suspect this fits in with my perspective of what I'm doing. That is, I try to do some of the testing of some of the theoretical relationships that other people have articulated. Theories can be developed using several strategies. A theory doesn't have to be produced deductively or inductively but can emerge either way. However, it's a unique individual, at least in nursing today, who can use the deductive mode to develop a theory that's useful in nursing.

ANS: What is your view of the present nursing literature sometimes referred to as nursing theory?

CD: A whole group of theories will be developed that will be usable in nursing. Again, let's compare nursing to other disciplines to find out what they plan to do and where they have gotten the fuel to feed their developing disciplines. Most disciplines usually have a whole range of theories, not just one.

One of the things I have observed in my reading is that nurses have a great deal of difficulty distinguishing between "philosophizing" and "theorizing." A great deal of the material that has been written in the name of theory development tends to be more philosophy. I see nothing wrong with developing philosophical statements, and we need them greatly. My concern is that nurses should be able to make the distinction between the two. Philosophy cannot be tested, it's simply a belief system. However, if one can begin to articulate the components of a theory to the point of being able to put these components into operation, then it can be tested.

What I'm seeing in the nursing literature is actually being implemented in reality. For instance, several of the conceptualizations or models—I have trouble calling them theories—are being immediately taken into the classroom and used as a curriculum framework. To my knowledge, a theory does not equal a curriculum framework. To me, this is evidence to support my contention that these writings tend to be philosophically based rather than theory based. This doesn't mean that these frameworks could not evolve into theories. I do tend to use the word "model" to refer to what I see in the nursing literature, primarily because I am not sure what to call them. I reserve the word "theory" for something that at least has some connecting principles that are testable.

Katherine Kendall, R.N., Ph.D., *Chief Nurse, Office for Maternal and Child Health, Bureau of Community Health Services, Health Services Administration, HEW, Rockville, Maryland:*

ANS: What actions can individual nurses take to facilitate the development of research in nursing?

KK: Of course, at the Bureau of Community Health Services, we're primarily concerned with service to mothers and children. However, we support multidisciplinary and interdisciplinary research, we encourage nurses to submit projects and proposals for research, we actually support nurses who are investigators and we have a nurse researcher on our Advisory Review Committee. We do not have a large amount of nursing research, and whatever we do support must be directly related to improving service or delivery of care. That's the whole purpose of our training and research monies; most of the money we have is directly for service. We do not grant

money for basic research—the National Institute of Child Health and Human Development does that.

Major points we are concerned with, and which I talk to nurse researchers about, are the importance and necessity of the nurse researchers accepting responsibility for getting their research findings into practice. So many researchers take the attitude that if they publish the results, those in practice must take the responsibility for implementation; but if they don't make some effort through both educational programs and direct nursing services, their research efforts may be totally lost.

Nurse researchers sometimes are not the best people to implement research findings, but they need to take some responsibility to work with nursing service and/or education. We supported one national conference which was specifically related to this. Educators and nursing service people came to learn about an ongoing research project so they could begin to think about how they could implement it, either directly in their service or in their teaching program. We're interested in that sort of thing; we have not done as much in this field as we would like.

ANS: Are the regional maternal-child health consultants in a position to help educational and research programs?

KK: The major responsibility for educational programs rests with this office, and really with my office. I have the major responsibility. However, the regional nursing consultants for those projects or programs that are funded within their region review the projects and make site visits with me or with someone else from my office and may keep in touch with the project director to keep themselves involved. In this way, the regional consultants are involved, although they don't have the major or final responsibility.

ANS: How can the people participating and delivering service facilitate the work that nurse researchers are doing?

KK: There must be a greater effort, probably on the institutional agency level and certainly on the university level, to get those nurses who are in practice concerned and aware. Since many of them are in public health or in institutions such as hospitals or clinics, they may be aware of medical research and they may be very interested in keeping up with what's going on clinically. But they may not always be aware of nursing research. The universities have considerable responsibility for stressing research through both undergraduate and graduate programs. More awareness needs to be instigated and included at the undergraduate level.

Continuing education certainly needs to bring faculty and practicing nurses together and to inform them about the new research in nursing. For example, a great many nurses in practice are aware of and are interested in mother-infant bonding. We've supported some research in this area. Nurses who are concerned with mother-infant bonding perhaps have learned about it through reading or word of mouth. Universities and continuing education programs should take greater responsibility for increasing awareness in areas such as this. Institutions and agencies need to focus on making their own staff more aware, keeping them up-to-date and helping them implement research find-

ings at appropriate times or pilot-test possible implications for practice.

Staff nurses may be frequently "turned off" to nursing research. They either don't understand the language or think it's very esoteric, or they may be anti-education. Creating a research interest or climate should be encouraged by employing agencies and by universities, together working out a plan. Clinical specialists or staffs of institutions can help in this area. We support one continuing education program [at the University of Connecticut] that is specifically geared to bringing teams from practice agencies, either hospitals or public health agencies and the teaching institutions together, to work on special projects that will improve nursing care. This is just one small effort, but it's a very important one.

ANS: Has that been successful?

KK: It's in its first 18 months; yes, we're very pleased. There was only a lukewarm interest in the beginning; but once the teams were established and once they got going, the interest of participants remained high. Their projects now range from focusing on why teenagers fail to seek early prenatal care to how can teaching of mothers on a postpartum ward be improved, after identifying specific maternal needs. It's not directly research, of course, but it is focusing on new knowledge or the need to improve service. New research findings could be implemented into such a program.

ANS: It might also be a way to stimulate people in practice to start conducting some investigation.

KK: Exactly. They could begin to look at what they're doing and begin to study it. The New England [University of Connecticut] project has done that, in fact.

ANS: Has this project helped to narrow the gap that people speak of between education, research and practice?

KK: Yes, it has. And it is true that this gap exists. Even though there are a few efforts to bring them together, it's still just an occasional effort. Nurses who want to conduct research may find little support from their teaching institutions or from their agencies. Support must come from a nurse who thinks enough of an idea and who will be committed to doing the research over and above everything else. Creating a research climate should be part of the effort in education and preparation for both undergraduates and graduates, and service people should be brought into the planning right from the beginning. You can't expect the educational efforts to be effective unless nurses in service have input to them and become aware of the activities in research. Likewise, educators should be aware of the investigation needs of the service agencies, what studies need to be done and how they can be involved in them.

Another approach that faculties can use is that of the school of nursing taking responsibility for operating a primary care clinic, which some are trying to do. Such a clinic is used, of course, as a training center for students. But it could be used at the same time for conducting studies of various problems. We need to learn more than facts about the health needs of clients. For example, what do people perceive that they need from nursing? What are their problems? We need to have a data base concerning staffing needs, costs, etc. We can't forget costs now because they can be im-

portant in looking at a whole delivery care system. We really have no hard data for planning. For example, with all the activity related to birthing centers and other forms of out-of-hospital deliveries, we have no hard figures on what out-of-hospital births really cost, let alone how predominant a practice these births are. We're considering this problem now in relation to additional research needs. We don't have hard data, but we know out-of-hospital births are a growing phenomenon.

ANS: It seems that the legal problems in terms of independent nursing practice in most states would be a real barrier to any feasible way of getting those data. If nurses can't legitimately be out in the community independently working with people who need direct nursing service, how do you get the data? The isolated efforts are not enough to get representative data.

KK: Legal questions are a considerable problem as are political issues. We know nurses have been reluctant very often to take a stand or to become involved. This needs to change. Nurses are a health professional group which could make a great difference in legislation as well as delivery of care.

Margie N. Johnson, R.N., Ph.D., *Associate Professor, Psychiatric-Mental Health Nursing, Texas Woman's University, Dallas Center, Dallas, Texas:*

MJ: I see several barriers to developing sound nursing research and to involving more nurses in research endeavors. One important barrier is that there is an extremely small number of nurses to act as role models in carrying out research and even fewer who are doctorally prepared. Nurses, in order to function as colleagues with other researchers in the health care arena, must be prepared at the doctoral level and have competence in the research field. Data show that only slightly more than 30 percent of all doctoral-prepared nurses are involved in research. Between 1972 and 1977 about 100 nurses a year received their doctorates compared with a much smaller number a decade earlier. So although the number of prepared nurses is gradually increasing, the number of those actively involved in research is still very low. The fact that some professional nurses have questioned the need for a nursing research journal represents a negative attitude toward nursing research. We, as professional nurses, must realize that the only way to improve nursing practice is through the development of a theoretical base—an information reservoir, which is best attained through systematic research investigations.

Another barrier to getting nurses involved in research is that their interests and skills are often thwarted due to impositions of their employment situations, making it difficult if not impossible to study researchable questions. Further, the opportunity to replicate studies controlling for variables that possibly influence the reliability of the original research is blocked, and therefore the excitement and enthusiasm for research activities are lessened.

In order to conduct nursing research, we must obtain control over the practice of nursing. Although this is nearly an overused statement, it is especially pertinent to any real involvement in research that would potentially influence nursing practice. A particularly frustrating situation occurs when nurses have to obtain permission from physicians to