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A Canada-Bangladesh partnership for nurse education: case study

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Aim: To describe the lessons learned from a partnership in nurse education between a Bangladesh university and a group of Canadian volunteers.
Background: In the host country, nursing enjoys low status and pay, which adversely affect professional standards.
Method: The paper describes implementation details of training a core of nurses to international standards, using limited resources. The first cohort received their Bachelor of Nursing degrees in 2009.
Outcomes: The Bangladeshi partners benefit from access to up-to-date curriculum materials, current clinical expertise, and interaction with visiting faculty and students. The Canadian nursing instructors enjoy professional development opportunities; visiting Canadian students gain exposure to a practice setting in a low-income country.
Lessons learned: These include the importance of (1) integrating nurse training with a general university able to provide core courses (e.g. English as second language, computer training), (2) countering the low status of nursing and inculcating a caring attitude among students, and (3) instilling critical thinking as opposed to rote learning. Next, the following were identified: mechanisms to support networking in the local health system, sharing of resources (e.g. electronic course material adapted to host country context), and assuring programme quality.
Implications for practice: The paper will be of interest to those concerned with nurse education and human resource development in less developed countries.

Keywords: Bangladesh, Canada, Capacity Building, Development Volunteers, Knowledge Transfer, Nurse Education

Introduction

In Bangladesh, as elsewhere, nurses need consistent, ongoing education based on evidence-informed practice (Roberts-Davis 2000). The inadequacy of Bangladesh nurse training has recently achieved high profile. The Prime Minister of Bangladesh delivered a major speech in June 2009 in which she promised that '[the] nursing profession would be upgraded to world standards by enhancing . . . nurses' social dignity' (The Daily Star 2009).

Traditionally, nursing in Bangladesh and elsewhere in South Asia has been seriously hampered by social stigma. Nursing has been perceived as a 'dirty work' and the fact that female nurses touch the bodies of strangers and work away from home at night has led to associations between nursing and prostitution (Hadley

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et al. 2007). These views create significant social and academic barriers to improvement.

If Bangladesh can improve the quality of its nurse education programmes, practice standards will be raised, the social perceptions and credibility of nursing will slowly increase, nurses will be able to demand better wages, more nurses will be attracted to the profession, and patient care will improve. This paper describes an experimental programme that can potentially contribute to such a 'virtuous cycle'.

Problem statement – nursing services in Bangladesh need major improvement

With over 160 million people, Bangladesh ranks seventh in the world by population. Modest economic growth in the last decade has reduced the 'dollar a day' poverty rate to approximately 40 per cent (World Bank 2009, p. 8). Still, it remains a poor country.

In Bangladesh, the Directorate of Nursing Services under the Ministry of Health and Family Welfare employs the majority of practising nurses. According to the World Health Organization, of approximately 22 000 nurses registered with the Bangladesh Nursing Council, about 15 000 work in the public sector, 3000 in the private sector and another 3000 overseas (World Health Organization 2009a) At the same time, there exists a large pool of unemployed nurses, estimated at several thousand. While their representatives blame the government for not hiring to fill nurse vacancies, many health administrators complain that domestically trained nurses are ill prepared for practice.

As of 2005, there were 43 000 physicians in Bangladesh, each serving an average of 3200 people; the comparable nurse/population ratio was 1:6400 (World Health Organization 2009b). Although both doctors and nurses are in short supply, the country's doctor/nurse ratio is the inverse of that in most developed countries. This has profound implications for quality of health care. An inadequate supply of doctors must perform tasks that could be done by well-trained nurses, because the supply of well-trained nurses – described by the World Health Organization (2009a) as the 'backbone of health care' – is even more inadequate.[1]

Thirty-eight public sector and five private sector nurse-training institutes provide training towards a 3-year Diploma in General Nursing and a 1-year Diploma in Midwifery/Orthopaedic Nursing. According to the World Health Organization, the annual intake of students is 1135, based on a central admission system (World Health Organization 2009a). A College of Nursing affiliated to the University of Dhaka traditionally offered a 2-year post-diploma programme leading to the Bachelor of Science in Nursing (BSN) (Akhter et al. 2003). After 2007, the government allowed five more government-funded nursing institutions to offer a BSN programme. In her above-noted speech, the Prime Minister announced an increase in annual intake to 1490 students, the setting up of five new institutes, the transformation of four institutes into nursing colleges and an enhanced role in nurse training for private tertiary institutions. Several private colleges of nursing also offer BSN programmes. Master's level education in Nursing is not available in Bangladesh.

In Bangladesh, deep cultural problems compound the human resource shortage. Several commentators have noted the poor training, low pay and lack of respect for nurses as professionals (Akhter et al. 2003; Hadley et al. 2007). In describing the lack of clinical leadership for the education of nurses, one researcher with long experience in Bangladesh comments, 'teachers are distant from practice settings; they may have lost clinical competence; there has been limited input into nurse education with regards to appropriate facilitation of learning and assessment' (M. Leppard, unpublished). Murshed (2007) identifies poor accreditation systems and a lack of community-based practical training. Faculty members' inability to teach in English or even provide English-language textbooks are added barriers (Bryant 2003). This is important because the vast majority of text and internet-based material is published in English. Unsurprisingly, bright students do not flock into nursing, choosing instead careers in business, engineering and medicine.

The project

Canadian volunteers met during the development phase of this project with senior health-care system managers, and nursing and medical leaders in Bangladesh. They reconfirmed the following problems posed in academic papers:

1 Nurse educators may not be current in their clinical skills, hence, cannot role model effective practice. In addition, although there has been previous international support for curriculum development, the teachers may continue with previous lectures because they lack the capacity or resources to deliver the new courses.

2 Education focuses on memorization and learning by rote; self-directed learning, critical thinking and problem solving are not emphasized. Classrooms attached to teaching hospitals lack suitable space and educational equipment. Both physicians and nursing managers described the current teaching approach as unsatisfactory.

3 Modern nurse education resources (texts, audio-visual and internet) are available mostly in English. Many large private and

[1]International University of Business Agriculture and Technology (IUBAT) faculty supervising students in the hospital have observed doctors doing work that would be done by nurses in Canada. Scope of practice issues are beyond the scope of this paper but thoroughly discussed by Hadley et al. (2007) and Hadley & Roques (2007).

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non-governmental organization (NGO) hospitals in Dhaka function in English because of their mix of foreign and local staff. Yet many nurse educators and most students are not competent English language speakers.

4 Publicly funded health-care facilities are generally appalling, lacking staff resources and supplies for both effective care and nurse education. Wealthy Bangladeshis leave the country for health services; middle-class Bangladeshis use private facilities.

5 Hadley et al. (2007) note and we have observed the 'disconnect' between education and practice. A very simple example is the difference between what nurses say they do about Universal Precautions (i.e. hand-washing and safe disposal of needles) and what they actually do. More complex and troubling examples related to technical and ethical aspects of care are a constant discussion point for IUBAT faculty and students.

6 The social stigma related to personal care continues to divert bright students away from nursing and generally decreases interest in academic and professional standards.

All these factors point to the complexity of professional development in a developing country setting. What seems clear, however is that investment in the supply of well trained nurses is desperately needed (Centre for Policy Dialogue 2001).

Case description – the IUBAT College of nursing

The objective of this project has been to connect Canadian nurse educators and students with Bangladeshi counterparts to deliver professional nurse education to international standards. We expect this will help strengthen nursing education and practice in several ways: by sharing with other nurse education programmes our high standard but locally adapted curriculum material; by offering professional development for our teaching hospital partners; and by producing graduates capable of high-quality nursing care.

The lead organization in Canada is the Mid-Main Community Health Centre, a non-profit society that has been operating a multi-discipline health centre in a low-income Vancouver neighbourhood for two decades. The Bangladesh counterpart is IUBAT, a non-profit, private university established in 1991 (International University of Business Agriculture and Technology 2009). IUBAT offers degrees in a range of subjects (business, computer science, engineering and agriculture). It has currently 3000 students (including about thirty from other countries) and is located in Uttara, a suburb in the north of Dhaka.

In 2003, the Bangladesh Nursing Council approved the BSN curriculum at IUBAT, focusing on international standard instruction, and the initiation of the BSN teaching programme. The first IUBAT students graduated with BSN degrees in 2009. To our knowledge, they are the first Bangladesh nurses to graduate from a private university.

As of January 2010, there were about 75 students enrolled in IUBAT's BSN programme. Instruction is provided in English, the international language of professional nurse instruction. Students progress through four years of three semesters each, with lectures, clinical labs, workshops from visiting faculty, and supervised practical experience in teaching hospitals and community agencies. Other departments at IUBAT provide the students with basic courses in English, mathematics, basic science, computer science and so on. Courses have been tailored to meet language challenges and the wide range of educational backgrounds The IUBAT BSN programme has been approved by the Bangladesh Nursing Council.

The nursing college is located in a general university. The advantage is to expose nursing students to ideas from other disciplines as well as to place nursing education on a par with other university-level professional programmes. Nursing is a natural complement to the other programmes: public health aspects of engineering infrastructure; food safety and hygiene as taught in the Hospitality Program; health informatics in Computer Science courses; and hospital administration as case studies in Business courses. Although in Canada nursing has been taught in general universities and colleges for over thirty years, most nursing education in Bangladesh remains isolated in specialty programmes affiliated with teaching hospitals and based on the apprenticeship model.

Integration of the programme in a general university also has benefits at the level of faculty. The foreign (to date largely Canadian) volunteer instructors benefit from easy access to Bangladeshi colleagues in other disciplines. Moreover, the university provides a general library, audio-visual tools, spacious classrooms, a nursing lab and internet access. There are also some 'external benefits' to other IUBAT faculties that have adopted some of the nursing college teaching methods: insistence on up-to-date texts, use of electronic resources and an emphasis on critical thinking and problem-solving.

Partnerships with high-quality clinical services are essential for the students' practical learning. Although, as Canadians, we appreciate the rationale and benefits for publicly funded health care; the IUBAT College of Nursing works with private (for-profit and not-for-profit) hospitals and clinics, as well as government-run institutions. Our focus is to use clinical placements that expose students to good standards of practice. Just as important, students need to observe how strong ethical values and caring promote patient well-being.

The Canadian partner

Mid-Main Community Health Centre is well respected among health-care providers in the Vancouver region as an innovator in ambulatory health care. Some long-term volunteers and staff at

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Mid-Main have contributed to the IUBAT nursing college – in terms both of financial fund-raising and undertaking volunteer teaching. Other volunteers – such as nursing instructors in BC colleges and universities – have contributed to Mid-Main to cover a portion of their travel and living expenses while in Bangladesh. While at IUBAT, the professional volunteers have taught courses and developed electronic course material (lesson plans, learning activities and exercises, assignments, and examinations). In addition, international faculty provide a 'reality-check' using their practical and educational expertise to update the programme and monitor performance.

The educational objective is to educate nurses to an international competence level so that their practice might be acceptable in any modern health-care institution. (There is no single 'international standard'; nurse-registering bodies in the West use several tests.) At the same time, the curriculum at IUBAT reflects the population health imperatives of a developing country and is consistent with objectives of the Bangladesh Ministry of Health and Family Welfare. In countries such as Bangladesh with multiple health risks and weak health infrastructure, primary health care is the priority. Thus, nursing assessment, maternal-child health, nutrition, prevention of disease, community development and health education are major components of the curriculum.

Discussion and evaluation

How this project helps in Canada

Compared with Bangladesh, there are many more nurses in Canada. Nonetheless, shortages exist in Canada in all areas of nursing practice, including faculty for nurse education. As Canadian nursing schools expand to meet domestic demand, there is increasing interest in international experience. This is so for several reasons:

Clinical experience

Many educators in Canada face difficulty in arranging appropriate practice experience for their students. The pressure of high patient acuity makes it hard to support students. Teaching and clinical work in Bangladesh enrich the range of clinical exposure for Canadian nursing instructors and students – including tropical diseases, epidemic and disaster management, and rural health care.

Demand

Students themselves are more 'internationalist' in outlook and seek overseas experience. As Berwick (2004) notes, many faculty are also looking for ways to share their knowledge more broadly and to enrich their practice with international experiences.

Diversity

As competition for top students intensifies in all fields, nursing programmes are reaching into culturally diverse communities for recruits. Similarly, patient groups served by nurses represent an ever-wider array of ethnic groups. International work broadens recruiting power and promotes cultural competence among educators.

How this project helps in Bangladesh: the 'virtuous cycle'

We mentioned above a potential virtuous cycle of improved health care arising from high quality nurse training. This programme can contribute to this cycle in several ways: Firstly, there is a growing demand for well-trained nurses by new private hospitals. Several have recently opened with high standards and wages up to US$500 per month, three times higher than the government rates. Some of these hospitals currently rely on foreign nurses, but would prefer well-trained Bangladeshis.

Globally, there is a huge and growing demand for nurses. All else being equal, emigration of scarce health-care providers is not beneficial to Bangladesh. However, all else is not equal. As Aminuzamman (2007) notes, the economy of Bangladesh is already highly dependent on remittances from workers abroad. As Bryant (2003) discusses, successful overseas placements raise the status of nursing. Despite emigration, many nurses trained to international standards can be expected to stay in-country, and others to return from overseas because of family and cultural concerns. Gradually the increasing benefit of international skills both at home and abroad can be expected to raise the status of nursing as a profession.

Finally, the project has relied on 10–15 Canadian nurses and nurse educators annually volunteering to teach. In addition to their academic and practical expertise, their presence provides credible role models as to how nurses are viewed globally. They also provide professional development workshops for our teaching hospital partners, thereby providing leadership and continuing education, which is otherwise almost non-existent.

Formative evaluation – critical success factors

An emphasis on networking

This project is not restricted to one Canadian and one Bangladeshi educational institution. Within Canada, we have drawn on volunteers from several nurse education institutes in addition to professionals in the Mid-Main network. Without networking, we would have been unable to attract a sufficient number of qualified volunteer instructors. Within Bangladesh, we have undertaken a range of professional development and network-building activities beyond IUBAT.

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Exportable programme design

Courses prepared for this nursing programme are aimed at ESL learners in developing countries. The entire programme could be adapted for other international settings. By developing these materials in electronic format, we facilitate distance support from Western volunteers and link into international curriculum-building efforts. In time, the electronic library of course materials can be a resource that can be shared and adapted to other low-income countries.

Building sustainable capacity within IUBAT

We have emphasized knowledge transfer in all aspects of our work. For instance, we develop all courses digitally with lessons, assignments, examinations and learning resources available in electronic format that can be shared among faculty across the globe. For a start-up programme like this, electronic transfer of information is essential. Digital lessons allow flexibility and rapid updating as well as modification to improve learning strategies. Although this may seem commonplace, in the Bangladesh context it represents an important innovation.

Sustainability demands a human-resource strategy. Our goal by 2012 is to recruit and train ten Bangladeshi nurse educators to fill the faculty positions in the nursing programme at IUBAT. This will most likely require a train-the-trainer approach since local faculty with appropriate qualifications are scarce. Our teaching hospital partners face the problem of scarce faculty equally. They also want to upgrade their nursing staff capabilities.

Maintaining momentum for pilot projects is often a major concern. Naturally we need to ensure that our volunteers' energy and financial support persist. We look forward to a strengthening of the 'virtuous cycle' within the Bangladesh health system. We are seeking bridging financial support from the Canadian International Development Agency (CIDA), but in the medium term the programme must become more self-financing, from some combination of tuition plus hopefully some Government of Bangladesh support. Still, much uncertainty surrounds the project's future.

Lessons learned

All instruction requires significant attention to the special needs of ESL learners and the Bangladesh context.

English is one of the official languages of Bangladesh and English medium instruction is highly valued. It is important for nursing studies because very few textbooks have been translated into Bangla. This is because a 'vicious circle' – the low status of nursing as a profession - has meant little demand for international standard material for nursing education. IUBAT is an English-medium university because of the international faculty and student body. English language instruction is incorporated with gradually increasing complexity into all basic science and nursing courses, as well as dedicated English courses. We begin with classes requiring only basic English skills; vocabulary becomes more challenging as students progress. Extra tutoring in sciences and study skills supports promising students with weaker basic education. As students master English, they become more adventurous in web-based learning, which has the additional benefit of increasing exposure to positive global nursing role models and reinforcing self-confidence.

Building self-esteem and a caring attitude are essential to nursing skills

These elements are important in any nursing programme but they are more important given the social stigma surrounding nursing in Bangladesh. Course material has been developed specifically to help students manage stress and cope with 'heckling' from fellow students. The theme of 'pride of profession' has been threaded throughout all courses. Before the introduction of this content, 50 per cent of new registrants in nursing switched to other faculties because of pressure from students in other disciplines. With increased emphasis on self-esteem and the importance of their role as new leaders in nursing, retention has been nearly 100 per cent and more students with stronger educational backgrounds have registered in the BSN programme. In this context, international nursing faculty have been invaluable in providing role models for the nursing students and in helping to change negative attitudes towards nursing among the university faculty and students.

Critical thinking is essential to increasing skills

The difficulties in making the transition from rote learning to problem-based learning are not unique to Bangladesh (Young & Maxwell 2007, p. 5). Obviously, without critical thinking skills nursing students do not cope well with case study problems and have difficulty in the assessment and evaluation components of practice. In Bangladesh, cultural traditions of subservience to elders and authority figures increase the challenge of developing critical thinking. Building self-esteem dramatically increases the students' willingness to trust their critical thinking abilities. Course material dedicated to analysis and extraction of key information from a variety of resources has been introduced into the curriculum to help students analyze and evaluate. Material emphasizes problems or situations related to South Asia. Reflective journaling has also been effective in this area (Simpson & Courtney, 2007).

Large-scale impact requires a focus on developing and recruiting leaders

A small project, especially one that focuses on an 'elite' cohort, cannot achieve much impact unless it can 'punch above its

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weight' by influencing those in other institutions who share the goal of quality nurse instruction; hence, the focus on leadership development, knowledge transfer and local capacity. We are preparing nurses who can be the future nurse leaders in Bangladesh in partnership with collaborating hospitals and in-country agencies. We expect our students to assume, over time, leadership roles in practice, education, administration and research. We have been encouraged in this view by development officials in the country as well as by our network of practising nurses. As a spin-off from our main activities, we have also provided leadership development workshops for registered nurses already working in the system.

Support from local NGOs is essential

Previous government-to-government efforts to improve nursing education in Bangladesh have suffered from weak public sector managerial capacity. Recommended improvements such as training of individual educators and curriculum revisions were not sustainable once the donor funding ended. We recognize this problem and have attempted to work primarily with a network of high quality NGOs, such as the respected International Centre for Diarrhoeal Disease Research, Bangladesh (ICDDR, B 2009).

Innovative projects are useful to test and demonstrate new approaches

In Bangladesh and elsewhere, the major donor countries have adopted so-called sector-wide approaches in health and education, coordinated with the relevant government ministries. These may afford genuine advantages over uncoordinated individual donor programming (Martinez, 2008). However, as Angers (2000) and others note, their very scale can discourage entrepreneurial innovation, particularly in the context of weak governance. Experimental 'pathfinder' projects are often necessary to overcome the rigidities inherent in government-to-government programming.

Next steps for scaling-up and dissemination

A number of related initiatives could emerge from this project, depending on the needs and interests of collaborating partners:

1. Mechanisms to support networking
   Many Canadian nursing education institutions conduct international projects; various western NGOs support educational projects overseas. More collaboration between these organizations could lead to better resources available for all, better linkages with ethnic communities in Canada, better opportunities for students and overseas partners. The following points illustrate possible activities. However, it would be helpful to create a forum (virtual or in conference) to explore mutual aid and synergistic approaches.
2. Opportunities to share freely available resources
   In developing the IUBAT nursing programme, we have borrowed heavily from others' work. The Internet abounds with teaching materials such as syllabi, lesson plans, teaching resources and assessment materials. Our challenge has been to adapt and bundle these elements into a coherent academic programme suitable for Bangladesh. We would suggest several ways to disseminate this bundling capability more widely. For instance, guidelines on collaborative curriculum development would be helpful. Guidance for local faculty development and evaluation requires culturally sensitive skills. Similarly, shared programme proposals, policies and programme evaluation reports could help reduce duplication of effort. Our long-term goal is to develop an electronic library of materials to support ESL nursing education. We would like to see this freely available to other non-profit educational efforts.
3. **Support for quality assurance and accreditation activities from an appropriate advisory group**
   International projects often run on the energy of a few dedicated individuals. An advisory group composed of professionals in the donor country (e.g. Canada) and host country (e.g. Bangladesh) would assure quick access to peer review. Another useful activity of the advisory group would be to develop accreditation guidelines.
4. **Long-term research about the impact of this project**
   Evidence-informed practice is imperative. We have begun to investigate funding support for a longitudinal study of IUBAT College of Nursing graduates regarding their employment, tendency to emigrate and career progression.

Conclusion

Many problems affect nursing practice in Bangladesh. Low professional status, understaffing and weak education are compounded by poor working conditions and standards. Such complex problems cannot be solved easily. Examples of better practice do exist however. If these can be strengthened they may serve to demonstrate necessary improvements and a way forward.

While large-scale change requires government and external support, small-scale independent projects play an important role by modelling new ways of working. Their lean budgets are a strength as well as limitation. Lack of money can encourage ingenuity and resilience. Lessons learned about barriers and facilitators in pilot projects can aid more ambitious developments. Once proven, the methods can be scaled up and more widely disseminated.

In the case described in this paper, the key lessons show that attending to the context of the educational programme has been as important as the content. External support has been a critical

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resource as a catalyst for change. Working in partnership with strong local leadership, development entrepreneurs can make a significant contribution to improving nursing practice despite daunting problems.

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Competing interests

The authors declare that they have no competing interests.

Author contributions

AB conceived and drafted the manuscript. JR and KDL revised the draft. All authors read and approved the final manuscript.

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