



Centre de recherche  
sur le vieillissement  
Research Centre  
on Aging

Health and Social Services-University  
Institute of Geriatrics of Sherbrooke



# Encrâge

VOLUME 9, ISSUE 1, SPRING 2007

## In this edition:

- Aging and Social Participation .....1
- Telerehabilitation: the Internet at Work for Rehabilitation .....2
- A Quebec Assessment Tool: the "Système de mesure de l'autonomie fonctionnelle" (Functional Autonomy Measurement System or SMAF) Is Implemented in France .....3

*This newsletter is intended for people who participated in the Research Centre on Aging's projects.*

*It is also distributed to anyone who wants to receive it. Please contact us for more information.*

## Aging and Social Participation

By Johanne Desrosiers, CPE, PhD



Johanne Desrosiers is a researcher at the Research Centre on Aging and head of the Department of Rehabilitation in the Faculty of Medicine and Health Sciences at the Université de Sherbrooke.

**S**ocial participation has been a research topic of some interest for a number of years. Many researchers define social participation as an individual's involvement in activities with others. We use a broader definition that embraces not only social activities but also daily activities, such as eating, bathing, moving around, and communicating, which are required to interact with society.

From this viewpoint, social participation can be defined as an individual's commitment to his or her current activities and social roles. In other words, social participation does not represent an individual's capacity to carry out his or her activities and social roles, but rather what he or she actually does. To illustrate, you may be quite able to do your own housework but, for different reasons, you may have someone else do it. Similarly, you may be able to make your own meals but do not because your spouse prepares them for you.

The Research Centre on Aging has carried out a number of studies on the topic of social participation. Some of these studies involved with healthy people, whereas others focused on individuals with disabilities related to health problems.

These studies brought to light a number of aspects pertaining to social participation.

First, participation decreases with age, especially after age 75, both among healthy people and those with disabilities. It should also be noted, however, that social participation in certain areas does not diminish with age. For example, assuming one's responsibilities and establishing interpersonal relationships are maintained over the years.

As might be expected, social participation of men and women differ in some areas of life. Women take a more active role in tasks related to nutrition and interpersonal relationships, whereas men are more involved in home outdoor maintenance and travel. In the other areas of life, such as personal hygiene, leisure, communication (e.g., speaking and writing), and responsibilities, no gender-based differences

**DID YOU KNOW THAT...?**  
Cerebrovascular accident is the leading cause of impairment in the elderly. Nearly 65% of people who have had a cerebrovascular accident will have fairly significant sequelae.

See AGING AND SOCIAL PARTICIPATION on page 4...

# Telerehabilitation: the Internet at Work for Rehabilitation

By Mélanie Couture, MA, doctoral student in clinical sciences



Mélanie Couture is conducting research on the coping process following lower-limb amputation, under the supervision of Chantal D. Caron, PhD, and Johanne Desrosiers, PhD, both researchers at the Research Centre on Aging and professors at the Université de Sherbrooke. Ms. Couture is also interested in scientific popularization. She had the opportunity to interview Michel Tousignant, PhD, and Patrick Boissy, PhD, researchers at the Research Centre on Aging on telerehabilitation, an important part of their scientific work.

**T**he Internet coming to the rescue of the health system? That's exactly what you would hear from the various levels of government that see the Internet as a potential solution for issues related to access to health care. Researchers at the Research Centre on Aging are taking things a few steps further by attempting to "bring" rehabilitation therapy right into the patient's home over the Internet. "This technique, called telerehabilitation, brings a physiotherapist and a patient together over an Internet connection in order to treat the person in the home," explained Michel Tousignant, a physiotherapist and member of the telerehabilitation research team at the Research Centre on Aging and at the Université de Sherbrooke.

Rehabilitation services aim at helping restore a patient's condition to as close as possible to what it was prior to a health problem or hospitalization. Under current conditions, after being discharged from the hospital, patients must go to community services centers (e.g., CLSCs) or specialized centers for rehabilitation services. Access to such specialized services poses problems for part of the population for a number of reasons, including significant distance between their homes and the locations where care and services are delivered. Moreover, many regions are finding it difficult to recruit specialists. "Telerehabilitation offers the advantage of allowing patients to stay at home while receiving services," pointed out Mr. Tousignant.

**DID YOU KNOW THAT...**  
According to the Canadian Radio-television and Telecommunications Commission (CRTC), 89% of Canadians reside in areas with high-speed Internet access and 46% are subscribers.

Statistics Canada reported that, in 2000, 11% of people age 60 or older living in Quebec had used the Internet during the preceding year.

Home telerehabilitation has been made possible in recent years because of high-speed Internet access. "It's now possible to transmit large amounts of data over the Internet, which wasn't the case three or four years ago," added Patrick Boissy, kinesiologist and team researcher.

## So, smile: you're on television!

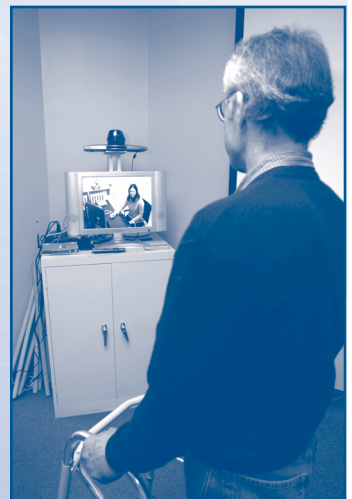
Telerehabilitation involves a system of cameras, televisions, and a high-speed Internet connection. This setup makes it possible to exchange sound and images between the patient's home and the physiotherapist's location. A 20-inch, flat-screen television in a cabinet with a built-in camera is installed in the patient's home," explains Mr. Tousignant. The patient only has to press a button to turn the system on.

The physiotherapist controls the camera remotely from his or her location. It must be emphasized that no images can be captured in the patient's home unless someone there activates the system. There are two good reasons for this: to protect privacy and to build the patient's confidence in this new technology.

The physiotherapist has access to two monitors, a computer, and the camera in his or her office. To meet the specific needs of telerehabilitation, the cameras must be able to pan left and right and up and down, in addition to being able to zoom in on the patient. "Having an individual get up, walk, and move around their home is a dynamic process," added Mr. Boissy.

"A relative, neighbor, or friend must be present for each session," mentioned Mr. Tousignant, "otherwise, the session is canceled for reasons of safety."

See *TELEREHABILITATION: THE INTERNET AT WORK FOR REHABILITATION* on page 4...



# A Quebec Assessment Tool: the "Système de mesure de l'autonomie fonctionnelle" (Functional Autonomy Measurement System or SMAF) Is Implemented in France

By Pauline Gervais, MA, doctoral student in gerontology



Pauline Gervais is working under the supervision of Dr. Réjean Hébert, Dean of the Faculty of Medicine and Health Sciences, and Michel Tousignant, professor at the Faculty of Medicine and Health Sciences. Both are researchers at the Research Centre on Aging.

**A** functional autonomy measurement system that is well-known throughout establishments in Quebec has attracted interest in France. The *Système de mesure de l'autonomie fonctionnelle*, better known as the SMAF, was developed by Dr. Réjean Hébert, a researcher with the Research Centre on Aging. This tool is used to measure the degree of autonomy of individuals in various activities of daily living, such as dressing, walking, speaking, using the telephone, and orientation. It provides the means for ascertaining the needs of an individual with impaired independence and determining the required assistance services.

The grid used in France to assess functional autonomy in the elderly and the handicapped cannot identify disabilities and needs. SMAF is more comprehensive, in addition to being recognized scientifically. This accounts for the decision by the director of the *Maison de retraite la Madeleine de Bergerac* (retirement home) in Dordogne to implement the SMAF in his facility. We

visited the site to train staff and supervise the first assessment of the 211 residents. When we returned six months later to see if things were functioning smoothly, the results were convincing. The staff demonstrated sound mastery of the assessment method, service

**DID YOU KNOW THAT...**  
There are 1,075,346 people age 65 or older in Quebec. Although three times smaller, France has ten times as many elders: 10,208,421.

planning was more effective, and, even more, SMAF assessment was quicker than the institution's old method. We also showed that the SMAF was more accurate. The facility's administration was very interested by this last point, as were senior officials of Dordogne, a region in western France. They learned that 10% of residents were not receiving all the benefits they were entitled to because the French method

was not as accurate in assessing the needs of individuals with impaired independence.

In the light of these facts, it was decided to develop a pilot project to implement the SMAF in all retirement homes and organizations offering home-support services in the Dordogne department. The *Caisse Nationale de Solidarité pour l'Autonomie*, the French national funding agency for the elderly and handicapped, agreed to defray all the costs for carrying out the project.

In 2007, we will be putting our expertise to work for institutions in Dordogne to support the training of their staffs and the implementation of the SMAF in the various settings. In addition, we will provide project evaluation. If the results are positive, the SMAF may eventually be implemented in many other regions of France.

The pilot project will involve cooperation between the Research Centre on Aging of the HSSC-University Institute of Geriatrics of Sherbrooke, the *Centre d'expertise en santé de Sherbrooke (CESS)*, the *Conseil général de la Dordogne*, and the *Caisse Nationale de Solidarité pour l'Autonomie*.<sup>1</sup>



**Front:** Dr. Jacques Allard, CESS director; Béatrice Lartisan, quality nurse at La Madeleine; Johanne Guilbeault, SMAF training nurse at the CESS; Sylvain Connangle, Director of La Madeleine; Martine Montagut, in charge of temporary placement at La Madeleine.

**Rear:** Pauline Gervais, doctoral student; Catherine Guyot, nurse in charge of the SMAF at La Madeleine; Jean Chagneau, general counsellor in Dordogne; Dr. Jean-Marie Charles, coordinating physician at La Madeleine.

## **...AGING AND SOCIAL PARTICIPATION** *(continuation of page 1)*

were found. We also observed that people with chronic health problems, such as type 2 diabetes, arthrosis, and high blood pressure, showed lowered levels of social participation than those that did not. Living alone or as a couple also influences social participation.

Our research on the social participation of individuals who had had a cerebrovascular accident (CVA) significantly helped us to understand the impact that disabilities had on their daily lives. As the result of cooperation of more than a hundred patients with stroke who had been hospitalized, we were able to identify the variables making it easier to predict their social participation several months after their discharge. The factor most closely associated with good social participation is having few depressive symptoms. This finding was also observed in studies carried out in other countries, which confirms that psychological aspects significantly influence our level of participation in daily activities and social roles. Certain physical variables, such as good balance and good coordination of leg movements, are likewise important in maintaining a good level of social participation.

The participants in this study were reassessed two to four years later in order to determine if they had maintained their social participation. The good news is that we found that involvement in social roles had been stable over time. We even noted an improvement in responsibilities to self and to others as well as on the financial level. In contrast, participation in daily activities, such as personal hygiene and getting around, had dropped significantly. These findings suggest that certain people could benefit from rehabilitation services to help them restore the capacities needed to maintain an optimal level of social participation.

While our research on social participation to date has enabled us to advance knowledge, much remains to be done to gain a better understanding of the impact that social participation has on the well-being and quality of life of the elderly. We hope that our studies already under way and those that will follow in the next few years will enable us to make a greater contribution.†

## **...TELEREHABILITATION: THE INTERNET AT WORK FOR REHABILITATION...** *(continuation of page 2)*

Moreover, the physiotherapist can call the patient on the telephone if there are technical problems.

### **On a Screen near You...**

Over the last five years, the Ministère de la Santé et des Services sociaux du Québec has provided funding to projects developing telehealth in order to improve access to health care. Telerehabilitation, however, is still in the experimental stage and must be proven scientifically before being officially integrated into the health-care system, which could take a few years according to Mr. Tousignant.†



Centre de recherche  
sur le vieillissement  
Research Centre  
on Aging

1036 Belvedere S.  
Sherbrooke, Quebec J1H 4C4

Tel.: 819 821-1170, ext. 2131

E-mail: [lucie.duquette@usherbrooke.ca](mailto:lucie.duquette@usherbrooke.ca)

Visit our Web site: <http://www.cdrv.ca>

**Welcome to Marie-France Dubois, a new member in our committee. She is a researcher at the Research Centre on Aging.**

**Committee: Martin Brochu, Chantal Caron, Marie-France Dubois, Nadine Fortin, Nancy Leclerc**

If you are moving or no longer wish to receive *Encriège*, you can contact Lucie Duquette at 819 829-7131.