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Building Nurses' Capacity in Community Health Services

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Building Nurses' Capacity in Community Health Services*

Nancy Edwards and Jo-Anne MacDonald

Abstract

This paper describes core processes, components, and insights gained from a research internship offered through the University of Ottawa, Canada. The growing demand for high quality nursing research requires the development and implementation of strategies for enhanced research capacity. A three-month intensive internship was developed as a main feature of a nursing chair held by the first author. The internship was deliberately structured around core processes of providing individual and group mentoring, creating opportunities for experiential education, and strengthening networks with researchers and decision-makers in health services and policy research. Building and sustaining individual research capacity was supported with strategies to address system challenges. If nurses are going to make their voices heard and increase their contributions to novel health service delivery approaches, building research capacity will be a core element. The internship may be a useful prototype for the development of initiatives to build research capacity in other settings.

KEYWORDS: research capacity, community health, experiential education, mentorship, networking

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A growing demand for high quality nursing research has been driven by a movement towards evidence-informed decision-making and practice, the shift to university-based education of nurses, and recognition of the pertinence of health services and policy research (Segrott, McIvor, & Green, 2006). There is a critical need to build research capacity amongst nurses in order to meet this demand. While undergraduate and graduate education programs help prepare nurses to use and do research, successfully embarking on a research career and becoming an established investigator take significant mentorship, and additional skill development (Daly, Douglas, & Kelley, 2005; Office of Nursing Policy, 2003). Furthermore, supporting substantial improvements in nursing research capacity requires attention to other system challenges. A recent review (Segrott et al.) identified material constraints and organizational contexts, as well as the changing roles and expectations of nurse educators as challenges in the development of nursing research capacity. A paucity of funding and time, lack of self-confidence and research skills, individual and organizational attitudes towards research, and changing roles and expectations of nurses pose barriers for the development of research capacity (Jootun & McGhee, 2003; Segrott et al.).

Organizational pressures in both clinical and educational sectors may discourage nurses from being more fully engaged in research. In the clinical sector, advanced practice nurses (APNs) for instance, have research clearly defined as one of their key roles (Canadian Nurses Association, 2002). Yet, there are numerous examples of positions created for APNs where the research role has been under-developed and under-utilized relative to the APN's other functions (Bryant-Lukosius, DiCenso, Browne, & Pinella, 2004; Bryant-Lukosius et al., 2007; Pauly et al., 2004). In the nursing education sector, teaching demands have increased as schools of nursing enroll more students in order to address the growing human resource gap. Administrative pressures in educational institutions are also considerable as new nursing programs are being developed in efforts to meet both the entry-to-practice requirement of baccalaureate education, and the demands for more graduate-prepared nurses (Özsoy, 2007; Thorne, 2006). Furthermore, a substantial number of nurse educators teach in colleges or university-colleges where previously, the focus of their work had been excellence in teaching. With more limited experience in the scholarship of inquiry (Boyer, 1990), nurse educators may feel ill-equipped and inadequately supported to meet growing institutional expectations of their role in research (Mead & Moseley, 2000; Pringle, 2006; Segrott et al., 2006). For both the APN and the nurse educator, the more immediate rewards of attending to clinical problems and addressing the needs of students and curriculum change may outweigh the longer-term rewards that come from conducting research.

These realities and the need to provide a catalyst for those wanting to fast-track their development as a researcher, led to the establishment of an intensive three-month research internship at the University of Ottawa, Canada. The internship was developed as a main feature of a Nursing Chair program. In this paper, we describe the core processes underpinning the internship, its components, and evolution, and then conclude by offering some reflections on our experience. We begin with some pertinent background information.

BACKGROUND

In 2000, five nurses received ten-year awards as Nursing Chairs from the Canadian Health Services Research Foundation, the Canadian Institutes of Health Research, and partner organizations. The Nursing Chairs were charged with building the capacity of Canadian nurses to lead and contribute to emerging and established agendas in health services and policy research (Canadian Health Services Research Foundation (CHSRF), 2007; Edwards, DiCenso, Degner, O'Brien-Pallas, & Lander, 2002). Each Chair developed a unique set of capacity-building and mentoring initiatives designed to address the needs and constraints within his/her specialized field of research. The mandate of each Chair was national in scope. The first author of this paper received one of these awards to focus on multi-level and multi-strategy interventions for community health. Goals for this Chair were to: a) build a strong network of community health nursing researchers across Canada linked with key decision-makers in government and firmly connected with provincial, national, and international associations; b) establish a mentoring program that supports a strong, renewable base of community health nursing researchers; and, c) reduce lag time in the adoption of community health nursing research and multiple intervention research findings into policy, programs, practice, and curricula (Edwards & Smith, 2003). The three-month research internship was a major capacity-building component of this award. The first cohort of six interns registered for the internship in 2001. Six cohorts, totaling 101 individuals, completed the internship between 2001 and 2006. Fourteen postdoctoral fellows also participated in the internship.

CORE PROCESSES

The internship was deliberately structured around the core processes of providing individual and group mentoring, creating opportunities for experiential education, and strengthening networks of researchers and decision-makers. The rationale for these processes is described in this section.

Individual and Group Mentoring

Scholars have observed that the mentored researcher, “when compared to the non-mentored researcher, is likely to develop professionally in a more direct and deliberate manner” (Lynn, 2006, p. 288). Mentoring focuses on supporting, inspiring, and nurturing trainees (Yonge, Billay, Myrick, & Luhanga, 2007). It occurs across two domains. Professional mentoring includes “exposure to opportunities... facilitating development in the role, explaining the formal and informal systems, and protecting the protégé” (Lynn, p. 289), while personal mentoring “is composed of encouragement, role modeling, and personal advisement” (Lynn, p. 289). Mentoring is a planned process; yet it must be able to capitalize on opportunities that arise. A mentor can provide access to these critical learning opportunities, particularly those that are outside the realms of formal education. Since mentorship is lifelong in the career of a professional, the identification of new mentors who can match changing learning needs is important. The roles of mentor and mentee require explicit discussions of expectations, roles, communication channels, and anticipated outcomes. It is important to recognize that mentoring is not just a dyadic process. Group mentoring is a means to both reach more mentees and provide opportunities for reciprocal learning (Kostovick & Thurn, 2006).

Opportunities for Experiential Education

Experiential education engages learners in real-life experiences, with particular consideration given to the larger socio-political-economic issues that affect education (Itin, 1999; Mitchell & Poutiatine, 2001). From this perspective, learning occurs best through engagement in trial and error experiences that allow the integration of what is being learned with the required action. Success, failure, adventure, and risk-taking are integral to the learning process. Experiences support interactions among various system levels, including the transactions among learners, between teachers and learners, and between learners and their environment. Such transactions provide for an exchange of knowledge and learning among all in the learning environment. Thus, primary roles for the educator include “selecting suitable experiences, posing problems, setting boundaries, supporting learners, ensuring physical and emotional safety, facilitating the learning process, guiding reflection, and providing the necessary information” (Itin, p. 93); while learners are required to “take initiative, make decisions, and be accountable for the results by actively posing questions, investigating, experimenting, being curious, solving problems, assuming responsibility, being creative, constructing meaning, and integrating previously developed knowledge” (Itin, p. 93). Experiential learning was a critical means for

interns to develop skills in the more subtle yet essential processes of building interdisciplinary research teams, negotiating team roles, discussing contentious issues like authorship and ownership of intellectual property, and preparing a grant submission with a competitive edge.

Networks of Researchers and Decision-Makers

Careers in both clinical research, and health services and policy research will be fostered by a strong set of networks (CHSRF, 2003, 2006; Kothari et al., 2005). Emerging evidence (Gilchrist, 2006; Heurta, Casebeer, & VanderPlaat, 2006; Scott & Hofmeyer, 2007) suggests that network development entails deliberate processes and the establishment of relational capital. Strong interpersonal relations among those in a network have been linked to fulfilling commitments, gaining access to informational resources, and pooling clinical wisdom and technological knowledge (Apker, Zabava Ford, & Fox, 2003; Haugh & Laschinger, 1996). For the clinical researcher, networks are typically initiated within the service delivery organization where the researcher already has established relationships. While these networks are an important starting point, an expanded set of contacts with other health service delivery organizations will often be required as a program of research unfolds. In the realm of health services and policy research, building vertical networks (Edwards, Kahwa, Kaseje, Mill, Webber, & Roelofs, 2007) may be particularly important. Strengthening networks provides a dual function. Networks lay the groundwork for identifying timely and pertinent research questions and provide a foundation for successful knowledge translation activities (International Development Research Centre, 2003; Kramer & Wells, 2005; Logan & Graham, 1998).

OBJECTIVES, RESEARCH PLATFORM, STRUCTURE, AND COMPONENTS OF THE INTERNSHIP

Objectives

The core processes described above guided the design and evolution of the internship. They also underpinned objectives of the internship, which were to: a) build skills essential for competitive grantsmanship; b) develop strategic links between new investigators and decision-makers; c) examine multiple intervention program design and evaluation issues; and, d) explore innovative approaches to enhance research uptake. The research internship was designed for graduate-prepared nurses. Initially, the internship targeted those who wanted to pursue an academically-based research career in community health. However, program participants also came from other sectors including health service delivery

organizations (e.g. community health, acute care, complex continuing care, mental health institutions, and children's hospitals), professional nursing associations, and government.

Research Platform

Integral to the internship was a well-established program of research that focuses on multi-level and multi-strategy interventions in community health (Edwards, Mill, & Kothari, 2004). This provided a solid platform of research activities and direct access to colleagues (graduate students, postdoctoral fellows, and junior and senior scientists) at different stages of their research careers. This program of research is housed within the Community Health Research Unit and affiliated with two University of Ottawa research institutes: the Institute of Population Health and the Elizabeth Bruyère Research Institute. The longevity of these research units and institutes differs substantially - the Community Health Research Unit was initiated in 1989, while the other institutes have been launched since 2000. However, each provides an organizational infrastructure that directly supports the development of research capacity.

Structure of the Internship

Structures developed to deliver the internship gave interns substantial exposure to the research platform, while making the internship accessible to participants from across Canada. Thus, following the first year of the program when interns were required to be on-site, in Ottawa, for the full internship, a distance education option was developed using audio-teleconferencing and web-based technology. Interns who chose the distance option were required to be on-site for an intensive two-week period, followed by two and a half months in their home institution, and a final week back on-site. Each year, some interns remained in Ottawa for the duration of the internship.

Bringing interns together for the first couple of weeks provided opportunities for participants to begin discussing and experiencing mentorship with both senior and junior researchers. It also helped set the stage for group mentoring as interns learned about their common areas of interest and expertise, and met with the research teams they would join for the duration of the internship.

Components of Internship

The internship consisted of several integrated components and included elements tailored to individual learning needs. Major components of the internship are described below.

Multiple interventions community health course. All interns were required to register for a graduate nursing course that examined multi-level and multi-strategy programs. This course provided a foundation for the entire internship as it introduced leading-edge thinking in the field of multiple interventions. A framework for the design and evaluation of multiple interventions guided the course content (Edwards, Mill, & Kothari, 2004; Edwards, Etowa, & Kennedy, 2007). Interns had the option of auditing the course or taking it for credit. A number of interns who did take the course for credit were able to use the course to help meet requirements of the PhD graduate program at the university where they were registered. This course provided a common base for discussions throughout the internship and helped to bridge gaps among interns whose clinical backgrounds differed substantially.

Site visits and expert panels. During the first two weeks of the internship, participants visited decision-makers in government departments, non-governmental organizations, and professional associations, and met with directors and staff of research institutes. These site visits provided interns with opportunities to discuss issues such as the development of strategic programs of research, governance structures to support health services and policy research, and the complementary roles of researchers and decision-makers in research proposal development and knowledge translation.

In addition to site visits, a series of expert panels were also held. Invited speakers included program officers from research funding organizations, media representatives, journal editors, and knowledge translation experts. Panelists engaged interns in discussions about: successfully competing for external research funds, developing programs of research, examining innovations in knowledge translation, publishing in peer-review journals, and planning strategies for media communication. These interactions with panel members helped interns experience the approachability of experts, thereby extending the comfort zone for their accessible networks.

Writing skills. Gaining confidence and skill in writing was another thrust of the internship. Numerous experiential learning opportunities were organized to strengthen skills such as writing for different audiences and purposes. For

example, interns were introduced to writing Ministerial briefs, preparing technical reports, and developing editorials for print media and commentaries for peer-reviewed journals. Interns completed a series of writing exercises, chose a fellow intern to be a writing buddy, and attended a workshop with a plain language communications expert. Each of these elements helped to build concrete mutual support for interns' writing.

Work-in-progress sessions. As part of their application, interns identified a research project or publication they intended to develop. These were the focus for work-in-progress forums where they presented and discussed their work in a collegial, constructive, and scholarly fashion. Guidelines for work-in-progress sessions were provided and initial sessions were modeled by postdoctoral fellows and senior researchers. Modeling provided an opportunity to demonstrate how the presenter could get better input from reviewers if they specified elements of the paper or protocol that were particularly challenging. In addition to presenting a work-in-progress session, interns were assigned as primary and secondary reviewers for at least two other work-in-progress sessions, and thus had an experiential venue for delivering constructive critique as a reviewer.

As the internship progressed, we added several new options. An on-line session was created to provide an asynchronous forum for critiquing a research proposal. Over a period of one week, the author of the proposal was expected to interact with reviewers, respond to their suggestions, provide a summary of reviewers' key recommendations, and outline next steps. Advanced work-in-progress sessions were also developed. These provided a forum for interns to present a more developed version of their protocol or manuscript to an audience that included external reviewers, who were invited to offer critique and comment on how they approached the review process. Finally, 'sticky' work-in-progress sessions were created during the final week of the internship, when interns could engage colleagues in further deliberations regarding problematic issues in advancing their protocol or manuscript.

Joining a research project. Interns were required to link with at least one research project for the duration of the internship. Numerous projects, at various stages of development, were available for interns to join. This involvement gave them an opportunity to gain experience in self-identified areas of interest, such as the preparation of a protocol or ethics submission, methods development, project management, data collection and analysis, working with an inter-disciplinary research team, or implementing knowledge translation strategies. Each intern was expected to explicitly negotiate his/her role on the team, addressing both the required short-term and potential longer-term (post-internship) involvement.

Dialogue and debate sessions. Dialogue and debate sessions provided a forum for seasoned researchers and key decision-makers from health services and policy sectors to share their perspectives on topical issues. Each year, we identified speakers who provided examples of research that was pushing the boundaries of methodological design. Many guest speakers for these sessions joined us via audio-teleconferencing from locations across Canada and internationally. Session topics were based, in part, on interns' self-identification of learning needs. Examples of issues included engaging decision-makers in research; managing implementation of a research project; negotiating authorship; preparing a budget justification; applying for grants, contracts, and contribution agreements; preparing applications for personnel and fellowship awards; developing a program of research; conducting systematic and integrative literature reviews; qualitative data analysis; and using mixed methods research designs. These dialogue and debate sessions allowed interns to engage in discussions with first-rate researchers, and helped them to strengthen their networks and to consider how they might contribute to established programs of research.

Mentoring. Various mentors contributed to the three-month internship. Postdoctoral fellows, new investigators, and career scientists were involved in many facets of the program. Their mentorship for interns was particularly important since junior researchers were at a stage in their research career that was a more obvious stepping stone for the interns than that of senior researchers. In addition, this layered approach to mentorship helped junior researchers to further develop their mentorship skills through the tutelage of senior researchers.

EVOLUTION OF THE INTERNSHIP

Although most components of the internship were in place from the outset, the internship evolved in several ways over six years. This evolution reflected efforts to increase its accessibility, and to build broader financial support and institutional commitment for the objectives of the internship.

Initially, only those in the internship program attended sessions. However, by the second year, colleagues from participating sites who were not interns were also invited to join selected sessions, offering them a taste of the internship content and expanding the reach of some portions of the internship. The distance education component provided the opportunity to negotiate and create satellite nodes for the internship with several universities. These nodes were established with the intent of preparing a critical mass of interns at each site. Furthermore, two of the three universities with a satellite node provided financial support for the internship program as they paid the major costs (travel and accommodation)

for their faculty to attend portions of the program held in Ottawa. While distance education increased accessibility, it also presented some logistical challenges as it required arranging sessions in a way that bridged a four and a half hour time zone difference between interns in our most eastern and western provinces. This required scheduling flexibility on the part of interns.

Another critical evolution was the establishment of an international arm of the internship in the fifth year of its operation. Funding for this component was provided by the Office of Nursing Policy, Health Canada. A colleague from the University of West Indies joined the internship on-site for the initial two week period and then participated intermittently along with colleagues from her Department of Nursing via video- and audio-teleconferencing. This link was extended in the final year of the internship, when two additional colleagues attended the internship from Jamaica, one from the Department of Nursing, University of West Indies, and the other from the Jamaican Ministry of Health.

REFLECTIONS

In this final section, we summarize progress achieved toward the original objectives, and reflect on critical elements of the internship. Finally, international spin-offs and practical lessons learned are described.

Progress toward Objectives

We far exceeded original plans to prepare 20-25 interns; 101 scholars had participated in the internship by 2006. The number who completed the program reflected the demand for this type of capacity-building. Interns came from 26 institutions located in every province in Canada. Participants gained expertise in competitive grantsmanship and their successful applications to local and major research funding organizations reflect these skills. Links between interns and decision-makers that were fostered during the internship have been extended and interns indicated the development of new strategic links in their annual reports. They adapted the multiple intervention approach to their own research interests, applying the framework to diverse issues and health care settings including for example, neonatal intensive care units, long-term care homes, mental health institutions, acute care settings, home care and public health.

Critical Elements of the Internship

Mentorship. In the first year of the program, Dr. Edwards and one postdoctoral fellow provided mentorship for the interns. However, a scaffold of

mentors was built in subsequent years with various levels of trainees participating. Interns themselves ranged from those who were masters-prepared and interested in furthering their contributions as nursing scholars to those who were post-PhD and embarking on a significant research career. Postdoctoral and other research fellows supervised by Dr. Edwards were required to participate in the internship. They provided critical mentorship for interns by acting as advisors and inviting interns to join their writing or research projects, which in a number of cases were subsequently published or funded (e.g., Benjamin, Edwards, & Caswell, 2009; Edwards, Etowa, & Kennedy, 2007; Edwards et al., 2008; Edwards, Marck, Virani, Davies, & Rowan, 2007; Kothari et al., 2005). Mentors also led both work-in-progress sessions and dialogue and debate sessions, which yielded publications (e.g. Edwards & Kothari, 2004; Edwards & Riley, 2006; Edwards, Webber, Mill, Kahwa, & Roelofs, 2009; Kothari, Edwards, Yanicki, Hansen-Ketchum, & Kennedy, 2007; Semenic & Edwards, 2006).

The involvement of postdoctoral fellows meant that each year we had a number of intern alumni participating. Thus the fellows provided important program continuity and considerably enhanced the mentorship support offered to interns. They also contributed rich new ideas for internship components including the introduction of writing exercises, and creative changes to work-in-progress sessions.

One might ask whether the mentoring required would have been better invested in a smaller cohort of interns. While this may have focused our efforts on working with a very select group of interns with high potential to become leading researchers, we chose to be more inclusive in our recruitment. Interns came from institutions that varied considerably in their research-intensiveness. While not all will become established principal investigators of research projects, annual reports provided by the interns indicate that even those from less research-intensive settings have increased their engagement in research and other scholarly activities. It is our view that our more inclusive approaches to building research capacity will provide a broader base for research generation and research use in the future.

Undertaking research. Discussions during the internship brought into focus the challenges facing nurses' ability to undertake research. These have previously been described as multi-layered, unique within various contexts, and constantly evolving (Jootun & McGhee, 2003; Segrott et al., 2006). The experiences shared by our interns were consistent with these empirical findings. The challenges of balancing teaching, clinical activities, and research demands were frequently mentioned by interns. This led to many discussions about how to

manage these competing priorities. We emphasized the importance of integrating research efforts with other responsibilities and discussed ways to align research programs with institutional and departmental foci.

Interns identified research structures and processes needed to realize the potential of their improved research capacity. Those coming from smaller universities that were not research-intensive developed a new appreciation of the administrative and research structures required to support scholarly work. Interns coming from more research-intensive universities left the program with a better understanding of how to leverage the resources available to them. Thus, all gained a better understanding of the administrative and governance structures required to support health services and policy-relevant research, both within academic and decision-making environments.

Discussions about supportive research environments extended beyond the formal internship. Dr. Edwards visited a number of the academic sites from which interns came. These face-to-face visits provided an opportunity to discuss local issues concerning the development and support of research capacity for nurses, further reinforcing the importance of institutional support for ongoing research by intern alumni.

Capacity-Building. Multi-level dimensions of capacity-building were critical to the design of the internship. These are consistent with research studies that identify facilitating opportunities for training and collaboration, fostering research cultures and environments, and creating a functional infrastructure as essential ways to enhance research capacity (Grange, Herne, Casey, & Woodsworth, 2005; Segrott et al., 2006).

Fostering research capacity through the internship involved a comprehensive approach with the participation of interns, postdoctoral fellows, academic departments, and a community of decision-makers. A wide range of strategies were used to both build confidence and skills among the interns and inspire a culture of excellence in research. The environment fostered critical analysis, risk-taking, reflection, and creative ways to be involved in research amidst the realities of resource constraints at the home institution. Furthermore, individual and group teaching strategies were linked to relevant research experiences with the potential for ongoing involvement post-internship. This contextualization of learning has been identified as an effective strategy to enhance individual research capacity (Itin, 1999).

Network development. One of the primary aims of the internship was to nurture a network of community health nurses engaged in community health nursing research, as well as build bridges with partners who would support this research. Several program elements helped interns begin to build and extend their networks of community health researchers and decision-makers who influence both research and policy agendas. The initial two week on-site component of the program provided ample opportunity for interns to learn about mutual research interests and to become familiar with the research programs of postdoctoral fellows. The three-month internship period provided the time required to develop grant proposals and participate in the work of research teams. These opportunities directly led to successful applications for internal and external research funding, conference presentations, and publications. Interns have also reported adapting some of the learning strategies for their own institutions. Work-in-progress sessions, for instance, have been initiated in a number of the interns' home academic settings; and former interns have taken on new responsibilities such as participating on ethics committees, joining grant review panels, and providing manuscript reviews.

Partnerships forged in the development and implementation of the internship created a relational base for ongoing communication and linkages between researchers and decision-makers. These, in turn, have supported new research endeavors that are in line with current practice and policy issues (Grange et al., 2005; Segrott et al., 2006). Interns expanded both their horizontal and vertical networks. Horizontal networks were strengthened as interns met colleagues from other parts of the country who shared common research interests. This has had a long-lasting impact in two ways. First, many interns and postdoctoral fellows have continued to work together on joint research and writing initiatives long after completion of the internship. Second, interns recognized the importance of seeking colleagues with similar research interests outside of their own academic setting. The internship provided the impetus for junior researchers to expand their horizontal network of researchers in the country. Vertical networks were strengthened as interns gained experience working with decision-making partners.

Following the internship, alumni have continued to develop their networks, often with regional and provincial decision-making partners. This is reflected in the sustained partnership models that former interns and postdoctoral fellows have developed through their programs of research. Examples include: a) research on patient safety and home care in partnership with the Victorian Order of Nurses and several provincial Ministries (Lang, Edwards, & Benzies., 2006), b) an early childhood development initiative being undertaken with a community

agency in Calgary (Benzies et al., 2009); c) a project examining nursing voices in primary health care undertaken in conjunction with the Nova Scotia Ministry of Health (Meagher-Stewart, Aston, Edwards, Young, & Smith, 2007), d) a program of research on HIV and AIDS stigma involving community partners in Edmonton and Ottawa (Mill, et al., in press); and e) a program of research with Aboriginal partner organizations that addresses improvements in prenatal care (Smith, Edwards, Martens, Varcoe, & Davies, 2008). The internship seems to have helped set the stage for participants to reshape and extend their networks of researchers and decision-makers. These networks lay the groundwork for successful knowledge translation efforts.

Strategic engagement. University administrators and academic departments, and decision-makers in government and national organizations were engaged in strategic discussions about the internship. Their involvement not only led them to provide financial support and release time for their employees to join the internship, but also set the stage for strengthening the processes and infrastructure to support research within their institutions. Since each cohort was composed of interns from numerous organizations, this resulted in much cross-fertilization of ideas regarding the types of structures that could be put in place to support nurses to do research. In some instances, interns were unaware that these supportive structures already existed in their home institution. In other cases, interns acquired new ideas regarding supports for research to propose and discuss with their employers.

Cultivating an organizational culture that embraces research is vital to building and securing research capacity (Cooke & Green, 2000; Jootun & McGhee, 2003; Segrott et al., 2006). An atmosphere conducive to research activity requires a milieu of trust, good networking, positive attitudes, and celebration of achievements (Jootun & McGhee). Interns consistently described how their internship experiences provided an immersion into this type of culture. Thus, interns returned to their home institution not only with enhanced research capacity, but also with the intention of providing research support and mentorship for their colleagues.

Practical Lessons

There were practical lessons learned from the internship as well. First, the three-month duration provided learners with the time required both for exposure to a wide range of experiential learning opportunities, and for maturation of their own research and publication ideas. The content and processes of this internship would not be suitable for a one- or two-week course. Second, the distance

education component significantly increased the program's accessibility. However, the opportunity for interns to work together for an initial two-week period was essential to the success of the distance education strategy as it allowed interns to gel as a group. Third, 30 to 45 individuals contributed as guest speakers, panelists, and as hosts of site visits for the internship each year. This was an important in-kind contribution that substantially enriched the internship. Finally, the involvement of mentors at various stages of their research career was an essential element. At least one postdoctoral fellow was involved in each year of the internship. In the latter stages of the program, as many as five postdoctoral fellows participated annually.

International Spin-offs

Piloting the internship with Jamaican partners resulted in an important spin-off. In 2007, a team led by Dr. Edwards received funding for a program of research focusing on strengthening the role of nurses in HIV and AIDS policy development (Edwards, Kahwa, Kaseje, Mill, Webber & Roelofs, 2007). The project team includes six intern alumni and three other colleagues who completed the internship and their postdoctoral fellowship with Dr. Edwards. Capacity-building is an important element of this research initiative, which is underway in three African and one Caribbean country. The internship is a central pillar of these capacity-building efforts. In 2008, the internship was offered in Ottawa, with interns participating from our partner countries and from Canada. In 2009 and 2010, the internship will be held in Kisumu, Kenya and Kingston, Jamaica, respectively.

CONCLUSION

Reflections from our experience may help inform the design of future initiatives intended to build research capacity for nurses. The internship program may be a useful prototype for the development of initiatives to build research capacity in other settings.

If nurses are going to make their voices heard and increase their contributions to novel health services delivery approaches, building research capacity will be a core element. Ultimately, we are all striving for better client care, delivered by an efficient, effective, and accessible health system. Enhanced research capacity provides us with a means to reach this goal.

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