

NURSING RESEARCH
in the
PHILIPPINES:
a SOURCEBOOK

Phoebe D. Williams

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Phoebe A. Dautz-Williams, Ph. D., R.N.

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FOREWORD

The publication of this volume: *Nursing Research in the Philippines: A Sourcebook* is a welcome addition to the research production of the University of the Philippines, in particular, the Health Sciences Center. It comes at a time when there is an urgent need for more research information on the problems, programs and other activities within the nursing profession.

While the studies put together in this publication *per se* fulfills one of the principal functions of the University, namely, research, its greater significance lies in providing information that can serve as basis for rational policy formulation and implementation most especially with respect to nursing as one of the disciplines in the health sciences.

Among our colleagues in the area of nursing education, this publication will lead to the enrichment of perspectives. I am confident that the studies covering patient care, nursing administration, nursing education and others would trigger off a whole new effort at reexamining the internal coherence of our goals and programs in nursing education including the relevance of these to the national goal of improving the quality of life of all Filipinos by the year 2000.

In a sense, the nursing profession is now undergoing a crisis of credibility as many feel that most of the nurses we produce seem not to care to serve their own people. Only a few of the studies are directly concerned with meeting this crisis, but in the final analysis, the entire volume demonstrates the seriousness and the resolve of people in nursing education to confront the various issues related to the profession.

The researchers represented in this volume thus deserve the highest commendation. The same goes to the editor who, by the effort, has managed to share significant research results with those concerned with nursing education and the public at large.



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PREFACE

This book is a compendium of original researches done in nursing and other related aspects such as behavior in health and illness, done by Filipino nurses, in a Philippine setting.

Part I consists of original research reports using various designs, done in the broad areas of patient care, nursing administration, nursing education, and related areas. This section provides undergraduate nursing students some concrete examples of studies done in nursing and some research tools which have been found useful. It also provides the graduate student, the practitioner, the clinical specialist, the nursing administrator and the nursing educator some hypotheses which could be investigated further, as well as some concepts which could be implemented in patient care. Examples of various research designs such as experimental research, methodological research, survey research, retrospective research, and case study are shown in the original studies included in Part I. As much as possible, the specialty areas in Maternal-Child, Community, and Adult Health Nursing were represented.

Part II consists of a compilation of abstracts of studies done from 1935 to 1980 by Filipino nurses. Among others, it tells us which areas have been repeatedly studied and which ones have been barely touched by empirical research.

Because of its comprehensive nature, the book is useful to the research student, the research practitioner, and the practitioner-researcher. It answers a long-felt need to integrate existing studies and research resources in nursing in the Philippines, for dissemination to end-users, namely, nurses.

Phoebe D. Williams

To Myrna, Linda, Nita, Fe, Mila, and many others. The torch is lit . . . carry on . . .

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PART I

**ORIGINAL RESEARCH
REPORTS**

INTRODUCTION

The Scientific Method, Research, and Nursing*

Phoebe D. Williams

What is science? At base, all science is aimed at understanding the world around us. A given activity is called scientific more or less depending on how closely it approximates certain characteristics of science, namely: 1) science is logical, 2) science is deterministic, 3) science is general, 4) science is parsimonious, 5) science is intersubjective, 6) science is open to modification (3;10).

Nature of Science, Research, and Nursing

Notable and respected international leaders in nursing who are accomplished researchers in their own rights have voiced similar sentiments about research, the scientific method and nursing. To cite a few:

"... if we are to achieve full recognition as a profession, we must focus more on research"
—Lucille Notter (13, p. 760)

"... systematic inquiry is essential not only to survival of the nursing profession, but also, and more important, to the well-being of those who are served by nurses . . . Practice disciplines . . . need to develop their unique bodies of verified knowledge, and professionals need to evaluate and use this knowledge in practice . . ."

—Rozella Schlotfeldt (14)

"... a profession needs at least 1% of its active members prepared to do research."

—Faye G. Abdellah (1, p. 11)

"The science of nursing is emerging slowly and painfully as a result of both inductive and deductive methods of investigation and as a result of a growing number of discrete and collaborative studies that are only now becoming part of our general awareness. The importance of a body of knowledge to nursing . . . is critical to the understanding of our practice, and will foster in nursing the development of an accountability of and to science."

—Susan Gortner (7, p. 764)

"... accountability in the practice of nursing becomes quite similar to the kind of commitment that a scientist makes when he chooses a problem for investigation and lays out the plans that will lead to its eventual resolution. Because, to be pre-disposed to scientific activity, one must have a deep interest in the subject matter, a continually questioning mind, a consideration and reconsideration of each set of findings as they unfold, a detachment to avoid the prophecy of self-interest or self-fulfillment, and a good deal of intellectual and personal honesty."

—Susan Gortner (7, p. 765)

Prior to 1950 in the United States, research efforts for the most part were few and far between. The few studies which were conducted (e.g. for the improvement of nursing education) offered recommendations which were not implemented, or took a long time to implement (13,

*Modified from papers delivered at a seminar-workshop on The Teaching of Research, sponsored by the Philippine Nurses' Association, February 24, 1977, Manila; and a seminar in Nursing Service Administration (Topic: Utilizing Research to Improve Patient Care) sponsored by the UP College of Nursing on October 30, 1979.

p. 760). For example, recommendations in Esther Lucille Brown's report, *Nursing for the Future* (5) written in 1948, were not even partly implemented until 1965 when the American Nurses Association wrote a position paper on some of Brown's proposals. Notter further notes that most of the early researches in nursing were "primarily interested in studying procedures, or conducting time and motion studies rather than studies in nursing care." (p. 760)

The output of nursing studies has steadily increased over the past two decades and promises to accelerate as increasing numbers of nurses are prepared to conduct research. (6, p. IX) The journal *Nursing Research* is now over its 25th year, and has served as one of the major means by which nursing studies have been brought to the awareness of nursing practitioners and the scientific community, and in the process, has encouraged researchers to conduct research and communicate their findings.

Another major factor in the flourishing of nursing research in the U.S. is the active support which the federal government has given it. This support came in various forms, including direct grants to individual or group studies, funding of graduate programs (masteral and doctoral) of schools of nursing across the country, scholarship grants to many deserving graduate students, etc.

Other contributory factors include (1) the increasing knowledgeability and sophistication of American health service consumers, thus making demands on the continued improvement of quality of nursing (and medical) care, and (2) the continued fast expansion of knowledge and technology, coupled with the shortage in nursing manpower, which has sparked the evolution of the so-called expanded nursing role wherein much of what used to be the domain of medicine has been taken on by appropriately prepared nurses.

One gets the impression therefore that nursing research in the U.S. is at an all-time high. Relatively speaking (for example, compared to the Philippines), this is true. Nevertheless, vigilant nursing researchers and leaders (8, p. 382; 13, p. 761) have pointed to the lack of research output (after graduation) of majority of nurses who complete graduate degrees, whether masteral or doctoral. For example Jacox states, and this may well apply to us in general:

"Most of the research reported at national conferences and in the nursing literature has been carried out to fulfill degree requirements and, once the degree has been achieved, only a few nurses prepared at the masters and doctoral levels continue to conduct nursing research". (p. 382)

The reasons given for this state of affairs are all too real for all of us. There is the clinical specialist who gets "quickly caught up in the pressure to meet the ceaseless daily demands of the hospital some of which relate to nursing care and many that serve primarily to keep the organization running." Then there is the nurse-teacher who "finds that practicum hours, formal teaching, and meetings fill up their work schedules, and leave little time or energy for professional development and research." There is also the administrator who gets endlessly entangled with management chores to do any research.

Jacox has warned, and again it is all too real for us: "The consequence for nursing of this concentration on practice, coordination of hospital activities, and teaching, to the exclusion of research and professional development, are serious. Much of what is taught to students remains in the realm of untested theory and of nursing approaches that have not been systematically examined. Far too much of clinical nursing practice is still based on intuition and rituals (otherwise known as procedures). New graduates learn quickly that they are expected to follow established rules and procedures, rather than to experiment with new approaches to patient care. Even when students are successfully socialized into accepting the professional value of a scholarly questioning approach to the practice of nursing, they find little support for this value in the practice setting." (p. 382)

A number of problems beset the nurse-researcher or the would-be researcher. They are

mentioned here, not to discourage the would-be researcher but to suggest ways in which these problems could be resolved. I do believe that without "support systems", it would be difficult to generate commitment to research among nurses.

Three problem categories in research-making include (1) problems related to the aspiring researcher, (2) problems related to the setting in which the research is carried out, and (3) problems inherent in the type of research done (8, pp. 283-4). the first category includes the following: lack of time to do research, role conflict between doing research and giving patient care, and lack of the necessary knowledge to do independent research and ignorance about resources which may be helpful in conducting the proposed research project.

Included in the second category are: the resistance which may be shown by nursing colleagues; the lack of appreciation (and hence the provision of the needed support) of nursing service administrators of the need for research; the need to gain permission to conduct the study from administrators, physicians, etc. The third category of problems, taking clinical research as an example, include: the inavailability of the type of sample needed (perhaps within the time constraints of the study); the limited number (or perhaps total lack) of valid and reliable measures of clinical phenomena e.g. anxiety; the deliberate attempts of sample subjects to fake or cover up; the difficulty of controlling extraneous variables.

To remedy the first category of problems, the aspiring researcher first equips herself with necessary knowhow in research-making. In addition, she seeks and gains access to expert knowledge, which may be multidisciplinary at times, when she needs it.

Administrative support for nursing research can be shown through (1) the recognition of the value of research effort and therefore consideration of time spent to do research as legitimate use of the nurse's time, (2) the provision of material resources such as supplies, equipment, and perhaps also computer time, and most importantly, (3) supporting the implementation in nursing practice of those relevant findings derived from clinical research.

Critics, too, could be supportive of researchers. As Jacox (8) puts it: "It is much easier to criticize than to do. While critiques are an exceedingly useful way to improve research, they must be done with a sense of constructiveness and realism." (p. 384) Citing the cliché, "The perfect is the enemy of the good", she asserts that "if the researcher waits to start until she has a perfect design, she may never start. There has to be a careful balance between rigorous research and realistic expectation." A highly experienced nursing researcher, Jacox (8) gives a number of actual problems in clinical nursing research which she had met in the past, and the ways in which she resolved these problems. These are good examples of the accountability and commitment to science, the continually questioning mind, the intellectual and personal honesty, etc. which Gortner was referring to in an earlier quotation. As a final reminder, Jacox (8) says: "It is a matter of starting some place . . . the more experience a nurse has in research, the more she learns about it" (p. 385).

Notter (13, p. 763) meanwhile echoes the need for more replicative studies, more postmasteral or postdoctoral work. This pertains to the continued engagement in research among nurses who complete their masters or doctoral degrees along the lines studied in their respective dissertations/thesis, such that an ever expanding aspect of the problem is studied. For example, Jean Johnson, an individual researcher, continues to work on various aspects of the pain phenomenon until the present time.

Notter (13) also stressed the need for more service agencies to develop clinical research programs which encourage staff participation in research. Gortner (7, p. 365) has made the observation that several care institutions in the U.S. are drawing more than enough applicants for staff positions, (while other institutions do not have enough applicants) apparently because of the job satisfaction the nurses felt in the scientific approach to giving care. Among those mentioned were: Loeb Center for Nursing in New York City; Luther Hospital in Eau Claire, Wisconsin; City of Hope Hospital in Los Angeles; Rancho Los Amigos Hospital in Downey,

California; and many of the large university medical centers across the country.

In addition, Notter called attention to the need for clusters of studies, whether by consortia or by groups of faculty and their students, or by groups consisting of faculty and service agency representatives. She also voiced the need for more research based on theories consonant with nursing's domain of responsibility. Rozella Schotfeldt (14) also focuses on this latter recommendation when she said:

"The primary task of nursing research is the development and refinement of nursing theories which serve as guides to nursing practice and which can be organized into a body of scientific nursing knowledge. A concomitant task of nursing research is the discovery and development of valid means of measuring the extent to which nursing action attains its goal — these to be stated in terms of patient behavior." Similarly, Abdellah (15, p. 529) states that "a major thrust of nursing research in the seventies needs to be in the direction of model and theory development related to nursing practice."

At the Research Session of the 14th Quadrennial Congress of the International Council of Nursing (ICN), held in Montreal in 1969, the following conclusions were reached (15, p. 527):

"Patient care is the area of research which currently excites the greatest interest. Patient care and clinical research appear in 31 of the suggestions for subjects for discussion at future sessions. Assessment of patient needs or health needs of people, how to identify research problems in clinical nursing, more stress on patient care, clinical research at patient level, research in nursing care were the type of suggestions put forward."

On the basis of this, among others, Abdellah (15, p. 532) lists the following first five (of a total 16) research priorities in nursing for the seventies:

1. Studies of clinical problems related to nursing practice, especially descriptive studies of physiological and behavioral responses of patients with various diagnoses in varied settings.
2. Studies to develop instruments to measure patient care directly.
3. Studies to identify the criterion measures needed to study the effect of nursing care.
4. Studies to develop models and theories of nursing practice.
5. Studies of effects of technological advances on the functions of nursing service personnel.

On Researches in Nursing

Majority of research studies conducted in nursing are "applied" in the sense that these have specific "real-life" goals. Abdellah and Levine (2, p. 35) state that applied researches in general have four major purposes, which are interrelated, namely (1) to solve a problem, (2) to make a decision, (3) to develop a new program, product, method, or procedure, (4) to evaluate a new program, product, method or procedure.

In problem solving one assumes that there is some deficiency in present ways of doing things and that improvement can be achieved through research. In this instance research provides the appropriate facts on which to base the change. In nursing there are many problems which need solution. For example:

How much nursing care does a patient need?

How should a patient be prepared for surgery?

In decision making, research aims to provide facts upon which an appropriate course of action can be based considering various alternatives. Examples of the many questions raised of this nature include:

Is the clinical specialist needed in this hospital?

Is the team leader method of organization effective in Nursing?

Research can also be a tool in developing methods, procedures and programs in nursing. For example, currently available methods for rating nursing performance, or procedures for

forecasting patients' needs for nursing service, etc have been based on research, not mere intuition.

Finally, in evaluative research one asks the basic question, Has it made any difference to do something one way as contrasted another way? In nursing, this question can be further specified for example, as: Has the patient been helped? Has efficiency been increased? Have costs been reduced? etc.

Downs and Newman (6) use the following classification of researches, with specific examples, some of which will be mentioned here for clarity: (1) Evaluation of nursing intervention (Example — de Walt and Haines and Van Aernam's "Nursing Intervention with the Presurgical Patient — (2) Examination of health problems (Examples — Down's "Maternal Stress in Primigravidas as a Factor in the Production of Neonatal Pathology", Robischon's "Pica Practice and Other Hand-Mouth Behavior and Children's Developmental Level"); (3) Exploration of characteristics of man (Examples — Felton's "Effect of the Time Cycle Change on Blood Pressure and Temperature in Young Women"; Walike, Jordan and Stellar's "Studies of Eating Behavior"); (4) Analysis of a profession (Examples — Reinkomayer's "A Nursing Paradox", Jacox' "The Nurse Cap: A Case Study of Administration — Nurse Conflict".)

My own bias in classifying nursing studies is in terms of whether they are: (1) clinical nursing studies (2) studies in nursing education (3) studies in nursing service administration and (4) studies on general aspects of nursing such as the nature of man, the concept of health and illness. Studies in nursing education includes those on the teaching-learning process as well as those on the administration of nursing schools. Based on this classification, a survey of nursing researches done in the Philippines (12) between 1935 and 1969, show the following breakdown:

Clinical nursing studies — 12

Studies in nursing education — 30

Studies in nursing service and administration — 22

General studies — 4

Noticeably, clinical nursing studies lag much behind. Also, most of the studies have been done in graduate schools of nursing. Only a few were done by independent researchers.

All the problems in research making which were discussed earlier are applicable to the Philippines, and in my opinion, to an even larger extent than those obtaining in the U.S. We have a long way to go, so to speak.

Forums, such as your being gathered here today are useful. A different type of forum in the form of a research journal whose main function is to communicate research findings is also basic. Of note in this regard is the journal, ANPHI PAPERS. As Gortner says (7, p. 767), investigations (studies) must be nurtured, supported, and well publicized among both the scientific and practitioner communities.

I echo the sentiments of Gortner (p. 768) when she said of American nurses and American nursing:

"Given the over 800,00 RN's in this country, it would seem almost unrealistic to ask that, for each and every one of them, consideration of accountability or responsibility to and of science in nursing becomes a permeating value. And yet, unless this takes place . . . the efforts of our few investigations, fine as they are, will be worthless in improving the health state of our client population . . . (and improving the quality of nursing)."

Research and the Nursing Student: Integrating Research in the Curriculum

As Newman states (6, IX): The task translating nursing research findings into practice requires skill in evaluating the validity of the findings and their applicability to particular settings.

This skill in critical thinking is usually cited as one of the objectives of an introductory course in nursing research”.

Indeed, the training for critical thinking should start early-ideally even prior to the student's entry to nursing school. Since we don't have control of this time period however, we focus here only on the student's time of training in nursing. It is my impression that strengthening the teaching of the nursing process is an important aspect of this training for critical thinking.

Murray (11, p. 53) defines the nursing process as the systematic manner of analyzing the patient's problems, determining how to solve them, carrying out a plan of action, and then evaluating its effectiveness. The scientific method and the nursing process are almost identical in form. They are, however, different in purpose. Both involve problem solving and the two logical systems of inductive reasoning and deductive reasoning. Both make the assumption that all events (e.g. all behaviors) have antecedent causes that are subject to identification and logical understanding.

Whereas, science is general, however, the nursing process involves the explanation of an individual event. The nurse looks for answers to an immediate problem in a particular setting. Furthermore, whereas the scientist may deal only with facts, the nurse always deals with people.

Nevertheless, the nursing process embodies an approach to patient care which is closest to the scientific method. A student who is imbued with the principles underlying the process from the start of her education in nursing (e.g. in the Nursing Foundations course) is most likely to transfer her learning later to her course in research. In contrast, a student who is taught that nursing merely involves common sense, intuition, or worse, the mere execution of doctor's orders, will tend to question what is so scientific about giving care, and will be more likely to resist learning the methods of research at a later phase of her education.

The nursing process, therefore, should be made in a “way of life”, a “habit of the professional nursing student.” It should be a major common thread that runs through the nursing curriculum, from Nursing Fundamentals, to Nursing of Mothers and Children, to Nursing of Adults, to Community Health Nursing, to Psychiatric-Mental Health Nursing, etc. This will train students to sharpen their minds, to think, to be critical.

Nursing students will be the registered nurses of tomorrow. If we are to start anywhere, our best bet will be on them. Along hand is the hope that already — registered nurses will take it upon themselves to continue growing not only personally but also professionally. Updating knowledge about the research process, a continuing awareness of the research findings of others, implementing recommendations in the practice setting, and undertaking own researches are some ways of achieving this growth.

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