Introduction to Research

Multiple Strategies for Health and Human Services

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FOREWORD

This book is about the conduct of human inquiry, about people doing work with other people, about making sense of human experiences, thoughts, and actions.

In this comprehensive volume Elizabeth DePoy and Laura N. Gitlin provide an integrating framework not only for the conduct of naturalistic and experimental inquiry but also for the relationship of theory and practice. These experienced professionals and researchers describe *ways of knowing* about health and illness, about people who are embedded in contexts of delivering health and human service. Unlike other textbooks, their work is integrative. It recognizes that each way of knowing is incomplete, fragmentary, partial. Consequently, because of this, any single methodology is at the same time both trustworthy and untrustworthy in what it helps people to illuminate and understand. It recognizes that each way of knowing is not independent of the other, not an *alternative to* but *complementary with* other ways of knowing. The ideas of complementariness and connectedness are celebrated rather than bemoaned, legitimized rather than delegitimized, as is too often the case. Because DePoy and Gitlin allow these values to explicitly influence their writing, they avoid presenting material and arguments in smorgasbord fashion. And more important, in an intellectual sense, they are able to write about and illustrate methodology at multiple levels—political, philosophical, technical, cognitive, and linguistic. Herein lies a unique and important strength of their treatment. DePoy and Gitlin recognize that the act of doing research as well as the product of that act are a complex blend of political, ethical, technological, social, and linguistic engagements between human beings. Both the structure and content of their text reflect this idea.

DePoy and Gitlin have benefited from the methodological debates characteristic of the 1970s through the early 1990s. Their work, both at theoretical and practical levels, articulates the important dimensions that characterize, in their words, "the continuum of experimental-type design" and the "continuum of naturalistic inquiry." However, their project reaches beyond the boundary of research continua to integrate the fragmentation or discontinuities often generated by the actors in these debates. Thus their text reflects an interest for

integrated approaches to inquiry. And just what is integrated? And at what levels does this integration take place? Ideas of what constitutes sound inquiry in one tradition (e.g., ethnography) are related to those of another tradition (quasi-experimental). In turn, how one goes about this integrated work and how one writes up such integrated work are described. Thus the language, cognitive processes, and value systems of those engaged in integrative designs at different levels are carefully articulated throughout the text.

Those who do research in health care settings will find a great deal of practical knowledge grounded in a sophisticated philosophical and sociological context. This should be refreshing. Those who are about to embark on doing research will not only learn how to do good work but, and perhaps more important, understand why they do what they do. Consistent with the viewpoint taken by DePoy and Gitlin, their text ends by empowering those who do the work. "Stories From the Field," the final chapter, is a powerful and constructive narrative way to know about the conduct of research.

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PREFACE

Our main purpose in writing this book is to share with the student, helping professional, and beginning researcher our enthusiasm and passion for conducting research in health and human services. We hope this book demystifies the research process and provides helping professionals with a foundation from which to critique and understand the research designs and their applications to health care and human service settings.

You may well ask, Why another research text? The health and human service professions stand at the crossroads of many important trends and changes in the delivery and financing of services to clients, their families, and the community at large. Underlying these trends is the growing recognition of the importance of research to develop, refine, and validate the knowledge base from which effective professional practices develop. Helping professionals have increasing demands on their time to either initiate research projects, participate as members of interdisciplinary research teams, or to critically understand research articles and findings in their respective professional journals. Also, new directions in health and human services research indicate that the traditional scientific research paradigm, referred to as the rationalistic approach, quantitative approach, or experimental-type research that most students are taught, represents only one appropriate way of developing and testing knowledge. Another emerging approach is referred to as discovery-oriented, qualitative, or naturalistic inquiry. The historic opposition of quantitative-oriented methodologies to those that yield qualitative information has limited the professional's understanding and effective use of each approach. The ongoing debate between the two schools of thought has encouraged the idea that one method is more valid, correct, or scientific than the other. Rather than participate in the philosophic debate, many researchers currently encourage the use of multiple methodologies and the integration of approaches to understand the diverse realities of client groups, health care, and human services.

Students, professionals and researchers need a text to prepare them for these exciting transformations in research in the health and human service

fields. This book provides the reader with a comprehensive understanding of how researchers think and act in both naturalistic and experimental-type social and behavioral research and how such distinct design strategies can be integrated to advance the level of knowledge that one obtains. The reader will learn how to critically evaluate, implement and respect each research strategy from its own philosophic perspective, thinking process, and specific actions that engage the researcher.

We firmly believe that to answer the complex questions and concerns that emerge in daily practice, helping professionals need to understand, appreciate, and feel comfortable with the range of philosophic and methodologic traditions and the application of multiple design strategies to the health care setting.

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Part I

PHILOSOPHICAL FOUNDATON OF RESEARCH

Welcome to the world of research! For us, conducting research is one of the most challenging, creative, and intellectually satisfying professional activities. We believe that research is a professional responsibility. To develop and advance knowledge from which to base practice is essential if we, as health and human service professionals, are to provide services that enhance the quality of life of our clients and patients.

This text is divided into three major sections: Part I, "Philosophical Foundation of Research"; Part II, "Thinking Processes of Research Design"; and Part III, "Action Processes of Research." The sections move from an understanding of the philosophical foundations of the thinking and actions of researchers, to examining the language and thinking of researchers using diverse world views, to implementing a series of actions to obtain knowledge to answer your research questions.

We begin in Part I with our definition of research, a discussion of the forms of human reasoning, and an examination of the philosophical foundation of research designs and the types of designs that emerge from different world views. Knowing the philosophical base of the thinking and actions of researchers will enable you to understand and use the full spectrum of designs in your research.

We view research as a purposeful activity that can be accomplished in numerous ways. We have developed a conceptual framework to capture the multiple systematic strategies that health and human service professionals can use to generate or contribute to knowledge. We call this framework the

"continua of research" and present a visual model of it in Chapter 2. The framework organizes our discussion of each thinking and action process that we present in this text. We have found it to be a useful and effective way of conceptualizing the world of research and have used it extensively in our own teaching and research. We hope this framework and book will be a valuable guide as you conceptualize and conduct research that serves your purposes and contributes to theory and practice in a thoughtful, creative way.

1 Introduction: Research as a Way of Knowing

- **Why is Research Necessary?**
- **What is Research?**
- **Assumptions of Our Approach**
- **How to Use This Text**

WHY IS RESEARCH NECESSARY?

A 74-year-old woman with a fractured hip will shortly be discharged from rehabilitation, but appears unmotivated to use the self-care techniques you taught her. You wonder if rehabilitation has been effective and what her future functional capabilities will be on her return home.

You have just learned how to use a new tool to assess functional status in children. You wonder if this instrument is more accurate and useful than previous assessment instruments you have tried.

An interesting research article describes an effective discharge planning procedure for cognitively impaired adults. You wonder if you should implement these planning procedures in your own department.

You are initiating a new program in your professional practice to prevent low back injury in Hispanic migrant farm workers. To date, no existing prevention strategies have been effective in reducing the incidence of low back injury in that population. You want to know why traditional approaches have failed and how to develop an appropriate knowledge base from which to develop effective programs.

Helping professionals routinely have questions about their daily practice that are best answered through *systematic* investigation, or the research process. An important reason for conducting research is that it is a sound way to obtain scientific knowledge about the specific practice problems you may routinely experience.[1] A second important reason to participate in research is that this activity has become critical to the scientific advancement of your practice. In the

health and human service arenas, the fundamental goal of research is to contribute to the development of a scientific body of knowledge of a profession. Research contributes to this goal in three basic ways. First, it generates relevant theory and knowledge about human experience and behavior; second, it develops and tests theories that form the basis of specific practices and treatment approaches, and third, it validates professional and health service delivery practices.[2]

There are other important reasons why you need to understand and participate in the research process. The knowledge we obtain through research is critical in guiding legislators and regulatory bodies about the best possible health and human service policies and services. Federal regulatory agencies and other fiscal intermediaries base many of their decisions and health and human service practice guidelines on empirical evidence or the knowledge generated through the research process.

It is also important to comprehend the research process to participate in research activities in your practice setting. In many health and human service settings, it is an expectation that professional departments participate in advancing the research goals of the institution. There are many diverse roles you may have as a member of a research team. You may initially want to participate in the process as a data collector, chart extractor, interviewer, provider of an experimental intervention, or recruiter of clients into a study. These are all excellent, time-limited roles to learn, first hand, the art and science of the research process. When you feel more comfortable and gain some experience with the process, you may want to serve as a project coordinator and be responsible for the coordination of the detailed tasks and daily activities of a research endeavor or as the co-investigator and assist in the conceptual development, design, implementation, and analytic components of a study. Finally, if you are really hooked on research, you may want to be a principal investigator and assume responsibility for initiating and overseeing the scientific integrity of the entire research effort.

It is becoming increasingly necessary for you to become a critical consumer of the growing body of research literature published in professional journals. Understanding research will provide you with the necessary skills to determine the adequacy of research outcomes and their implications for your daily practice.[3] The knowledge gained from research by you and others has the potential of improving the quality of life of the people that you serve—your patients or clients.

Finally, as helping professions engage in the research process, they not only contribute to the development of knowledge and theory and the validation of practice but also advance and refine the research process itself and its applications to professional issues. Health and human service professions involved in research today have been making significant contributions to the evolution of research methods.[4–7] Nevertheless, helping professionals are often hesitant to engage in research because of their unfamiliarity with and

misconception of the process. Research is challenging, exhilarating, and very stimulating. However, just like many other professional activities, at times it can be time consuming, tedious, and frustrating. Both the challenge and the frustration emerge from research not being a simple activity, especially in health and human service domains. The complexity of both human behavior and the service environment, whether in the home, community, outpatient clinic, institution, or legislature, presents a different set of challenges for the researcher than other research settings and social research issues. Throughout this book, we will discuss the specific dilemmas and design implications posed by research conducted by helping professionals.

WHAT IS RESEARCH?

Research is not owned by any one profession or discipline. It is a systematic way of thinking and knowing and has a distinct vocabulary that can be learned and used by each helping profession.

There are many definitions of research, ranging from a very broad to very restrictive understanding of the research endeavor. A very broad conceptualization suggests that research includes any type of investigation that uncovers knowledge. On the other hand, a formal and more restrictive view, such as that offered by Kerlinger,[8] defines scientific research as "systematic, controlled, empirical, and critical investigation of natural phenomena guided by theory and hypotheses about the presumed relations among such phenomena [p. 10]. Whereas a broad definition includes any type of activity as research, Kerlinger's viewpoint implies that the only legitimate approach to scientific inquiry is that of hypothesis testing.

In contrast, in this text we define research as:

> multiple, systematic strategies to generate knowledge about human behavior, human experience, and human environments in which the thought and action process of the researcher are clearly specified so that they are logical, understandable, confirmable, and useful.

This definition is unlike the one offered by the restrictive view in that we recognize the legitimacy and value of many distinct types of investigative strategies. It is also unlike the broad inclusive approach in that our definition clearly delineates the boundaries between research and other forms of knowing by establishing the four listed criteria: logical, understandable, confirmable, and useful. Let us examine the three major components of our definition.

Research as Multiple Systematic Strategies

The first component of our research definition recognizes the value of varied systematic strategies to understand the depth and range of research questions

TABLE 1–1.
Major Differences Between Naturalistic Inquiry and Experimental-Type Research

Domains	Naturalistic	Experimental Type
Epistemology	Multiple realities	Single objective reality
	Multiple epistemologies	Single epistemology
Primary thinking process	Inductive	Deductive
Purpose	Reveal complexity	Predict
	Uncover meanings of human experience	Explain
	Theory generating	Theory testing
Context	Natural setting	Controlled setting

asked by helping professionals. Our definition states that there is not one valid scientific methodology but many from which to examine complexity from multiple perspectives. These multiple research strategies have been categorized as either "naturalistic inquiry" or "experimental-type research." Each research strategy is founded in a philosophical tradition, follows a distinct form of human reasoning, and defines and obtains knowledge differently. In Table 1–1, we have summarized the major differences between these traditions in terms of their epistemology, or way of knowing. In Chapter 2 we explore these different philosophical traditions and the implications for research for the helping professional. We also suggest a third design category that combines both traditions, which is called "integrated designs."

Research as Thought and Action Processes

The second important component in our definition of research refers to thought and action processes. By thought and action processes we mean the different ways of reasoning and specific series of actions that distinguish naturalistic and experimental-type investigators in the conduct of their research. Experimental-type and naturalistic research strategies are founded in two distinct forms of human reasoning: *deduction* and *induction*, respectively.

Deductive Reasoning

Experimental-type researchers use deductive reasoning and begin with the acceptance of a general principle or belief and then apply that principle to explain a specific case or phenomenon. This approach in research involves "drawing out" or verifying what already is accepted as true.[9] For example, a researcher may start from the theory that caregiving involves ongoing stress and that health problems emerge when such stressors as inadequate knowledge of care strategies, years in caregiving, and few social supports are present. Accepting these principles as true, the deductive researcher is interested in testing the effectiveness of a series of interventions to reduce stress in caregivers as a means of improving their health status.

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