Addressing life long learning needs of neurologist in the emerging world: A case study of an innovative CME program

Abi Sriharan *

Peter A. Silverman Centre for International Health, Mount Sinai Hospital 200, 600 University Ave Toronto, ON, Canada M5G 1X5
University of Oxford, United Kingdom

Abstract

What leadership roles can transnational medical professional societies play in addressing the life long learning needs of health professionals in emerging world?

The World Federation of Neurology (WFN) provides neurological education programme in countries with unmet neurological training needs, in an effort to improve the knowledge and skills of neurologists. The WFN's experience provides a unique study to exemplify how global stakeholders collaborate with each other to deliver CME and to improve the quality of health care services.

A multi-stage programme evaluation was undertaken to explore the WFN CME, in an effort to: a) understand how global CME programmes are organized, and b) understand the success factors and the challenges of delivering global CME.

The programme evaluation was conducted between June 2005 and March 2006. The preliminary results were shared with the WFN education committee and national coordinators and international experts to check and confirm the findings from the study.

The study results reveal that global CME programmes could be designed effectively with minimum costs. These programmes contribute to meeting the continued learning needs of neurologists in resource poor settings. Further, the WFN initiative provides, some initial evidence that these programs can contribute to systems level improvements.
© 2007 Elsevier B.V. All rights reserved.

Keywords: Continuing medical education; Global health; Neurology education; International; Professional Societies; Health human resource

1. Introduction

Worldwide, neurological and psychiatric disorders account for 1.4% of all deaths and 28% of all years of life lived with a disability. By 2020, the total global burden of diseases resulting from neuropsychiatric disorders is projected to rise to 14.7%. Thus, a huge need exists to prepare the health care systems to meet this increasing health burden [1–5].

An international consensus exists regarding the need to develop continuing medical education (CME) systems to enhance quality of services to promote health, prevent illness or to cure and rehabilitate by providing necessary knowledge, skills and motivation to health care providers [5]. Systematic reviews of CME interventions confirmed that well designed CME programme is effective in changing doctors' knowledge and skills [6–10].

The World Federation of Neurology (WFN) is an international network whose mandate is to improve human health worldwide by promoting prevention and the care of persons with disorders of the entire nervous system by: (1) fostering the best standards of neurological practice; (2) educating, in collaboration with neuroscience and other international public and private organisations; and (3) facilitating research through its research groups and other means [11].

Since 1999, at the request of national delegates, the WFN provides neurological education programme to countries with unmet neurological training needs, in an effort to improve the knowledge and skills of neurologists [11,12].

* Peter A. Silverman Centre for International Health, Mount Sinai Hospital 200, 600 University Ave Toronto, ON, Canada M5G 1X5. Tel.: +1 416 586 5964.
 E-mail address: ASriharan@mtsinai.on.ca.

Table 1
WFN CME model

- *Course material*: *Continuum*, the AAN's self-study CME publication. Each issue includes diagnostic and treatment outlines, clinical case studies, a detailed patient management problem, and a multiple-choice self-assessment examination.
- *Course frequency*: Six times a year
- *Course delivery*: Various teaching approaches are applied to meet the local needs and resources.
- *Course coordination*: WFN CME Manager based in the UK
- *Local course delivery*: National neurological associations
- *Local course coordination*: A national coordinator appointed by the national neurological association
- *Course evaluation*: Attendance list and a simple feedback form measuring satisfaction
- *Course credit*: WFN provides a certificate of participation.

Over 700 neurologists from more than 35 countries currently participate in the programme.

As part of the training programme, each participating country annually receives two free mailings of three different issues of *Continuum*, a CME resource comprised of specially designed, problem-based interactive courses developed by the American Academy of Neurology (AAN).

Each issue includes diagnostic and treatment outlines, clinical case studies, a detailed patient management problem, and a multiple-choice self-assessment examination. *Continuum* was well-received in the U.S. among neurologists, and two formal educational outcomes studies from the U.S. confirmed that *Continuum* materials changed behaviours of health professions [13].

The WFN CME programme is planned and delivered on a small budget. Currently, the AAN provides 400 copies of *Continuum* free of charge and allows the purchase of an additional 200 copies [14]. Printed materials are shipped twice a year. A course feedback form is used at the end of the programme to assess participants' satisfaction and perceptions about the course. The WFN provides annual certificates to participants who attend the course and complete the evaluation forms. Table 1 provides a summary of the WFN CME model.

The CME programme at the national level is coordinated by a national coordinator. National CME coordinators are appointed by the local neurological societies.

To date there has been no formal outcome evaluation of the WFN CME programme.

2. Study aims

This study aims to explore the World Federation of Neurology (WFN) CME programme in an effort to: a) examine what attracted WFN and member organizations to develop and participate in the WFN CME, and b) identify success factors and barriers.

3. Methods

Given the lack of prior evaluation of the WFN CME programme and the limited availability of information about

how the programme works, a programme evaluation approach was selected.

To facilitate the data collection, the Centers for Disease Control and Prevention (CDC) programme evaluation framework was used [15].

This study was submitted to the evaluator's home institution's (Mount Sinai Hospital, Toronto) Research Ethics Board for approval. The application was approved on 07 June 2005.

Data collection was carried out between July 2005 and March 2006 using variety of qualitative data collection sources. During the initial stage, qualitative key informant interviews and document reviews were used.

A purposive sampling strategy was used to identify potential participants for the interviews. Each potential participant received an invitation by email, along with the project information sheet and consent form.

In accordance with qualitative research methods, the sample size was not predetermined. Data saturation began to occur after the first four or five interviews; eight interviews were required to obtain full data saturation.

A semi-structured telephone interview guide was used in conducting the interviews (Table 2). Each participant received a copy of the interview schedule prior to the interview. The interviews focused on the WFN CME process, outcomes, success factors, challenges, future direction, and experiences.

The evaluator conducted all the interviews. All measures were taken to minimize the interviewer's role in the interview and to avoid leading questions. These interviews were recorded on tape and professionally transcribed. The interviewer also took field notes during the interview.

The collected data was used to create a survey for the second stage of gathering information on the process, outcomes, and lessons learned across the countries [18].

To allow the national CME coordinators an opportunity to think and reflect on the questions and give more considered answers, online descriptive survey approach was used.

The online survey included both closed questions with pre-coded answers and free-response questions. The questionnaire had the same framework as the interview.

4. Data analysis

Grounded theory content analysis guided the data analysis in the initial stage [17]. Key informant interviews, field notes, and WFN Education Committee reports provided the initial data to assist in developing the programme theory.

Table 2
Guiding questions

➢ How does the WFN CME programme work?
➢ What are the key outcomes/results of WFN CME?
➢ What are the success factors?
➢ What are the challenges/barriers?
➢ What needs improvement?