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Developing hand therapy skills in Bangladesh: Experiences of Australian volunteers

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ABSTRACT

Introduction: Bangladesh is a developing country whose health system is highly dependent on project funding from foreign countries. Interplast Australia & New Zealand have supported volunteer hand therapists to provide training to local staff in the management of hand injuries and burns since 2006.
Objectives: We aimed to explore and describe the volunteers' own experience and provide recommendations for future therapy capacity building projects in developing countries.
Methods: This qualitative study involved nine volunteer therapists, who attended a focus group to discuss their experiences, including the key milestones, challenges, and progress achieved. The two authors analyzed transcripts independently and emergent themes were discussed and identified by consensus.
Results: Overall the experience was extremely positive and rewarding for volunteers. Key learnings and challenges encountered in this project were cultural differences in learning styles, the need to adapt our approach to 2 facilitate sustainable local solutions, attrition of skilled local staff, and concerns regarding volunteer health and safety. Recommendations for similar projects include allowing adequate time for in-country scoping and planning, coordination and pooling of resources, and the use of strategies that encourage the shift to confident local ownership of ongoing learning and skill development.
Conclusion: Volunteering in a health capacity building program in developing countries can be a challenging but immensely rewarding experience. Programs designed to meet the health demands in developing countries should emphasize adequate training of professionals in the use of transferable, sustainable and cost effective techniques. Time spent in the scoping and planning phase is crucial, as is coordination of efforts and pooling of resources.
Level of evidence: 2C.

Introduction

Bangladesh is a developing nation with an estimated population in excess of 155 million, of whom 43.25% live on less than US$1.00 per day.[1] The per capita government expenditure on health is US$9.70 per year,[1] with foreign aid vitally important for the welfare of its people. This is received predominantly in the form of project funding, and the Health and Family Welfare sector receives the highest donor priority.[2] Whilst there is no national injury register in Bangladesh, an estimate of morbidity was conducted in the late 1990s via a population-based survey of 3258 households. This study found a crude morbidity from injury rate of 311 per 1000 population per year, with falls and cutting injuries (62%) the most common, and burns accounting for 10% of all injuries.[3]

Interplast Australia & New Zealand (Interplast) is a not-for-profit organization specializing in sending teams of fully qualified plastic and reconstructive surgeons, anesthetists, nurses and allied health professionals to developing countries in the Asia Pacific region to provide free surgical treatment for patients and medical training for local health professionals. In 2004, they began providing reconstructive surgery training to the Dhaka Medical College Hospital[4] but realized that many hand and burn surgery patients were discharged with no access to rehabilitation therapy, and were thus unlikely to achieve optimal outcomes. From 2006, hand therapists were included in the teams.

Eleven volunteer Australian therapists (including the authors) have since visited Bangladesh to initiate post-surgery rehabilitation

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and to train local therapists. This occurred at the Centre for Rehabilitation of the Paralysed (CRP) and the Bangladesh Health Professions Institute (BHPI), an academic institute co-located within the CRP and affiliated with Dhaka University and the Bangladesh State Medical Faculty. An informal evaluation of the impact of the program in late 2011 with the Interplast Senior Program Activities Co-ordinator, the first author (LOB) and the course coordinator of the Occupational Therapy School at BHPI identified the need for future professional development activities to be sustainable, ongoing, and locally designed and provided. This led to the development of an eight-module on-line training course for Bangladeshi clinical leaders in hand therapy, which was designed and delivered by Monash University, funded by Interplast and AusAID, and rolled out in March 2012. This course's objectives were to develop skills in post-graduate short course development and delivery. This was to be achieved using a train-the-trainer model via participation in online interactive learning modules, culminating in the development and delivery of a face-to-face teaching session with a hand therapy focus. The long-term aim was for future professional development activities to be locally designed, high quality, and sustainable.

Recipients of hand therapy services in Bangladesh are often severely disabled as the result of burns, trauma, or poorly managed conditions, such as rheumatoid arthritis. Prior to the establishment of the hand therapy service at the CRP, there were no publicly funded facilities available in Bangladesh to provide hand therapy. Whilst Bangladeshi therapists have shown a great enthusiasm for this project and now have well-established hand therapy clinics in two CRP centers, the program was not without its challenges.

Aims and objectives

The aim of this study is to describe the volunteer therapists' experiences of building therapy skills in a developing country, including the key milestones, challenges, and progress achieved, using a qualitative research methodology.

Methods

Study population

Nine participants were recruited from the 11 volunteer Australian hand therapists. Eight attended the focus group in person, with one participating via telephone link. Two were unavailable due to travel or family commitments. All were female occupational therapists.

Data collection

As we were seeking to capture the common features of the participants' experience and to identify the key barriers and enablers associated with this program, we used a qualitative design incorporating phenomenological and grounded theory content analysis methods.[5] Our method of data collection was a focus group. Focus groups produce insight and data from the interaction between participants, and draw upon attitudes, feelings, beliefs, experiences, and reactions in a way in which would not be feasible using other methods, such as one-on-one interviews, and questionnaires.[6] They are particularly useful in the evaluation of a program of activities to assess its impact.[7] Drawing on the authors' experiences as volunteer therapists/trainers in Bangladesh and data from similar projects in other countries, a list of key questions to guide the focus group was prepared (Table 1).

Table 1
Semi-structured interview questions

	Questions
1	Tell me about your involvement in the Interplast Bangladesh program • When did you first get involved? • What were your expectations?
2	For those involved in the earlier trips: • What evidence/experience/guiding models (if any) did you use to plan your intervention/teaching strategy? • Tell me about your experiences in the beginning of this project In Australia In Bangladesh
3	How did you plan or prioritize: • Which topics you would teach? • How you would impart knowledge/develop capacity?
4	What were the key challenges you faced?
5	How did you respond to challenges? What strategies did you find worked/didn't work?
6	Were there some things that helped you along the way with this project?
7	Were there any things that you found did not help?
8	What milestones/progress did you note along the way?
9	What do you think the next step should be?
10	Overall, what are your thoughts regarding this project now?
11	What advice would you give someone starting a similar project in a developing country?
12	Are there any other comments you would like to make?

Data management & analysis

The focus group was digitally recorded and transcribed verbatim. All data were coded to maintain participant privacy. The authors conducted independent manual analyses of transcripts, and developed preliminary findings using open coding, axial coding, then identification and description of central or core themes.[8] Emergent themes and categories were then compared for conceptual consistency, and any disagreements resolved by consensus moderation. Three participants were selected at random for member-checking of themes, to ensure triangulation of results.

Ethical considerations

This project was approved by Monash University Human Research Ethics Committee and forms part of a group of studies on developing capacity in this population.

Results

All but three participants had volunteered in Bangladesh on at least two trips. In terms of the participants' experience, the major themes identified from the data were that this experience was immensely rewarding, however Western practices were often a poor fit for local circumstances. The disparity between excellent theoretical knowledge and limited clinical reasoning skills was identified as one of the key challenges and was described as a *gap between knowing and doing*. Further challenges identified were the attrition of skilled local therapists, and health and safety and security issues. The key theme for future therapy capacity building projects was the need for in-depth scoping of local issues and appointment of a dedicated project manager *prior* to action. Subthemes were pooling of project resources and facilitating the shift in local staff to taking responsibility for their ongoing professional development.

In this section, the themes are described and further illustrated using participant quotes that capture the shared experiences.