward that end, we have included introductory materials on the essence, history, and practice of philosophy in general, as well as on the philosophy of science in particular. We have emphasized issues that have been important in the evolution of nursing as a discipline, its struggle to fully embrace its identity as a practice discipline, and how the nature of doctoral nursing education, especially the practice doctorate, has now challenged the profession to revisit its disciplinary future anew and with fresh eyes. The philosophy of science chapters are written informally, in a conversational style with a minimum of esoteric terminology. The terminology that is included is defined in straightforward language, which does not require advanced study in philosophy. The goal is to further and deepen the understanding of science for doctoral nursing students in a relevant and meaningful manner. The concluding sections push the doctoral nursing student to exit a course on philosophy of science and respond to the question: “Do you think nursing is a science?”

In our experience of teaching DNP students in 2005, we found students are very receptive to this level of study. This content was one of the first two courses taken by the students; inevitably, connections were made by them to their later studies in nursing practice and in their investigation of an important clinical problem.
they chose to study. One podium speaker at a recent American Association of Colleges of Nursing (AACN) doctoral education conference was questioned why both her DNP and PhD students take a philosophy of science course. The speaker replied that there was no better course for new doctoral students (DNPs included) to shift their thinking from the concrete to the abstract, and that challenged them differently and explicitly from their master's to doctoral education. Her answer seemed to easily satisfy the questioner and the audience. The second author of this text was sitting in the audience and, naturally, smiled.

From our observation, the theory–practice gap seems to collapse of its own weight through mere study, curiosity, and academic rigor. Philosophy becomes a part of these nurses’ knowledge base and not simply an academic, esoteric study. At present, there appears to be no other text that addresses these issues in this manner. This is understandable, given the debate mentioned. We offer this book to PhD in nursing/nursing science programs; not only to those DNP programs that currently include philosophy of science in their curriculum but also to those that may not do so explicitly and patently, yet may include investigation into such issues more implicitly in the general curriculum. We also offer this book to those programs that are considering moving in the direction of including philosophy of science in a more visible manner in the curriculum. We think that this text will also be particularly apt as a secondary text for courses in research methods, nursing epistemology, and professional DNP issues. Finally, we offer this book to those programs, faculty, and students interested and engaged in this ongoing debate regarding doctoral nursing education. Doctoral education is about debate and discourse and not merely acquiescence to another scholar's ideas, even to all of the ideas written about in this text. One of our dissertation chairs once said, “If you aren’t tussling in the doctoral classroom, then what are you doing here?” We do not presume to have the final word on this debate, but hope merely to provide a thoughtful, helpful, meaningful contribution to it.

Michael D. Dahnke
H. Michael Dreher
Introduction

Nursing, as a practice, as a discipline, and as a science, is continually evolving and is arguably at present at a crossroad in its development. As the profession is now confronted with a relatively new doctorate (only 10 years old) that is surging in both enrollment and number of programs, the scope, specialties, and turf of the various forms of advance practice nurses and nurse scholars are currently a matter of debate. Along with being a textbook, this book is a contribution to that discourse and debate. In particular, the status, purpose, and function of practice doctorate nurses and their disciplinary integration with well-positioned PhD-educated nurses are matters of uncertainty in the nursing discipline, its scholarship, and education today. Discussion of “evidence,” particularly with nursing’s new laser-like emphasis on “evidence-based practice,” cannot take place in a vacuum; thus, the formal inquiry provided by grounding in philosophy of science is fundamental to the discussion, conduct, and translation of evidence-based practice and practice-based evidence. We approach this work with a normative attitude toward the furtherance of education for practice doctorate nurses and those engaged in PhD study; that advanced, fundamental knowledge, such as the philosophy of science, is not only a benefit but a necessity for nurses at this level of education and preparation. The practice doctorate must not be a watered-down PhD. It needs to be a rigorous degree on its own merit with its own standards of academic excellence. We, however, contend that not much has changed because Caplan (1979) observed that the two communities—one of researchers and the other of practitioners—remain apart. We hope this text can contribute to this discussion and help bridge this chasm.

Section I focuses on the nature of practice and practice disciplines, particularly nursing. Chapter 1 introduces the concept of “practice” with an emphasis on its general use in the health professions. The nature of practice and its practice boundaries are discussed, along with a discussion of how a discipline is different from a “field,” how disciplinary membership is bestowed, and how its knowledge producers are legitimized. The chapter promotes the idea that it is the nature of the interpersonal and the ethical that gives rise to the status of the professional discipline. Chapter 2 takes on the challenge of providing both a historical and sociological context in which to define nursing as a practice discipline and to characterize its rise from merely work, to a field, to a full-fledged discipline. Section I concludes with Chapter 3, a discussion of the import of philosophy of science in a practice discipline,
INTRODUCTION

particularly for Doctor of Nursing Practice (DNP) programs because the question has long been answered for PhD programs. Our argument is presented from the perspectives of both authors: one a philosopher, the other a nurse scholar (who are also both experienced DNP educators).

Section II, the primary focus of this text, concentrates on philosophy, science, and the philosophy of science. We find this content valuable in preparing students to be active members in an arena of interdisciplinary advanced studies and sciences. This study is the basis of all scientific work. It underlies and brings them together at their fundament. Chapters 4 through 6 are stage setting. They provide introductory material necessary for the study to be developed through the rest of this section. Chapter 4 presents an introduction to philosophy and what it means to do philosophy or think philosophically. Common misconceptions of philosophy are addressed and a classic example of philosophical thinking is presented and analyzed. In addition, an introduction to basic logic is provided. This chapter will be especially helpful to students who may have never studied philosophy in a formal setting. Chapter 5 presents a brief history of science since the Scientific Revolution. The changes—intellectual, cultural, historical, and political—that occurred to bring about this revolution are addressed and the states of science pre- and post-revolution are compared. Chapter 6 is a history of the philosophy of science. By providing a historical context to this branch of philosophy, we hope to present a more holistic view of the changes, the arguments, the various schools of philosophy that comprise this study. Presenting the chapters that follow without this context runs the risk of fragmenting what is a cohesive, discursive narrative.

Chapters 7 through 12 present specific classic and contemporary questions and problems that have been raised by philosophers regarding the nature, function, and practice of science. Chapter 7 presents the most fundamental of questions: “What is science?” The nature and essence of science as a means of studying the world of human experience and acquiring knowledge and justifying knowledge claims is investigated. Several classic answers are presented and critiqued. Chapter 8 investigates scientific method with a special emphasis on the questions and problems regarding inductive logic as central to scientific investigation. Chapter 9 looks at the concept of observation. The simple notion of merely observing and reporting on phenomena is discovered to be much more complex, indefinite, and opaque than usually assumed. Chapter 10 investigates the concept of “theory” as it applies to science. The meanings and uses of theory in science are presented and critiqued. Also, the metaphysics of science is investigated as part of the study of theoretical entities. In Chapter 11, the nature of scientific explanation is explored. Explanation takes us beyond the questions of “What?” and “How?” to the question “Why?” And Chapter 12 surveys feminist critiques of both science and the philosophy of science that began during the last few decades of the 20th century.

Chapters 13 and 14 change the focus to the social sciences. Because much of what is recognized as nursing science may qualify more as social science than as natural science, these chapters may be quite valuable. The dispute in nursing science between quantitative and qualitative research can be found in a much broader
context within this study. Chapter 13 presents some of the classic problems of social science, many of which reflect problems previously studied regarding natural science but may have distinct answers due to the nature of the social sciences, whereas some problems may be more specific to the social sciences themselves.

Section III builds on Sections I and II. In Chapter 15, the rise of nursing science is traced through a 100-year journey of nursing: its maturing scholarship and educational advancement. History, sociology, and cultural commentary are used to examine how nursing rose through a century of world events and evolved to the present state of doctoral nursing education. An epilogue of events and progression of nursing science from 2010 to 2015 is provided in this second edition. Chapter 16 is likely the most provocative, and it describes a proposed practice epistemology for the practice doctorate: practice knowledge development. A critique of the current state of the DNP degree is offered with suggestions to formalize the DNP graduate’s responsibility for both disciplinary knowledge (practice knowledge) and disciplinary stewardship. This chapter is an excellent springboard from which to ask how practice knowledge is different from theory-generated knowledge that is more typical with the PhD.

■ REFERENCE

SECTION ONE

The Practice Discipline
CHAPTER ONE

What Is a Practice Discipline?

In responding to the challenge of relating theory to practice, it is not enough simply to argue for an “enlightenment model” which sees theoretical work as influencing practitioners and policy makers indirectly through the way in which new concepts and interpretations of social processes percolate into society at large shaping the thinking of lay and professionals alike. We must struggle to achieve a better integration of theoretical understanding and practical concerns.

—Norman Long (1992)

There is little doubt, at least among nursing scholars, that nursing is a practice discipline. However, there remains a certain amount of ambiguity surrounding the precise meaning of the word practice. What exactly is practice? Do all nurses practice? Conversely, can a nurse not practice? Is perhaps nursing somewhat similar to the discipline of physics, where there is applied physics and also theoretical physics, which is not applied but more abstract? Is the nursing scientist who is conducting a research study engaging in (applied) nursing practice or perhaps theoretical nursing? Is this a form of what is typically called indirect nursing practice? If so, can a nurse researcher who has not cared for a patient for 10 years or more still legitimately claim to be engaged in indirect practice? We pose the first question because we are not alone in acknowledging that there is real tension in nursing education and in the discipline between the acquisition of practical knowledge and theoretical knowledge and between the forces of practice and theory (Baynham, 2002; Conway, 1994; Ousey & Gallagher, 2007; Reed, 2006). As one scholar has written, “Nursing has struggled for more than 100 years with the practice/theory dichotomy” (Apold, 2008, p. 104), and another, “Despite the efforts of nursing theorists, educationalists and practitioners, the theory-practice gap continues to defy resolution” (Rolfe, 1993, p. 173). Whether the contemporary evidence-based practice movement in nursing will ultimately help bridge this gap is unknown.

Stevens (2013) claims that evidence-based practice (EBP) is part of a “next big idea” in nursing that will improve quality of care, and indicates that improvement science is an extension of this innovation. This view has enormous support in the nursing
discipline. However, Mitchell (1999) writes, “Nursing practice happens in the nurse–person process” and indicates that this process cannot be directed by evidence (p. 32). She strongly asserts that the nurse–person interaction is not data based, but should be “guided by values and theoretical principles” (p. 32). Florczak (2011) also warns against demanding randomized controlled trial(s) (RCTs) as the best arbiter of what constitutes evidence. Is the view of Stephens more contemporary? Perhaps, but Mitchell's and Florczak's concerns about this misuse of an overreliance on evidence to guide all practice still warrants consideration. The emergence and use of big data may have a consequential reductionist effect on nursing care delivery and possibly interfere with or oversimplify the uniqueness of every single nurse–individual–family interaction.

There are also skeptics who question whether nursing is a discipline, or more specifically, an academic discipline (Cronin & Rawlings-Anderson, 2004; Smith, 2007). The incredulous statement, “You can get a PhD in nursing?” continues to be expressed, sometimes even from college-educated individuals. Unfortunately, this author has been asked this question multiple times and the answer winds up being something like, “Well yes! And there are X number of PhD programs in nursing, and so on” and the individual usually still looks surprised. This is an example of just how deeply woven the bedside view of nurses and nursing is in our occupational cultural identity. The issue of whether nursing is an academic discipline is even more tenuous outside of the United States, where the education of nurses is usually (but not always) less academically rigorous, and where the status of nurses and nursing is diminished (Hamrin, 1997). The second author of this text has been in many countries and seen nursing as a discipline purposely left out of the normal university system just so governments can control nursing wages, carefully manage (or limit) the advancement of the profession, and more or less control their nurses’ mobility. Nevertheless, despite nursing's global challenges, the perspective of most nursing scholars is that nursing is a relatively young and still maturing discipline (Lobo, 2005; Parse, 2005).

This first chapter explores questions such as: What constitutes practice? What are the characteristics of a discipline? What then is a practice discipline? We address whether a practice discipline is necessarily a profession. Finally, we explore some of the early practice disciplines that have parallels to nursing, and then examine the state of the contemporary health profession’s practice discipline. Our discussion may seem particularly germane to doctoral nursing students pursuing a practice doctorate, but any PhD nursing student or graduate student in nursing who deeply believes that nursing scholarship must be rooted, grounded, and connected intensely to nursing practice should find this chapter and text helpful. In the next chapter, we explore these concepts as they relate specifically to nursing as a practice discipline.

**WHAT IS PRACTICE?**

Certainly, the bedside registered nurse engages in practice or nursing practice. Similarly, the master’s-prepared certified registered nurse practitioner (CRNP), certified nurse–midwife (CNM), certified registered nurse anesthetist (CRNA), and clinical nurse specialist (CNS) all engage in advanced nursing practice. Dreher
and Montgomery (2009) have defined the practice of the Doctor of Nursing Practice (DNP)\(^5\) graduate as *doctoral advanced practice nursing* (or doctoral advanced nursing practice when the individual is not a CRNA, CRNP, CNM, or CNS). They further describe how it is (or should be) different from the practice of the advanced practice registered nurse (APRN) with the master’s degree. But before we explore these concepts in Chapter 2, we need to first explore the origins of the word *practice* and evaluate how it is defined and operationalized among various health professions.

Elementally, the word *practice* is both a noun and a verb. The earliest English derivation of the word is from the 14th century with the word’s etymology from the Middle English *practisen*; from Middle French *practiser*; from Medieval Latin *practizare*, alteration of *practicare*; from *practica*, practice, noun; from Late Latin *practica*; and from Greek *praktikē*, from feminine of *praktikos* (*Merriam-Webster Online Dictionary*, 2010). As a noun the *Oxford American Dictionary* (Ehrlich, Flexner, Carruth, & Hawkins, 1980) defines it as: (a) action as opposed to theory; (b) a habitual action, custom; (c) repeated exercise to improve the skill one has; and (d) professional work, the business carried on by a doctor or lawyer, the patients or clients regularly consulting these.\(^6\) As a verb it is defined as: (a) to do something in order to be skillful; (b) to carry out in action, to do something habitually; (c) to do something actively; and (d) to be actively engaged in professional work.\(^7\) Using these definitions, it is clear that the term *practice* indicates that it is action, habitual and repeated, and professional work. *Nursing practice* is also done to be skillful, is carried out actively, and pertains to professional work. Our view of these various definitions is that the word *practice* has a strong connection to professionalism and thus to professional disciplines.\(^8\)

**PRACTICE BOUNDARIES**

It is incumbent on any professional discipline, particularly health profession disciplines, to define specifically what its disciplinary practice is and to establish boundaries within the domains of these definitions. Without such defined boundaries of practice, advanced practice nurses may find themselves accused of “practicing medicine,” for instance. One of the earliest cases of a nurse being accused of practicing medicine occurred in 1917 in *Frank v. South*, 175 Ky. 416 (Kentucky, 1917); Margaret Hatfield, a nurse anesthetist, was accused of practicing medicine. However, the court ruled that:

> The mere giving of medicines which are prescribed by a physician in charge who has made a diagnosis and determined the disease and determined the remedy and directs the manner and the time and the character of the medicines to be administered, has never been considered engaging in the practice of medicine. (p. 2)

The court went on to note:

> It is however, contended that the trained nurse, who administers an anesthetic, must, at some time, exercise her own judgment and thus bring her
within the definition of “to practice medicine” in this, that the surgeon is engaged with his duties in performing the operation and it may become necessary to apply another anesthetic, instead of the one being used…. If a physician makes a diagnosis and discovers the ailment of the patient, who is attended by a nurse, and prescribes certain medicines to be given, when the medicine already given shall affect the patient in a certain way, to determine when the medicine should be given requires the exercise of some degree of judgment by a nurse;… in all these contingencies, the nurse would have to exercise some degree of judgment but to hold that such would constitute her a practitioner of medicine and prohibit her from the rendition of such services, it would have the effect… to deprive the people of all services in sickness other than those which are gratuitous, except when rendered by a licensed physician. (p. 7)

In a more recent case of the boundaries of professional practice, the attorney general of Illinois in 2009 ruled that physician assistants or advanced practice nurses (referred to as advanced practice clinicians) were legally able to dispense RU-486 (a drug that ends a pregnancy that is less than 7 weeks along) under the supervision of a physician (Olsen, 2010). This practice by nonphysicians, according to the Illinois Abortion Law of 1975 (the Abortion Law—720ICLS 510/), would not constitute the practice of medicine. Another contemporary controversy is over the boundaries of disciplinary practice includes, for example, whether nurse practitioners (NPs) can administer cosmetic services such as Botox independently (Buppert, 2006). Or similarly, whether dentists who can legally use Botox to treat temporomandibular disorders (TMD) or other dental problems in the dental office can also use it for cosmetic procedures (Bock, 2008).” Complicating the complex question of the precise boundaries or domains of a professional practice is the issue of regulation and malpractice insurance. For any practitioner, although a respective state practice act may indeed indicate that the health professional is legally authorized to perform a specific procedure, it is perhaps equally important for the individual health professional to be certain that his or her malpractice insurance offers coverage for the procedure.

Ultimately, with 50 different state nurse practice acts (plus DC), the autonomy and authority of the advanced practice nurse to practice independently varies from state and state. According to the American Association of Nurse Practitioners (2015), 21 states (including DC) currently give NPs full authority to evaluate patients; diagnose, order, and interpret diagnostic tests; initiate and manage treatments; and prescribe medications—under the exclusive licensure authority of the state board of nursing; 18 provide for some restriction in practice, and 12 states have the most restrictive regulation of NPs. Therefore, although the Institute of Medicine in its October 2010 report on the nursing profession, The Future of Nursing: Leading Change, Advancing Health, called for advanced practice nurses to practice to the full extent of their education and training, progress has been made toward nurses practicing at a level to which they are educated, but the goal is far from complete.

Obviously, over time and with the evolution of any discipline, countless numbers of questions arise as to what actions and skills constitute the practice or
professional work of the practitioner. It is not surprising that competing health professions may also dispute the legitimacy or legal authority of one health professional to perform an act that he or she believes is in his or her domain of practice. At the beginning of the 20th century, prior to the advances in technology that have changed the landscape of health care, taking a blood pressure and pulse was in the domain of medicine. Today, these still important assessments are often performed by non-licensed assistive personnel. Controversy over the boundaries of a domain even happens within disciplines. With the invention of emergency ultrasound procedures, particularly abdominal radiography, for rapid use in the diagnosis, evaluation, and follow-up of abdominal distension, bowel obstruction, or non-obstructive ileus in the emergency room, a large battle began over who was qualified to administer this new procedure (Kendall, Blaivas, Hoffenberg, & Fox, 2004). Traditionally, this was the strict domain for radiologists, but soon emergency room physicians across the country were performing the procedure, and a dispute over who could perform the procedure, and thus get reimbursed for it, commenced (Cohen & Moore, 2004). In 2014, the diagnosis and treatment guidelines for this procedure were revised and it was formally determined that a physician not licensed as a radiologist could administer the procedure under certain specifications.\(^\text{11}\)

In nursing, there have been ongoing concerns over the issue of advanced practice nurses, especially NPs, practicing outside the boundaries of their specific specialty area or outside their scope of education and practice (Klein, 2005; Reel & Abraham, 2007). Examples include scenarios where the acute care NP is practicing primary care, the domain of the family NP, or where the pediatric NP is caring for neonates, the rightful domain of the neonatal NP. The National Council of State Boards of Nursing (NCSBN) has addressed these concerns and also the proliferation of new NP specialties/subspecialties in their *Consensus Model for APRN Regulation: Licensure, Accreditation, Certification & Education* (NCSBN, 2008), which is now in widespread implementation. Although a detailed discussion of this document is perhaps better suited for a graduate role development course, we believe that the NCSBN has clearly instituted a very detailed regulatory model that is designed to establish more of a national standard for the APRN with less state-to-state variability in the various nurse practice acts. Their goal is to ensure that there is less ambiguity and more legal protection (and thus fewer malpractice claims) for advanced practice nurses and increased protection of the health of the public by enhanced regulation to promote safe advanced nursing practice. However, even that document and the results of its implementation need to be evaluated over time. One very visible question is whether their decision to eliminate the gerontologic NP role and merge it with the adult NP role (to form an adult-gero NP role) was a wise one, especially with our growing national aging population (Villars, 2012).

Moreover, the prescription of these new guidelines has one significant limitation—their regulatory model may very well threaten the innovation of new advanced practice roles or innovation within these formal roles. All four of them (CNM, CNS, CRNP, and CRNA) have their unique histories and they were encouraged to develop largely because the health care marketplace first recognized and then valued their
contributions. The American Nurses Credentialing Center (ANCC, 2014), as a result of the Consensus Regulatory Model document, now only recognizes board certification for five NP specialties. They have also announced the retirement of multiple NP and CNS specialties, including the adult and child psychiatric CNS, a still controversial decision especially because the psychiatric CNS was the first CNS in the profession founded by Dr. Hildegard Peplau of Rutgers University in 1955 (American Psychiatric Nurses Association, n.d.; Jones & Minarik, 2012; Schmidt, 2013). This leaves the profession with a number of “grandfathered” advanced practice clinicians whose numbers will never increase, but will eventually fade away. And while there may no longer be a national accreditation exam (at least one administered by the ANCC), for certain specialties, many states will continue to “grandfather” these programs and they will continue in one format or another. One program that now lies outside the Consensus Model document and ANCC certification is a CNS in holistic nursing and integrative health degree that has existed at one institution for more than 20 years. This content is more prevalent than ever in the media, and the presence of a National Institutes of Health (NIH) Center for Complementary and Integrative Health (previously the National Center for Complementary and Alternative Medicine until a name change was made in December 2014) actually provides at least a plausible argument that this particular CNS role has an evidence base and is needed by society.

Moreover, what if the marketplace needs a new kind of CNS—perhaps a CNS in care coordination, which is emerging as a possible new model of care that is led by a master’s-prepared nurse (not necessarily an NP; American Nurses Association [ANA], 2012). While both the RN and APRN have been traditionally involved in care coordination, the post–Affordable Care Act health initiatives and structures, where the “nurse” may be required to navigate optimal patient- and population-focused care by collaborating with managed care organizations, accountable care organizations, patient-centered medical home programs, coordinated care organizations, and various home health- or community-based organizations may require a nurse prepared at the master’s level. What kind of clinician or practitioner (or even administrator) will this role require? Should it be placed into a traditional ANCC board-certified APRN model? What if the ones available do not fit? And what about that new nursing specialty that lies in the future but that we cannot imagine today? How can the innovation emerge with these barriers?

THE NATURE OF PRACTICE: AN EMPHASIS ON THE INTERPERSONAL

In 1986, Whan, a social work scholar, attempted to make a distinction between the notion of the practical and the technical. He argued that the practice of social work was one of practical, moral engagement, and not primarily a matter of technique. In some ways, this sounds very similar to the long, but ongoing discussion as to whether nursing is more an art or a science (Bishop & Scudder, 1997; Jasmine, 2009; Mitchell & Cody, 2002; Peplau, 1988). However, social work and nursing are different disciplines. Furthermore, the nature of practice is much more complex, and we favor an
argument that practice is more interpersonal than artistic or merely scientific (or technical). It is the interpersonal skills of the professional\textsuperscript{15} (nurse, minister, physician, social worker, occupational therapist, etc.) that give rise to higher level expectations from the visible and measurable direct outcomes of their practice.

Part of the theoretical support for the primacy of interpersonal skills, which manifests as effective communication between health professional/patient (client) or in the therapeutic nurse–patient relationship, can be pooled from multiple disciplines. In nursing, Peplau’s Theory of Interpersonal Relations\textsuperscript{16} (1952, 1997) and Travelbee’s Human-to-Human Relationship Model\textsuperscript{17} (1966) are both particularly useful in conceptualizing that the practice of the professional nurse really flourishes (lives) or stagnates (dies) depending on the relationship between the nurse and the patient. Although Travelbee’s work was really articulated before the advanced nursing practice movement, both theorists’ works have application to advanced and doctoral advanced practice and implications for other health profession disciplines too.\textsuperscript{18}

From medicine, the literature on the skills necessary for physicians to deliver bad news or “death notification” expertly and with compassion is an example of an interpersonal professional practice (Leash, 1994; Lord, 2008). Delivering bad news is a professional skill that requires enormous maturity (over time) as the medical student—then intern, perhaps resident, and then finally attending physician—learns what to say, what not to say, and how to best communicate sensitive and usually painful news to individuals and families (Ptacek & McIntosh, 2009; Rosenbaum, Ferguson, & Lobas, 2004). There is even a contemporary body of literature in dietetics that describes the importance of the dietician–patient relationship (Cant, 2009; Cant & Arroni, 2008). Because both professional nurses and advanced practice nurses often are challenged to successfully motivate patients to lose weight or follow a specific diet (Dreher, 2008), it is not surprising to note that a dietician’s interpersonal skills could be instrumental in this interprofessional intervention.

Ultimately, it is the nature of practice, what the professional says and does for others, that differentiates the work in health profession disciplines like nursing from the work of the aviator, banker, or chemist. We attest that it is also the emphasis on the interpersonal relationship the professional has with individual patients/clients and their families, more so than technical competency, that best distinguishes the practice of the professional. Dreher spent most of his early career in cardiovascular nursing. It was observed during graduate school that the CNSs in cardiac rehabilitation (working primarily with patients post–myocardial infarction [MI] and post–coronary artery bypass graft [CABG]) had distinct advantages over the master’s-prepared exercise physiologists who were performing the same work. What was the most obvious advantage? The CNSs appeared to have more advanced interpersonal skills and they were more comfortable talking to patients, building relationships, and likely motivating them. Were they perhaps as knowledgeable as the exercise physiologists about the technical content of the specialty? Without making assumptions, one objective difference would likely be that the exercise physiology curriculum has a greater emphasis on applied kinesiology, biomechanics, and motor learning, for example. Therefore, it is not unlikely that the exercise physiologist may have a greater knowledge base of the
discipline on average. However, as described in Malcolm Gladwell’s influential and best-selling book *Outliers* (2008), success is not necessarily about having the most intelligence (or having the most knowledge), but having enough intelligence. Gladwell outlines the advantage of practical intelligence can have over analytical intelligence and how other factors than mere IQ are correlated with success. One can only imagine a minister with no (or weak) interpersonal skills, or a psychiatric nurse with poor therapeutic communication techniques, or an advanced practice nurse who is merely average at encouraging successful behavioral changes in her patients.

How would you describe the nature of practice? How important do you think it is to properly conceptualize the context of practice to the discipline of nursing? Does society perceive or value the practice of the physician or the practice of the physical therapist or the practice of the advanced practice or doctoral advanced practice nurse differently? We contend that more emphasis should be given to the training of interpersonal skills of the professional practitioner and its central relationship to enhancing “practice.” Thus, the importance of practice knowledge is explored in Chapter 16.

**WHAT IS A DISCIPLINE?**

A discipline is foremost a field of study. It is the generated knowledge of a collective of scholars/practitioners (usually residing in a university where the generation of knowledge and teaching and disseminating this new knowledge are the mission) that leads to the formation of a discipline. Some of the first scholarly discussions surrounding the meaning of an academic discipline began in the 1960s when Phenix (1962) indicated “The distinguishing mark of any discipline is that the knowledge which comprises it is instructive—that it is peculiarly suited for teaching and learning” (p. 58). Discipline is defined by the *Oxford English Dictionary* as “a branch of learning or scholarly instruction” (p. 244). King and Brownell (1966) further state, “Each discipline, at any time in history . . . is best described as a ‘community of discourse,’ a company of persons moving in modest disarray toward its own goal. There have been and are now many such companies, more all the time. We attempt to institutionalize them in schools, colleges and universities” (p. 62). Even today, the Carnegie Foundation for the Advancement of Teaching confirms this, forcefully emphasizing in *Envisioning the Future of Doctoral Education: Preparing Stewards for the Discipline* (Golde & Walker, 2006) that “Disciplines continue to change, as do universities, the job market, the character of professional work, and the student population” (p. 4).

The first degree-granting university in medieval Europe was the University of Bologna founded in 1088, followed in 1150 by the University of Paris (which later became La Sorbonne). Oxford (1167) and Cambridge (1209) were founded shortly thereafter. At the University of Paris and these early universities, there were faculties in only four disciplines: theology, medicine, Canon Law (Ecclesiastical or Catholic Church Law), and the arts (largely grammar, rhetoric, logic, arithmetic, music, and astronomy). Most modern academic disciplines have their roots in the mid- to late-19th-century secularization of universities. One example is the origin of the discipline of psychology (mostly attributed to Wilhelm Hundt19 and William
James, both of whom probably founded the first psychology lab around 1875), which evolved from integrating knowledge from medicine, physiology, neurology, and philosophy. Indeed, reminding ourselves how young psychology as a discipline is comparatively should give some comfort to nursing's own struggles with being a young and still maturing discipline. As one nursing scholar has stated “While the practice of nursing is as old as humanity, the discipline of nursing is quite young” (O’Shea, 2001).

We know what a discipline is, but maybe the more important questions are: What defines a discipline? Are there criteria for what a discipline is? For instance, nursing began as a practice and evolved eventually into an academic discipline, but by what standards? King and Brownell’s 1966 book The Curriculum and the Disciplines of Knowledge has provided a classical list of criteria for what constitutes an academic discipline:

1. A discipline is a community: scholars, teachers, and learners form a specialized dynamic group.
2. A discipline is an expression of human imagination: There is almost a spontaneous generation of ideas that evolve as “germinal concepts” and “intellectual challenges” (p. 71) by various individual members.
3. A discipline is a domain: “that natural phenomenon, process, material, social institution, or other aspect of man’s concern on which members of the discipline focus their attention” (p. 74).
4. A discipline has a history and traditions: a record of discourse of its forebears and the evolutionary intellectual craftsmanship.
5. A discipline has a conceptual structure: the dynamic and developmental full set of ideas in a discipline at any one time.
6. A discipline has a syntactical structure (mode of inquiry): the interrelated ensembles of principles in a field of inquiry.
7. A discipline has a specialized language or other system of symbols: the vocabulary, common language, and representative accumulated connotative meanings of the field and its members.
8. A discipline has a heritage of literature and a communication network: “the working materials of the community of discourse are the heritage of writings, paintings, composition, musical scores, artifacts, recorded interviews, and other symbolic expressions of the membership” (p. 86).
9. A discipline is a valutative and affective stance: the capacity for a field of inquiry to move beyond its mere rational attributes and to reflect various characteristics of man, reflect emotional dynamism, and exhibit aesthetic qualities.
10. A discipline is an instructive community: a path for progression of learning in a discipline is created and communicated theoretically through curricula.

These criteria are reexamined in the next chapter as we analyze whether nursing as a maturing discipline, and particularly as a practice discipline, has met these criteria.
Dorothea Orem (a noted nurse theorist), however, has documented that, historically, neither King and Brownell nor Phenix had yet conceptualized the term *practice discipline* in the 1960s, and it was not until October 7, 1967, that Dickoff and James introduced the term relative to nursing at a “Theory Development in Nursing” symposium at Case Western Reserve University (Orem, 1988).

**DISCIPLINARY BOUNDARIES**

*Disciplinary boundaries* are similar to the description of practice boundaries in our previous discussion. However, in many ways, the disciplinary boundaries of a practice discipline are more fluid than in nonpractice disciplines. In this discussion, we examine disciplinary boundaries in two different but important contexts: (a) Who is a legitimate member of the discipline? and (b) Who can legitimately produce knowledge for the discipline?

**Who Is a Legitimate Member of a Discipline?**

At first glance, this is an easy question, but in reality it is not. Members of a discipline have the responsibility to determine the qualifications for students to enter their program, the course of study to obtain a degree in the discipline, the requisite level of knowledge, necessary psychomotor skill acquisition (where applicable), and socialization to graduate from the program. Individual university faculties are ordinarily replete with members with degrees in the respective discipline. However, there are often faculty with terminal degrees in other disciplines who are duly members of a respective department. In any given divinity school, for example, there are usually faculty in moral theology who have doctorates in philosophy or biomedical ethics, but who are not necessarily ordained and do not belong to a ministerial profession. In nursing, the faculty might include nurses who may have a graduate degree in nursing, but who have doctorates in non-nursing fields. Furthermore, in nursing, some faculty may indeed actually be trained pharmacologists or physiologists who teach the pharmacology and anatomy and physiology courses or they could also be based in their home disciplinary department, too. These persons, however, do not have the educational background or socialization as part of the discipline of nursing. Del Favero (2010) has suggested, perhaps more radically, that a legitimate member of a discipline is simply one who professes primary allegiance to a discipline. Nevertheless, we would contend that graduates with at least a baccalaureate degree in a specific discipline should be considered the de facto members of that discipline. But whether individuals with a graduate degree in one discipline, but a terminal doctorate in another, are properly positioned to receive advanced knowledge in their non-doctoral discipline is another question.

**Who Can Legitimately Produce Knowledge for the Discipline?**

After discussion of membership, the next important argument is who can legitimately produce knowledge for the discipline or who is best positioned to do so? Golde and
Walker (2006) take a very traditionalist approach and state that “we believe that PhD recipients bear responsibility for the integrity of their discipline” (p. 10). However, it is with certainty, in light of the relatively new DNP movement, that doctoral graduates bear the responsibility for the integrity of the discipline. In many ways, those who are both a member and who generate the knowledge for a discipline are very much aligned. In other cases, it is not. For instance, it would be highly uncommon (if not outright unacceptable in many cases) that a student in a typical university sociology class be taught by someone without a doctorate in sociology (but another field). The point here is not to disparage individuals who have an identity as a member of a discipline, but a doctorate in another. It is to emphasize that the formal members in any given discipline are the ones most credible to advance disciplinary knowledge and establish the disciplinary boundaries. In this example, the assumption is that the guardians of knowledge for the discipline of sociology are logically faculty with a doctorate in that discipline, and not another.24

First, distinctions have to be made between new disciplines, maturing disciplines, or traditional, established disciplines. For instance, the discipline of knowledge management is only 20 years old (Stankovsky, 2005). Male studies (as opposed to men’s studies, which has been around since the 1970s) is even newer and was just proposed in 2009 at Wagner College in New York (Epstein, 2010). As reported in the first edition of this book, it was intended that this new discipline would formalize itself with the first International Conference on Male Studies in 2010 and the launch of a Male Studies Journal, but these events did not happen (Elam, 2010). Despite focused symposia in male studies sponsored in collaboration with the New York Academy of Medicine (2011), the Lounsbery Foundation (2012), and dialogue at an annual American Public Health Association meeting (2013), this emerging “discipline” (described as such on their Foundation for Male Studies website) 25 has struggled to evolve and really may be a new field. Indeed, some controversy has surrounded this new discipline, and Goudreau reports from one of the new discipline’s founders:

“This came out of the contentious business of gender studies,” according to Lionel Tiger professor of anthropology at Rutgers University. “It’s not men’s studies as contrasted with women’s studies. It’s a study of males without all the ideology and self-righteousness of feminists about turning over patriarchy.” (Goudreau, 2010, p. 1)

For these disciplines (first fields), the founders are obviously scholars in other fields who have begun to create a body of scholarly work, which is indeed distinctive and different. These new fields have either broken away from a parent discipline and become independent, or they have emerged organically by drawing on scholars from multiple disciplines to create something entirely new. 26

If one traces the history of modern nursing from Florence Nightingale (the first nursing school, the Nightingale Training School at St. Thomas’s Hospital, was founded in 1860) then nursing is around 155 years old, but its precise arrival as a formal discipline is murky and unclear. Thus, for maturing disciplines like nursing
(the first nursing doctorate was an EdD at Teacher's College, Columbia University, in 1924), the founding scholars obviously had doctoral preparation outside the discipline (Robb, 2005). Over time, the overwhelming majority of scholars are then prepared inside the discipline in the respective doctoral programs. In 1961, the Nurse-Scientist Training Program was formed to prepare nurses in PhD programs outside of nursing (Gortner, 1991). Although this may sound odd, in fact, the program began because there was a dearth of PhD in nursing programs at that time, and a critical mass of doctoral-prepared nurses was needed in order to jump-start the research underpinnings of the discipline. Many of these graduates indeed went on to form new doctoral research programs in nursing including the PhD, DNSc (Doctor of Nursing Science), DSN (Doctor of Science in Nursing), and DNS (Doctor of Nursing Science) degrees, and subsequently there was a spur of new doctoral nursing programs in the late 1960s and 1970s. Other examples of maturing disciplines include occupational therapy (founded in 1917) and physical therapy (founded in 1921). Although there were earlier historical developments in both disciplines, these dates appear to be landmarks in the formalizing of each of these new health professions (Punwar & Peloquin, 2000).

The practice discipline of occupational therapy has an interesting history. What is not widely known is that occupational therapy had its earlier roots in nursing, not physical therapy as widely believed (Gibson & Serrett, 1985). In some ways, it emerged in the 20th century as health and work (occupation) became so interrelated (sensory-processing-disorder.com, 2009). If one was not healthy, then one could not work and make a living. As a result, those rehabilitative efforts that could best assist a person to return to function (and work) were termed occupational therapy. In the early 1900s, a nurse named Susan Tracy coined the term occupational nurse as she became involved in initiating training for people with mental illness to perform work tasks and be more productive to society (Bing, 2005; sensory-processing-disorder.com, 2009). She even began to train other student nurses in this new endeavor and in 1910 wrote the first known book on occupational therapy, Studies in Invalid Occupation: A Manual for Nurses and Attendants (Reed, 1993). In 1914, George E. Barton, an architect, and Dr. William R. Dunton Jr., who were interested in the response of the human body to the therapeutics of occupation, began to explore the formation of an organization for individuals interested in Occupation Work (as occupational therapy was originally known until this time; Reed, 2005). On March 15, 1917, the National Society for the Promotion of Occupational Therapy (NSPOT) was founded and the charter members included a partially trained social worker, two architects (including Barton), a secretary (who later became Barton’s wife), a psychiatrist, a teacher/philanthropist, and nurse Susan Tracy (sensory-processing-disorder.com).

Finally, there are the traditional, mature disciplines like psychology and social work (both founded in the late 19th century), and medicine, which is much older. Modern medicine in the United States can be traced to the establishment of the American Medical Association in 1847. However, medicine only established reformed educational standards for their profession in 1910 with the publication of
the highly influential Flexner Report, which led to the closure of inferior medical schools (largely homeopathic medical colleges) and to further standardization in the medical curricula (Flexner, 1910). Nevertheless, each of these disciplines has a long history of well-advanced knowledge development. In these established disciplines (all older than 100 years), it is a foregone conclusion that, in the circles of academia, the contemporary producers of knowledge for each respective discipline are educated in very traditional, and usually long-established, doctoral programs. One example of medicine’s maturity and influence as a discipline is exhibited in the leadership medicine has taken in the evidence-based medicine and evidence-based practice movements, which have had great impact on other health-related disciplines, including nursing (Melnyk & Fineout-Overholt, 2005; Sackett & Rosenberg, 1995; Strauss, Richardson, Glasziou, & Haynes, 2005).

We further raise this issue of who is the legitimate steward of the discipline from the relatively new (albeit not widespread) practice of allowing non-nurses (students who are not even RNs) to enroll in PhD degree programs in nursing (Robb, 2005). Regardless of one’s own initial response to this—whether you agree or disagree—could it be imagined that some program would conceivably permit non-nurses to enroll in a DNP degree? In this author’s own original DNP program, one of our first doctoral comprehensive exam questions was for the doctoral student to describe how the master’s-prepared advanced practice nurse should differ from the doctorally prepared advanced practice nurse? Of course, the examining faculty expected a plethora of very scholarly written (and oral) responses, but one response in particular led to a great discussion among the faculty: the master’s of science in nursing–prepared APRN generally has a responsibility toward his or her patients or clients, but the doctoral-prepared APRN has an additional and particular responsibility toward the discipline of nursing. Aside from the controversy over whether the DNP ought to generate empirical knowledge for the discipline or not (American Association of Colleges of Nursing [AACN], 2006; Dreher, Donnelly, & Naremore, 2005; Florczak, 2010; Smith Glasgow & Dreher, 2010), other scholars do support this mandate of more disciplinary responsibility for the DNP graduate (Chism, 2009; Clinton & Sperhac, 2009).

It should be noted that, at the 2013 AACN Doctoral Education Conference in Coronado Island, California, Dr. Marion Broome (then dean of the University of Indiana School of Nursing and now dean of the School of Nursing at Duke University) in the closing program session, publishing: “Implications for Doctoral Students and Faculty,” indicated that in survey research conducted by a team in her School of Nursing it was found that, overwhelmingly, the kinds of studies that were being published by DNPs as first authors (data mined from peer-reviewed nursing journals) would be classified as empirical research.

Is nursing there yet? Are we a mature discipline like psychology, social work, or medicine? Certainly, nursing does not have to struggle anymore to establish consensus credibility as a profession like chiropractic does (Cooper & McKee, 2003). While we explore this in more detail in the next chapter, the answer may be “perhaps, but not quite yet.” This author is not certain that as a discipline we have fully embraced practice-oriented research, which has the greatest likelihood of improving
health outcomes directly and cost-effectively. As a practice discipline and practice profession there still seems to be a strong orientation by some very influential nurse researchers toward more biologically based nursing research. Our concern is, however, how we take our next steps to properly socialize new members of the discipline appropriately and educate them to be legitimate stewards of the discipline. In some ways, the linkage of a practice discipline to its inherent ability to transform health care practice and thus make a visible impact on society is actually determinative of whether our interprofessional partners consider us (nursing) a discipline or not.

A PRACTICE DISCIPLINE AS A PROFESSION:
AN EMPHASIS ON THE ETHICAL

A profession has the following characteristics: (a) it has exclusive powers to recruit, educate, and train new members as it sees fit; (b) it has exclusive powers to judge who is qualified; (c) it is responsible for regulating the quality of professional work; (d) it has high social prestige; (e) it is grounded in an esoteric and complex body of knowledge (Light, 1974). New professions do not easily meet these criteria, and it is often a historic path from a discipline's first foray into the workforce and public consciousness to its proven path of establishing full legitimate credibility as a profession. Wright's (1951) very classical legal definition of a profession is:

A profession is a self-selected, self-disciplined group of individuals who hold themselves out to the public as possessing a special skill derived from education and training and who are prepared to exercise that skill primarily in the interests of others. (Wright, 1951, p. 748)

The early practice disciplines of divinity, law, and medicine were clearly practice professions, but they were not identified as such (Klass, 1961). However, it is clear from our earlier explorations of the origins of practice that indeed the professions have a practice orientation. This would confirm that there need to be guidelines and boundaries for practicing professionals, and that there need to be codes of ethics that guide the respective practitioner. For this reason, a very large body of literature has developed that has critically examined “ethics in the professions” or in the helping professions (Corey, Corey, & Callanan, 2006; Dahnke, 2014a; Martin, Vaught, & Solomon, 2009; Rowan & Zinaich Jr., 2002). As a practice discipline, nursing has always had an emphasis on ethics in both undergraduate and graduate curricula, especially surrounding the ANA Code of Ethics (Crawford, 1926; Dahnke, 2009; Fry, 2004; Silva & Guillet, 1996). However, the movement to more formal instruction in ethics for nurses began largely in the late 1970s and 1980s (Aroskar, 1977, 1980; Aroskar & Davis, 1978; Davis, Fowler, & Arosker, 2009).

There is an ongoing debate as to who should be teaching (who is properly qualified/credentialed) ethics to nurses or even whether philosophers can teach professional ethics (Kalb & O’Conner-Vonn, 2007; Krawczyk, 1997; Shotton, 1997; Weil, 1989). This issue was a very prominent sidebar debate at an International Center
for Nursing Ethics Conference held at Yale University School of Nursing in 2008. Should nurses with no formal training in ethics be teaching it? Ethics is foremost a branch of philosophy. There is also the field of clinical ethics, in which many formal recognized members and practitioners in this field are not entirely classically trained in philosophy or ethics. This issue returns us to the central issues in this chapter: Who is a formal member of a discipline? Who has the credibility or right to conduct disciplinary knowledge development? The teaching of ethics in a practice discipline is important. Which discipline should teach it or who is the ideal academic to teach this? What should their ideal preparation be?

In 2001, the world-renowned ethicist Peter Singer, along with colleagues Pellegino and Siegler, called for an increased research focus on the ethical problems faced by clinical medical ethics. They suggested a different focus to these problems that included approaches that were:

- **Multidisciplinary**: where researchers work in parallel or sequentially from a disciplinary-specific base to address a common problem
- **Interdisciplinary**: where researchers work jointly, but still from a disciplinary-specific base to address a common problem
- **Transdisciplinary**: where researchers work jointly using a shared conceptual framework drawing together disciplinary-specific theories, concepts, and approaches to address a common problem.

We contend that there ought to be a heavy emphasis on ethics education in any practice discipline. Practice disciplines, particularly those that have earned a professional status, have a responsibility to educate their practitioners to practice with the highest ethics. In the previous decade, there have been many episodes of gross unethical practice in society. It began with the Enron debacle in the early 1990s and culminated at the end of the decade with the fall of Wall Street and the resulting near economic depression that befell the United States and around the globe (Kidder, 2009; Kienzler & David, 2003). Ethical issues in society related to the health professions in the past decade include the enormous impact of the Terri Schiavo case and continuing debate over the right to die (Dahnke, 2014b; Gastmans & De Lepeleire, 2010; Quill, 2005).

More recently, we have faced ethical issues surrounding health care rationing and the distribution of health care resources across the country with the implementation of the Affordable Care Act (Brody, 2012). Even in 2015, depending on one’s income, whether he or she can get a basic health care plan or not may be determined by whether one’s governor is a Republican or Democrat, not mere U.S. citizenship. The recent rise, plateau, and leveling off of the Ebola pandemic (after a lot of media and political hysteria) is probably just the beginning of a series of global mega-viruses. Unless a new low-cost vaccine is quickly developed, the ethics of who will actually participate in human trials of new vaccines and who will get access to what are at present highly scarce and expensive experimental drugs will continue to be debated (Cohen & Kupferschmidt, 2014). And, as mentioned earlier, new arguments in the assisted-suicide debate continued with the case of Brittany Maynard, a 29-year-old...
Californian woman with terminal brain cancer who feared the incapacity of rapidly progressing pain and suffering, and the ability to make her own determinative health care decisions. An advocate for the legalization of aid in dying, she moved to Oregon with her husband so that she could legally select the date and time of her own death, which she posted on Facebook the night before taking her own life on November 1, 2014 (Maynard, 2014).

To manage these contemporary and complex ethical issues effectively, practice disciplines must enhance the emphasis on ethics and clinical ethics in their various curricula. DNP programs in particular should continue the ethics education that nurses first complete in their undergraduate education and sometimes formally continue during master’s study. This is one area where AACN’s *The Essentials of Doctoral Education for Advanced Nursing Practice* document may be deficient (2006). This document focuses on eight essentials of (doctoral) advanced nursing practice, but only three of the eight essentials have curricular objectives that address ethical issues in DNP curricula. We could easily support a modernizing of the document with an inclusion of a separate essential that recognizes the critical need for the doctoral advanced practice nurse to have expert skills to better collaborate across disciplinary lines to solve ethical issues in practice. At this (doctoral) level, ethical issues and their resolution in health care are rarely ever the decision of a single individual or single practice discipline. Thus, more skills at interprofessional and multidisciplinary collaboration are essential.

### MOVING TOWARD A DEFINITION OF A CONTEMPORARY PROFESSIONAL PRACTICE DISCIPLINE

If we take a look at the average hospital or large medical center, we see a lot of practice disciplines working together on a daily basis: nursing, medicine, pharmacy, physical therapy, occupational therapy, social work, psychology, respiratory therapy, divinity, and others. The health sciences literature is in agreement on one central point: Multidisciplinary care and practice are far superior to narrow practice from disciplinary silos (Bell, Corfield, Davies, & Richardson, 2010; Yeager, 2005). The Cochrane database is full of such health outcome evidence (Handoll, Cameron, Mak, & Finnegan, 2009; Ng, Khan, & Mathers, 2009). Therefore, nursing (particularly doctoral advanced practice nurses) should maximize *interprofessional care* with more skillful communication and consultation to enhance the health outcomes of the patients and families under their care. A recent scholar (Copnell, 2010) has called for modernization of the contemporary allied health professions with more enhanced development of the professional’s knowledge and skills. In many ways, the current movement toward health reform in the United States actually implores the practice professional to do more to increase positive health outcomes. An argument can be made that this was one of the chief reasons for the creation of the DNP degree—to provide the public with a more highly educated and skilled advanced nursing practitioner.

In conclusion, a new definition for a practice discipline is proposed, which can be placed into a contemporary health context and embraces the global health
challenges that practice disciplines and their practitioners face. In our view, a professional practice discipline has the following characteristics:

1. A recognized role and work product highly valued by society
2. A legitimate claim to certain boundaries in the field
3. A distinct body of knowledge that is both practical and theoretical
4. A critical mass of knowledge generators \textit{within the domain of the formal field}
5. Regulations and standards for membership that include rigorous educational preparation
6. A formal organization of the community of practitioners and scholars
7. An emphasis on the interpersonal aspects of the role and work
8. A highly developed code of ethics and behavior

New disciplines, like male studies, will continue to develop. But the emergence of a new practice discipline means that certain standards and expectations (including its safe practice by competent practitioners) must be met incrementally if a practice discipline is indeed destined to be \textit{professional} and so recognized in society. It also takes a historical trajectory for many of the aforementioned criteria to fully evolve. As Joel has written, “professions progress through an expected evolutionary process” (2002, p. 1). This indeed takes time.

\section*{SUMMARY}

This chapter has attempted to examine the real frameworks of what constitutes \textit{practice} and what defines a \textit{discipline}. In nursing’s quest to be fully recognized as a professional discipline, it may be that nursing and its practitioners and scholars need to revisit the meaning of practice to more formally understand the uniqueness of what is a practice discipline. The discipline of nursing should not model itself after nonpractice disciplines in order to be more like other traditional members of the academy like the neuroscientist or biochemist. Our position and uniqueness as a community of practitioners and scholars depends on agreement on what kinds of knowledge development are needed to advance our discipline. This is more fully discussed in Chapter 16. However, none of this can take place without some adherence to the principles of philosophy of science as an underpinning for all knowledge construction—whether practice oriented or theoretical. As a practice discipline, it is essential that it is established by what criteria an individual becomes a member and by what standard does one legitimately claim to be a generator of knowledge \textit{within the domain of the discipline}. There also needs to be a thorough delineation of practice boundaries that helps establish legal contexts of practice. We also propose that a more constructive focus on both the interpersonal aspects of practice and ethics is what distinguishes the active practice of health profession disciplines. In the next chapter, the focus is on a more intricate exploration of the practice of nursing, but it will become obvious to the reader that nursing and other practice disciplines have much in common, despite their disciplinary differences.
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QUESTIONS FOR REFLECTION

1. Reflect and describe how your practice has changed and evolved over your nursing career.
2. How is nursing practice valued by society?
3. Provide other examples of where NPs or other advanced practice nurses may be practicing outside the prescribed domain of their practice for which they were educationally prepared.
4. Which disciplines (and in what proportion) do you think have contributed to the evolution of nursing practice and nursing science?
5. Debate the following: Resolved: “Is nursing a profession?” Make a case for nursing as a formal profession and make a case that it is not.
6. How are practice professions different from some other nonpractice professions?
7. Discuss the argument made that there should be more emphasis on the interpersonal aspects of practice in practice disciplines.
8. Discuss whether the current ethics education you received over your previous nursing education was adequate to support your practice.
9. How important will interpersonal care and interprofessional collaboration be to you as you commence your doctoral advanced nursing practice?
10. Do some research and examine the state of academic dentistry practice and science (or look at another practice discipline like social work). Do you find any parallel disciplinary issues?

NOTES

2. In this text, the use of the word nurse will generally be defined as a registered nurse. Where the term professional is used, the assumption is that the nurse has at least a baccalaureate degree.
3. That is, can a nurse who is actively working in nursing not be engaged in practice?
4. The Journal of Applied Physics (AIP) website states that they publish peer-reviewed articles that “provide the physics basis for innovative technologies, reach across several disciplines, or take steps toward real world applications” (2015). Theoretical physics includes the study of the fundamental nature of matter and forces in the universe and seeks to explain why the world is the way it is. Sir Isaac Newton is considered to be the first theoretical physicist.
5. While two of the first nine DNP programs in the United States historically were originally DrNP programs (Columbia University and Drexel University), now only Drexel uses those initials and that degree is being phased out. There are also a couple of different types of doctorates specifically for the CRNA: Doctor of Nursing Anesthesia Practice (DNAP), Doctorate of Management Practice in Nurse Anesthesia (DMPNA), and Doctor of Anesthesia Practice (DrAP). In this book, only the DNP is specified.
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6. These definitions have been slightly modified for clarity (p. 700).
7. See note 6.
8. Whether all nursing practice is indeed professional is discussed later in this text.
9. The answer is no. Botox injection is permitted for dental-related procedures only.
10. These states are California, Florida, Georgia, Massachusetts, Michigan, Missouri, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, and Virginia.
11. According to the amended guidelines of the American College of Radiology’s (2014) ACR–SPR Practice Parameter for the Performance of Abdominal Radiography, “Physicians whose training did not fulfill the qualifications set forth in the ACR–SPR Practice Parameter for General Radiography may still be considered qualified to interpret abdominal radiographs providing the following can be demonstrated: (1) The physician has supervised and interpreted abdominal radiographs for at least 2 years; and (2) An official interpretation (final report) was generated for each study” (p. 3).
12. Adult-gerontology acute care NP, adult-gerontology primary care NP, family NP, pediatric primary care NP, and psychiatric mental health NP.
13. Discussions surrounding the possible merging of the psychiatric CNS and psychiatric NP roles have been underway for many years. A 2007 study indicated there was 90% overlap in tasks performed by both types of advanced practice nurses (Rice, Moller, DePascale, & Skinner, 2007). And although the psych CNSs claim that psych NPs would have less experience conducting psychotherapy (likely true), the fact is that the evolving reimbursement model for all types of behavioral or mental health care in the United States has generally favored pharmacological treatments (Schmidt, 2013). Even psychiatry has been consumed (overrun?) by what is now termed “biological psychiatry,” where pharmacological intervention is favored over the use of therapeutic modalities.
14. The College of New Rochelle School of Nursing.
15. It is also the status of the professionals (versus the nonprofessionals) and their trustworthiness that allow the individual/person being practiced on to be open to the impact of the professional’s interpersonal skills. Whether the interpersonal skills of the respective professional are effective is another question, but the expectations are that they should be.
17. According to Travelbee’s (b. 1926, d. 1973) theory, in her Human-to-Human Relationship Model, the nurse–patient relationship is the essence of the purpose of nursing (1966).
18. Peplau’s work also preceded the advanced practice nursing movement too, but her longevity allowed her work to have direct application to advanced practice psychiatric nursing.
19. Wilhelm Hundt (b. 1832, d. 1920).
20. William James (b. 1842, d. 1930).
21. It could also be said that, historically, humans engaged in nursing behaviors or lay nursing before it even became a rudimentary formalized practice at the time of Florence Nightingale. So the time trajectory from a human behavior to a formal discipline was indeed long, even given the time from the origins of the first university academic disciplines.
22. Dorothea Orem (b. 1914, d. 2007) was the founder of the Self-Care Model of Nursing. Her chief contribution, the Self-Care Deficit Theory of Nursing, essentially states that nurses have to supply care when patients cannot provide it themselves (1995).
23. The AACN has begun tracking these faculty, and in member schools, there were 2,553 employed in nursing programs across the United States in the 2014 to 2015 report. What is unknown, however, is how many of these are full time or part time.

24. This author has often fielded questions such as “Should I get my doctorate in nursing, or maybe education, or perhaps public health, or informatics, etc.,” over the years from master’s-prepared nursing faculty who are pondering seeking a doctorate. My default response has almost always been to advocate that the best way to generate evidence for the profession of nursing is to ground oneself in the science of the discipline.


26. Biomedical engineering is likely an example of the first type. Although its roots as a discipline began during World War II with a merging of biology, medicine, and engineering, it mostly became a branch of engineering until its stature surged. Knowledge management arose more recently from artificial intelligence, decision-support systems, informatics, and other related fields (Katona, 2004).

27. The first chartered nursing school in America, the Training School of the Woman’s Hospital in Philadelphia, was founded in 1863 by a physician, Emmeline Horton Cleveland, MD, a 1855 graduate of the Woman’s Medical College of Pennsylvania, the first medical college in the world for women (Robinson, 1946).

28. Susan Tracy (b. 1864, d. 1928)

29. Flexner also exposed the seedy practice of medical schools operating as proprietary schools “which were usually owned by the faculty [often just local doctors and not even professors] and operated for profit” (Hiatt, 1999, p. 21).

30. As of this second edition, the University of Washington (Seattle) and the University of Rochester (and perhaps others) still permit non-nurses to enroll in their PhD in nursing programs. Actually, despite the course titles having the NURS prefix, the official title of the degree at the University of Rochester is a “PhD Program in Health Practice Research.” The question is: Will this degree advance nursing practice/nursing science? Startling as this may be to some, the AACN Task Force on The Future of the Research-Focused Doctorate in Nursing, in their final document The Research-Focused Doctoral Program in Nursing: Pathways to Excellence, has endorsed this idea in Pathway #8 to the PhD (AACN, 2010; Dunbar-Jacob, 2010).

31. As this author was sitting in the audience at the time, Dr. Broome admitted that this was a surprising finding. She further stated that although this was not the original intent of the DNP by the AACN, nevertheless, this was what the data indicated. She concluded that based on these findings, maybe there ought to be more discussion on what should constitute the final DNP work product. There were actually audible stirs in the audience from faculty who were likely both appalled and possibly enthralled by the finding.

32. The first author of this text attended this conference and there were several diverse camps with different perspectives on this issue: (a) nurses with classical doctorates in philosophy/ethics (a minority); (b) nurses with master’s degrees in ethics, but doctorates in nursing or other fields; (c) non-nursing scholars with doctorates in philosophy/ethics who taught nurses; and (d) nurses who taught ethics with either modest nondegree training in ethics (a certificate in postgraduate study) or those simply without any formal training (likely the plurality).

33. There is also ongoing tension between those classically trained in ethics/philosophy and those who believe that the field of clinical ethics is distorted (Murray, Koenig, & Ross, 1996). There are also those who believe that the field of applied ethics is similarly simplified for students, especially when they take applied ethics courses (i.e., a course in
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- nursing ethics) before even a basic philosophy or basic ethics class. For instance, one
author criticizes the teaching of moral theory in applied ethics courses whereas another
is not so sure (Benatar, 2007; Lawlor, 2007).

34. This is the leading document that guides the curricula of most DNP programs. Our con-
cern is that as it was authored in 2006, well before the surge of most DNP programs and
before the actual practice of DNP graduates could be evaluated, it may already be out
of date. We urge its use as a blueprint, but not as a set of rigid curricular prescriptions.

35. The term interprofessional care can be defined as: (a) the provision of comprehensive
health services to patients by multiple health caregivers who work collaboratively to
deliver quality of care within and across settings (Interprofessional Care Strategic Imple-
mentation Committee [CAIPE], 2010) and (b) occasions when two or more professions
learn with, from, and about each other to improve collaboration and the quality of care
(Centre for the Advancement of Interprofessional Education, 2015).

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*Frank v. South*, 175, Ky. 416, 194, S.W. 375 (1917).


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