Wilfrid Laurier University

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Falls Reduction Intervention Study (FRIS): Preliminary Report

FRIS: A True Collaboration

The Falls Reduction Intervention Project (FRIS), funded by the Canadian Institutes for Health Research, represents a true collaboration between the Waterloo Wellington Community Care Access Centre (CCAC), the CCAC case managers (CMs), the contracted therapy providers (i.e., in-home physiotherapy and occupational therapy) and Wilfrid Laurier University. The project began in Jan. 2009, and during the next 18 months, these groups collaborated to develop and implement a new way of doing business with the ***overall goal of reducing falls in older adults***.

Data Sharing

A key component was the sharing of pieces of the Resident Assessment Instrument for Home Care (RAI-HC) and other information (e.g., case manager notes). The RAI-HC is completed by CCAC case managers (CMs) every six months. The CCAC staff and the therapy providers decided on what would be shared between the CMs and the physiotherapists (PTs) and occupational therapists (OTs).

Education

All the CMs and therapists had a short education session to become more familiar with the RAI-HC and its outputs (e.g., guidelines for assessment and intervention known as CAPs).

Checklist

A checklist of risk factors for falling (see box at left for the key risk factors) was created based on the falls CAP. All CMs and therapists checked the boxes for the risk factors that were relevant for the person being assessed. They also indicated which interventions should be undertaken or at least considered.

Risk Factors for Falling:

- Psychological/Behavioral
- Home Environment
- Sensory Input
- Gait
- Medical Condition
- Medication

Procedures

The CMs recruited older people (aged 65+) who had a *new fall* based on the most recent RAI-HC. This group (34 clients) then received an in-home assessment and intervention by a PT or OT following their usual practice. In all cases, the PT assessed the person's balance and mobility and the OTs assessed the home for environmental hazards. For all other clients aged 65+ (184 in total), the CM gave them a brochure about falls and discussed how to reduce their risk of falling.

The CM will also complete another RAI-HC assessment, following their usual timelines, after the intervention is completed.

Funding for this project was provided by the Canadian Institutes of Health Research (CIHR)

Risk Factors for Falling

Do case managers and rehab professionals pick up on the same risk factors for falling?

For those clients in the intervention group (the new fallers), the most common risk factors identified by either a CM or a therapist were related to issues with gait (79%), balance (70%) or the home environment (57%).

Table 1 compares these two groups to look at how often they selected the different risk factors. The therapists were more likely to select factors related to gait and the home environment. From a purely statistical point of view, both of these differences were important (i.e., less than 5% likelihood of occurring due to chance alone). The CMs were more likely than the therapists to identify issues related to balance (also statistically important) and sensory input (no statistical difference). They had the exact same rate of selecting medical conditions, psychological or behavioural issues and medications. In fact, no one identified the medications the clients were taking as an important risk for falling.

To address gait, the most common interventions suggested were related to footwear or the use of appropriate assistive devices. With respect to balance, exercises (e.g., to strengthen the lower body), education and the use of assistive devices were each selected, for about 50% of the clients.

These data show us that the checklist was a relatively quick and easy way for the professionals to use the detailed information provided in the Falls Clinical Assessment Protocol (CAP). It gave them a one-page "snapshot" of all the risk factors and interventions to consider according to the detailed information in the CAP (which is 8 pages).

Table 1: Identification of Risk Factors for Falling

Risk Factor	*Identified by a Therapist (PT or OT)*	*Identified by Case Manager*
Gait	83%	77%
Balance	62%	76%
Home environment	59%	55%
Medical condition	34%	34%
Psychological/behavioral	24%	24%
Sensory input	3%	7%
Medications	0%	0%

Talking with the Professionals

Focus groups, facilitated by an outside researcher, were held separately with CMs and with the therapists. They were asked about positive aspects of the study, the challenges and what they would change about how the study was completed.

On the positive side, the CMs enjoyed being part of the project and appreciated the emphasis on falls. They often found it difficult to get all the information to the therapists in a timely fashion and sometimes the eligibility rules were not clear.

The therapists liked the fact that it brought some consistency in how they worked with their clients. Some therapists felt a positive outcome was that the project improved communication between themselves and the CMs.

As one therapist said:

"…the other half of that equation is that it opened up the door to communication. Now I can talk to the case manager, I had to talk to the case manager or the research assistant as the case may be about what was needed. But then I felt more comfortable and more accessible to talking about other things as well."

Suggestions for Improvement

The CMs and therapists made a number of excellent suggestions for improving upon the study design. For example, they suggested changes to the education session. They also recommended restructuring the RAI-HC information that is shared with the therapy providers so that the interpretation of the numbers is clearer. They suggested greater communication between the CMs, therapists and project staff during the project to clarify expectations and to confirm when documents had been received.

Having electronic access to the RAI-HC was also a suggestion that will likely be implemented by the CCAC in the near future. This would enable the therapists to see the RAI-HC in "real time". There was a suggestion to modify the referral process so that there is an equal distribution of the referrals across each of the therapists. In the FRIS project, referrals were made according to their typical practice in the CCAC, but this meant that some organizations received almost no referrals during the project.

Next Steps

The FRIS project represents a pilot study carried out in a "real world" setting. It represents a true collaboration and a lot has been learned about the best way to conduct this type of study with minimal disruption to usual practices and service.

By December of 2010, we will have two RAI-HC assessments for each person (one before the project and one after) so we will be able to look at how risk factors and outcomes changed over time.

We will be able to analyze these data further to look at other questions such as: Were these clients having difficulty with areas like dressing and bathing? Were they showing signs of depression? Did the risk factors change?

Contact Dr. Guthrie if you'd like to learn more about this project.

"The whole thing about the RAI sheets that we were getting, everything is in numbers and it helps to know [what] that number means.. it takes time to look at the number and then go look up, okay they scored 5 on this and number 5 means this so that means that they demonstrated this. That was time consuming so a lot of the RAI information was meaningless in the end to me..." Therapist

For more information:
Dr. Dawn Guthrie
Principal Investigator
Wilfrid Laurier University
(519) 884-0710 x2590
dguthrie@wlu.ca

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