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Nursing Research and Participant Recruitment: Organizational Challenges and Strategies

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Abstract

Hospitals as research environments are crucial in advancing evidence-based practice and translational research. The authors discuss issues related to hospital-based nursing research such as institutional review board approval, the Health Insurance Portability and Accountability Act, structure, unit characteristics, and nurse staffing as well as research-related issues such as study purpose and design, participant recruitment, and research personnel. Strategies and suggestions for nurse executives to assist researchers in overcoming recruitment challenges are presented.

Nursing research provides evidence for best practices by offering answers to the questions raised by nurses in clinical and community settings. An active nursing research program in healthcare organizations encourages all levels of nursing personnel to find answers to clinical questions and incorporate the findings into clinical practice. Although the intended outcome of an active nursing research program is quality care, there is considerable variation among organizations in building and conducting such programs. Some organizations limit nursing research to dissemination of research findings to clinical staff (1,2). Others, such as those that have achieved American Nurses Credentialing Center Magnet status and have active nursing research programs (3), use Donabedian principles of structure and process to evaluate quality (4).

Background and Setting

The study sought to answer the question: How do community resources assist community-dwelling elders with congestive heart failure who require assistance with activities of daily living (ADLs) or instrumental activities of daily living (IADLs) transition from the hospital to their home. Nursing staff assisted one nurse researcher to recruit participants prior to discharge from the only 2 hospitals in a small town surrounded by rural counties.

Similarities and differences between the 2 hospitals effected the research process. One is part of a university, while the other is community-owned. Both hospitals achieved Magnet status within 6 months of each other and have a career ladder, an all-RN staff, nurse-guided discharge

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planning, decentralized unit management, and a nursing research program. Prior to achieving Magnet status, there were notable differences in the experience nursing staff had with research and evidence-based practice. Historically, nursing involvement with research in both hospitals was related to medical research, particularly clinical trials. Nursing staff involvement in the university hospital had been limited to collecting data, and, at times, serving as study coordinators. Research in the community hospital had been done by physicians with minimal nursing involvement. While nursing faculty and doctoral students from the university have conducted considerable research at the university hospital, in recent years, the community hospital has generally not been available for nursing research.

Other differences between the 2 hospitals include ownership, type of hospital, bed size and service area. The university hospital is part of a state university that has both nursing and medical schools. It is a tertiary care hospital with primary care and highly-specialized clinics. It has approximately 5 times the bed capacity of the community hospital. The community hospital is nonprofit and managed by a board of directors from the community. The service area for the university hospital is predominantly rural counties from approximately one third of the state; people travel up to 6 hours from 2 neighboring states to receive care from the hospital. The service area for the community hospital is the city and surrounding counties; the majority of clients travel less than 2 hours to receive care. Given these structural and operational differences in the hospitals, the researcher faced different challenges and needed different strategies to recruit study participants.

Human Subject Approval

Major challenges for any nursing research project include: approval by an Institutional Review Board (IRB); interpretation of the Health Insurance Portability and Accountability Act (HIPAA); and participation at all levels of nursing, from administration to the staff nurse. In each hospital, the researcher involved key nursing administrators in the design of the study which assisted in navigating structural and policy challenges.

Institutional Review Board

Nurse administrators from both hospitals assisted the nurse researcher to obtain IRB approval. Before recruitment was allowed, IRB approval was needed from both the community hospital and the nurse researcher's university. The university hospital product line nursing administrator assisted the nurse researcher to navigate the structural and policy challenges. To begin research at the university hospital, IRB approval from the university was required. Approval was expedited and took 1 month. After IRB approval the contact nursing administrator assisted the researcher to obtain permission to conduct the study from the chief nurse. After IRB approval, the researcher had minimal contact with the contact nursing administrator. After university IRB approval, processes for community hospital IRB approval took an additional 6 months. The community hospital research nurse administrator assisted the nurse researcher to navigate the structural and policy challenges. Processes included nursing practice council approval prior to the nurse researcher presentation of the proposed research at the monthly IRB meeting. After IRB approval, the researcher had ongoing contact with the nurse research administrator, the nursing research advisory board and the IRB staff.

Regulations and Recruitment

In both hospitals the contact nursing administrator introduced the researcher to nurse managers where recruitment occurred. In this study, participant recruitment was based on the hospitals' interpretations of HIPAA regulations. In both hospitals, the researcher was not able to screen potential participants without involving the nursing staff. Prior to visiting a potential participant, the nursing staff approached the patient, introduced the study, and then either

contacted the researcher directly or had the participant contact her. After this initial contact, the researcher met and discussed the study with potential participants. This inability of the researcher to directly screen potential participants necessitated extension of the time for recruitment. While recruitment was similar in both hospitals the consent forms differed. While the consent forms included the same information, the university form was developed with input from elders, while the community consent from was adapted from the university form by their IRB staff.

Nurse executives and researchers need to be aware of the processes healthcare organizations have concerning IRB approval and HIPPA regulations. In addition to time considerations, and access to participants' health information, the processes may add to the cost of conducting research for both the healthcare organization and the nurse researcher. Potential strategies to potentially decrease research costs involve either changing a research study design or adding a hospital employee to the research team. Changing the design may look attractive; however, altering the study may affect the overall purpose. Adding a hospital employee to the research team is a better choice, since it is unlikely to affect the study's purpose or specific aims.

Participant Recruitment

Recruitment of a sufficiently large sample who met the inclusion criteria was challenging. In the study discussed, nursing staff in both hospitals were interested and did all of the recruiting for the study. In both hospitals introductions by the contact nursing administrator assisted the researcher in accessing participants by establishing credibility with unit management and staff nurses. Specific challenges resulted in the study due to differences in the 2 hospitals, with bed size having an impact on recruitment. At the university hospital, recruitment occurred from 6 nursing units that were either diagnosis- or elderly-focused. The first university contact was the elderly-focused unit; however, it was quickly determined that the majority of the discharges from that unit were to skilled nursing or rehabilitation facilities and thus did not meet the study's criterion of discharge to home. Subsequent contacts were made with 5 additional units with patients based on medical diagnosis and the ability for cardiac monitoring. In the community hospital, recruitment occurred only from the cardiac medicine unit, and the nurse manager identified a charge nurse to assist with recruitment.

Recruitment was assisted by a variety of strategies. In both hospitals, the contact nursing administrator and managers determined the most appropriate method to introduce the researcher to the staff who would assist with recruitment. The introductions included personal meetings, e-mail communication, and unit-based practice council meetings. The nurses who assisted with recruitment received verbal and written information about the study, including a study manual that outlined the research protocol. Some nurses made suggestions that assisted them in recruiting. In one case, a zip code guide was developed after the staff voiced concern to the researcher about their lack of familiarity with the surrounding geographic area. The guide was added after recruitment began and included zip codes with the names of the surrounding small towns and localities. This zip code guide augmented the available hospital-generated information in providing a quick snapshot for the staff nurse to identify potential participants.

The time limitations and work demands of nursing staff are also a significant challenge for nursing research. A major barrier in recruitment was variation in processes and daily routines at the hospital, unit, and individual nurse level. The research protocol required the researcher to visit patients prior to discharge to arrange a home visit. In both settings, when the researcher received notification about a potential participant, a narrow window of time existed to establish that the participant met the study criteria, obtain participant consent, and set the home visit date and time.

In the university hospital, the researcher made weekday rounds at the same time every day. The university hospital clerical staff assisted the researcher by providing information about the nurses' work schedules and daily happenings on the unit. The university hospital had a time-specific discharge policy, and each unit had discharge rounds 1 to 3 hours prior to the discharge time. The staff could not confirm which patients were going home until they attended the discharge rounds. Each day, nurses checked the "unit list" to identify patients who met study criteria. The "unit list" did not routinely include all of the research inclusion criteria, requiring staff to do a quick electronic or paper medical record review and to talk with the nurse assigned to the patient. In the university hospital, 4 of the unit contacts were discharge coordinators, while in the fifth unit, the contact was either the nurse manager or the charge nurse, who changed daily. In the sixth unit, an age-specific unit, no unit contact was established and no referrals were received because patients did not meet inclusion criteria.

The IRB-approved protocol at the community hospital did not require the researcher to make daily rounds. The community hospital did not have a discharge-time policy and did not routinely have discharge rounds. The charge nurse monitored the daily hospital-generated list of specific medical diagnoses to identify potential participants. Rather, the researcher needed to be available on the days the identified charge nurse worked

Nursing staff involvement in nursing research varies by hospital and study purpose. Differences were present in nursing staff involvement in the two hospitals with nursing research. In the university hospital, 2 units where recruitment occurred displayed nursing research posters on the unit and on 2 other units, nursing staff were simultaneously involved in recruitment both for this study and another nursing research study. In the community hospital, staff nurses' participation in the nursing research involved approval of specific research protocols during professional practice council meetings. In both hospitals, the appointed nurses were committed professional nurses with the position of clinician 3 to clinician 5 on the clinical ladder, had administrative responsibilities, and were furthering their education. The community hospital charge nurse was completing additional education, and one of the university hospital discharge coordinators was enrolled in graduate nursing classes.

Strategies for recruitment included personal contact with nursing staff and being accessible to staff and participants. During recruitment, the researcher was available and frequently brought food items, sometimes homemade, to the staff nurses. In an effort to increase awareness of the study to the entire unit staff, the researcher brought individually-packaged cookies and crackers with study facts attached to them. The researcher was available by phone, and visited the potential participant as soon as possible after they agreed to hear more about the study. Potential strategies for the nurse researcher that extend beyond forming personal relationships with staff include rewarding staff for each referral, paying participants, and obtaining temporary hospital employment.

Research Design

Clinical questions challenge nurse researchers to find answers. The research question guides the study design, participant inclusion criteria, and analysis. In this study, participant inclusion criteria included human and geographic components, and both posed specific dilemmas. Inclusion criteria included: age 65 or older; a primary or secondary diagnosis, or history, of Congestive Heart Failure; require assistance with ADLs or IADLs; have a Mini-Mental Status Exam (5) score over 20; and live independently or with family in the health planning district where the hospitals were located. The most challenging human criteria were age, functional ability (ADLs and IADLs), and cognitive status. Participant eligibility with regard to ADLs/IADLs and cognitive status was determined by medical record review and participant interview at time of enrollment. ADLs were not consistently recorded in nursing, physician, or therapy

notes, and when the documentation did exist, it was usually in a specific assessment instrument such as the Braden Scale. With the exception of a medication list, documentation of IADLs was usually absent from nursing and physician progress notes. Social work documentation did address some IADLs; however, documentation validating the need for social work intervention was not consistently present in nursing and physician progress notes. Likewise, documentation of cognitive status was problematic since some potential participants refused to complete the Mini-Mental Status Exam. The geographic inclusion criterion was challenging with both hospitals having service areas extending beyond the health planning district.

Study Outcomes

During 12 months of recruitment, 28 individuals consented to participate in the study, and 20 were interviewed at home. After participant consent, the visit date was established and the participant was given printed information with study details, researcher contact, and appointment day and time. At times, spouses and family members were present during the consent process and made suggestions for the visit day and time. Even though the researcher verified the date, time, and home residence on the evening before the scheduled visit, some home visits were not possible. The most common reasons for not making the planned home visit were either the consented participants refused the visit when the researcher called the night prior to the home visit, or phone contact could not be established after hospital discharge.

Outcomes not directly associated with this study occurred at the community hospital. One non-study outcome was a presentation introducing the community hospital as a research site to the university school of nursing (SON) faculty and PhD students. The community hospital research nurse shared the processes in place for conducting nursing research at the hospital. The study researcher shared the research experience at the community hospital. The SON faculty and PhD students asked pertinent questions. Another non-study outcome is that a PhD student from the SON obtained nursing and IRB approval to conduct research at the community hospital. The research nurse has developed packets of information outlining the process for conducting nursing research at the community hospital for outside researchers.

Discussion

Conducting nursing research that crosses care settings requires nurse executives to be available, accessible and approachable to researchers. Key stakeholders within healthcare organizations need to communicate the policies and processes related to research to nurse executives who are able to translate the information to nurse researchers. It is important for researchers to pay attention to processes while adhering to research details and use creative problem solving without jeopardizing the integrity of the research, the nursing department, or the healthcare organization. In this study, the researcher addressed challenges at each stage of the research process, including formulating the research question, designing the study, securing IRB approval, gaining hospital access, recruiting participants, and collecting data. Assessment, critical thinking, communication, and coordination was used repeatedly in interactions with all levels of the nursing staff in both hospitals, with both IRBs, and with the participants and their families.

Recommendations

As nursing research becomes a priority for healthcare by addressing evidence-based nursing care and quality clinical outcomes it is important for nurse executives to examine the structure and process of the nursing department in the healthcare organization. To enhance nursing research it is essential for nurses to be involved in development of the purpose, question, specific aim, and design of research projects. A flexible multifaceted approach to answering

clinical questions is a necessary strategy to assure the presence of nursing research at all levels of an organization.

Nurse executives need to embrace innovative approaches to conducting research that explore non traditional approaches. Establishing a regional IRB with executive representation from the health care entities within a region, such as a health planning district or government jurisdiction, is a structural approach that should facilitate teamwork and research. A unique approach for nurse executives is the establishment of a liaison research nurse, who is a staff nurse. A liaison nurse is a unique approach that addresses structure, process and nursing's commitment to research while addressing the time constraints of staff nurses. The liaison could be responsible for participant recruitment, screening, and potentially participant enrollment for researchers from outside of the organization.

Structural approaches such as a liaison nurse should include staff nurses. Another structural approach involves staff nurses in nursing research decision making,. This strategy borrows principles from community-based participatory action research (6) by identifying staff nurses as stakeholders. A different approach is for nursing executives to provide a mechanism for staff level nursing personnel involvement with IRB. For example, the appointment of an advanced clinical ladder nurse, level 3–4 as a member or liaison to the IRB. A strategy that has been used is to develop peer support for nurses in the clinical setting by establishing partnerships between clinical and research nursing staff (2,7).

Incorporating language related to nursing research into job descriptions at each level of the clinical ladder is a process approach that would encourage nursing personnel to be accountable for nursing research. One organization has made research release time available to clinical nurses participating in nursing research (8). Establishing a research culture that nurtures collaboration between health care organizations and academic nurse researchers may involve joint appointments and is a winner for all involved (9). Structural mechanisms for academic nurse researchers to have joint appointments with small community and critical-access hospitals would encourage and expose nurses in these hospitals to research and evidence-based practice.

Nurse researcher credibility and collaboration with nurse executives and staff nurses are important aspects of a research project. Joint appointments, collaboration with, and hospital employment are traditional approaches. Nurse executives should facilitate relationships between nurse researchers who are nursing faculty and staff on the clinical units where students do clinical rotations and the maintenance of faculty relationships with prior students now employed in their hospital. For non-faculty nurse researchers or for faculty who do not have a relationship with hospital staff, nurse executives should have mechanisms available to hire nurse researchers. A separate approach to collaboration and credibility is for the nurse executive to have a pool of staff nurses available for employment by the nurse researcher. Developing credibility with unit staff is critical. In this study, credibility was established by demonstrating respect for the patients, nursing, and unit personnel, and acknowledging staff time constraints. Professional behavior and basic nursing skills of communication and critical thinking were enormously important in recruiting participants for this study that crossed care settings.

Implications

To promote evidence-based practice, it is crucial for nurses to conduct nursing research to find answers to clinical questions. Today, nursing has an opportunity to set standards for research collaboration between the Ph.D.-prepared nurse researcher and the educationally advanced prepared expert clinician. The expert clinician may be a DNP, a nurse practitioner, a clinical specialist, or an advanced community health nurse. The skills that these advanced educated

nurses bring to the research environment provides the ability to explore evidence-based research questions grounded in clinical practice. The Ph.D. and expert clinician bring different expertise; when together in collaborative teams, these differences can decrease the barriers and challenges and promote a rich environment for research. Nurse executives in healthcare organizations can learn effective strategies for creating or refining nursing research programs by discussing the barriers and challenges with all levels of nursing staff. In addition, nurse researchers need to identify facilitators and barriers that may exist within a research design. Involving nursing personnel with varying credentials and skills is a step to enable quality research and evidence based on the quest for providing excellent nursing care.

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