

TELEBREASTFEEDING FOR PRIMARY HEALTH CARE: A MULTIPROFESSIONAL FOCUS

São Paulo – SP - August 2009

Sergio Daré Junior

Discipline of Telemedicine of the Faculty of Medicine, University of São Paulo
sdare@usp.br

Cláudia Prado

School of Nursing, University of São Paulo
claupra@usp.br

Chao Lung Wen

Discipline of Telemedicine of the Faculty of Medicine, University of São Paulo
chao@usp.br

Category

Methods and Technology

Educational section

Continuing Education

Nature of Work

Description of Project in Development

Class

Innovative Experience

ABSTRACT

Distance education is considered one of the strategies for permanent education. Continuing education is necessary for any professional, particularly for the health professionals. Access to the new technologies is essential considering the exponential growth of knowledge. A multiprofessional group met (Telebreastfeeding Group) in order to promote permanent distance education concerning breastfeeding. This group has professionals from areas such as Medicine (Pediatrics), Nursing, Dentistry, Nutrition, Phonoaudiology (Speech Therapist), Journalism and Communication. This initiative is a part of the National Telehealth Project to Support Primary Health Care Professionals (Sao Paulo Nucleus) and its educational system is based on technology. Using this strategy is expected to offer the Family Health Strategy team permanent education in breastfeeding by means of Teleeducation and Teleassistance.

Keywords: distance education; continuing education; breastfeeding; multiprofessional.

**TELEBREASTFEEDING FOR PRIMARY HEALTH CARE:
A MULTIPROFISSIONAL FOCUS (EXPERIENCE)**

Sergio Daré Junior*; Cláudia Prado**; Chao Lung Wen***; Telebreastfeeding Group ****

*Pediatrician, Invited Professor of the Discipline of Telemedicine, Faculty of Medicine, University of São Paulo. Coordinator of Telebreastfeeding.

** Professor of the Department of Professional Orientation of Nursing School, University of São Paulo

*** Associate Professor of Faculty of Medicine, University of São Paulo. Coordinator of the São Paulo Nucleus of the Telehealth Project from the Ministry of Health and Telebreastfeeding Coordinator. Head of the Discipline of Telemedicine of the Faculty of Medicine, University of São Paulo

**** Collaborators:

- **Nursing:** Isilia Aparecida Silva; Heloísa Helena Ciqueto Peres; Maria Madalena Januário Leite; Camila Brolezzi Padula; Alda Valéria Neves Soares; Ilva Marico Mizumoto Aragaki; Gilcéria Tochica Shimoda; Vanessa Forte Zaniboni; Eliete Genovez Spir;
- **Speech Therapists:** Giédre Berretin-Félix, Déborah Viviane Ferrari, Dionísia Aparecida Cusin Lamonica
- **Dentistry:** Luciana Butini Oliveira, Patrícia Camacho Roulet, Cristina G. Zardetto
- **Nutrition:** Sonia Tucunduva Philippi , Érika Toassa,
- **Pediatricians:** Maria José Guardia Mattar, Vera Lúcia Jornada Krebs

INTRODUCTION

Distance education is considered one of the strategies for permanent education, a pedagogic innovation in educational area [1]. Continuing education is necessary for any professional, particularly for health professionals. Considering the exponential growth of knowledge the access to the new technologies is essential.

Besides using the technology in distance education, it is also necessary to develop an interactive systematic in order to allow learning in context, and make better use of the computer resources. This is the concept of Interactive Teleducation which uses interactive technologies (online or off-line) associated with computer graphics resources (Virtual Man Project) and communication strategies (Design in Educational Communication)[2].

New technologies integrating the educational process increase the access to information and interactive education. It can be stimulated by the relationship between different telecommunication structures, digital systems and resources. This process is a feasible method of disseminating theoretical and practical skills which promotes continuous professional development[3].

Therefore, distance education is an important resource which has great potential on the process of permanent education for health professionals in this globalized world of knowledge.

Continuing education has been a matter of interest to the Brazilian Ministry of Health. Permanent education would be seen as

a way of transform the educational practices of formation, of attention, management...popular participation as well as in the social control in the health area [1].

The term permanent education has been widely spread by the Pan-American Health Organization and

“has as a reference a strategy of reorganization and development of services, using social and economic evaluation, but, above all of transforming

concepts and values of health professionals. The aim is to place the health professional in the center of the teaching-learning process'[4].

The recognition of the need for continuing education programs for the health professionals is based on the speed the knowledge is renewed in health area. However, despite this growing consensus, the difficulties to deploy / implement programs that actually meet the needs become increasingly evident due to the dynamics and characteristics of the health care work [5].

The permanent education of health professionals is a complex task. One of the problems is the low availability of professionals for updating and their irregular distribution, with large concentration of these professionals in urban and more developed regions. Many factors demand ambitious initiatives in order to transform the educational process of health. Increasing specialization and its consequences on the economic costs, dependence on a more sophisticated technology, and the predominance of hospital training, focusing mainly on biological and technological aspects are examples of these factors[5].

In this context, we emphasize interdisciplinarity as a reference to be adopted in continuing education programs, since it implies in a range of related disciplines whose relationships are defined through the identification of problems in common and a common work platform as well[6].

It is essential therefore to develop technological resources that promote the teaching-learning process. Learning to learn is fundamental in addition to teamwork. In the words of Ceccim *...to build habitually themselves learning objects, individually or in group*. The platform called Cybertutor was developed by the Discipline of Telemedicine, Faculty of Medicine, University of São Paulo and has been used to promote distance education [7].

The organization of multidisciplinary teams strengthens the professional practices, since it solves health problems of local people and it is an important strategy to a highly qualified work. The half-life of knowledge is short. Knowledge needs to be updated constantly since new information is aggregated daily, mainly in the health area. An important question to be asked is how to

handle this volume of knowledge and where to find it, so as to satisfy the professional needs?

It is in this context that the Ministry of Health which is responsible for Health Education, includes among its many actions the use of modern information and communication technologies, in order to promote professional qualification. The National Telehealth Program was instituted in January, 2007 (Ordinance No. 35, January 4, 2007). It focuses mainly on the process of permanent education training for the Family Health Strategy teams. The main objective of this program is to improve health care in Primary Care Units (SUS). The Telehealth Project implemented an infrastructure in remote areas of the country that allowed the Family Health Team to have long distance continuing development [8]. The Brazilian National Telehealth Program is coordinated by the Ministry of Health (SGTES, SAS e SE/DATASUS); and articulated with other Brazilian ministries: Education, Science and Technology (RNP); Communication (GESAC / FUST), Defense (Rondon Project); Civil House – SIVAM/SIPAM, besides the Federal Council of Medicine, the Brazilian Society of Family Medicine and Community and BIREME / PAHO / WHO.

The strategy at the Brazilian Tele-health Program is to promote integration and the establishment of communication links between the Family Health Teams of the various regions of the country with the reference Universities. It is expected to offer a more qualified service in primary health care and reduce costs by qualifying the health professional and reducing the need of moving patients, besides increasing prevention of diseases[8].

Access to the Brazilian Telehealth Project may be obtained at <http://www.telessaudebrasil.org.br/php/index.php>. Each Regional Group has its address, such as São Paulo Nucleus, <http://www.telessaudeesp.org.br>, which is managed by the Discipline of Telemedicine of FMUSP. Access to the Telebreastfeeding Project is through the São Paulo Nucleus site. However it is necessary to belong to one of the Basic Health Units (UBS) or an institution that integrates the Brazilian National Telehealth Program.

The Brazilian Telehealth strategy from the National Telehealth Program may be accessed at

<http://www.telessaudebrasil.org.br/agendas/seminac/public/documents/anaEstelaHaddad-151444.pdf>.

The aim of Telebreastfeeding is to promote permanent education about breastfeeding to primary care professionals using a model based on distance education and involving a multiprofessional group (Telebreastfeeding Group). This initiative is part of the National Telehealth Project in support to Primary Care (São Paulo Nucleus) which offers permanent education mediated by technology. The methodology includes not only text, but different digital resources, such as: videos, images, graphics, short tips on mp3 media (Audio tips), and sequences of 3D computer graphics animations (Virtual Man). The main characteristic of this work is the multidisciplinary approach, since it involves different areas such as: Medicine (Pediatricians), Nursing, Dentistry, Nutrition, Speech Therapists, Journalism and Communication. Using this strategy, it is expected to offer permanent education for the Family Health Strategy teams, promoting Tele-education and Teleassistance, in order to improve the level of resolution on the Primary Health Care in the Unified Health System (SUS).

METHODS

The Telebreastfeeding was developed as part of the Telehealth Project - São Paulo Nucleus, and it began in March 2008, having evolved in several stages.

Its implementation is described below:

1. The Telebreastfeeding Design Project was designed to meet one of the goals of the Primary National Telehealth Program, in the Sao Paulo Nucleus.
2. A multiprofessional group was formed to create the Telebreastfeeding Project.

This group was composed of health professionals from different areas that were in some way related to breastfeeding. Pediatricians, nurses, speech therapists, nutritionists and dentists were included.

3. The working methodology consisted in:

- a. Regular meetings, weekly or every two weeks. These meetings included videoconferences since some professionals were from another city and some were in another region of the city of São Paulo.
- b. Exchange of information by e-mail;
- c. At the end of each meeting, a minute of the discussed items and issues was distributed by e-mail. This allowed all professionals to keep up with the project.

4. Structuring of the technical material (Table 1):

- a. The main text was divided into twelve topics and some of them in subtopics
- b. Photos, videos, illustrations and dynamic, tridimensional images (Virtual Man) were prepared to be inserted
- c. The text was revised by two neonatologists with expertise in breastfeeding
- d. The text was revised by a professional from the Communication Team of the Telemedicine Discipline
- e. A screenplay to manual breastmilk expression was written
- f. A video was recorded by the Communication Team of the Telemedicine Discipline after the written informed consent by the patient. The video included images of an infant during breastfeeding, adequate position, and correct suckling.
- g. The Telebreastfeeding Group built a set of questions and answers with the purpose to help the reader with the common situations and difficulties of the breastfeeding

- h. Another set of texts was written with the purpose of recording it in a mp3 format. The mp3 is downloadable.
- i. A set of Clinical Cases were written by the pediatricians, nurses, nutritionists; dentists and speech therapists of the the Telebreastfeeding Group
- j. Dynamic tridimensional images of the human body are being planned, using graphic computational resources (Virtual Man), addressing the following topics:
 - i. The newborn swallowing
 - ii. The Virtual Breast, related to breastfeeding
 - iii. Breastfeeding physiology

Table 1. Summary of the instructional material of the Telebreastfeeding project

Instructional material	Format
1. Basic and advanced breastfeeding information	Text/Images
2. Question and answers about breastfeeding	Text
3. Question and answers about breastfeeding	Audio (mp3)
4. Narrated video	Video
5. Clinical cases	PowerPoint® presentation
6. Dynamic tridimensional images of the human body using graphic computational resources	Virtual Man

- a. All the instructional material is planned to be inserted together at the National Telehealth Project (Sao Paulo Nucleus) site, in order to give

access to the primary care professionals. This access is only available by a password.

RESULTS

This is a project that is partially finished. From March, 2008 to March, 2009 about 20 videoconferences were carried out between a group in São Paulo and the remaining group at the Bauru campus (USP). These meetings were all documented by a minute. There were many exchanges of didactic material and discussions by e-mail.

Material obtained so far:

1. Text. A technical text about breastfeeding was produced by the professionals and revised by communication professionals. A table of contents of this text is reproduced in Table 2.

Table 2. Table of contents of the breastfeeding text (Telebreastfeeding)

Introduction
Chapter 1: Definition, prevalence and politics of breastfeeding
Chapter 2: Breast anatomy. Physiology of lactation How the mammary gland is formed in the embryo? How is the breast evolution through infancy and adolescence to the adult woman? What changes during pregnancy? The breast of an adult woman
Chapter 3: Nutritional aspects of the human milk Present recommendations to children from zero to three years of age What are the benefits of the human milk Period of lactation What is the colostrum? What is the transition milk and mature milk? The composition of the human milk

<p>When the mother should begin the complementary feeding?</p> <p>How to know which milk should be used when the mother is not able to breastfeed</p>
Chapter 4: Developing of suction and swallowing in the infant
<p>Chapter 5: Suction, Audition and Phonation: Benefits/Advantages of breastfeeding</p> <p>Breastfeeding, respiration and Auditive health</p> <p>Breastfeeding and its relationship with cognitive abilities and school achievement</p> <p>Father's role in breastfeeding</p>
Chapter 6: Breastfeeding and auditive and language development
Chapter 7: Breastfeeding contraindications
<p>Chapter 8: A guide to breastfeeding</p> <p>Introduction</p> <p>Advantages of breastfeeding</p> <p>Preparing the breasts to breastfeeding</p> <p>How to accomplish breastfeeding</p> <p>Breast and nipple care</p> <p>How the baby breastfeed: helping the mother with positioning her baby</p> <p>Common difficulties in accomplishing breastfeeding</p> <p>Incorrect grasping of the nipple</p> <p>Nipples fissures</p>
Chapter 09: Positioning during breastfeeding
Chapter 10: Guide to breast milk expression
Chapter 11: How to evaluate the adequacy of breastfeeding to the newborn?
Chapter 12: Development of the dentition and oral hygiene of the infant

- Image. A video about breastfeeding was obtained and is under finalization, to which is being added a narration based on the main text.

3. Clinical cases. Twelve cases were produced and they are related to all of the professional areas of the Telebreastfeeding Group.
4. Audio tips. A guide to recording audio tips in all of the areas of the Breastfeeding Group was carried out. This stage is under construction
5. A screenplay of Suction and Swallowing in the infant was developed and will be the guide to build the 3 D iconographies of the Virtual Man
6. Insertion of this instructional in a electronic tutor called *Cybertutor*

FINAL CONSIDERATIONS

Learning and permanent education are imperative elements in our globalized world. A world of exponential growth of information and growing access to this information. The health professional must not feel isolated. Remote areas nowadays are able to get access to this knowledge, restricted to a small group previous to the technology achievements of our days.

With the proper technology and adequate training it is possible the achievement of permanent education. The union of a group of health professionals of different areas made possible the building of the Telebreastfeeding and its insertion into the National Telehealth Project – São Paulo Nucleus. An instructional material was produced and its main characteristic is the expertise of multiprofessional health care team put together. Besides, the available technology allows structuring the educational material in order to not simply inserting a text but instead to offer a multimedia, with all its learning potential.

Telebreastfeeding is a promising approach to have a positive impact in the healthcare professional permanent education. The integration of different content forms in the process of health knowledge construction and reconstruction allows the arousal the potentialities of the learner.

REFERENCES

1. Oliveira MAN. Distance Education as strategy for permanent education in health: possibilities and challenges. *Rev. bras. enferm.* 2007;60(5):585-589 [cited 8 August 2009]. Available at: http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0034-71672007000500019&lng=en.
2. Projeto Homem Virtual [cited 8 August 2009]. Available at: <http://www.projethomemvirtual.com.br/>.
3. Barreto RG. Tecnologias na formação de professores: o discurso do MEC. *Educação e Pesquisa.* 2003; 29(2):271-86.
4. Motta JIJ. Educação permanente em saúde: da política do consenso a construção do dissenso. Rio de Janeiro, 1998, 227p. Dissertação (Mestrado em Educação e Saúde) – Núcleo de Tecnologias Educacionais em Saúde da Universidade Federal do Rio de Janeiro, citado em Motta JIJ, Buss P, Nunes, TCM. Novos desafios educacionais para a formação de recursos humanos em saúde. *Olho Mágico.* 2001;8(3): set/dez [cited 08 August 2009]. Available at: <http://www.ccs.uel.br/olhomagico/v8n3/enfoque.htm>.
5. Ceccim RB. Permanent Education in the Healthcare field: an ambitious and necessary challenge. *Interface (Botucatu).* 2005;9(16): 161-168. [citado 8 Agosto 2009]. Available at: http://www.scielo.br/scielo.php?script=sci_arttext&pid=S1414-32832005000100013&lng=en.
6. Rocha SMM, Almeida MCP. O processo de trabalho da enfermagem em saúde coletiva e a interdisciplinaridade. *Rev. latino-am. enfermagem.* 2000;8(6):96-101.
7. Wen, CL. Modelo de ambulatório virtual (cyber ambulatório) e tutor eletrônico (cyber tutor) para aplicação na interconsulta médica, e educação à distância mediada por tecnologia [tese livre-docência]. São Paulo: Faculdade de Medicina da Universidade de São Paulo; 2003 [cited 08 Agosto 2009]. Available at: <http://www.estacaodigitalmedica.com.br/edm/institucional/liga/tesedrchoa.pdf>.

8. Ministério da Saúde do Brasil. Programa Nacional de Telessaúde. Atenção Primária à Saúde. Uma ação nacional de parceria entre os Ministérios da Saúde, Ciência e Tecnologia e Educação [citado 08 Agosto 2009]. Disponível em: <http://www.telessaudebrasil.org.br/php/level.php?lang=pt&component=42&item=1>