

# Nursing Reports

Almanac October 4, 1988

Shown at left is a portion of the mural which hangs in the lobby of the Nursing Education Building. Past achievements are symbolized by the double helix of the DNA molecule which transmits an active blueprint for future generations. It also portrays the leading figures in the history of nursing and individuals peopling the first half century of the University's School of Nursing. Designed for the School's 50th anniversary in 1985, the mural is the work of Samuel Gallo.

## Caring For The Future Through Nursing Research

Nursing research contributes to the body of knowledge that guides nurses in their practice of nursing and enhances the quality of patient care as new technology and service systems emerge.

The University of Pennsylvania School of Nursing is nationally recognized for its leadership in nursing research. Its faculty represents one of the strongest cadres of nursing researchers in the country, and this was a major factor in the School's earning its designation as a World Health Organization Collaborating Center.

The faculty includes nurses who are prepared to study nursing and health care questions from qualitative, quantitative, and historical perspectives. In addition, faculty investigators have developed strong collaborative relationships with other schools on campus including Medicine, Engineering, Arts and Sciences and the Wharton School.

Opportunities for research development have been greatly enhanced by the School's Center for Nursing Research, initially funded in 1980 by the Mabel Pew Myrin Trust. The Center, directed by Barbara Lowery, EdD, FAAN, provides consultation on proposal writing, research methods, statistical analysis, computer use, and preparation of manuscripts for publication. It is one of three sites selected nationwide for training of Robert Wood Johnson Post-doctoral Clinical Nurse Scholars.

Contributions of nursing research to the health care industry are crucial to the development of the discipline of nursing and improvement of patient care. Current research shows that patient survival in intensive care units depends primarily upon well-educated professional nurses practicing independently, with excellent communication between physicians and nurses. This research has fostered the development of creative programs to recruit and retain such nurses in hospitals. Thus, the work of nurse investigators is particularly important as the nation faces a severe shortage of nurses and a decline in enrollments to undergraduate programs.

Research, such as that described below, demonstrates that nurse specialists providing quality care can save consumers health care dollars. Such studies have encouraged legislators to increase funds for advanced nursing programs and to establish the National Center for Nursing Research at the National Institutes of Health.

Research into clinical problems helps nurses maintain and enhance the quality of care they provide to patients, despite the unprecedented demands for their services. The following examples of nursing faculty research at Penn were selected to show the range of research that is shaping the health care of today and tomorrow.

—Claire M. Fagin  
Margaret Bond Simon Dean of Nursing

### Care Delivery

#### Early Hospital Discharge and Nurse Specialist Transitional Care

Research on the benefits of early hospital discharge and transitional follow-up care in the home by master's prepared nurse specialists has been the focus of a seven-year research effort by a team of nursing school faculty headed by Dorothy Brooten, PhD, FAAN, professor and chair of Health Care of Women and the Childbearing Family.

The group's efforts were furthered this spring when the School of Nursing received a research program grant to extend their work.

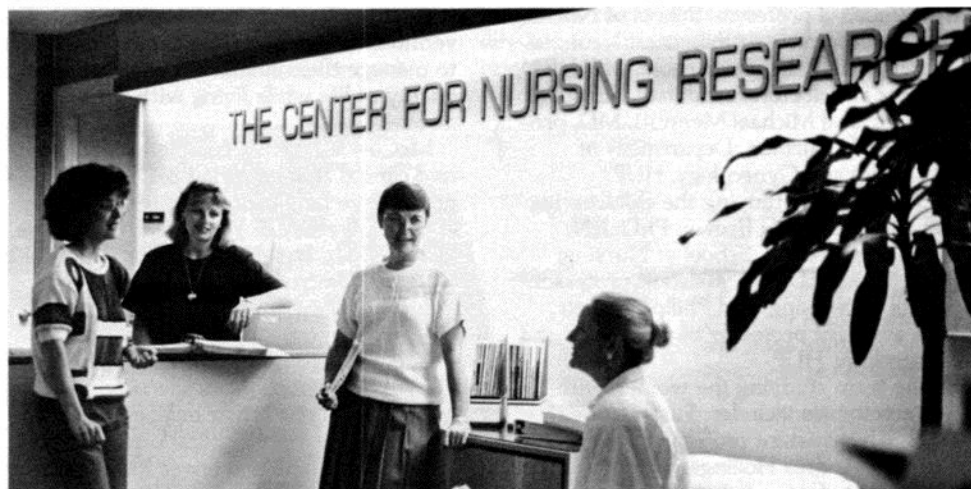
The newly awarded \$1.3 million National Institutes of Health grant studies three patient groups who, nationally, are being discharged early from the hospital—women with unplanned cesarean births, childbearing diabetics, and hysterectomy patients.

Using the team's quality-cost model of early discharge and transitional follow-up care, nurse specialists begin working with patients while they are hospitalized, preparing them for discharge.

Following early discharge, nurse specialists make a series of home visits and telephone calls. They are also on call for patients seven days a week to answer their questions and concerns.

Using the model, patient outcomes such as rehospitalization, morbidity, affect, self-esteem, satisfaction with care and cost of care are compared between patients discharged early and those discharged routinely.

The study is timely and important for several reasons, Brooten noted. Because the high cost of health care has caused hospitals to reduce the length of time patients are hospitalized, transitional follow-up care in the home is needed in some groups to assure that patients receive all care necessary for recuperation. The research also provides a model of



Doctoral students Susan Bakewell-Sachs and Lauren Arnold meet with Dr. Ruth McCorkle and Dr. Ann O'Sullivan in the School of Nursing's Center for Nursing Research.



*Dr. Dorothy Brooten consults with Dr. Ruth York, Dr. Linda Brown and other investigators on the research team about the nurse specialists who will work with the three patient groups on the study—women with unplanned cesarean births, childbearing diabetics and hysterectomy patients.*

transitional follow-up care using master's prepared nurses who have advanced practice skills in the care of the patient groups they are following.

The team's quality-cost model of early hospital discharge and nurse specialist transitional home follow-up care was developed at Penn in 1981. It was used in 1982 with home visits to high risk infants who were discharged early from the hospital. That original study, headed by Brooten with a team of Penn nurses and physicians, was published in the *New England Journal of Medicine* and established a national model for transitional care programs.

Each of the patient groups in the present study—women with unplanned cesarean births, childbearing diabetics, and hysterectomy patients—is beginning to experience earlier discharge as hospitals attempt to control costs. While earlier hospital discharge has potential advantages for these three groups, it also has many potential disadvantages—physical and psychological complications may go undetected at home unless there is adequate and appropriate follow-up care.

The patients selected for this study represent important groups since large numbers of women are affected by these events annually.

Cesarean deliveries represent 23% of all births, and many are unplanned emergencies. These women are at risk for postpartum physical and psychological complications including increased risk of infection, anxiety, depression, hostility and lowered self-esteem.

Women with diabetes during pregnancy represent over 100,000 deliveries a year.

These women are also at risk of infection, hypoglycemia, anxiety, depression, and poor infant outcomes. They are often hospitalized during pregnancy for blood glucose elevation, stabilization and control. Education regarding the interacting effects of pregnancy and diabetes and potential complications is a necessary part of their home follow-up care.

The group of women having hysterectomy surgery—more than 600,000 annually—is at risk for postoperative complications including infection, urinary tract dysfunction, depression, and alterations in self image and sexuality.

The overall research on the three patient groups will be headed by Brooten and she will also be a member of the team studying the cesarean group. On this team with Brooten are: Marianne Roncoli, PhD, RN, associate professor, School of Nursing and clinical director, Obstetrical/Neonatal Nursing, HUP; Lauren Arnold, MSN, RN, lecturer and doctoral candidate, School of Nursing; and Michael Mennuti, MD, professor and chairman, Department of Obstetrics and Gynecology, HUP.

On the team studying the childbearing diabetics are: Linda Brown, PhD, RN, assistant professor, School of Nursing; Ruth York, PhD, RN, assistant professor, School of Nursing; and Philip Samuels, MD, assistant professor of Obstetrics and Gynecology, HUP.

The team studying the women with hysterectomies includes: Susan Cohen, DSN, RN, assistant professor, School of Nursing; Andrea Hollingsworth, PhD, RN, assistant professor, School of Nursing; Mary Rubin, MSN, RN, clinical nurse specialist of gynecologic oncology, doctoral

student, School of Nursing; and John A. Carlson Jr., MD, associate director gynecologic oncology, associate professor obstetrics and gynecology, HUP.

Barbara Munro, PhD, RN, associate professor at the School of Nursing, is associate program director of the research effort. Barbara Jacobsen, associate professor in the School of Nursing, will conduct the statistical coordination among the three study groups. Steven Finkler, PhD, of New York University, who worked with the team on the earlier research, is the economist on the study.

### **Follow-up Home Care for Patients With Cancer**

The effects of follow-up home care on cancer patients is the focus of a study undertaken by Ruth McCorkle, PhD, FAAN, professor, School of Nursing and co-investigator Karen Buhler-Wilkerson, PhD, RN, associate professor, School of Nursing. The study, funded by the National Institutes of Health National Center for Nursing Research, involves 400 patients with lung, breast, prostate, head and neck, gastrointestinal, colorectal or gynecological cancer.

The investigators targeted people at high risk for problems after discharge from the hospital and are looking at a culturally mixed group, including blacks, Hispanics and Asians. The patients and spouses are being interviewed on three occasions over a six-month period to see how their responses to illness and treatment change over time.

To date, the investigators have enrolled 96 patients recruited from six area hospitals—HUP, Fox Chase Cancer Center, Presbyterian Hospital, Temple University Hospital, Thomas Jefferson University Medical Center, and Graduate Hospital.

During the study, they will look at the differences in referral patterns across hospitals, including the type and duration of home care services and reasons why home care is initiated and terminated. McCorkle and Buhler-Wilkerson will use this information to plan and develop nursing interventions to maximize the patients' ability to manage their illness and improve the quality of life while living with their disease.

McCorkle recently completed a randomized clinical trial involving patients with progressive lung cancer and their spouses at the University of Washington in Seattle. In that study, patients with lung cancer were randomized to three different programs of follow-up care, including home care.

The findings indicated that patients who received home care from specially-trained nurses maintained their independence longer, had fewer complications, were less symptomatic, and had fewer hospitalizations than those who did not receive home care. Similar hypotheses will be tested with patients in Philadelphia.



## Disease Prevention and Detection

### Guidelines For Counselors Of Sexual Assault Victims At Risk For AIDS

Sexual assault victims may be at risk for AIDS, and Ann Burgess, DNSc, FAAN, van Ameringen Professor of Psychiatric Mental Health Nursing, is establishing guidelines for counselors to follow on how to explain to victims that they may be exposed to the AIDS (HIV) virus.

With funding from the National Institute for Mental Health, Burgess, assisted by Christine Grant, PhD, RN, will develop guidelines to train counselors on how they can ethically and therapeutically intervene in cases involving child, adolescent and adult sexual assault.

In a related project, Burgess and Grant will develop guidelines for the HIV testing

of sexual assault victims. The NIMH has funded the study in conjunction with the NIH National Center for Nursing Research.

Among the considerations of the study will be: which victims should be tested; which perpetrators should be tested; whether results of the test should be confidential; and what counseling and health education should be provided for the victim.

Both sets of guidelines that Burgess and Grant develop will be made available to a multi-disciplinary audience such as nursing, medicine, social services, mental health and law enforcement.

### Studying Twins to Identify Children At Risk for Cardiovascular Disease

In an attempt to identify the genetic and environmental influences on the emergence of risk for adult-onset cardiovascular disease, Laura L. Hayman, associate professor and section head of Nursing of Children, is studying twin children and their parents.

Co-investigators for the study, which is funded by the National Institutes of Health National Center for Nursing Research, are: Paul M. Coates, PhD, research associate professor of pediatrics and co-director of the Lipid-Heart Research Center at Children's Hospital of Philadelphia, and Janet C. Meininger, PhD, RN, associate professor of nursing and epidemiology at the University of Texas Health Science Center at Houston.

A total of 120 twin-families in two panels will be followed in this four-year longitudinal study. The first panel is a subset of the six to eleven year-old twins and their parents who were assessed as part of phase I, a prior cross-sectional study conducted by the same team of investigators.

A major aim of phase I was to determine the genetic and environmental influences on physiological (systolic and diastolic blood pressure, lipids and lipoproteins, obesity) and behavioral (Type A behavior and its components) risk factors for cardi-

ovascular disease.

In phase II, the interrelationships among these biobehavioral risk factors and their stability over time will also be investigated while accounting for changes in lifestyle factors such as diet, smoking, and physical activity.

Other specific aims include: modeling developmental changes in risk factor profiles as children move through adolescence; partitioning the genetic and environmental sources of co-variation among risk factors; and examining parent-child similarity on the Type A behavior pattern and specific components of it.

Phase I results were presented at the Sigma Theta Tau International Research Conference, Edinburgh, Scotland (July, 1987), the American Nurses' Association Council of Nurse Researchers, Washington, D.C., (October, 1987), and the Sigma Theta Tau National Research Conference, San Francisco, (November 1987). They will also be published in forthcoming issues of *Nursing Research*.

These results will guide nursing practice in the identification of high risk children and will contribute to the knowledge base for clinical nursing practice decisions directed towards cardiovascular disease prevention.

## Patient Care

### Nursing Consultation In Radiation Therapy

The effects of nursing consultation sessions on patients receiving radiation therapy is being examined by Gloria A. Hagopian, EdD, RN, associate professor of Oncological Nursing at Penn's School of Nursing and Faith Norcross-Weintraub, MSN, RN, clinical coordinator of Radiation Oncology at HUP.

Their study will explore whether structured nursing consultation sessions will decrease anxiety, facilitate coping, and promote positive health outcomes among those receiving radiation therapy for cancer.

Approximately 60% of all patients with cancer will receive radiation therapy. Few therapeutic modalities in medicine today induce more misunderstanding, confusion, and apprehension, the researchers say. Patients often have misconceptions about radiation therapy that inhibit them from developing successful coping and self-care strategies necessary to adapt to their illness.

The researchers are counseling patients undergoing radiation therapy and providing information that will assist in the management of side effects. The nurses provide information about self-care strategies related to taking medications, conserving energy, diet modifications, hair loss, skin, and mouth care.

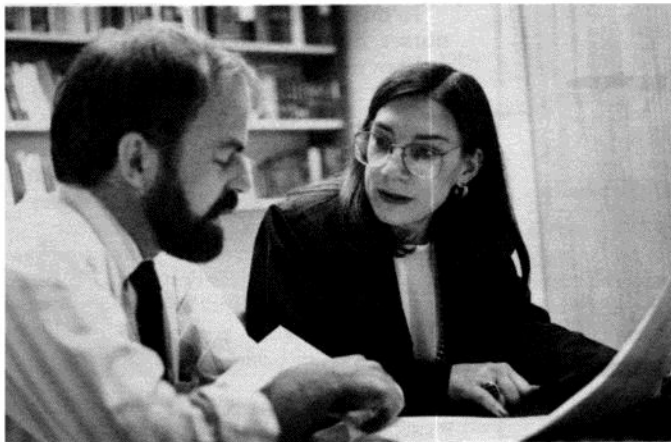
### Attributions Of Cancer Patients

Does attributing a cause for having developed cancer predict how a patient will adjust to the illness? Barbara Lowery, EdD, FAAN, director of the Center for Nursing Research and professor of nursing, is studying whether cancer patients who have thought about why they developed the illness adjust better to the disease than those who have not.

The study will also determine whether patients are less anxious or depressed if they feel personal control over the cancer experience, Lowery noted, or if the patients experience less anxiety and depression if the events are perceived as uncontrollable.

Funded by the National Institutes of Health National Center for Nursing Research, Lowery's study will determine whether it would be appropriate for nurses to encourage patients to think about why they developed cancer, and whether such causal thinking will help them cope.

Lowery and co-investigator Barbara Jacobsen, associate professor of nursing, will spend three years gathering data on newly diagnosed breast cancer patients.



*Dr. Laura Hayman discusses cardiovascular risk factor profiles with co-investigator Dr. Paul M. Coates. In phase II of this project, the investigators will follow school-age twins through adolescence.*

## Ethnographic Research

Ethnography—a descriptive analysis of a culture or subculture—is a major research method of cultural, social, and educational anthropology and has been used in the research of other disciplines including nursing.

Carol P. Germain, EdD, FAAN, associate professor, School of Nursing, has been using ethnography in her nursing research to discover the cultural knowledge people use to organize their behavior and interpret their experience.

Germain completed an ethnography of a cancer unit in 1978 and in 1980 she received a Faculty Summer Research Fellowship to initiate an ethnography of an abused women's shelter, emphasizing the health needs and related issues in that subculture. Germain has recently applied for funding to initiate an ethnography of a hospital's medical unit to which patients with AIDS are admitted.

Being a nurse ethnographer in a health care setting has advantages, Germain said, since it enables the capturing of nuances and the selection of data that may be missed by other ethnographers. Nurse ethnographers have the advantage of having training in interviewing skills and are accustomed to entering different subcultures for clinical experiences.

Ethnographic research of nursing practice settings can yield insights useful for examining current nursing practice, for planning cultural change to improve nursing practice systems and for addressing a wide range of human problems in our society and its health care systems.

An added advantage, Germain noted, is that each ethnography of nursing—with its vivid detailed description—becomes a piece of nursing history.

## Origins of Contemporary Nursing Practice

### History Of Critical Care Nursing

The development of the specialty of Critical Care Nurses and a history of the concept of critical illness as it has evolved in our time will be the focus of research by Joan E. Lynaugh, PhD, FAAN.

Research fellow and PhD candidate in Nursing, Julie Fairman, MSN, RN, will assist Lynaugh, the principal investigator, in the three-and-a-half-year study which is funded by the American Association of Critical-Care Nurses.

The purpose of the study, and resulting publications and presentations, will be to discover and disseminate an accurate account of the development of the specialty of critical care nursing, which can serve as a basis for understanding critical care nursing practice in the social context of American history.

Historical comprehension of these phenomena is vital, according to Lynaugh, because it will support and help guide the debates which formulate future directions for the care of critically ill and the development of critical care nursing.

Nursing, as the largest health profession, has been one of the most responsive to social demands and preferences in health care. As a practice profession, nursing is unique in its assumption of responsibility for direct patient care twenty-four hours a day.

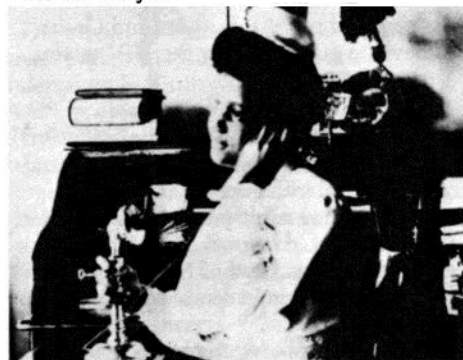
Large events, such as war, disaster, changes in science and technology, and changes in religious belief profoundly affect the evolution of nursing practice and will be an integral part of Lynaugh's research.

The history of critical care nursing will also examine the development of the specialty in relation to other professions,

including medicine, engineering, administration, and pharmacology.

As part of their research, Lynaugh and Fairman will interview nurses and physicians involved in many levels of practice, and they will study the history of technology and the development of devices used to preserve life.

They will also examine the changing public and professional ideas about the nature of critical illness and explore the historical dimensions of both the achievements and dilemmas of nurses as they relate to the care, safety and interests of the critically ill.



Mercy-Douglas Hosp. School of Nursing Alumna Assoc.

A photo donated to the History Center shows a turn-of-the-century Philadelphia Nurse.

### Home Care Nursing

Nurses still make house calls and have done so for the past one hundred years. The history of these visiting nurses is being documented by Karen Buhler-Wilkerson, PhD, RN, in her book entitled, *Nurses Still Make House Calls: A Hundred Years of Visiting Nursing in America*, which she is writing with Audrey Davis, curator of Medical Science at the Smithsonian Institute.

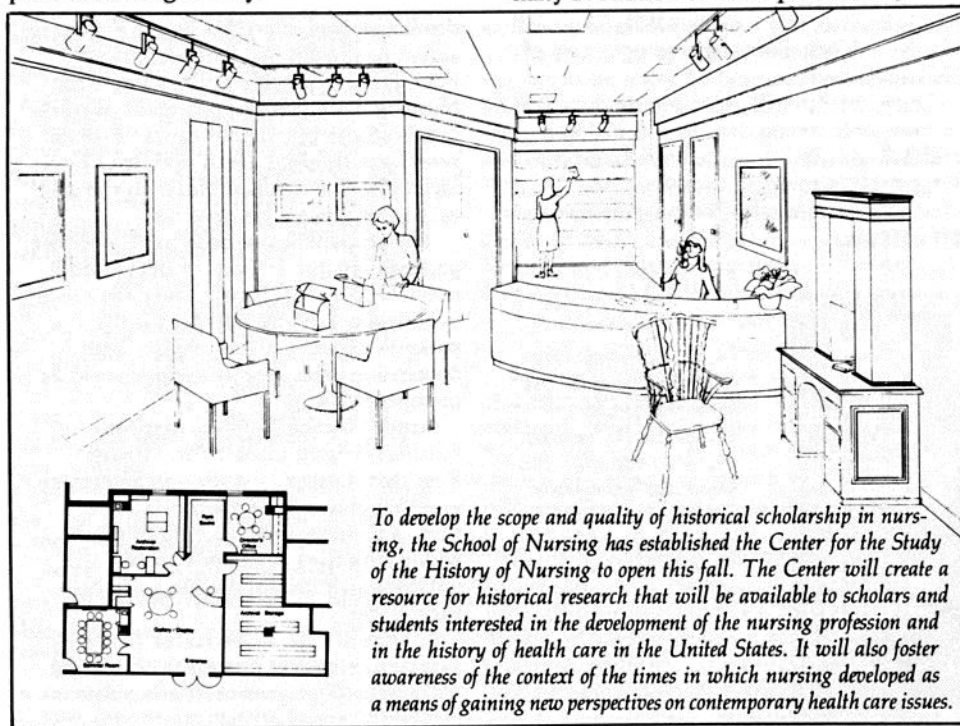
Buhler-Wilkerson's work is supported by: the University Research Fund, University of Pennsylvania; the Center for Nursing Research, School of Nursing; the American Nurses' Foundation; and a United Parcel Service Grant Award.

An examination of these historical developments is important and timely, Buhler-Wilkerson said, because of society's growing dependence on home-based care.

To uncover the history of home care nurses, Buhler-Wilkerson is reviewing written memoirs, letters, texts, and journal articles. She is also examining reports of nursing meetings, records of professional nursing organizations, census data, and records documenting nurses' career paths.

The problems faced by visiting nurses, their resolution and their continuation over the past one hundred years will provide important information to modern home care agencies that seek programs to answer the health care needs of people suffering from a diversity of illnesses.

Compiled by: Marilou Regan  
Photography by: Denise Angelini



To develop the scope and quality of historical scholarship in nursing, the School of Nursing has established the Center for the Study of the History of Nursing to open this fall. The Center will create a resource for historical research that will be available to scholars and students interested in the development of the nursing profession and in the history of health care in the United States. It will also foster awareness of the context of the times in which nursing developed as a means of gaining new perspectives on contemporary health care issues.