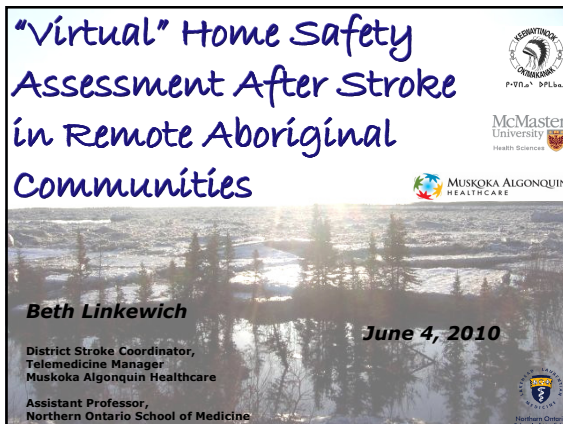


"Virtual" Home Safety Assessment After Stroke in Remote Aboriginal Communities



Beth Linkewich
 District Stroke Coordinator,
 Telemedicine Manager
 Muskoka Algonquin Healthcare
 Assistant Professor,
 Northern Ontario School of Medicine

June 4, 2010

Logos: Northern Ontario School of Medicine, McMaster University Health Sciences, Muskoka Algonquin Healthcare

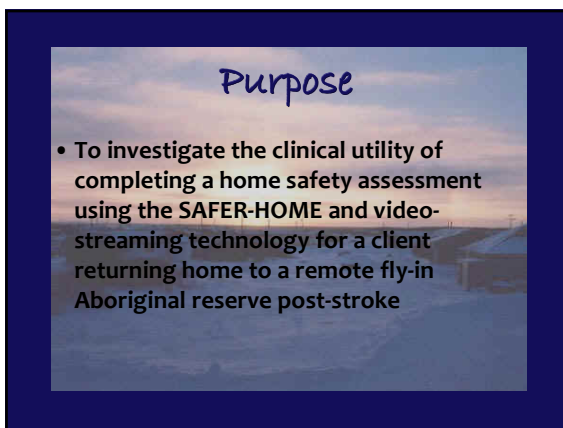
Disclosures

- No financial or personal relationships to disclose.



Purpose

- To investigate the clinical utility of completing a home safety assessment using the SAFER-HOME and video-streaming technology for a client returning home to a remote fly-in Aboriginal reserve post-stroke



Rationale

- Stroke impacts functional abilities and safety at home (Heart and Stroke Foundation, 2009)
- Little if no access to OT services in remote communities
- Unique challenges of remote living (Armstrong, 1999)
- Opportunity to use technology to enhance service delivery (Sandford et al., 2007)



Method

- Convenience sample
 - Client (KOTM)
 - OTs (geography and experience)
- SAFER-HOME training
- Trial equipment/technology



Home safety assessment

- Client in remote community
 - 3 Community Health Workers (CHWs)
 - 3 OTs simultaneously Assess
 - SAFER-HOME via video-streaming (1 OT participated via video-conferencing)
- Recommendations shared with client
 - CHWs involved





- **Mixed Methods**
 - OT focus group
 - Clinical Utility Questionnaire
 - Satisfaction and Utility Questionnaire

Results



- Clinical Utility Questionnaires:
 - CHWs (3)
 - Set up and technology were identified as difficulties with the process
 - All reported
 - assessment was helpful for the client
 - roles and responsibilities were completely clear

- Clinical Utility Questionnaires:
 - OTs (3)
 - None used SAFER-HOME prior
 - Experience: 1-5 years to 10+ years
 - Perform a median of 1 assessment every week-month
 - All OTs were confident making recommendations
 - 1 OT (video-conferencing) difficulty hearing the client and being heard by the client



- Satisfaction and Utility Questionnaire:
 - Client (1)
 - Sound quality could be better
 - If client required another home safety assessment in the future – would want it virtually

Focus Group Themes

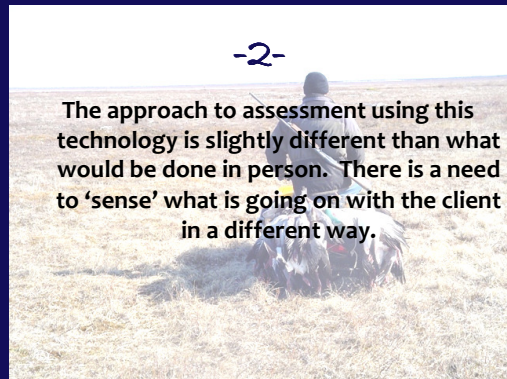
-1-

The SAFER-HOME and video-streaming technology is an exciting new opportunity to conduct home safety assessments in environments where otherwise not possible and could have broader applications.



-2-

The approach to assessment using this technology is slightly different than what would be done in person. There is a need to 'sense' what is going on with the client in a different way.



-3-

- Collaboration with the client as well as the community members working with the client, throughout the assessment process leads to better results.



-4-

Differences in culture, availability of services, and resources between urban and remote northern communities should inform OT approach.



-5-

Using the SAFER-HOME provided structure for the assessment, however it was felt that using a non-standardized approach would also be feasible.



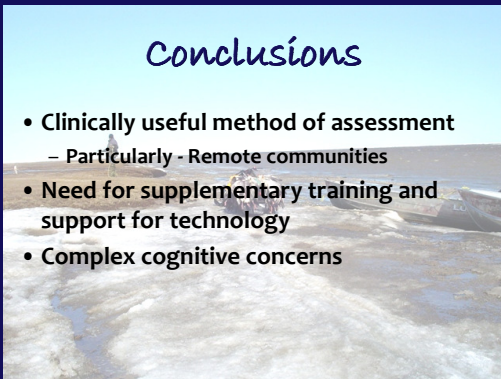
Discussion

- Major apprehensions appear to be related to technical issues rather than client safety or confidence in recommendations
- Cognitive status
- Leisure safety
- Engaging the client in the process
 - accurately reflects the client's everyday use of their home
- Increased familiarity with the assessment tool (SAFER-HOME)
 - ? influenced outcomes



Conclusions

- Clinically useful method of assessment
 - Particularly - Remote communities
- Need for supplementary training and support for technology
- Complex cognitive concerns



Future Directions

- Expand infrastructure and scope to other health-related applications
- Study the reliability and validity of SAFER-HOME and video-streaming
- System infrastructure
 - Network for this technology
 - Increase access in remote communities to OT and other health services



Acknowledgements

- Keewaytinook Okimakinak Telemedicine
- Keewaytinook Okimakinak Tribal Council and Nishnawbe-Aski Nation
- Northern Ontario School of Medicine
- Heather Coulson - Program Development Coordinator, KOTM
- Marney Vermette - HCC Nurse Supervisor, KOHCC Program
- Doug McCartney - Telemedicine Application Engineer, Librestream
- Lori Letts - Associate Professor, McMaster University

Questions?



blinkewich@sympatico.ca