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Telenursing in Primary Health Care: Report of Experience in Southern Brazil

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Abstract. The Rio Grande do Sul Telematics and Telehealth kernel in Brazil, aims to enhance the quality of the Unified Health System (UHS) in support of primary health care (PHC) services, most of them engaged in the Family Health Program (FHP). Among the initiatives of the TeleHealth Rio Grande do Sul, there is consulting via e-mail and videoconference. They are requested and answered using specific forms available on TeleHealth's intranet. This study registers the experience on supporting and answering demands using clinical evidence, and presents professional characteristics and some results reached until now. Data related to professional characteristics were extracted from a questionnaire prepared by the program execution team, and applied during training sessions in 2007 and 2008. Consults sent by nurses, technicians and community health agents were analyzed considering its number and content. The analyzed sample of nurses showed that 89.1% were female, 40% younger than 30 years old and the majority graduated within the past 5 years. Most of them (97) work for the FHP and 51.61% have a pos graduate degree. Most of the interviewed nurses use e-mail to communicate and the internet at least once a week. So far, the program TeleHealth Rio Grande do Sul have received 498 consult requests, 111 related to the nursing field. The nurses answer nursing related doubts, sent by nursing technicians and community health agents. The consults involve several different subjects, mainly on wounds, woman health, drugs and medicines. Considering the consults demanded, the group decided to create health care protocols, starting with the most requested subjects, such as the wounds, which is about to be released on the Rio Grande do Sul TeleHealth website.

Key words: Nursing, Nursing Informatics/education, Primary Health Care (PHC).

1. Introduction

Brazil is a country of continental dimensions characterized by relevant social and economical contrasts, heterogeneous distribution of infrastructures and different levels of professional qualification. These facts, associated to geographical difficulties, create quality divergences of primary health attention from one region to the other, as well as inside one state or even in one city. Such characteristics demand the introduction of new information and telecom technologies aiming professional qualification and health equity.

In Brazil, the health assistance model reorganization strategy has been implemented with the Family Health Program (FHP), which implemented Family Health Teams (FHT). Access, a comprehensive approach and longitudinality of the attention as well as coordination of the Health System utilization by the Primary Health Care Team has been allowed [1].

The Panamerican Health Organization (PAHO) considers that the application of updated information and telecom tools in the field of health care may enhance services coverage, allowing effective clinical or administrative information exchange contributing for the professional improvement [2].

Summing up, qualified remote support, capable of delivering tele-education and tele-assistance to family health teams, may clearly contribute to improve system effectiveness. Another benefit is the possibility of integrating the epidemiological vigilance environment, facilitating national strategic health planning.

The Rio Grande do Sul Telematics and Telehealth kernel in Brazil, aims to enhance the quality of the Unified Health System (UHS) in support of primary health care (PHC) services, most of them engaged in the FHP. It targets services in countryside cities of the state of Rio Grande do Sul as well as in its capital, the city of Porto Alegre, through family health teams training using technology designed to promote tele-education.

In several countries, Nurses are using telecom to deliver health care, manage nursing services and conduct researches. For the INC (International Council of Nurses) nursing based of telecom are known as Tele-Nursing [3].

Practice based on evidences was stimulated by the British epidemiologist Archie Cochrane, and its development happened in parallel with the improvement of access to information. Technological innovations allowed wide access to the researches results and the development of research methods [4-5]. It focus on clinical attention and education, based on knowledge and evidence quality; demands the definition of the clinical problem, identification of the necessary information, research of data and additional information aiming to identify its usability for the patient [6].

Thus, this study registers the experience of Tele-Nursing in southern Brazil on supporting and answering demands using clinical evidence, and presents the results reached until now.

2. Methodology

Tele-Education and Tele-Assistance activities are developed following PHC principles (first contact access, longitudinality, integrality, coordination, cultural competence, orientation to communities and families) via web conference, text consults and updated theorical papers.

The counties selected to participate in this program had to match the following criteria: population lower than 100 thousand people, FHP coverage ≥ 70% of whole population and low turnover of FHT staff. A total of 48 counties and 134 multi-professional health teams were included. Training of 448 professionals to use multimedia equipment and the website was developed.

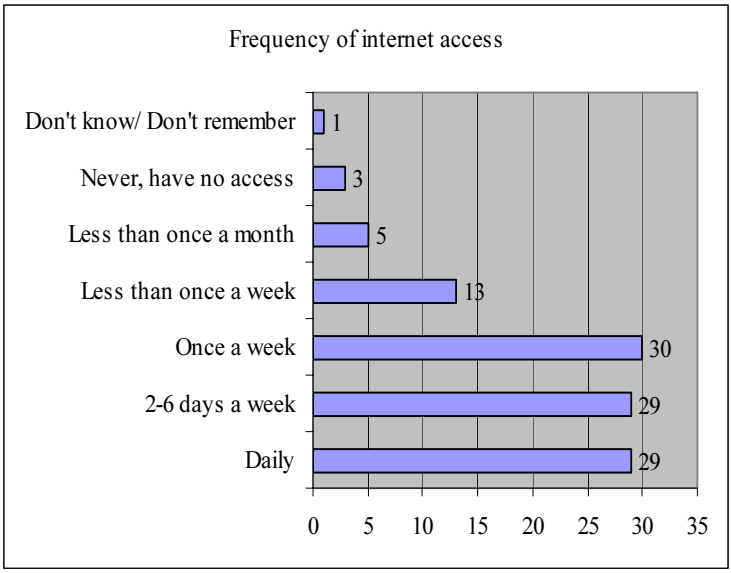
Nursing consults are sent by e-mail and answered in 72 hours to the requester (nurse, community health agent). After a consult is answered, the requestor has to register his/her satisfaction in a form and send it back.

Data related to professional characteristics (administrative information, identification data, professional formation and profile, knowledge of IT and telecom, health professional educational demands) were extracted from a questionnaire prepared by the program execution team, and applied during training sessions in 2007 and 2008. All participants signed an Informed Consent Form. A total of 110 questionnaires classified as “Baseline” were analyzed, which were answered by the nurses whom participated of the trainings. Data was organized and analyzed with the SPSS software (Statistical Package for the Social Sciences) version 13. Consults sent by nurses, technicians and community health agents and answered by the Consultant Nurse of the program were analyzed considering its number and content.

3. Results

3.1. Nurses' Characteristics

The analyzed sample covers only nurses, 89.1% female, 40% younger than 30 years old and the majority graduated within the past 5 years. The research reveals that 97 nurses work for the FHP and 51.61% have a pos graduate degree.
The results show that 86.4% of the interviewed nurses use e-mail to communicate. The frequency of e-mail access of these professionals is 43% for daily access, 34%, 2 to 6 days a week, 6% once a week, and 17% less than once a week. Most of the nurses (94%) access an e-mail at least once a week. Picture 1 presents the frequency of internet access of these professionals.



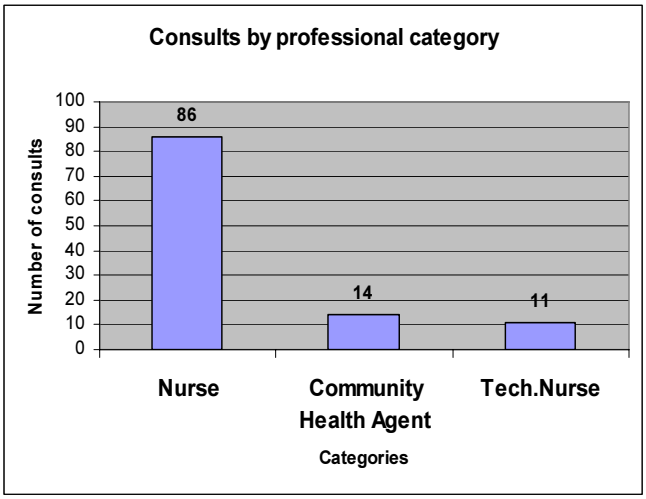
Picture 1 – Frequency of internet access by nurses

Most of the nurses use the internet al least once a week. The majority of them (97.3%) mentioned they use the web (scientific internet sites, virtual libraries, electronic papers, official publications of the Brazilian Health Ministry) to recycle their knowledge.

When asked about the availability of the PHCS (Primary Health Care Software), which is an official database with relevant information of the health field for FHP teams, 65.5% said that their health unit has it installed in a computer. In the case of needing health information, 82.7% of the nurses informed they used Brazilian Health Ministry website or the Brazilian Unified Health System Informatics Department (DATASUS). At the same time 49.1% of them mentioned they already used the of BIREME Virtual Health Library (VHL) or Virtual Public Health Library (VHL-Public Health).

3.2. Nursing consultancy in the Program

So far, the program TeleHealth Rio Grande do Sul have received 498 consult requests, 111 related to the nursing field. The consults are sent by nurses, technical nurses and community health agents.



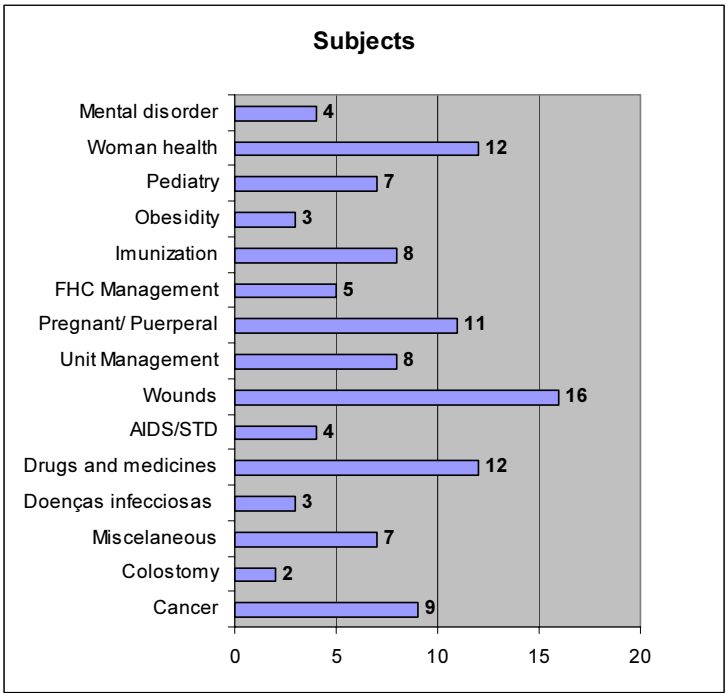
Picture 2 – Consults by professional category

The consults involve several different subjects. Picture 3 presents the more frequent subjects.

4. Discussion and Conclusion

Tele-Education can not be simply assumed as remote education, but has to be evaluated as a tool to optimize processes, not only of health attention, but also of health professionals continued education. Within an expressive list of actions related to the work management and health professional improvement, the web tools can produce positive reactions on UHS effectiveness. Considering the consults demanded, the group decided to create health care protocols, starting with the most requested subjects, such as the wounds, which is about to be released on the Rio Grande do Sul TeleHealth website.

The main barrier found so far to answer nursing consults is the lack of scientific evidences produced by nursing. There is a need of more investments to produce systematic revisions in order to answer questionings about the best care to deliver. The application on a daily basis of different nursing practices must be scrutinized as well. To do that, the development of remote nursing practices through information and



Picture 3 – *Subjects of consults*

telecom technologies, seems to be the environment to demand more from professionals in the process of continuous education and persistent research of the best scientific evidence for the development of this professional practice.

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