Nursing Students Visit Patients in Homes, Shelters and Schools as Part of New Course

BY SUSAN CONOVA

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Almost 100 years ago, the School of Nursing began to offer students a course in community nursing, and students, wearing navy blue hats and long blue dress uniforms, trudged up tenement stairs to visit patients at home. Often, patients had tuberculosis and students feared catching the disease when they gasped for air after climbing the five flights to reach apartments.

Today, nursing students in the school's Entry to Practice B.S.-M.S. program carry on the tradition of community nursing in their first year. Some still climb five-story walk-ups to reach patients, while others work in shelters for battered women, public schools, and roving vans that provide care to the homeless in the streets. This year, for the first time in decades, community nursing has its own separate course, "Nursing Practice in the Community," to ensure students gain experience in health settings besides hospitals.

Community nursing has been required of Entry to Practice students for years, but in the past 10 years or so the experience was woven into the first-year clinical courses—medicine/surgery, pediatrics, obstetrics and psychiatry. The students practiced nursing in community settings arranged by the school's administrators. Last fall, the school examined the Entry to Practice curriculum and recommended elevating community nursing to its own course.

"In putting together the new course, we had to recognize coming changes in healthcare," says Vice Dean Sarah Cook, Dorothy M. Rogers Professor of Clinical Nursing. "There is more homecare now, and in the future, even more nurses will work in home and community healthcare settings. Care of patients in hospitals also has changed because those left in the hospital are much sicker than they used to be."

In the new curriculum, first year students take an intensive five-week module in community nursing in addition to their other five-week modules in medicine/surgery, pediatrics, obstetrics and psychiatry. In the community class, students spend two days a week in class and three days at different healthcare settings. Each student goes to the same setting two days a week and to various observation sites for the remaining day.

Aviva Kleinman, SON’03, provides healthcare at the New Providence Women’s Shelter in midtown and travels to the homes of new mothers, children with asthma and others with the Visiting Nurse Service of New York.

"I like being in the homes," Kleinman says. "When you see a person's house, it gives you a better perspective of how their home life affects their healthcare. There may be four people living in one room, kids running around everywhere, and you understand why a person may forget to take medications. In a hospital, you can only ask, 'Why aren't you taking your medications?'"

Other students work at the YM & YWHA in Washington Heights to prevent fall injuries in elders. Susan Spadafora, assistant professor of clinical nursing and course co-instructor, says the first group of students that rotated through the community course developed a way to assess risks for a fall and now the second group is taking the method into homes. Future groups will work with elders to reduce risks identified by the first two groups.

The class also extends the notion of community to the world. During a recent class, co-instructor Dr. Richard Garfield, Henrik H. Bendixen Professor of Clinical International Nursing, led a discussion about globalization and rapid transmission of information on health around the world.

"There are many different jobs nurses do in the community as a nurse," Garfield says. "International health agencies like to hire nurses because of their well-rounded level of health, people, and organizational skills."

Though the course is still new, the instructors say it is succeeding in reaching students to provide cultural-sensitive care and in giving them experience in a wide variety of settings so they can choose a specialty for the master's of science level portion of the Entry to Practice Program.

"Even nurses don't know all the different jobs nurses do," Garfield says.

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New Structural Biology Center

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New York State Health Department and the Weill Medical College of Cornell University.

Each organization provided a capital contribution to start the center and pays annual operating costs. A two-tiered membership structure requires members to make capital contributions of either $1.35 million or $500,000. Currently, the center has an annual operations budget of about $2 million.

Members have representatives on the board of directors. David Hirsh, Robert Wood Johnson Jr. Professor and Chairman of Biochemistry and Molecular Biology, and David Cohen, vice president and dean of the Graduate School of Arts and Sciences, are Columbia's board members.

Along with the institutions' support, the center has received federal, state, city, and private funding, including a $15 million grant from the state for cryo-electron microscopy and NMR equipment and more than $10 million in competitive grants from the National Institutes of Health. The NIH grants include one for $4.5 million from the National Institute of General Medical Sciences to buy a 900 megagauss magnet, the most powerful one now available.

Currently, three large NMR spectrometers—two 800 MHz and one 750 MHz magnets—are installed at the former CCNY gymnasium and swimming facility. Nine-hundred MHz, 800 MHz, 600 MHz, and 500 MHz magnets will follow with others added as needed, depending on available funds.

NMR spectroscopy uses strong magnetic fields to generate changes in the electromagnetic properties of atoms. The changes can be detected by radio frequency waves. The frequency wave data then is analyzed to identify the three-dimensional structure of a protein and to describe how one molecule interacts with another in space and time.

The center's NMR machines can determine molecular structures in a few weeks for problems that otherwise might take years using existing equipment at one of the member universities, says David Cowburn, the center's president. In addition to the spectrometers, the center will purchase specialized electron microscopes that cool and slow down molecular machinery, such as ribosomes or viruses, to make it easier to study them, says Wayne Hendrickson, University Professor of Biochemistry and Molecular Biology and member of NYSCRC's cryo-electron microscopy committee.

The center's directors are optimistic about the future of protein research. "We hope to generate new insights in basic science and a deeper understanding of human disease and treatments through the center's technology," Cowburn says.

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