

Nursing Research

Methods,
Critical Appraisal,
and Utilization

Fourth
Edition

Geri LoBiondo-Wood
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 Mosby

Nursing Research

Methods, Critical Appraisal, and Utilization

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Foreword

A meaningful overview of the evolution of nursing research with excellent “real world” examples sets the stage for the fourth edition of *Nursing Research: Methods, Critical Appraisal, and Utilization* by LoBiondo-Wood and Haber. The authors tackle the enormously complex issues of how to incorporate the knowledge generated by means of the research process into care of patients, families, and communities, citing both successes and challenges for the 1990s. A combination of models for research utilization, with practical illustrations, is particularly useful for the student, clinician, researcher, educator, or administrator who is serious about the value and importance of research and its application in practice. A rich overview of the strategies that have been developed and used provides an incentive for the reader to absorb the content. Health care reform brings an enormous challenge to the discipline. Utilization of research findings generated by means of sound theoretical and methodological methods can only strengthen the effectiveness of practice and, therefore, outcomes to which nursing is committed.

The wider community of “world” is another focus of the book, and rightfully so. As the globe shrinks and health problems become world health problems, nursing must take its place in grappling with the enormous discrepancies between industrialized, developing, and third-world countries. The work by LoBiondo-Wood and Haber has proven its value as a superb guide in international collaboration. Having had the opportunity to live and teach in highly diverse countries (e.g., Finland, India, Greece, and Thailand), this writer has found that *Nursing Research: Methods, Critical Appraisal, and Utilization* serves as an excellent resource for both faculties and students. Out of these international opportunities has developed a strong belief that appreciation of cultural differences is the only basis for meaningful collaboration. Health care systems, political and economic structures, and most importantly, the health of societies are enormously diverse. It follows that the purposes and foci of nursing research in different countries are widely discrepant. Thus, global collaboration will be effective only to the extent that there is a commitment to fully understand differences between particular cultures and strive to research the needs and find methods and solutions that have the potential to be effective.

In this extremely timely work, LoBiondo-Wood and Haber address the urgent needs of quality, cost, and outcomes of care. The book is designed specifically to provide the baccalaureate student with the essential knowledge and skills to evaluate critically the findings from studies pertaining to all three issues. The ability of our “entry-level consumers” of research to critically evaluate their practice and participate in the research process may be a determining factor in the survival of nursing as a profession.

Excellent examples of studies of growing populations are provided. The list is extensive: the chronically ill, the aged, persons with Alzheimer’s disease, persons with AIDS, and vulnerable groups (e.g., the abused, single parents, children with marginal or no health care, and families

who struggle to provide care). LoBiondo-Wood and Haber point to the importance of new information acquired by sound methodologies, which must be the cornerstone for testing theories and models of care relevant to the growing numbers in these groups. Both associate degree and baccalaureate-prepared nurses must be involved in the research process as the only legitimate route by which we learn about the specific needs of these populations, design care, and evaluate its effectiveness by means of sound studies of outcomes. Further, the authors have provided a state-of-the-art guide to the literature review. As computer technology becomes a part of every facet of care, so too does it provide an entre to the most current information for any discipline.

Finally, a major strength of the book is the infectious enthusiasm of the authors. The writing style invites the interest of the reader, and the content serves as a genuine inspiration for its intended audience.

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Preface

The foundation of the fourth edition of *Nursing Research: Methods, Critical Appraisal, and Utilization* continues to be the belief that nursing research is integral with all levels of nursing education and practice. As we move toward the twenty-first century, more and more nurses are conducting and using research that shapes clinical practice, education, and public policy. Nurses are involved in using research data to influence the nature and direction of health care delivery and document outcomes related to the quality and cost-effectiveness of patient care. As nurses continue to develop a unique body of nursing knowledge through research, decisions about clinical nursing practice will be increasingly research based.

As editors we believe that all nurses need not only to understand the research process but also to know how to critically read, evaluate, and apply research findings in practice. We know that understanding research is a challenge for every student. However, we believe that the challenge can be accomplished in a stimulating, lively, and learner-friendly manner.

We agree that the kind of research knowledge appropriate to different levels of education varies. Consistent with this perspective is the belief that nursing research must be an integral dimension of baccalaureate education. Its presence must be evident not only in the undergraduate nursing research course but also threaded throughout the curriculum. The research role of the baccalaureate graduate calls for the skills of critical appraisal—that is, the nurse should be a competent research consumer. Preparing students for this role involves developing their understanding of the research process, their appreciation of the role of the critiquer, and their ability to critique research and use the findings in clinical practice. An undergraduate course in nursing research should develop this basic level of competence in baccalaureate graduates, an essential requirement for full integration of research into clinical practice. This is in contrast to the focus of a graduate level research course in which the emphasis is on carrying out research, as well as understanding and appraising it.

The primary audience of this textbook remains undergraduate students who are learning the steps of the research process, learning how to critique published research literature, and learning when and how to apply research findings in clinical practice. This book is also a valuable resource for students at the master's and doctoral levels who want a concise review of the basic steps of the research and critiquing process. Furthermore, it is an important research utilization resource for practicing nurses who strive to use research findings as the basis for clinical decision making and development of research-based policies, protocols, and procedures rather than tradition, authority, or trial and error. It is also an important resource for nurses who collaborate with nurse-scientists in the conduct of clinical research.

Building on the success of the third edition, the fourth edition of *Nursing Research: Methods, Critical Appraisal, and Utilization* prepares nursing students and practicing nurses to become knowledgeable nursing research consumers by:

- Addressing the role of the nurse as a research consumer, thereby facilitating the movement of research into the mainstream of nursing.
- Demystifying research, which is sometimes viewed as a complex process.
- Teaching the fundamentals of the research process and critical appraisal process in a logical, systematic progression that is user friendly. This approach promotes a lively spirit of inquiry and encourages critical thinking and development of clinical judgment skills that will promote enthusiasm on the part of students and nurses about expanding their research knowledge base.
- Elevating the critiquing process and the use of research to a position of importance comparable to that of producing research. Before becoming research producers, students need to become knowledgeable research consumers.
- Stimulating thoughtful practice that is both creative and innovative through the use of nursing research.
- Emphasizing the role of research utilization as the basis for clinical decision making and research-based clinical nursing practice that demonstrates quality and cost-effective outcomes of nursing care delivery.
- Developing critical thinking and critical reading skills that facilitate mastery of the critiquing process.
- Developing computer-related research consumer competencies that prepare students and nurses to effectively locate and manage research information.
- Presenting numerous examples of recently published research studies that illustrate and highlight each research concept in a manner that brings abstract ideas to life for students new to the research and critiquing process. The examples are a critical link for reinforcement of the research and critiquing processes.
- Showcasing vignettes by renowned nurse researchers whose careers exemplify the link between research, education, and practice.
- Providing numerous pedagogical chapter features, including *learning outcomes*; *key terms*; *critical thinking decision paths*; *technology highlights*; *helpful hints*; *numerous tables, figures, boxes, and critiquing criteria*; and *key points and critical thinking challenges at the end of each chapter*.

The text is organized into two parts that are preceded by an introductory section. The introductory section contains Chapter 1, *The Role of Research in Nursing*, which provides an exciting overview of roles, approaches, and issues in nursing research. It introduces the importance of the nurse's role as a research consumer and provides a futuristic perspective about research and research utilization principles that shape clinical practice into the next millennium. Part One focuses on the integration of the research and critiquing processes. Chapter 2, which speaks directly to students, provides an overview of Part One that highlights critical thinking and critical reading concepts and strategies that facilitate student understanding of the research process and its relationship to the critiquing process. The style and content of this chapter are designed to make subsequent chapters more user friendly to students. Chapter 3 through 16 delineate each step of the research process, with published clinical research stud-

ies used to illustrate each step. The interrelatedness of the steps is examined in relation to the total research process. Both qualitative and quantitative designs are presented. Critical thinking is stimulated by presentation of the potential strengths and weaknesses in each step of the research process. Critical thinking is also enhanced by new chapter features that include *Critical Thinking Decision Paths*, *Helpful Hints*, and *Critical Thinking Challenges* that promote development of research consumer decision making skills. Computer-related research consumer competencies that prepare students and nurses to effectively locate and manage research information are showcased in Chapter 4, *Literature Review*, and are highlighted by technology icons in many chapters throughout the text. Consistent with previous editions, each chapter includes a section describing the critiquing process related to the focus of that chapter, as well as lists of *Critiquing Criteria* that are designed to stimulate a systematic and evaluative approach to reading research literature.

Part Two focuses on critique and application. In this section, the whole process of critical thinking, critical reading, critiquing, and utilization is synthesized. Chapters 17 and 18 provide summary *Critiquing Guidelines* for each step of both quantitative and qualitative research methods. These guidelines are used to evaluate several recently published quantitative and qualitative research articles, including their applicability to clinical nursing practice. Chapter 19, *Research Utilization*, provides an exciting conclusion to this text through its vibrant presentation about the application of nursing research in clinical practice using a research utilization framework.

The accompanying *Instructor's Resource Manual*, written by Harriet Feldman and Rona Levin, and the revised *Test Bank*, developed by Deborah Sherman, complement the textbook and provide chapter-by-chapter cooperative learning activities and strategies that promote the development of critical thinking, critical reading, and computer-related skills designed to develop the competencies necessary to produce informed consumers of nursing research. The *Student Study Guide*, written by Mary Jo Gorney Moreno and Kathy Rose-Grippa, including a new CD-ROM instruction component for student review and reinforcement, is a new cutting-edge, self-paced teaching/learning resource designed to enhance student learning outcomes.

The development of a scientific foundation for clinical nursing practice remains an essential priority for the future of professional nursing practice. The fourth edition of *Nursing Research: Methods, Critical Appraisal, and Utilization* will help students develop a basic level of competence in understanding the steps of the research process that will enable them to critically analyze research studies, judge their merit, and judiciously apply research findings in clinical practice. To the extent that this goal is accomplished, nursing will have a cadre of clinicians who derive their practice from theory and research specific to nursing.

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- Our chapter contributors, whose expertise, cooperation, and punctuality made them a joy to have as colleagues.
- Our vignette contributors, whose willingness to share evidence of their research wisdom makes a unique contribution to this project.
- Our foreword contributor, Carol Noll Hoskins, our former research professor and a chapter contributor to the first edition of this text, whose insightful introduction to the fourth edition lends special meaning to this text.
- Our colleagues, who have taken time out of their busy professional lives to offer feedback and constructive criticism that has assisted us in preparing the fourth edition.
- Our editors, Loren Wilson and Aimee Loewe, for their willingness to listen to yet another creative idea about teaching research in a meaningful way and for their help with manuscript production and last-minute details.
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Gerri LoBiondo-Wood
Judith Haber

Student Preface

We invite you to join us on an exciting nursing research adventure that begins as you turn the first page of the fourth edition of *Nursing Research: Methods, Critical Appraisal, and Utilization*. The adventure is one of discovery! You will discover that the nursing research literature sparkles with pride, dedication, and excitement about this dimension of professional nursing practice. Whether you are a student or a nurse whose goal is to use research as the foundation of your practice, you will discover that nursing research positions our profession at the cutting edge of change. You will discover that nursing research is integral with meeting the challenge of providing quality biopsychosocial physical and mental health care in partnership with clients, their families/significant others, and the communities in which they live. Finally, you will also discover the cutting edge “Who,” “What,” “Where,” “When,” “Why,” and “How” of nursing research and research utilization, developing a foundation of knowledge and skills that will equip you for clinical practice today as well as in the new millennium, the twenty-first century!

We think you will enjoy reading this text. Your nursing research course will be short but filled with new and challenging learning experiences that will develop your research consumer skills. The fourth edition of *Nursing Research: Methods, Critical Appraisal, and Utilization* reflects “cutting edge” trends for developing competent consumers of nursing research. The two-part organization and use of numerous special features contained in this text are designed to help you develop your critical reading, critical thinking, and clinical decision making skills while providing a “user friendly” approach to learning that expands your competence to deal effectively with these new and challenging experiences.

Remember that research consumer skills are used in every clinical setting and can be applied to every client population or clinical practice issue. Irrespective of whether your clinical practice involves primary care or specialty care and provides inpatient or outpatient treatment in a hospital, clinic, or home, you will be challenged to apply your research consumer skills and use nursing research as the foundation of your clinical practice. The fourth edition of *Nursing Research: Methods, Critical Appraisal, and Utilization* will guide you through this exciting adventure where you will discover your ability to play a vital role in contributing to the building of research-based professional nursing practice!

Gerri LoBiondo-Wood
Judith Haber

Nursing Research

Methods, Critical Appraisal, and Utilization

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