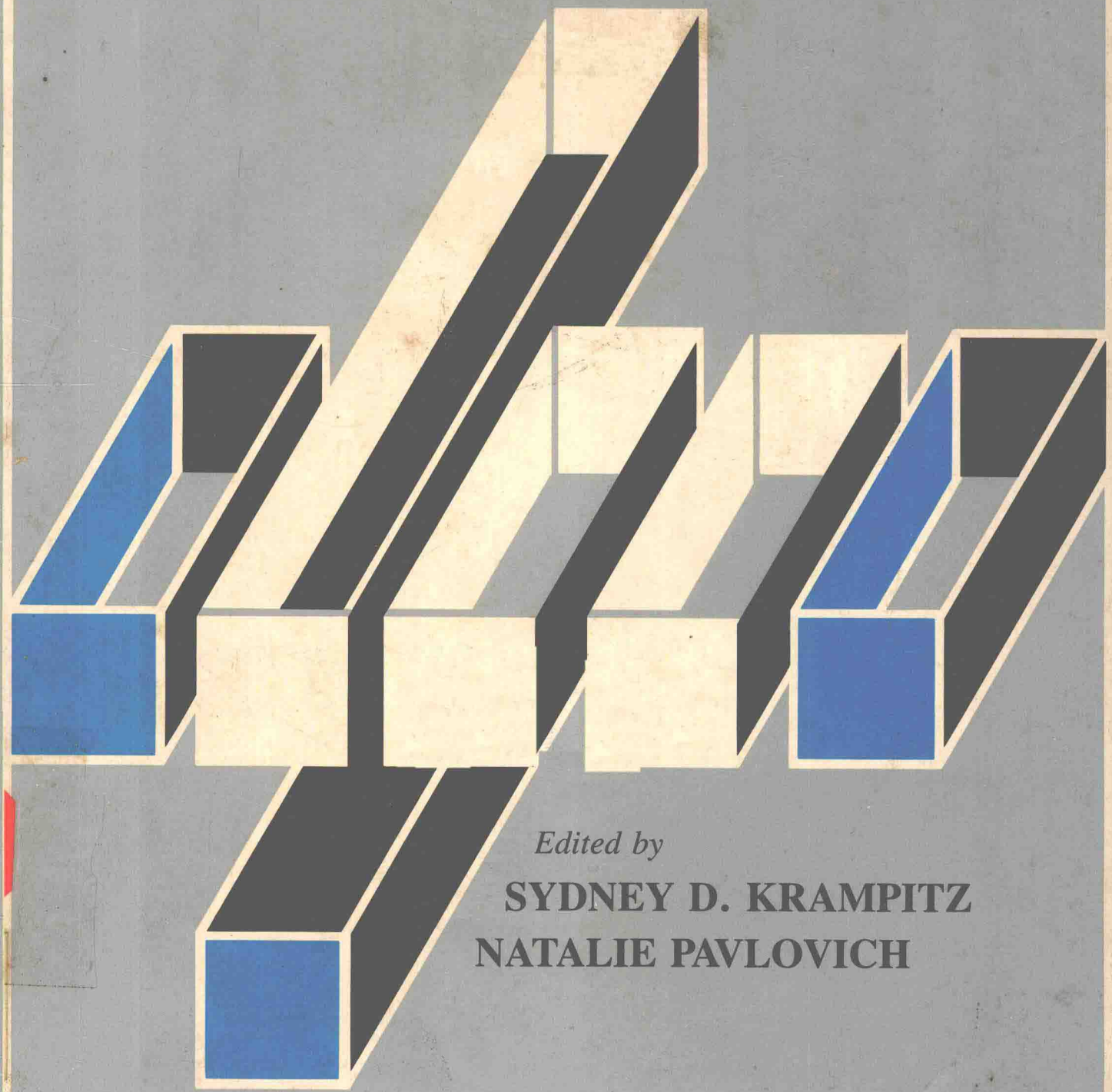
Readings for NURSING RESEARCH



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Foreword

The mystique surrounding research needs constant reclarification. The research process is contingent on someone's asking the right questions and then using the methods of science to precisely search for the answers. The wide assortment of designs possible within the logical system of scientific endeavor allows investigators a considerable degree of freedom to be innovative as long as the imaginative strategy in no way violates the canons of science.

Sydney Krampitz and Natalie Pavlovich have carefully selected the concepts most useful to the beginning researcher. Old ground has been gone over in fresh ways. The broad scope of the scientific enterprise from tight design to ethical considerations has been discussed with clarity and cogency. Students and beginning nurse researchers should find this volume very helpful as they attempt to read and evaluate the research efforts of others and as they undertake their initial investigative studies. Perhaps even more importantly it will help them begin to use the methods of science in the daily care of patients, because the management of each patient can be considered a separate miniresearch effort.

If the role of nurse socialization cannot be considered complete until the methods of science have been internalized, the authors have made a laudable effort to sensitize students to the intellectual aspects of careful, precise thinking. While art always will have a place in clinical practice, it must be a dependent variable and only modifiable within limits of the scientific process so carefully considered in this volume.

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Preface

In 1974 the American Nurses' Association Commission on Research submitted resolutions stating that nursing students should be introduced to the research process at the undergraduate level and that research should have an important part in graduate education. Since the adoption of this resolution schools of nursing have developed courses at the undergraduate level with the primary focus on the review of published research studies and the application of clinical research findings in the practice setting.

We have both been actively engaged in teaching undergraduate research courses, and in this faculty role we have identified a need for a comprehensive textbook to contain both an in-depth study of the research process and a collection of original research for student and faculty use. The current stringent copyright regulations make it imperative that material be organized and made available to students for classroom study.

In addition, although the critiquing of nursing research studies is seen by many as a beginning level competency, little has been written on the development of these critical evaluation skills. A concerted effort therefore has been made to include content related to the critique process.

A concern for the practical realities inherent in planning, developing, and implementing nursing research led to the addition of several chapters in this publication that focus on these timely issues.

The following goals have been identified: (1) to identify difficulties encountered by researchers in each phase of the research process, (2) to incorporate ethical considerations encountered in each phase of research, (3) to develop skills in critiquing a research study, (4) to provide knowledge and information that will offer practical know-how to those persons beginning research projects, and (5) to assist the reader in the application of critical thinking skills to original nursing research studies.

Although this book will be most helpful to undergraduate nursing students and faculty, it is also designed to meet the needs of practitioners in clinical settings and those persons developing continuing education programs for nurses with limited research background and experience. The organization of this book facilitates use by those engaged in independent study courses or in teaching research as a component of an integrated curriculum.

The contributors who were invited to participate in this publication are nurses and other professionals engaged in teaching, nursing practice, and nursing research. A number of the contributors are known for their expertise in nursing research; other contributors are new to nursing research, including undergraduates engaged in research. These contributors have a particular specialization view or research experience that offers a diversified perspective to the reader. Throughout the publication nursing practice has been emphasized. This is most evident in Part Four, in which the majority of the original research studies focus on clinical practice.

We wish to express our gratitude to our contributors who worked diligently to meet time limits, offered suggestions that greatly enhanced the publication, and generally saw far beyond the chapter or chapters they were writing and therefore provided continued interest and impetus; to Mr. Ronald E. Radwanski for his creativity, which is evident in the cover design; and to our families for their continued patience, understanding, and direct support.

Sydney D. Krampitz
Natalie Pavlovich

Contents

PART ONE

STEPS IN THE RESEARCH PROCESS

The chapters in this section focus on the basic steps in the research process. Chapter 1, The Research Problem, offers the reader a unique orientation to how and why one identifies a research problem. Chapter 3, Selection of a Theoretical Framework, addresses a most complex topic in a well developed and easily understood manner that makes a significant contribution to the nursing research literature.

Other unique features include Chapter 4, Hypothesis Formulation, Chapter 6, Research Design: Pilot Study, Chapter 10, Data Collection: Human Research and the Law, and Chapter 11, Data Collection: Philosophical and Theoretical Perspectives. These chapters provide the reader with new and exciting insight into the research process.

CHAPTER 1

The research problem

Mary Ann Walsh Eells

OBJECTIVES FOR THE READER

On completing this chapter the reader should be able to

1. Describe ways in which nurse researchers use their personal conceptual frameworks to identify research problems.
2. Describe ways in which beginning nurse researchers develop their frameworks.
3. Describe characteristics of conceptual frameworks.
4. Know techniques that are useful in eliciting a personal conceptual framework.

How paradoxical it is that researchers have problems finding research problems, when the mind-bending vexations of everyday life are all around us. Yet nurse researchers do. For although there is an increasing amount of nursing research pedagogy to guide nurse researchers in identifying new knowledge, the nature of nursing remains mostly obscure in terms of scientific evidence, and the work is slow in translating its powerful artforms into known truths. This is a primitive state of knowledge compared to some other disciplines. And this is partly why nurse researchers experience frustrations as they strive to identify nursing problems worthy of research. Researchers are trying to discover some of the first theories and truths of the discipline. Since there is no galvanizing theory or revolutionary discovery that would determine the directions nurse researchers should take, the approaches now in use are of considerable interest, since they may determine which truths shall be laid bare. It is possible and worthwhile to examine these approaches and to determine whether some of them are more fruitful than others.

One approach has been to place major emphasis on developing the beginning nurse researcher's persona—persona in the sense of developing the outward role of a nurse scientist rather than the internal qualities that motivate one in finding new knowledge. The nurse researcher becomes formally or informally exposed to the nursing research pedagogy, mostly the scientific method, which is one way to discover the truths of the discipline. Once the nurse's interests are identified, there is a vast literature to guide the development of a theoretical statement so that it can be rendered scientifically researchable. But not much is known about how the researcher becomes interested in one particular research problem in preference to another. Beginning researchers, in particular, undergo personally frustrating searches before a choice is made.

By focusing on the external developments of scientific skills used by nurse researchers, less attention has been paid to the individual as researcher, to the internal perspective the individual uses, and to how this internal perspective is used to formulate research problems. To find and develop research problems as productively as possible is in the obvious best interests of nursing so that truths may be found. For the researcher, however, the research problem must also have the capacity to commit a researcher's intellectual passions, arouse sustaining doubts, and discipline the researcher through a thousand permutations of the work before others can see the outward result. It must be worthy of the researcher's personal attention and commitment, though we do not know very much about how this attention and commitment is bestowed. And although the research problem is likely to be rooted in the researcher's inner desires and reflections as they become transformed by external reality, we do not know how the researcher discovers and uses inner perspectives except that they inevitably are used and that ideally the result is an original and creative act.

THE NURSE RESEARCHER'S PERSONAL CONCEPTUAL FRAMEWORK

If any nurse researchers use inner perspectives, the experienced ones probably do, simply because they have had more practice. Personal accounts of their work in the nursing literature show they do use them and that they do is not unusual. A whole tradition of literature describes the use of inner perspectives in creating and inventing, and this process is being alluded to more frequently by nurse authors although it has not yet received great emphasis. How experienced nurse researchers use their inner perspectives is of vital consequence. For what is really at stake is how nurses

are going to approach, or in fact how they are approaching, the discovery of new knowledge.

It is easy to acknowledge the importance and ubiquity of inner perspectives, but it is not easy to describe them or their use in the identification of research problems. If it were easy, researchers would have made the way easier for others by describing their use. However, we can state the characteristics of these inner perspectives and explore whether the characteristics are displayed in the work of nurse researchers even if this process can be done in only a suggestive way.

The inner perspective, which the individual uses to find new knowledge, can be called a personal conceptual framework. Polanyi (1962) developed the idea of a conceptual framework that individuals use as heuristic tools for the discovery of truths not yet known. In the Polanyi tradition we shall say that nurse researchers also possess personal conceptual frameworks and that the use of these frameworks leads to the concentration upon and development of one particular research problem in preference to another. Following Polanyi, the characteristics of these personal frameworks can be described. They provisionally represent truth, however dimly perceived. They are used in an anticipatory way and become modified as individuals work between their internal realities and external worlds, which may confirm, disconfirm, or qualify their notions of truth. In itself the conceptual framework is not good or bad, true or untrue, until it is used and proves or disproves its capacity to represent truth. In early stages of knowing this internal framework represents inchoate truth and is therefore thought to be preconscious or pretheoretical. Only later when it is transformed bit by bit does it become articulated in language and perhaps revealed to be true by evidence. The conceptual framework is also said to capture drives, needs, intentions, and past learnings and is formed by them. For these reasons it probably represents a cathexis that sustains effort. The conceptual framework is also thought to be related to several types of inarticulate knowledge such as creativity, intuition, insight, and vision.

These ideas are being elaborated on by many scientists and philosophers who are working on theories of knowledge that include, for example, theories of metaphysics and epistemology and theories of creativity, learning, and problem solving. Exactly how individuals identify their research problems, however, is not yet known. We shall explore how nurse researchers appear to use personal conceptual frameworks in the identification of their research problems.

DO NURSE RESEARCHER AUTHORS USE PERSONAL CONCEPTUAL FRAMEWORKS?

If personal conceptual frameworks exist and are used by nurse researchers, it should be possible to discern their existence and the ways in which they are given expression. For example, if conceptual frameworks are preconscious, the language used initially to describe them will be incompletely formed and verbalized. The researcher will then have to make them completely conscious and therefore more understood and useful. The presence of intuition, insight, and forgetfulness may be displayed. Since not all researchers know the origins of their sources of motivation, perhaps only purported sources will be mentioned. But on reflection a more original source may be dredged up and consciously acknowledged. If conceptual frameworks are used heuristically, changes in them will occur as the researcher uses them to work between internal reality and the external world. As preliminary notions of truth they will become modified through use to the extent they represented truth in the first place. If they are pretheoretical, they obviously will predate the researcher's theory or resulting research problem. If they represent cathexes of energy, they will sustain the work until it is completed. An ultimate criterion is acknowledgement by the researcher that such a conceptual framework indeed existed. We should be able to find some evidence of these frameworks in the work of nurse authors, although they could hardly be expected to use the term "conceptual framework."

Zderad's use of "presence"

One possible example of a personal conceptual framework is Zderad's idea of presence, which she uses as a nurse theorist in a clinical setting (Zderad, 1978). Several of the previously mentioned characteristics of conceptual frameworks are found in her descriptions of the use of presence. That it is preconscious is substantiated in several ways. She describes presence first as a fleeting awareness and later as a vivid consciousness as she becomes suddenly and profoundly aware of collective amputations of a group of patients. She claims presence is always in the back of her mind, and this sharpens her awareness of phenomena in clinical situations and is an aid to reflection when true meanings are incompletely understood. Struggle and work are connoted in her use of presence, and she alludes to sudden insights that occur and amount to a comprehension of the whole, or gestalt. Through presence the interrelatedness of otherwise chaotic and random events is understood. Zderad heuristically uses it to work back and forth "between the experiential and theoretical realms" (p. 6). For Zderad the use of presence in the clinical setting energizes and inspires her development of theory. If earlier renditions of presence existed for Zderad, they are not mentioned in other literature.

Of course there are obvious limitations to Zderad's approach, since truth is not always apparent in everyday life even in clinical practice. For example, truth cannot tell us the secrets of cells or reveal the classic mathematical principles that were discovered by reflection alone. An even more vexing problem is that presence may be too complex a framework to be proved or disproved by the available research methodology. Zderad does not impose an absurd and unenforceable demand upon the reader to follow her style.

She acknowledges that the purpose of her approach is to answer her questions and to find her answers, thus leaving other researchers to follow their own inner lights.

Paterson's use of a "happening between persons"

Paterson's (1978) account from the same clinical setting amounts to a philosophical perspective similar to Zderad's, although we can see some differences in Paterson's personal conceptual framework. Paterson names her framework a "happening between persons," and like Zderad she does not further define it except through its use. One example is an encounter with a patient named Dominic who was overwhelmed by feelings of inadequacy. Paterson understood those feelings, but she too was overwhelmed by feelings of inadequacy and was temporarily unable to use her empathic abilities. From some mysterious source she had a sudden insight that the feelings she felt were Dominic's, not hers, and she was able to overcome them enough to help Dominic modify his. It was as if she had somehow learned this before. Such a realization can be somewhat startling, since this is also the way in which known truths are applied to specific situations. That she understood the feelings differently than did Dominic can be illustrated by the example of the blind man who could be taught what a blue sky is but could never know what it is like as well as the one who sees it. Paterson's ability to overcome her feelings to help Dominic seems to have been learned and experienced in the past, later to be operationalized as a conceptual framework in new encounters.

Paterson's account adds some new meanings to the term "conceptual framework":

1. Though not immediately conscious, one's conceptual framework can be dredged up, used consciously when applicable, only to recede from consciousness again.
2. Patients possess their own conceptual frameworks that are vulnerable to modification by the nurse's superior framework when it is more developed and useful than the patient's.
3. Paterson used her conceptual framework, once it was dredged up, as if she knew it was a truth that would work.
4. Paterson, as did Zderad, shows a considerable degree of personal involvement in using her conceptual framework, thereby living her truth. The solution is therefore not trivial or contrived, even if intuitive.

It is possible to conclude that a conceptual framework was used. Even though we do not know how Paterson became committed to this framework before using it, we can appreciate the power and strength of its origins that motivated this researcher.

Wandelt's suggested use of "personally irritating experience"

The final example by a nurse author is not a conceptual framework but is advice on how to find and use one. Wandelt (1970) advises the student researcher who is searching for a viable research problem to move to a "personally irritating experience" (p. 8). She sees other approaches as unproductive and even faceless, a term that we can see means without face and without identity. Wandelt also advises researchers to take the time to write their own story as a way of identifying life experiences meaningful to them. This is one way of using free association, which can reveal preconscious themes or conceptual frameworks. Another way to use free association—freely expressing thoughts that are allowed to come to mind without censorship—is to speak these thoughts instead of writing them, since the process of writing may encourage the censorship that should be avoided.

In summary, Zderad, Paterson, and Wandelt, who are experienced researchers themselves, suggest in different ways that a personal conceptual framework is used. It seems evident that these liberating frameworks although pretheoretical and preconscious, nevertheless exist and reveal to the researchers underlying meanings and truths. They are used in an anticipatory way, fueled by unknown sources of energy that seem to impel the researchers. Some of these nurse authors suggest the use of techniques such as reflections, encounters with patients, or immersions in clinical settings that work for them in the dredging up and use of these frameworks. Understandably their topics were not concerned primarily with the origin of such frameworks, and we do not know whether they could suggest other forms of stimulation that could bring such frameworks to mind. Nor do we know what the earlier sources of their personal frameworks were or whether such frameworks, once created, survive over a lifetime or are more temporary than that.

DO BEGINNING RESEARCHERS USE PERSONAL CONCEPTUAL FRAMEWORKS?

Personal conceptual frameworks may be useful and even indispensable in the finding of research problems, but how are beginning researchers to find their personal frameworks? Experienced researchers seem to acknowledge their existence and use, but if they have forgotten the earlier origins of their frameworks, their written accounts of their research may be only partially helpful. It is worth examining whether beginning researchers also use such frameworks, what their origins may be, and whether these frameworks are different or like those of experienced researchers.

The following stories of how research problems were found are from beginning researchers who were, or are, graduate students. Their stories were elicited by means of free association and without rehearsal, verbalized by them but recorded verbatim by someone else. Like all such free association their accounts are more spontaneous than formal written language and are more revealing of meanings that are preconscious.

Betty's use of "righting whatever wrongs were done to my grandmother"

I was always interested in nursing homes and did some research with others about the quality of care in nursing homes . . . to make sure they were getting the proper care. We knew the quality of care varied, and wondered why. One reason I did it with a group is that I was apprehensive about my level of knowledge in research methodology, especially statistics, which I still don't understand. I guess I was interested in nursing homes because I had such strong feelings about my special relationship with my grandmother. She was independent—I always respected her. When she was placed in a nursing home just before she died, she took a turn for the worse. I have no objective evidence that going to the nursing home was the cause, but subtly I felt it. My grandmother stood for something. She was always sure certain things were done. She was well-spoken, believed in dressing nicely and appropriately, her home was always immaculate. She had standards. I wanted to be just like her. When I was a child staying at her house I felt, "I like sleeping in this bed." I always felt I belonged there.

When she went to the nursing home and got sicker, it hit me pretty hard. I was the only one who had to leave the room—that's how upset I was. I remember thinking, "I'm a nurse, I should be able to handle this." I guess I did my master's thesis on nursing homes to right whatever wrongs were done to my grandmother.

Betty's conceptual framework, "righting whatever wrongs were done to my grandmother," constitutes an inner perspective with very strong roots in her life experience. Now she remembers this as a powerful influence on her choice of a research problem; it was present before the problem was developed and fleetingly came to mind often during the work. Even now the complete details of the study—the conceptual framework made manifest—are not remembered without looking at the study again. Effort is required to remember any of it completely, and the whole matter recedes easily into the preconscious. In these ways the "righting whatever wrongs" framework is pretheoretical and was, and is now, mostly preconscious. But the most interesting part of Betty's story is how her past life experiences led to and accredit the grandmother framework. It is as if Betty's conceptual frameworks about her grandmother were formed early and existed all along only to be miscarried by the frustrating and painful nursing home episode. The use of the "righting whatever wrongs done to my grandmother" framework to formulate the research problem allowed the playing out of a nobler framework of transforming the wretched nursing home episode and lifting it to a higher level. The necessity of this became evident when the commission sponsoring Betty's study suggested researching instead work units and reimbursement schemes. The dominating and decisive grandmother framework heuristically underlying Betty's wish to study the quality of care won out.

Like Zderad, Betty seems to have lived her nursing theory through her research problem. Wandelt was right. Faceless research would not have been the same as righting wrongs done to one's grandmother. Now we know why. No other framework, however interesting but belonging to someone else, could have sustained Betty's research dedication. And no other framework could have avenged the sorry nursing home episode the same way by ennobling it and thus transforming it into a creative effort that added to man's knowledge for the good of all grandmothers.

Betty's experience is similar to Paterson's experience of being temporarily overwhelmed by a patient's feelings of inadequacy. When Betty broke down in the nursing home, she lived a similar type of helplessness. Is this a possible clue to how some conceptual frameworks in nursing are derived? The two researchers' experiences were felt keenly. Paterson used her knowledge of how to overcome inadequacies to help Dominic; Betty's feelings of inadequacy were overcome through her research project. It may be that more research problems than we know of are born out of life's shame and humiliation of not knowing and out of frustrations buried in the psyche that are waiting to be overcome.

Betty's use of a conceptual framework is similar to those the experienced researchers used. What is different about it is that we know its origin was in Betty's earlier life experiences.

Even more original sources of motivation predated the nursing home episode, and we can discern them in Betty's unprompted and remaining narrative that is included, because it may give us clues as to what led up to the grandmother framework. Consistent lifetime themes that could be called conceptual frameworks seem to have been developed over time by assisting the disadvantaged or helpless, by being the agent of that assistance, and by using a theme of justice in righting wrongs. These themes stem from earlier conceptual frameworks that Betty recalls spontaneously now and remembers as being related to the resulting grandmother framework.

Why did I choose nursing? Well, it was between nursing school and veterinary school, but veterinary school was too long. Ever since I was a little person, anything injured always received my attention. One of my friends once appealed to me, and I crawled under a car in the rain to retrieve a scroungy dog. I carried him home and hid him in the garage. I sneaked him food. My mother let me do this, she did not say anything. All along my feelings kept getting involved. I had to consciously keep them in check. Even now when I hear of a child being injured, I think of my daughter. Or even with Theory X, Theory Y, which is more human interest—I like to see the worker given the benefit of the doubt. In one place where I worked, the administrator had doubts about sending a nurse to a nurse practitioner program. I felt she had potential and should have a chance to prove herself. I felt it would give her a chance to mature. They did send her, and she did o.k. This outcome really satisfied me. I guess I always did want people to have something better.

Allison's use of "introduction of new siblings into families"

A second example of the early formation and subsequent use of a personal conceptual framework is revealed in the free associations of Allison, another beginning researcher who is also a teacher of nursing.

I was one of those infamous students who did not finish my master's thesis until four years after I completed my coursework. Most of the other students were assessing nursing interventions . . . taking what is known and applying it has its place, but I wanted to discover something instead. I wanted to find out more about knowledge. Because mine was not an intervention—it was more descriptive—I was worried that it would not be accepted by my professors. I was also in a panic state, since I had finished my courses and had to think of a problem to research. My first idea had been rejected . . . and for one or two years I could not find another one. But I also began to wonder about a student I was teaching who has allergies. Each time there was cigarette smoke, she got a reaction. I had also seen many children in croupettes with respiratory infections. When I went to find the parents, they were always smoking. The worse the child's condition, the more the parents smoked. Many of these children were repeat admissions. If there was a relationship between my student's allergies and passive smoking, was there also a relationship between bronchitis in these children and the smoking? With such a terribly high rate of illness in these children, I had wondered earlier whether it was possible to teach mothers home care to prevent this problem. I knew I was on the right track when I got through the literature review. I really got excited. There had been only two studies about this, one in Britain and one in Jerusalem. Why not a study in the United States?

But what I really wanted to study in the first place was introduction of new siblings into families. It is such a difficult period—a toddler with a new baby. I have seen several incidents of such introductions handled pretty badly, and I wondered whether mothers could be taught techniques so this period could go more smoothly. I even took pictures of siblings at the zoo and interviewed their parents. I made a slide show. I also started a literature review and pieced together the defense mechanisms kids use in adjusting to these problems and the consequences of different ones. My professor did not like the idea of doing the sibling introduction one. I was in a state of panic as my time to complete my thesis was running out, and because I needed the degree to keep my teaching position, which I liked very much. So after a struggle, I went to the passive smoking one. The sibling one did seem too personal. Do I remember similar incidents in my own experience? Yes, I was the middle child, caught in the middle. My older brothers disliked me—the long-awaited first daughter after five years. My younger brother and sister? Their introduction was not any better . . . for example, we were not allowed to go near the baby.

Whether it was research pedagogy taking its toll or other reasons, Allison felt that her original framework of "introduction of new siblings" was rejected, and this is instructive. What pathos is then introduced? A long delay, a painful search for yet another research problem, lost time to complete a degree, and a position in jeopardy because of the unfinished work.

However, Allison was able to come up with what seems to be a different research problem. Was this accomplished by dredging up out of the unconscious an entirely new or different conceptual framework? If so, the metamorphosis is incomplete. Allison does not even give the second conceptual framework a name, unworthy as it must have been with no deep roots in her early life experiences. But at least partly from the unconscious it surely must have come, taking as it did one to two years of struggle and work to formulate the final problem about passive smoking, even though there were other events going on in her life at the same time. Or is there a strong possibility that Allison's second research problem is not really new, but perhaps the old original conceptual framework in disguise? We can know this by looking to see whether fundamental elements of the original framework are retained in the second research problem, and this seems to be the case.

The parent who mishandles the introduction of new siblings becomes the smoking parent who unknowingly inflicts the habit on his children. The defenseless children who are the victims of their parents' mishandling of introductions of new siblings become the defenseless children victimized by parental smoking. In both cases the unknowing and confused parents could be helped with new knowledge in dealing with problems in their children if only such cases could be discovered and taught. Allison's original framework seems to have been heuristically used and made manifest in another research problem, although this took a great deal of time—one to two years. It was during this time of frustration that Allison was probably modifying the original framework to deal with passive smoking. We know that this theory is likely because of Allison's sudden insight that she was "on the right track" after the literature review. It was as if her original conceptual framework and new research problem finally fit together. Once such a match is made all the researcher's strength of motivation from an original framework can be freed for use, and probably then only to the extent that the research problem embodies the original framework. Otherwise the researcher would feel she has repudiated the original framework and part of her identity, since the original framework is so much a part of her life. And if it is repudiated, there would be no touchstone image to keep so hauntingly in the back of the mind, so constant a reminder of the worthiness and real purpose of the work.

With Allison's research we are confronted with an ethical issue related to the researcher's use of an original conceptual framework. No other person can ever completely understand the driven character of a researcher's personal conceptual framework, that it must be researched and no other. For what other framework is to be used if not the one that surely represents a personal search for truth and meaning? Since it is not easy to learn to do research, no other framework of lesser personal significance can probably sustain the first research efforts. The researcher must then use it. Others could say it is too subjective or it is unworthy be-

cause, for example, the question requires an approach other than the strict use of certain methods. But this alone could not be the reason for its rejection, since it would teach the beginning researcher the method is preeminent, not the discovery of the truth she perceives. We, whose understanding is incomplete, may not be satisfied with the existence of a personal framework, but we must accept it, if it can be verified. We do not know what the researcher knows. The researcher is the one with the deepest understanding of the personal framework. The researcher has lived it, even empirically lived it over time, and has already measured it against many situations and against the objectivity of other persons.

Delay and struggle in finding a researchable problem (i.e., one that can be tested by means of the scientific method) occurs frequently enough so that other possibilities related to the use of personal conceptual frameworks must be considered. One possibility has already been mentioned in Allison's case. The delay and frustration of one to two years may represent a considerable modification of the original personal framework as one casts about for a way to embody its truth sufficiently in a researchable problem. This unavoidably takes time. The delay can also be another type. The researcher may find the conceptual framework constitutes a broad hypothesis for which only other, but more specific, researchable hypotheses can be created. This is the case with a theory that can seldom be tested in its entirety but can be tested with specific hypotheses that may illuminate its nature and character. The researcher may be willing to reduce the original framework to this smaller type of hypothesis, because she is content to find out more even if this means only a partial answer. But she may also be dissatisfied with this solution, and it seems that especially nurses looking to explain holistic phenomena may be dissatisfied, because they realize that even when added together all the specific hypotheses and their supporting evidence may not sufficiently represent the whole and its properties. In nursing this could cause difficulty in finding which level to research. If the beginning researcher is forced to test a more specific hypothesis, it may represent to the researcher a different or lower level and unfairly and significantly change the value of the research. We will see a problem involving levels in a later account by a beginning researcher.

This is not simply a minor dilemma, because it seems true generally for other disciplines as well, that some say began from a holistic perspective only to later become converted to the scientific method (Wilson, 1977). Whether nursing will be able to solve so vexing a problem remains to be seen. Presently nurse researchers who are dissatisfied with present methodologies can search for others that may embody more completely and accurately their personal conceptual frameworks, for example, philosophical or metaphysical methods as Silva (1977) suggests. But this cannot be done out of technique and method alone. The researcher has the responsibility to describe her conceptual framework and its every nuance, so that she can find the best fit with existing methodologies and explain the limitations of those methodologies. It is in this way that whole new techniques are created.

Sue's use of "career development"

Both Betty and Allison had completed their research one year before they were asked to recall exactly how they had chosen their research problems. But Sue's story that follows was recalled immediately after her research problem was identified and even before her literature review completely refined it. The topic of her research problem is career development, a conceptual framework that seems to represent a well-integrated culmination of thoughts and life experiences with well-understood links to antecedent conceptual frameworks. Her recall was immediate and complete. It was preeminent in her mind, and there was nothing undecided about it.

My topic is career development—about choices nurses make for their careers—and whether organizations are helping nurses make them. Actually, the first topic I came up with was loneliness. I studied it last semester as a concept. Then I discarded it! I could not come up with anything as far as my thesis was concerned. I actually started with isolation, then differentiated it from loneliness, which is more in the literature. I was a good two weeks into this topic when it came to me, in a flash, why I was doing it. My husband had just left for Germany. By that time, I was handling my loneliness a lot better.

So I thought, what made me come to graduate school? It was career development, the need to talk with someone about my career—it's been absent. It turned out o.k. for me, but not o.k. for others. In staff development it's mostly inservice, but it should also be concerned about my career. This need existed before in my own life, in the army. When I expressed my job choices, it did not matter. Instead, it was determined by what the army needed and provided. When openings came up, I was supposed to be moved, but it never happened. Nobody there was interested in my career, which was funny, because they are supposed to be so interested in your career.

I was reflecting today, why did I choose community health nursing? I did not like the military hospital, it was a good way to get out. Even deciding to be a nurse, I cannot tell you a good reason why. I came in the military, because my mother read about a scholarship program they offered, and I applied. I got accepted on a fluke! I had no other means to go to school. I was only 17, and I did not realize I was signing my life away for seven years. I always sort of fell into things. I made no conscious choices. I always felt really lucky that when I got to nursing school, I liked it. At different times I thought about nursing or about being a Spanish teacher or dietitian, but mostly I thought about being a librarian. I worked in several libraries, but I had no good role models. I do not know why nursing. I was just lucky I liked it. I never had any career advice, nobody was interested.

Sue's first conceptual framework, loneliness, was only a pale, shallow, and soon-to-be-repudiated topic compared