A PARTNERSHIP IN BURN CARE EDUCATION - NEPAL AND AUSTRALIA

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SUMMARY. This paper describes some of the issues related to an education partnership which has been developed over the last four years between the Royal Perth Hospital Burn Team in Australia and the Bir Hospital Burn Team in Kathmandu, Nepal. The paper provides an insight into the preparation and collaboration required from both teams and describes some practical ideas to assist those who may be considering educating others in a developing burn service outside their catchment area.

Introduction

In 2001, the Burn Unit at Royal Perth Hospital (RPH) in Western Australia (WA) and the Bir Burn Unit (BBU) at Bir Hospital in Kathmandu, Nepal, agreed to share information for staff educational programmes on burn care. An exchange was planned.

The following year, 2002, AusAID allocated funding for the partnership administered by the McComb Foundation. In 2003 a multidisciplinary team from RPH, consisting of a Senior Plastic Surgery and Burns Fellow, a Senior Physiotherapist, a Clinical Nurse (Burns) and a Staff Development Nurse (Burns and Plastic Surgery), travelled to Nepal. As part of the programme, two Nepali nurses visited Perth in January 2005.

Aim

The aim of the exchange programme was to develop a self-propagated Nepali burn multidisciplinary education programme and thereby improve burn patient outcomes. Continued support of the process was maintained by email and telephone contact and reciprocal exchange visits by staff.

This paper aims to explore practical solutions for burn care education in an evolving burn service.

Background

The Bir Hospital, located in the capital Kathmandu, is the largest and oldest government hospital in the landbound country of Nepal (Fig. 1). The hospital serves a Nepalese population of approximately 23 million. The BBU (Fig. 2) is a specialized facility recently renovated within the 400-bed Bir Hospital. It consists of nine beds distributed as six single rooms and a three-bed Intensive Care/Recovery area supported by two self-contained theatre suites. The BBU is the only facility of its type in Nepal.

Every year approximately 120 patients are admitted to the BBU, of whom 70% are females. These figures are similar to those reported by burn units in the Asian region. The average extent of burns in patients admitted in 2003 was 16.5% total body surface area (range, 3-45%). As in other burn services in the area, self-harm injuries in females were the most common cause of burn injury, accounting for 36% of all admissions to the BBU. Other causes of burn injury in the region included flame burns from incidents with floor-level cooking and kerosene stove explosions. Mortality in patients admitted to the BBU was approximately 40%.

Staffing at BBU consisted of one medical consultant.
(director and plastic surgeon), one surgical trainee registrar, one junior intern doctor, thirteen nursing staff, two dressers (nursing ancillaries responsible for wound dressings), and four cleaners. Therapist services such as physical therapy, occupational therapy, dietetics, and social work were not available in the BBU.

Burn care services at RPH in WA are delivered through a multidisciplinary burn team (MBT). The benefit of this approach is well documented. At RPH, weekly patient meetings occur with medical, nursing, and physical therapy, occupational therapy, dietetics, social work, clinical psychology, and psychiatry in regular attendance.

The Director of the BBU invited the WA Burn Team to form a partnership to investigate the feasibility of developing an MBT service delivery approach in the BBU.

Preparation

Prior to the commencement of the initial exchange in Nepal, the RPH team communicated extensively via e-mail to gain cultural awareness and knowledge of the BBU and Nepal. Preparatory educational resources including audio-visual materials, both electronic and hard copies, were developed before leaving Perth.

Initial preparation in Nepal included a preliminary survey to ensure that the education programme was directed by the BBU staff needs. The survey included the topics of first aid, burn assessment, wound care, resuscitation, surgery, therapy, and discharge. Twelve team members participated in the questionnaire: three were medical staff (Consultant, Registrar, and Resident); seven were nursing staff (two of whom worked on the Plastics Ward); and two were nursing assistants.

Plan

Following collation of the results of the preparatory survey, the visiting RPH Burn Team devised an educational programme reflecting the requirements of the BBU staff (specific data are available on request from the corresponding author). Topics selected included first aid, wound care and dressings, and therapy - in particular, physical therapy, wound assessment, resuscitation, surgery, and scar management. Further discussions with the Nepali team revealed that a lack of a consistent supply of wound care products impeded the achievement of the best possible outcomes. This resulted in delayed burn wound healing and an increased requirement for surgery with consequent poorer outcomes involving increased scarring and contracture formation. Presentations were designed specifically to cover all aspects of multidisciplinary burns patient care. These presentations were then to be reinforced by practical demonstrations.

Reinforcement of the education programme in Nepal was planned with the return visit of two Nepali nurses to Perth. The education programme for the nurses was tailored to include practical multidisciplinary input, interspersed with observation of other RPH services that had been requested specially by the nurses, such as the Intensive Care Unit and the Central Specimen and Sterilization Department.

To maximise the benefit of the Nepali nurses’ visit to Perth, they attended medical English classes prior to the visit, and an interpreter was enlisted for a number of presentations conducted at RPH.

Delivery

Every day, in Nepal, the RPH Burn Unit Team presented one or two formal education sessions either to the burn unit staff or, on two occasions, to a greater hospital audience combined with numerous practical hands-on demonstrations in the operating theatre, in the ward, in dressing clinics, and in out-patient clinics.
The RPH team facilitated the teaching by using images and pictorial representation of the topics, including photographs of Nepali patients and staff. These images illustrated and emphasized the content of education presentations regarding all aspects of patient care, resources, and unit facilities. The RPH team found that presenting working images of local people was a very powerful medium to instigate and facilitate changes in patient management and staff practice. This approach was well received by the Nepali staff.

In the clinical setting, all RPH staff members reinforced the content by the use of practical demonstrations, particularly during dressing changes. Specific focus was directed to the wound healing process, the encouragement of normal movement, and restoration of the activities of daily life. During surgery, which occurred three times per week during the RPH visit, the RPH surgeon provided education and training in practical surgery techniques.

Presentations were given daily to the two Nepali nurses, while in Perth the focus was on wound management, hygiene, infection control, movement, and scar management. Practical demonstrations by the multidisciplinary team were again used to complement the presentations.

To maintain the focus of exchange, the Nepali nurses delivered a presentation to the RPH multidisciplinary team during the first week of their visit. This gave the RPH team greater insight into the BBU.

Discussion

The aim of this paper is to provide some insight into the potential difficulties associated with the provision of education in developing countries. Having a locally resident expatriate who understood the differences between the cultures and had a wealth of local knowledge and contacts was invaluable. It was also noted that the expectations of the RPH Burn Team were not completely accurate until assessments were completed actually inside Nepal and the BBU. Advance assessment (perhaps by a smaller contingent) or a planned time for review of the local situation is recommended prior to commencement of any education programme.

We encountered some physical hindrances to the provision of education presentations. The impact of these problems was limited by carrying two laptops (with long-life batteries in case of power failures), duplication of all software, and the ability to backup all images and presentations (CD/DVD burner). Printing of all presentations onto overhead transparencies is also recommended. It is useful to carry a number of locally appropriate extension cords and power boards.

We strongly endorse the use of images of local staff and patients to illustrate teaching points and promote local ownership in any presentations.

Future

On its return to Perth, the RPH Team presented the outcomes and experiences to numerous groups and the local media. The heightened awareness of the needs of the Nepalis resulted in generous donations of products and funds from various business and private sources in Australia. This support has allowed some of the following programmes to be implemented.

Dressing resources

To support the education and demonstrations and maintain an improved level of burn patient care, a programme to supply appropriate products was commenced. Each delivery of dressings is customized according to feedback from the BBU. Relevant product information is supplied to assist appropriate usage. This was supported by Smith and Nephew (Perth branch), various trekking/tourist groups, and a private donor for the first year. Regular supply of stock is ongoing.

Movement therapist programme

To develop regular therapy input within the BBU, a programme supported by Rotary International is being planned to send burn therapists from Australia. The aim of the programme is to train local Nepali staff in the BBU in the ways of functional rehabilitation after burn injury. This project will commence in 2005 and the plan is to enlist local Nepalis (BBU staff) to become movement therapists. Training will be facilitated by four experienced burn therapists each attending for two weeks at BBU. The therapist visits will be spread throughout the year to maintain project aims. Focused one-on-one education (with the assistance of an interpreter) is of primary importance to the success of the movement therapist programme. In keeping with the initial aims of the partnership, this programme seeks to provide the Nepali staff with the knowledge and skills to provide ongoing input and self-education.

Contact

The RPH team has maintained ongoing contact with the staff of the BBU via e-mail. This is a difficult task to perform through the telecommunication systems available while accommodating the language barrier.

Conclusion

As a team we consider that we achieved a great deal in a short space of time. However, achieving lasting success in this project and other similar ones relies on an ongoing and dedicated input on a regular basis. The MBT from RPH is grateful for the opportunity to work with burn survivors and with those who treat them in Nepal. We continued to foster our relationships with the BBU through
the nurses while they were in Perth. We have learned a lot about the provision of education in other countries and hope that some of the practical information contained in this document will be of use to others planning similar projects.

It is significant to reiterate that prior preparation and planning were beneficial, but there is no substitute for local assessment and feedback for maximising the potential of such projects.

To answer the question, can a multidisciplinary burn management approach be achieved in BBU? Yes, but with sustained support in the areas requested.

RÉSUMÉ. Les Auteurs décrivent certaines questions qui concernent une association éducative développée depuis quatre ans entre l’Équipe des Brûlures de l’Hôpital Royal de Perth en Australie et l’Équipe des Brûlures de l’Hôpital Bir à Katmandu au Népal. Ils fournissent une analyse de la préparation et la collaboration nécessaire de la part de toutes les deux équipes et présentent des idées utiles pour tous ceux qui peuvent contempler l’éducation de personnel qui travaille dans une unité des brûlés dans un pays en voie de développement qui trouve loin de sa zone d’activité normale.

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