Fall Prevention Among Older Native American, Aboriginal & Indigenous People

November 5-7, 2013

2013 CANADIAN INJURY PREVENTION AND SAFETY PROMOTION CONFERENCE

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OVERVIEW

PHASE 1:
1. Systematic Review of Falls and Fall-related Injuries among Older Native American/Aboriginal /Indigenous People in Australia, Canada, New Zealand and the United States

PHASE 2:
2. Scan of Fall Prevention Programs in Native American & Canadian Aboriginal Communities
3. Site Visit to Fall Prevention Programs in the Navajo Nation
Systematic Review of Falls and Fall-Related Injury Studies among Older Native American/Aboriginal/Indigenous People in Australia, Canada, New Zealand and the United States

Scott, V., Metcalfe, S. & Yassin, Y.
INTRODUCTION

- Little is known about the scope or nature of falls or fall prevention Indigenous (Native American and Aboriginal people of Australia/Canada/New Zealand) older adults. To address this gap, a systematic review was conducted to identify peer-reviewed and grey literature with epidemiology and prevention evidence on the topic of falls and fall-related injury among older Indigenous people.

METHODS

- A key word search of relevant databases was conducted using combinations of terminology for accidental falls and a comprehensive list of terms Indigenous status specific to each country. Inclusion criteria: published literature on falls/fall prevention Indigenous people aged 45+. Each article was independently reviewed by two reviewers with discrepancies determined by a third.
Systematic Literature Review

FINDINGS

• 34 publications met the review criteria: Australia=10, Canada=6, New Zealand=3, U.S.A.=14, World-wide=1
• 19 retrospective analysis of secondary data, 11 reports of existing data/programs/guidelines, 2 cross-sectional studies, 1 literature review and 1 case control study
• Only 4 publication addressed fall prevention
• Some evidence was found to indicate that the nature of fall risk and injury outcomes may differ compared to non-NA/A/I populations, pointing to a need for further research into culturally appropriate prevention strategies
Many authors reported issues of poor data quality, mostly related to under reporting among Aboriginal/Indigenous populations.

In Australia fall-related deaths among Aboriginal people of all ages were lower compared to non-Aboriginal (1.67 vs 3.83 per 100,100) (Clapman, 2006), whereas in the U.S., Native Americans aged 50+ were twice as likely to sustain fall-related deaths compared with non-Native American seniors (Wendelboe, 2011).

In New Zealand Maori and Pacific Islander seniors’ hip fracture rates were found to be 25-50% lower than those of European descent (Norton, 1995), whereas fall-related hip fracture rates among Canadian Aboriginal males aged 55+ were found to be almost twice those of non-Aboriginal (Leslie, 2004).

Age and gender differences were found, with Coronado (2011) showing higher fall-related TBI rates among Indigenous people aged 45-64 compared to non-Indigenous and the reverse for ages 65+, and Kuklinski (1998) showing fall-related mortality rates twice as high among older American Indian males compared to females.
Systematic Literature Review

**CONCLUSIONS**

- Lack of standardized data prevents a true understanding
- Rural /remote impact on data including lack of local treatment facilities and longer waits resulting in poor outcomes
- Most studies considered age 45+ as older adults due to increased risk at younger age
- Need better understanding of role of chronic illnesses including osteoporosis, diabetes, hypertension and TBI
- Need prospective comparative epidemiology, intervention and qualitative studies
Scan of Fall Prevention Programs in Native American & Canadian Aboriginal Communities

V. Scott, Y. Yassin, A. Ibrahimova, March 2012
Fall Prevention Program Scan

PURPOSE

• To identify and describe current prevention programming, practices and policies related to fall and fall-related injury prevention among older NA/CA people
• To determine differences and similarities in fall prevention programs in the U.S. and Canada
METHODS

• The U.S. survey was conducted in mid 2012 with the assistance of the Indian Health Service and Injury Prevention Leads in NA/AN communities
• The Canadian survey was conducted in early 2012 by the BC Injury Research and Prevention Unit (BCIRPU) as part of a larger injury prevention survey commissioned by the Public Health Agency of Canada
• Surveys were conducted using on-line *FluidSurveys*© and telephone interviews
• For the qualitative component of the survey, a thematic analysis was applied based on the ‘argumentation theory’, with a separation of responses into broad themes and networks based on the underlying implicit meaning from explicit responses (Attride-Sterling, 2001; Braun & Clarke, 2006).
FINDINGS

• 31 programs in total – 17 U.S. and 14 in Canada
• Most funded by federal grants or contracts
• 4 Canadian programs were national and the remaining 10 were in 4 provinces, most in western Canada
• American programs were located in 10 states, with most in the western U.S., including 2 in Alaska
• Target program participants in both countries mainly live on reservations or tribal lands
• Most programs took place in community centres or homes of the elderly, with one Canadian program in a long-term care facility
• Common aims of all of the programs:
  - Raising awareness of fall and injury prevention issues in the community through education
  - Changing behaviours to reduce injuries, falls and to increase safety
Fall Prevention Program Scan

FINDINGS

KEYS TO SUCCESS
• Management support
• Staff training
• Having a local champion
• Access to existing programs and outside expertise

BARRIERS
• Competition with other health priorities
• Hiring and retaining staff
• Recruiting and retaining volunteers
Fall Prevention Program Scan

PARTICIPANT COMMENTS

What do you consider your greatest success, and why?

“Truly a community effort”
“collaboration with our tribal programs”,
“collaborations with other programs to work toward fall prevention”
“funding..from IHS and the work-plan methodology to ensure specific deliverables”
“..IPP to conduct Home Safety Assessments followed by installation of home safety modifications”

What do you consider your biggest barrier, and why?

“..those who would benefit the most are less likely to participate”
“recruiting elders to participate in the program..”
“Not all customers have electricity and running water in their homes..”
“No telephone contacts in all areas”
“Lack of funding and staff”
Site Visit to Fall Prevention Programs in the Navajo Nation with the IHS Injury Prevention Fellowship Program

Sept 16 – Sept 21, 2012
What is the IHS Program Development Fellowship?

Lawrence Berger, MD, MPH

• 12-month advanced learning experience
• Goal: Promote evidence-based injury prevention activities in American Indian/Alaska Native communities
• Courses, field work, and year-long projects
What is the purpose of the Field Course?

- Provide tools and information that can be used in the community to help prevent fall injuries among older adults
- Provide an outstanding learning experience for Fellowship participants:
  - Team work
  - Meeting a tight deadline
  - Working with professionalism and respect with community members and agency staff
Navajo Nation Site Visit

INJURY PREVENTION FELLOWS & GUESTS
Tuba City Focus Group Presentation

HIS Injury Prevention Fellowship Program 2012

Angie Chee
Chris Chestnut
Angie Maloney
Nikki Thunder
Desta Walker
Lyndon Endischee
Vicky Scott
Siona Willie
Purpose

• To learn from elders their lived experience of the occurrence of falls among themselves and others
• To learn about the common circumstances of falls among older adults in the Navajo Nation
• To learn from the elders acceptable ways to prevent falls
Themes: Circumstances of falls

• Wanted to be more respected within the health care system
  – Examples: very elderly woman that had to wait all day to be seen by doctor at the hospital and missed 3 meals; not being listened to; feeling of ‘why go to the doctor because they are not going to do anything’; not being told they needed a number to being hospital chairs hard and uncomfortable

• Medication miss-management:
  – Examples: too many; serious side effects not attended to (being told nothing is wrong); not connection doctor, pharmacist and patient; not making the connection between meds and fall risk; long waits for prescriptions to be filled; need more time with doctor or pharmacists to adjust their meds
• Not aware of resources:
  – Examples: not aware of where to get grab bars or how to get a ramp installed; not aware of proper specifications for ramps; no central location for information on resources

• Home accessibility:
  – Examples: bathrooms not in the house and unsafe routes to outhouses; threshold trip hazards; uneven floors; lack of lighting (no power) or poor lighting; lack of nightlights; do not have or use flashlights; need tribal programs to make homes handicapped friendly
• Outdoors
  – Examples: lack of lighting on stairs and on route to outhouse

• Family issues:
  – Examples: elder abuse (physical, financial or neglect) by family members and not wanting to report it or feeling they cannot prove it
• What happens after a fall
  – Examples: not going to hospital if it doesn't’ hurt even if they have symptoms afterwards, e.g.:
    • fall backwards with head impact resulting in blackout but did not go to hospital – “we have cheap doctors”;
    • not able to get up after a fall and not able to get help

• Don’t believe that they will be helped if they go to hospital and that they will have to wait for a long time before being seen
• Solutions to fall prevention:
  – Reduce or adjust meds – conduct a review with modification
  – Using canes, walkers and getting the proper equipment and instruction on proper use
  – Have cell phones, canes, walkers, something to call attention after a fall, e.g., whistles [do not have land lines for alarm systems]
  – Need resources to support home visits, equipment, home modifications
  – Provide ramps and install them properly [according to standards and codes]
Home Visit: Navajo Nation
Overall Conclusions

- Falls and related injuries are a serious health problem for older adults in NA/A/I communities
- The nature of the problem differs between and within countries
- Poor data quality and lack of standardized reporting limits a clear understanding of the nature of the problem
- Limited resources and trained personnel are barriers to sustainability and expansion
- Many successful programs exist and other communities would benefit from learning about their keys to success
- The IHS Fellowship program provides valuable training for IP/FP leaders based on a public health approach to prevention
- The Fellowship program site visit provided valuable insight into the lived experience of older NA adults and the risk of falls and fall-related injuries and opportunities for prevention
Recommended Next Steps

1. Educate injury prevention workers and health care providers through an integration of traditional knowledge and ways of knowing with evidence for prevention (as done in the IHS Fellowship program)

2. Improve the quality of health services for those living in rural and remote areas through an assessment of the ‘age friendliness’ of health care services

3. Adapt existing fall prevention programs/strategies for Aboriginal/Indigenous communities, including:
   1. Routine reviews and modifications of medications known to increase fall and injury risk
   2. Home assessments and modifications using culturally appropriate approaches
   3. Physical activity programs to improve outcomes, acceptance and reach

4. Provide reliable, community-specific data to local staff for evaluation purposes and to assist in tailoring and improving prevention efforts
Fall Prevention Programs with Potential for Adaptation
Canadian Fall Prevention Program Examples

Community
- First Nations
  - Falls Prevention: A Guide for Aboriginal Communities

Home Care
- Strategies and Actions for Independent Living
- Are you ready to take the Safety Superhero Challenge?
- STAYING INDEPENDENT
  - Falls are the main reason why older adults lose their independence.
  - Are you at risk?

Health Professional and Community Leader Training
- CFPC
  - Canadian Falls Prevention Curriculum

Intergenerational
- Healthy Aging through Fall Prevention among Older Aboriginal People:
  - From Many Voices to a Shared Vision

Primary Care

Aboriginal Communities
Thank You!

www.canadianfallprevention.ca
www.seniorsbc.ca/stayingindependent/index
www.injuryresearch.bc.ca