



Table of Contents

- 3** **Addressing driving and community mobility issues: Challenge meets opportunity for occupational therapy**
Brenda Vrkljan, Guest Editor
- 5** **Candrive: Driving research for older adults**
Angela Kennedy
- 7** **The occupational therapist's role in keeping older drivers safe: Refreshing driving skills – the Stay SHARP program**
Nicol Korner-Bitensky and Ailene Kua
- 9** **Enabling the occupation of driving: An occupational therapy perspective**
Dianna Roberston
- 12** **Points of view: The experience and process of driving evaluation and retirement**
Judy Cramm, Frank Cramm, and Michelle Osmond
- 15** **Helping older drivers**
Janet Craik, CAOT Director of Professional Practice and Claudia von Zweck, CAOT Executive Director
- 16** **Vehicle adaptations and equipment: The role of the National Mobility Equipment Dealer's Association (NMEDA)**
- 18** **Driving the field forward:
Occupational therapy and the Association of Driver Rehabilitation Specialists**
Margaret Young
- 19** **Driving rehabilitation: Frequently asked questions and answers**
- 20** **Dementia and driving: From diagnosis to driving cessation and beyond**
Lisa Kristalovich
- 23** **Removing barriers and paving the road ahead: Sustainable transportation for seniors is the way of the future**
David Dunne
- 25** **Fact sheet: Retirement from driving**
National Blueprint for Injury Prevention in Older Drivers
- 27** **Engaging community partners to address at risk drivers with dementia**
Briana Zur
- 30** **My body the car**
Anne M.

Statements made in contributions to *Occupational Therapy Now (OT Now)* are made solely on the responsibility of the author and unless so stated do not reflect the official position of CAOT, and CAOT assumes no responsibility for such statements. *OT Now* encourages dialogue on issues affecting occupational therapists and welcomes your participation.

EDITORIAL RIGHTS RESERVED

Acceptance of advertisements does not imply endorsement by *OT Now* nor by the CAOT.

CAOT PATRON

Her Excellency the Right Honourable
Michaëlle Jean C.C., C.M.M., C.O.M., C.D.
Governor General of Canada

CAOT PRESIDENT

Elizabeth Taylor, PhD

CAOT EXECUTIVE DIRECTOR

Claudia von Zweck, PhD

RETURN UNDELIVERABLE
CANADIAN ADDRESSES TO:
CAOT – CTTC Building
3400 – 1125 Colonel By Drive
Ottawa, Ontario K1S 5R1 CAN
E-mail: publications@caot.ca

INDEXING

OT Now is indexed by: ProQuest and
OTDBase.

ADVERTISING

Lisa Sheehan (613) 523-2268, ext. 232
E-mail: advertising@caot.ca

SUBSCRIPTIONS

Linda Charney (613) 523-2268, ext. 242
E-mail: subscriptions@caot.ca

COPYRIGHT

Copyright of *OT Now* is held by the CAOT. Permission must be obtained in writing from CAOT to photocopy, reproduce or reprint any material published in the magazine unless otherwise noted. There is a per page, per table or figure charge for commercial use. Individual members of CAOT or ACOTUP have permission to photocopy up to 100 copies of an article if such copies are distributed without charge for educational or consumer information purposes.

Copyright requests may be sent to:
copyright@caot.ca

Occupational Therapy Now is published 6 times a year (bimonthly beginning with January) by the Canadian Association of Occupational Therapists (CAOT).

MANAGING EDITOR

Brenda McGibbon Lammi, MSc, BHSc, OT Reg(Ont),
Tel. (613) 587-4124, Fax (613) 587-4121, email: otnow@caot.ca

TRANSLATION

De Shakespeare à Molière, Services de traduction

DESIGN & LAYOUT

JAR Creative

CAOT EDITORIAL BOARD

Chair: Brenda McGibbon Lammi
Members: Melissa Croskery, Emily Etchverry, Tom Grant, Susan
Mulholland, Nadia Noble, Aliko Thomas-Pyliotis
Ex-officio: Marcia Finlayson

COLUMN EDITORS

International Connections
Sandra Bressler, MA
In Touch with Assistive Technology
Roselle Adler, BScOT & Josée Séguin, MSc
OT Then
Sue Baptiste, MHSc
Private Practice Insights
Jonathan Rivero, BScOT, OT(c)
Christel Seeberger, BSc OT, OT Reg (NB), OTR
Sense of Doing
Helene J. Polatajko, PhD & Jane A. Davis, MSc
Tele-occupational Therapy
Lili Liu, PhD & Masako Miyazaki, PhD
Theory Meets Practice
Heidi Cramm, MSc
Watch Your Practice
Sandra Hobson, MAEd

Occupation under the living skies



Call for Papers

Call for Papers deadline: September 15, 2010
Student (entry level) deadline: October 1, 2010
Submit your proposal online at www.caot.ca
Information: (800) 434-2268, ext. 232
E-mail: conference@caot.ca.

Conference Program available February 1, 2011 at www.caot.ca
Early Bird Registration: February 1 - April 15, 2011
E-mail: conference@caot.ca



Co-hosted by the Canadian Association of Occupational Therapists
and the Saskatchewan Society of Occupational Therapists



This special issue of *OT Now* was funded in part by the PopulationHealth Fund, Public Health Agency of Canada. The views expressed herein do not necessarily represent the views of the Public Health Agency of Canada.

Addressing driving and community mobility issues: Challenge meets opportunity for occupational therapy

Brenda Vrkljan, Guest Editor



I remember my first job in occupational therapy. I remember feeling excited about embarking on a career filled with possibility. Finally, here was my chance to use skills honed during my studies and clinical placements. Upon graduation, I started working in Chatham, Ontario, first in school health then taking

a hospital-based position. In retrospect, working in Chatham was a turning point in my career and my life. My interactions with colleagues and clients in this community serve as inspiration for my current program of research and for this special issue on driving and community mobility.

Situated in the heart of southwestern Ontario, just off highway 401 between London and Windsor, Chatham sits along the most populated corridor in Canada, yet, is surprisingly rural.



This mid-size city (Pop: ~45 783)¹ is considered the urban hub for surrounding towns and villages. Like many communities across Canada, Chatham has an

aging population. Occupational therapists recognize that with age we are more likely to experience health conditions that can affect our ability to perform our activities of daily living (ADLs) – the things that occupy our time – our occupations.

While working in the hospital in Chatham, I remember dialoguing with clients about their occupational goals. I would ask questions like “what do you want to get back to doing?” and “what is important to you?” For most returning home was key, followed by driving. These conversations emphasized the relationship between access to transportation and quality of life. Driving provided the means to not only

complete their instrumental ADLs, including grocery shopping, attending health appointments and so on, but also to participate in life’s simple pleasures, such as visiting with friends and family. These conversations made me realize two things: 1) Community mobility is more than driving. As part of my assessment, determining how clients get to the places, people and occupations they identify as important is critical. What transportation do they use? What transportation is available in their community? Transportation should be considered as part of the assessment process and; 2) Mobility is not about age. Individuals can experience health-related changes that influence their ability to be mobile in their communities at any point in their lifespan. For example, issues related to transportation and community mobility are also important considerations when working with families who have children with disabilities.

As highlighted in this special issue, occupational therapists are taking a leadership role in the field of driving and community mobility. Our unique training and understanding of health and disability enable occupational therapists to lead initiatives in this field. Most importantly, our client-centred approach ensures that clients are included whenever possible.

Due to the number of submissions and interest generated by this special issue, unfortunately not all articles submitted could be included. We had to make some difficult decisions. While our goal was to be comprehensive in scope, you may feel that some key elements were overlooked. We encourage you to access the latest evidence on community mobility that will be featured in the March 2011 special edition of the *Canadian Journal of Occupational Therapy*. Our

About the Guest Editor– Brenda Vrkljan, PhD, O.T. Reg. (Ont.) is an Assistant Professor in the Occupational Therapy Program in the School of Rehabilitation Science at McMaster University. Brenda is an active member of the Association of Driving Rehabilitation Specialists (ADED) and the Ontario Society of Occupational Therapists (OSOT) Older Driver Task Force. She is the principal and co-principal investigator of projects examining driving-related assessment tools funded by the Canadian Occupational Therapy Foundation (COTF), the Ontario Neurotrauma Foundation (ONF) and Transport Canada. Brenda is the lead site investigator for McMaster-Hamilton-Candrive common cohort study (www.candrive.ca) and co-investigator of the ‘Safe Transportation for Seniors’ project funded by Auto21 (www.auto21.ca). Dr. Vrkljan was also a member of the Advisory Board of the National Blueprint for Injury Prevention of Older Drivers (www.olderdriversafety.ca). She can be reached at: vrkljan@mcmaster.ca.

¹Statistics Canada Census 2006 <http://www12.statcan.ca/english/census06/data/popdwel/Table.cfm?T=801&PR=0&SR=1&S=3&O=D>

efforts for this special issue of *Occupational Therapy Now* focused on showcasing the breadth and scope of occupational therapy expertise in the field of driving as well as considering opportunities for our profession in the future.

The articles in this special issue have been organized to not only generate dialogue amongst our colleagues but also capture the attention of a wider reading audience – from consumers to policy makers. The article on the Canadian Driving Research Initiative for Vehicular Safety in the Elderly (Candrive), and Dr. Nicol Korner-Bitensky and Ailene Kua’s follow-up piece on driver refresher programs underscore the integral role of occupational therapists in research involving driver screening and retraining. David Dunne, Director of Road Safety for the British Columbia Automobile Association Traffic Safety Foundation, outlines actions to address driving cessation and transportation alternatives applied in his jurisdiction. He challenges us to take action in our own communities. Articles by Lisa Kristalovich, Briana Zur, and Diana Robertson exemplify the commitment and efforts taken by occupational therapists to engage others and address driving-related issues in their respective jurisdictions and practice settings. The timely partnership between the Canadian Association of Occupational Therapists (CAOT) and the Public Health Agency of Canada (PHAC) in developing the *National Blueprint for Injury Prevention of Older Drivers* signifies an important role for occupational therapists to support driving and community mobility

into older adulthood, including retirement from driving.

There is a mix of personal and professional experience reflected in the articles in this special issue. Mr. Cramm, who underwent a driving evaluation, his wife, and Michelle Osmond, an occupational therapist practicing in the field of driver rehabilitation in Newfoundland, each share their perspective of the assessment process. Other articles serve to educate and enhance our knowledge of key organizations for occupational therapists and others interested in this practice area - including the Association of Driver Rehabilitation Specialists. Our thanks to David Hutchison, current president of the Canadian arm of the National Mobility Equipment Dealers Association (NMEDA), for providing examples of equipment options for persons with disabilities. The special issue closes with a poignant piece from a clinician who shares her personal journey when her father loses his driver’s license.

As occupational therapists, we have much to offer with regard to enhancing health-related quality of life. Transportation, community mobility and driving-related issues are one of many areas of practice where we can demonstrate our leadership skills. While challenges remain in addressing these issues, there is also tremendous opportunity. Thanks to those who contributed their expertise, and to each and every one of you who make this world a better place to live, work, and play.

Candrive: Driving research for older adults

Angela Kennedy



About Candrive

Candrive (the Canadian Driving Research Initiative for Vehicular Safety in the Elderly) is a collaborative, interdisciplinary research network dedicated to improve the health and quality of life of Canada's older drivers. The role of occupational therapists in this network has been, and continues to be integral to Candrive's success.

The need for valid and reliable screening of older drivers

With the baby boom generation hitting 65 this year, Canada faces a rapid increase in the number of older drivers on our roads. While some of the safest drivers compared with other age groups, senior drivers have also one of the highest crash rates per mile driven - a fact that has not gone unnoticed by governments, non-governmental agencies and the media. We know this increased crash risk is not due to age itself but due to increased health-related conditions that can affect the ability to drive. The challenge for researchers in this field is in finding ways to balance the risks of driving with the independence and convenience driving provides.

Ten years ago both the Canadian Council of Motor Transportation Administrators (CCMTA) and the U.S. National Highway Traffic Safety Administration (NHTSA) identified a need for research regarding older driver safety issues and for the development of valid and reliable screening and assessment methods based on medical conditions, collision records and functional ability (Man-Son-Hing, et al., 2001).

With the onus on physicians to report those deemed unfit to drive, and inconsistent reporting policies across North America, research efforts on assessment, pre-Candrive, strived towards the goal of an evidence-based set of practical clinical guidelines that could be applied to individuals. However few studies undertook the comprehensive approach needed to provide evidence-based reliability, thus forcing clinicians to continue relying on their own subjective judgment.

At the same time it was becoming increasingly important to determine fitness to drive, it also became clear there were other issues related to the older driver that needed further research, such as the implications and psychosocial impact of driving cessation on drivers, their families and friends and health care providers.

Why Candrive is a different research initiative

Before Candrive there were many Canadian researchers interested in older person driving issues but efforts

were fragmented due to the lack of coordinated effort. In 2002, Canadian Institute of Health Research (CIHR) approved funding for a five-year, new emerging team (NET) grant to form Candrive. The next five years were spent in successfully building up a strong research framework and a team that includes occupational therapists, physiotherapists, psychologists, kinesiologists, epidemiologists and a number of medical specialists in geriatric medicine, physical medicine and rehabilitation, rheumatology and geriatric psychiatry. In addition, Candrive has developed working partnerships with provincial ministries of transportation, the CCMTA and Transport Canada and with professional organizations such as the Canadian Medical Association and the Canadian Association of Occupational Therapists (CAOT). Candrive researchers are also members of several advisory boards, effective in assuring research results get integrated into policy development and clinical practice.

Building on the momentum created as a new emerging team, in 2008 Candrive was successful in obtaining a five-year Team Grant from CIHR, the federal governments main funding body for health research. This team grant is funding a long-term, international, prospective cohort study of older drivers to identify the medical and psychosocial characteristics that determine driving competence and performance. The study is now underway in seven Canadian sites, one site in Australia and soon one in New Zealand. Six related sub-projects are also under way.

The Candrive and occupational therapy partnership

Occupational therapists have been partners with Candrive since its inception; they play a major role in Candrive's current research studies and comprise a large number of Candrive's full and associate members. Occupational therapists, with their background in assisting older adults lead full lives and involvement in all aspects of their daily living, recognize the importance of keeping older drivers safe and driving as long as possible. Responsible for conducting driver assessments both on and off the road, and interested in on-road and auto technology, occupational therapists' connection with Candrive remains essential, providing a unique perspective. Dr. Malcolm Hing, a co-founder and co-principal investigator of Candrive says, "The expertise of occupational therapists is integral to the success of Candrive because driving can be considered a 'super' instrumental activity of daily living (IADL) requiring a functional approach to evaluate."

Candrive's long-term, international, prospective cohort study of older drivers, which began in 2009, has a number of occupational therapists directly involved. Occupational therapy researchers are the site investigators in Montreal (Nicol Korner-Bitensky, Barbara Mazer and Isabelle Gelinias) and Hamilton (Brenda Vrkljan), and several research associates who are involved in recruiting, conducting assessments, collecting data, installing the GPS systems and submitting reports also have an occupational therapy background.

Occupational therapists are also involved in some of Candrive's sub-studies. Jan Miller Polgar and Brenda Vrkljan are leaders in the study Advancements in Automotive Design: Development of a Vehicle Design Rating System (VDRS) that links older drivers' abilities and automotive features. The goal is to determine key features of the automobile that impact older driver safety and to develop a vehicle design rating system that identifies vehicle features which meet the needs of older drivers. Nicol Korner-Bitensky is leading the project on Driver Improvement, the objectives of which are to explore the perspectives of older drivers regarding driving safety and training programs and to implement the Stay-SHARP Pilot driver refresher program.

The CAOT received funding for the development of a *National Blueprint for Injury Prevention in Older Drivers* from the Public Health Agency of Canada. This Blueprint, published in 2009, was developed with the input and assistance of a 21 member National Advisory Committee which included numerous Candrive members. Candrive has also collaborated with occupational therapists at the Older Driver Consensus Conference in 2004 and with developing On Road Driving Assessment Guidelines.

Helping Candrive implement study findings

Candrive's primary goal is to develop and implement a validated, easy-to-use screening tool that will allow clinicians to assess medical fitness to drive in older adults. Occupational therapists will become major players in disseminating and implementing this tool at the primary screening level. Occupational therapists are in an excellent position to use the tool outside of a doctors office because of their involvement in the provision of the first level of care with different client groups. With their experience and expertise in the local community, particularly where people don't have a family doctor, occupational therapists will know the issues and have the tools to be able to conduct assessments either in the home or in a clinic setting.

In regard to other Candrive studies, such as; *Assessing the relevance of the simulator as a screening tool for at-risk older drivers*, with the aim to further validate the use of driving simulator assessments; and Driver Refresher and Improvement Programs, occupational therapists will have the opportunity for both input into the studies and to use the results in future health promotion and prevention programs.

As for the future, it is important that occupational therapists continue to stay involved with the work of Candrive as so much of their work concerns driving issues, particularly for the older driver, and so many more issues are yet to be addressed.

Reference:

Man-Son-Hing, M., Marshall, S.C., Molnar, F.J., Wilson, K.G., Crowder, C., & Chambers, L.W. (2004). A Canadian research strategy for older drivers. *Geriatrics Today*, 7, 62-83.

The occupational therapist's role in keeping older drivers safe: Refreshing driving skills – the Stay SHARP program



Nicol Korner-Bitensky and Ailene Kua

Driving is a complex task that requires the integration of physical, sensory, and cognitive functioning. As the population of older drivers increases, so will the number of older persons holding driving licenses. Per miles driven, individuals over 75 have a 3.5 times higher crash rate than middle-aged driver (aged 35-44), a rate that is exceeded by only the very young driver (Canada Safety Council, 2005). The question arises regarding the role that occupational therapists can play in providing older driver refresher initiatives aimed at improving driving-related skills.

Occupational therapists are well suited to enhance their professional role in the area of driver safety by creating and offering refresher programs for drivers. Also, as a professional group, occupational therapists are ideally suited to prepare the older individual to eventually retire from driving with dignity and with opportunities for alternative forms of mobility.

Current evidence for interventions

To better understand the potential benefits of older driver refresher interventions two recent systematic reviews of the literature on refresher interventions were conducted (Kua, Korner-Bitensky, Desrosiers, Man-Son-Hing, & Marshall, 2007; Korner-Bitensky, Kua, von Zweck, & Van Benthem, 2009). From these there is strong evidence (Level 1a) that education combined with on-road training improves driving performance and moderate evidence (Level 1b) that it improves driving-related knowledge. There is also moderate evidence (Level 1b) that physical retraining improves driving performance. What does not appear to work well is an intervention consisting of classroom education alone.

“Occupational therapists are well suited to enhance their professional role in the area of driver safety by creating and offering refresher programs for drivers.”

Based on the growing evidence that driver refresher programs offer promise, evidence-based recommendations regarding strategies to include in a driving retraining program for older adults are:

1. Physical training targeted to neck and extremity flexibility, coordination, and speed of movement; and,
2. An educational intervention combined with an on-

road component to increase general driving knowledge and driving-specific skills.

It is time to explore the benefits of a multi-faceted driving safety program aimed at the needs of older drivers. Towards this end, our research team has recently been funded by CIHR/Candrive (Candrive, 2008) to explore, in a phase 1 pilot study, the feasibility of providing a multi-faceted driving safety program for older drivers. This program, named by the acronym Stay SHARP (See, Hear, Attend, Respond, Perform) includes retraining focused on physical, behavioral, visuo-spatial, and cognitive skills, and driving-specific knowledge.

Conclusion

The emerging evidence, that intervention can change knowledge and on-road driving behaviours of older drivers, is highly encouraging. Given the growing number of older drivers in society, occupational therapists are well-positioned to create a health promotion and prevention strategy that can be implemented broadly across our nation. There is also evidence that occupational therapists would benefit from driving-related professional training aimed at enhancing professional capacity in this health promotion/injury prevention arena (Korner-Bitensky, Menon, von Zweck, & Van Benthem, 2010). Graduate level training in the field of driving such as the one offered by McGill University in Montreal, Quebec, is aimed at enhancing readiness to meet these new

About the authors– Nicol Korner-Bitensky, PhD, OT(c), is an Associate Professor at the School of Physical and Occupational Therapy, Faculty of Medicine, McGill University, Montreal, Canada. Dr. Korner-Bitensky, is a research member of the Centre de recherche interdisciplinaire en réadaptation du Montréal Métropolitain (CRIR) and the leader of the Rehabilitation Theme for the Canadian Stroke Network (CSN), a Center of Excellence funded by the Canadian Institute for Health Research. She is a member of Candrive and has pursued research in the area of driving for more than two decades. She completed her doctoral studies in Rehabilitation Science at McGill University with a Major in Epidemiology and Biostatistics at John Hopkins University, Baltimore, along with post-doctoral studies in health service delivery at University of Montreal. Dr. Korner-Bitensky has authored more than 100 articles many of which are related to the area of safe driver identification.

Ailene Kua, MSc, completed her graduate studies in Rehabilitation Sciences from the School of Physical and Occupational Therapy, Faculty of Medicine, McGill University, Montreal. She completed her Bachelor of Arts Specialized Honors degree in Kinesiology and Health Sciences at York University, Toronto. Miss Kua received graduate fellowship support from Candrive. Her graduate studies focused on retraining skills of older drivers.



professional practice domains (www.autoeduc.ca).

Occupational therapists need to advocate at many levels for the introduction of driver refresher programs for aging drivers as there is no access within the current health care structure to a publicly funded preventive driver intervention. The role of occupational therapists in a venue other than the assessor of driving related skills, a role so often seen as punitive, needs to be promoted so that older individuals feel comfortable in approaching occupational therapists when they wish to sharpen their driving skills.

Acknowledgment

Nicol Korner-Bitensky was supported by a senior career award from the Fonds de la recherche en santé du Québec (FRSQ).

References

- Canada Safety Council. Seniors behind the wheel. (2005). Retrieved from <http://www.safetycouncil.org/news/sc/2000/Eng-1-00.pdf>.
- Korner-Bitensky, N., Menon, A., von Zweck, C., & Van Benthem, K. (2010). Occupational therapists' capacity building needs related to older driver screening, assessment and intervention. *American Journal of Occupational Therapy*, 64,1-9.
- Korner-Bitensky, N., Kua, A., von Zweck, C., & Van Benthem, K. (2009). Older driver retraining: An updated systematic review of the evidence of effectiveness. *Journal of Safety Research* 40(2): 105-111.
- Kua, A., Korner-Bitensky, N., Desrosiers, J., Man-Son-Hing, M., & Marshall, S. (2007). Older driver retraining: A systematic review of evidence of effectiveness. *Journal of Safety Research*, 1, 81-90.
- The Canadian Driving Research Initiative for Vehicular Safety in the Elderly (Candrive) Reference Database. (2008). Retrieved from http://www.candrive.ca/En/Research_Centre/database.asp.

Enabling the occupation of driving: An occupational therapy perspective



Dianna Roberston

How does a conceptual model of occupation relate to daily clinical practice in driver rehabilitation?

Optimal occupational performance is achieved when the person, environment, and occupation are considered by the occupational therapist, as outlined in the person-environment-occupation model (Law, et al., 1996). To illustrate the person-environment-occupation model and practice, consider the case of Henry...

Henry is an individual who sustained a left cerebral vascular accident (CVA) from which he has recovered quite well. He has returned to many of the previous occupations that he needs and wants to perform, and he would like to resume the occupation of driving. Since the time of his stroke, he continues to notice that fatigue is an ongoing concern, and that he has most energy in the morning. Henry has ongoing moderate weakness in his right arm, mild weakness in his right leg, and his short term memory is mildly impaired. Henry lives in a town of about 5000 people. He indicates that he stopped driving at night about five years ago, and hasn't taken a road trip out of his region for many years. Prior to his stroke, Henry often drove to the local coffee shop in the morning to meet with friends. Henry's wife has a driver's license and has taken on the responsibility for all driving since Henry's stroke. Prior to the stroke, Henry was the principal driver when they traveled together in a vehicle.

The occupation of driving

Occupational therapists recognize the importance of community access and are aware that driving is a complex occupation that requires the coordination of sensory, cognitive and motor skills (Charlton, Oxley, Fildes, & Les, 2001). Driving has been identified as a vital issue for a large number of individuals (Katz et al., 1990). Findings from focus groups with elderly drivers conducted at the University of Michigan indicated that "some people in the group said they'd rather die than give up driving" (Shope, 2004). Driving has also been identified as a vital issue for a large number of individuals who have sustained a brain injury (Katz et al., 1990).

For many individuals such as Henry, driving provides access to the community where they can engage in

everyday occupations such as shopping for groceries, getting a hair cut, attending church, or meeting friends for coffee. Driving is particularly important when we consider that many individuals live in communities where it is not possible to walk to community services and where public transportation is limited or nonexistent. Henry identified driving as a meaningful occupation that he wants to resume.

Enabling the occupation of driving

"For many individuals such as Henry, driving provides access to the community where they can engage in everyday occupations such as shopping for groceries, getting a hair cut, attending church, or meeting friends for coffee."

How can occupational therapy provide Henry with the means or opportunity to make it possible and practical for him to resume the occupation of driving within his community?

In the context of occupational therapy, enablement does not apply to the technical procedures, but rather, is related to how we facilitate, listen and encourage the individual (Rebeiro, 2001). Rebeiro refers to the importance of concepts such as a providing a supportive environment to enabling occupation. Park, Fisher, and Velozo (1994) recommend that if an occupational therapist wants to accurately assess the processing skills involved in the performance of instrumental activities of daily living (IADL), such as driving, the individual should be assessed in their home and/or community environment, not the clinical setting.

Henry wants to return to driving, not because he needs to (his wife has driven him around for a year), but because it continues to be important to him. Henry is anxious about coming to the clinic and undergoing an assessment.

About the author –

Dianna Robertson, BScOT, MScOT (Post Professional), began a Post Professional Occupational Therapy Masters Program at Dalhousie University after working as an occupational therapy clinician in the area of driver rehabilitation for over ten years. Dianna is an occupational therapist and Certified Driver Rehabilitation Specialist (CDRS) and she operates Functional Independence Therapy (FIT) Consultants in Vancouver, British Columbia. She can be contacted at fit.consultants@hotmail.com.

The enabling approach guides the occupational therapist to ask “How can we enable Henry to drive?” Strategies of enablement that would be beneficial to Henry, and decrease his anxiety, include; providing a supportive and affirming environment, taking the time to discuss his occupational goals and concerns, providing breaks, and monitoring anxiety levels. This is in contrast to an expert driven, directive approach (Townsend & Wilcock, 2005) that may begin with the question, “How can we get Henry off the road?”

Optimal occupational performance in driving

The occupational therapist recognizes that occupational challenges (such as Henry’s) are not always the result of a problem within the individual (Stadynk, 2004) and may relate to factors in the environment and the occupation itself. Environment factors may include traffic, highway versus city versus

“Occupational therapists need to continue to take a leadership role in driving rehabilitation, advocate for consumers in driver rehabilitation, and push towards a focus on occupation and enablement in driver rehabilitation.”

rural driving, night versus daytime, road conditions, presence and actions of other roadway users. The occupation of driving is influenced by factors such as where the person learned to drive, the use of adaptive aids, and traffic rules and regulations. Person factors may include fatigue, visual perception, physical and cognitive performance issues, driving habits and experience, test anxiety and emotional factors.

The occupational therapist, working with Henry and with a focus on enabling the occupation of driving, would strive to:

- find out from Henry what his driving goals are;
- provide an individualized assessment;
- assess Henry in his home town, a familiar environment;

- assess Henry using his own vehicle;
- provide Henry with the opportunity for practice to refresh his driving as he’s been away from this occupation for a year;
- provide a supportive approach;
- make sure to schedule the assessment in the morning;
- consider adaptive aids (such as a spinner knob, as Henry has some right upper extremity issues);
- consider recommending appropriate restrictions (daytime only, geographical proximity);
- discuss abilities and limitations with Henry and his wife in a collaborative style manner; and if a return to driving was not possible,
- explore alternative occupations with Henry and his spouse.

Conclusion

Occupational therapists need to continue to take a leadership role in driving rehabilitation, advocate for consumers in driver rehabilitation, and push towards a focus on occupation and enablement in driver rehabilitation. In the context of current human rights legislation and government policies that are focused on function and individualized assessment, this is an achievable goal. The focus of occupational therapy on the interaction between the person, the environment and the occupation sets the profession apart from other disciplines and makes it well-suited to enable the occupation of driving.

References

- Canadian Association of Occupational Therapists (1997) *Enabling Occupation: An occupational therapy perspective*. Ottawa, ON: CAOT Publications ACE.
- Charlton, C., Oxley, J., Fildes, B., & Les, M. (2001). *Self regulatory behavior of older drivers*. Proceedings of the 2001 Road Safety Research, Policing and Education Conference, Monash University Accident Research Center. Retrieved from http://www.monashedu.au/cmo/roadsafety/abstracts_and_papers/100/CHARLTON_revised.pdf.
- Katz, R. T., Golden, R. S., Butter, J., Tepper, D., Rothke, S., Holmes, J., & Sahgal, V. (1990). Driving safety after brain damage: follow-up of twenty-two patients with matched controls. *Archives of Physical Medicine and Rehabilitation*. 71(2), p. 133-137.
- Law, M., Cooper, B., Strong, S., Stewart, D., Rigby, P., & Letts, L. (1996). The person-environment-occupation model: A transactive approach to occupational performance. *Canadian Journal of Occupational Therapy*. 63, p.9-23.
- Park, S., Fisher, A., & Velozo, C. (1994). Using the Assessment of Motor and Process Skills to Compare Performance Between Clinic and Home Settings. *The American Journal of Occupational Therapy*. 48(8), p. 697-707.
- Rebeiro, K. (2001). Enabling occupation: The importance of an affirming environment. *Canadian Journal of Occupational Therapy*, 68(2), p.80-89.



Shope, J., in A. Abell (2004). Keys to Independence. *AAA World*, November/ December 2004, p. 30-41.

Stadnyk, R. (2004). Dalhousie University Course Notes: Occupation 5010, *Enabling Occupations*.

Townsend, E. (2003). Reflections on power and justice in enabling occupation. *Canadian Journal of Occupational Therapy*, 70(2), p.74-87.

Townsend, E. & Landry, J. (2005). Interventions in a societal context: Enabling participation. In C.H. Christiansen, C. M. Baum, and J. Bass-Haugen (Eds.), *Occupational therapy: Performance, participation, and well-being* (3rd ed). Thorofare, NJ: Slack Inc.

Townsend, E. (2006). Course Notes: Occu 5050: Public Dialogue on Occupation and Enablement, Spring Semester 2006, Dalhousie University.



The Power of
Occupation:
**Global Virtual
Exchange**
October 27,
2010
OT Wikiflash:
October 25-29

Come learn with & from your colleagues around the world

Celebrate World Occupational Therapy Day by attending the first-ever global virtual occupational therapy **Exchange** - a way for occupational therapists and those interested in the power of occupation to share what they are doing and thinking.

Join us for 24 hours of inspiring sessions with clinicians, researchers, students, professional association leaders, policy-makers & consumers/service-users, all talking about the power of occupation.

And it's **FREE!**

*What do you need to participate in the **Exchange**? A computer with Internet connection, speakers and ideally a microphone will let you hear/talk with the presenters. Sessions will be archived. Join us before and after the **Exchange** for **OT Wikiflash**.*



Starts: 0200 GMT October 27

Information about OT Exchange & OT Wikiflash:
OT 4 OT Group on Facebook
ot4ot@gmail.com
<http://www.otwikiflash.net>

Organizers:
M. Penman, S. Bodell, W. Wade
and OT 4 OT Working Group

Sponsored by:

Otago Polytechnic, New Zealand





Points of view: The experience and process of driving evaluation and retirement

Judy Cramm, Frank Cramm, and Michelle Osmond

The following three excerpts describe the experience and process of driving evaluation and driving retirement from three different perspectives: 1. The spouse whose husband is chronically ill and losing his ability to drive; 2. The driver with chronic illness experiencing this loss in many different ways; and 3. The occupational therapist responsible for performing the driving assessment. These three individuals were contacted and asked to describe their experience. With only minor editing for grammar and punctuation, here is what they shared:

Point of view: The spouse

Judy Cramm

My husband of 48 years has had secondary progressive multiple sclerosis for over 25 years. It started with trips and falls and so on, and now he uses an electric wheelchair and is usually comfortable in a reclining position.

My recollection of the occupational therapy process for the driving assessment is quite positive from my viewpoint, but I remember that it was a very stressful time for my husband. He was quite afraid of failure and what this would mean for us both. I tried to allay his fears and to be positive, but then tugging at the back of my mind was this awful fear of “what if”. Fortunately all went well, he was successful and with the help of the occupational therapist we ordered the driving controls for our vehicle, a Volkswagon.

He enjoyed driving for a while, but some movements were becoming more difficult for him. For example, getting in and out of the car, chairs, bed, and so on. He began to also develop back pain when he would try to get in and out of the driver’s side of the car and when he would try to get his legs in place under the driving controls. His annual check up with the neurologist came due soon after the pain began. At the appointment his neurologist did a very thorough check up and asked if he had any issues with driving. My husband then told him about the pain and the difficulty getting into and out of the car and being properly seated under the controls. Then the doctor asked me if I had any concerns. I hesitated, but then mentioned that I was nervous at times in the car, as my husband had made some driving mistakes (for example, crossing the lane a few times) and I was concerned about the possibility of injuring others. I also knew that he was in pain driving.

The doctor then suggested that an occupational therapist do a follow up driving assessment. My husband was unhappy about this but agreed. I felt relieved I had spoken!

A driving assessment by an occupational therapist at the rehabilitation clinic was quickly arranged, but my husband strongly felt that he would not be able to be assessed in the clinic’s vehicle, and requested that the occupational therapist drive with him in his Volkswagon. This was discussed and considered, but my recollection is that it was not a feasible possibility and there was the matter of legality.

Eventually, due to slow deterioration of his movements and back pain and difficulties in transferring in and out of the driver’s side, my husband decided not to drive again. This decision took quite a toll on us. It [losing one’s license] is quite a painful process when you actually complete documents and relinquish a driver’s license forever. Though with the extra wide door, a ratchet seat and hand grips in strategic positions to allow the passenger to enter a car in the easiest way possible, he could still get into the passenger side of car with little assistance allowing us to get around with me driving. My husband continued to enjoy being in a car until he had to start using a power wheelchair with special features; tilt, recline, retracting seat.

Now my husband is an avid user of our City Wheelway transportation system. It has been a long, tough road for both of us. Even with his physical imitations, he is very alert, keen, inquisitive, and productive. He also serves as a member of our local paraplegic association executive and with the Wessex Historical Society [Newfoundland].

I must add my thankfulness, for all occupational therapists; they have guided and supported us during this long journey.

Point of view: The driver

Frank Cramm

I had my first symptoms of multiple sclerosis (MS) in 1986. After consultations in Montreal and London, England, it was decided that I probably had secondary progressive MS. Unfortunately this type of MS is very difficult to deal with psychologically because you get

to watch yourself go downhill little by little, sometimes these changes are very small, however you don't want to burden your loved ones by providing something else for them to worry about.

As the downhill slide began, I moved to one cane, two canes, a walker, a push [wheel]chair, and a power chair. In 1996, we moved to a house that was accessible and shortly after I was attempting to mow the front lawn. My wife watched me for a while and she talked to me and I turned off the machine and realized there were things I could never do again.

I had recently retired and one of my greatest pleasures was going for an afternoon drive throughout the city or to drive someplace and watch the ever changing ocean. One day while sitting by the seashore I came to the realization that I soon would not be able to do this.

I was visiting the occupational therapist at the Miller Centre and our conversation turned to driving. The occupational therapist there said she could get me checked out for a device to go on the steering wheel and the steering column, but first she would have me do a written test and another test to prove that my vision and reflexes were okay to drive. I returned a week later to do the written test and the occupational therapist said she would try me on the driver simulator machine. I found this to be quite stressful because there was really no way to prepare yourself, you sat there going down one way streets, avoiding cars out of their lane, or children running out of a driveway. You sat there saying what next, how long will this go on?

I had successfully gotten over these two obstacles and now I had to face one of the most stressful tasks in my life - you sit in an unfamiliar car with someone you never met before and there is a knob like object on the steering wheel and dangling from the steering column was an apparatus with which I was supposed to accelerate and brake. With minimum delay we moved to the city streets and after some time returned to the Miller Centre and I was told I was successful. You cannot imagine the relief. I proceeded home and contacted Volkswagen and they subsidized a steering apparatus that fit their car. I drove for several years and finally had to quit, not because I could not drive but because it hurt my back too much to get in the car.

Point of view: The occupational therapist Michelle Osmond

**Editor's note: The process described here is for a facility in Newfoundland. The driver assessment process will vary from province to province and between facilities.*

Referrals

Referrals are received primarily from physicians but also from other health professionals. After receiving a referral, we send the client a letter of explanation about the assessment; what is involved, where to go, what to bring, and contact information.

Pre-screening

Having driving ability questioned can create anxiety for the client, so in addition to a letter, I telephone each individual as pre-screen, I try to determine the client's insight and understanding of their potential driving issues and medical problems. Sometimes the client's reaction to the referral helps guide assessment. Information about anxiety level, coping ability and driving concerns helps determine which approach may work best. I explain that the goal of the evaluation is to help a person safely maintain their driving independence. If the client is reluctant to complete the evaluation I discuss options, especially if it seems the client is leaning towards retirement from driving. I sometimes send a driving self-assessment and follow-up with another phone call. I feel that this approach empowers the driver to gracefully retire from driving on their own terms, which makes the transition easier. I often book the appointment for the evaluation during the pre-screen, especially with individuals who are presently driving. In some cases, the client may wish to delay assessment in order to recover further or to be tested when the weather is better.

The clinical evaluation

Getting started: Clients are usually apprehensive about the evaluation. The assessment always starts with another explanation: why I use a variety of tests to evaluate the elements of driving and "the skills we use while driving that we are unaware of". I explain the road test; why we use our vehicle, how they have a choice of routes and time to become familiar with the car. I also explain the post-assessment reporting process. I find that by completing these steps, some of the client's apprehension can be alleviated. Consent to

About the author –

Michelle Osmond, BSc(OT), is Senior Occupational Therapist and Driving Specialist at the Day Services in the Rehabilitation Program at L.A. Miller Centre Eastern Health in St. John's, Newfoundland and Labrador.

participate and to release results to the Motor Registration Division, (MRD) are obtained.

Clinical evaluation: I gather medical, social and driving history, and driving self-report. The next step is vision screening and evaluation of cognition, perception and physical abilities. Studies have shown that several of the tests I use are predictive of crash risk. Some clients question the 'pen and paper tasks'. I explain what the test is measuring and how it relates to driving, and why we complete this in a safe environment, free from stressors and risks of actually being 'on the road'. Sometimes a client will dismiss this testing as irrelevant but this can be a method of coping especially if the client is having difficulty. It can also indicate problems with frustration, anger or judgment.

The road test: We use a dual brake vehicle (for everyone's safety) with a driver's trainer from a driving school (with required insurance). I brief the trainer on the individual's challenges. We orient the client to the vehicle (mirrors, seat position, controls) and collaborate with the client in choosing routes that are familiar yet challenging. We always start in a quiet residential area that gives the client an opportunity to get comfortable with the car and equipment (if needed). The evaluation proceeds to more complex driving with distractions and pedestrians and then on to highway routes. I deliberately initiate conversation (small talk) both to create a relaxed atmosphere and to evaluate distractibility. When needed, we give corrective feedback for poor driving habits (rolling stops, failure to yield, etc). Receptiveness to feedback and ability to correct errors are important components of the road test. When the road test is finished, I ask the client how they felt about the drive, if they feel their driving was indicative of their normal driving, and if there were any problems. I ask the client to meet their family member in the lobby. During this time, the trainer and I discuss the driver's performance, areas of concerns, potential for remediation, need for additional training for equipment, restrictions or possible license suspension.

Sharing the results

I have practiced for over 15 years in the area of driver assessment and giving bad news about driving performance is still the most difficult aspect of my job. I begin with the overall results of both the clinical and road evaluations. I point out driving performance strengths then move on to the driving problems. I link changes in physical and cognitive function to specific driving errors. For example, I may say "the stroke has slowed

your brain's ability to process information causing your braking to be too late". I help them connect the driving problems to personal safety and the safety of others. At this time, I ask for input from the family. Sometimes this is an opportunity for family to voice concerns and fears. I feel it is crucial to maintain and facilitate the supportive role of the family.

Acceptance of driving difficulties is very individual. Some people have their fears confirmed while others deny the test results. Some clients argue that the unfamiliar vehicle is the source of their problems. I ask them to consider all the various vehicles they have driven in their lifetime and if the skills required are similar from one car to another. They may argue that they are collision-free and the loss of independence is "going to kill them". I point out that based on the evaluation results, it is not a matter of if but when they will have, or cause, an collision. Usually by the end of the discussion, the driver will start the process of acceptance. I provide information to help the family and client cope with the reactions and emotions as the person makes the difficult transition to driving cessation. I provide warning signs for depression and often offer follow-up support with social work and/or their family doctor. We discuss alternatives to driving in their community. I then explain what will happen next (reports sent), the MRD process for license suspension and provide my contact information if they wish to talk about it more.

The news is not always bad. It is important to realize that in most cases, the client will be able to continue to drive. If adaptive equipment is needed than additional training is required to ensure competency and safety. I prefer to have a family member with the client for the discussion, especially if there are restrictions associated with the recommendations. This provides support and someone to reinforce the driving restrictions or follow-through on the need for refresher or re-training. In these situations the client's risks may be reduced by avoiding peak traffic and restricting highway driving. Re-evaluation at a specified time frame may be indicated, and it is important that the client understand that this may be a step towards driving cessation, and start to plan for this transition. By working with the client and/or family, we ensure that the mobility plan works for them.

After completing the assessment and discussion, results and recommendations are sent to MRD. A report is sent to the referral source, family physician and the health record.



Helping older drivers

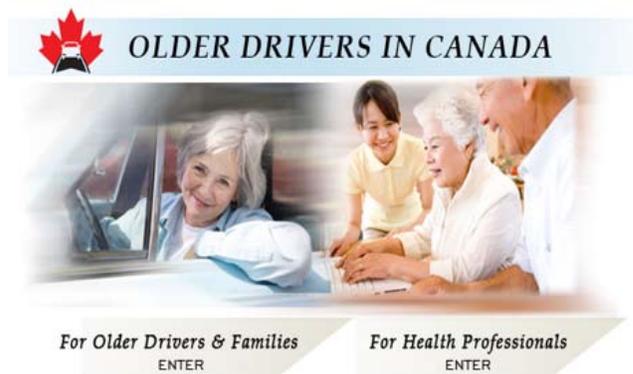
Janet Craik, CAOT Director of Professional Practice and Claudia von Zweck, CAOT Executive Director

In February 2009, the Canadian Association of Occupational Therapists (CAOT) launched the *National Blueprint for Injury Prevention in Older Drivers* (Blueprint). The Blueprint aims to enhance the capacity of older adults to maintain their ability to drive safely for as long as possible.



and strives to enhance the capacity of older adults to maintain their fitness to drive for as long as possible and when necessary, help prepare for driving retirement.

The website provides occupational therapists, other healthcare professionals, older drivers and their families with the latest information regarding driving screening, assessment and treatment options.



Blueprint

The Blueprint, funded by the Public Health Agency of Canada (PHAC), was developed collaboratively with a 21 member National Advisory Committee comprised of representatives from consumers, researchers, educators, clinicians, law and government. The intent is for the Blueprint to be used by many stakeholders as a tool to inform and influence policy, practice, education and research regarding older driver safety.

Resources to help older drivers

CAOT received additional funds from PHAC to work on directions for actions outlined in the Blueprint. In February 2010, CAOT launched a series of informational brochures and a website promoting older driver safety. The focus of the brochures is on the impacts of normal aging and health conditions on safe driving. The content is directed towards older drivers and their families

Key messages

- Age alone does not determine whether an older adult will be a safe driver.
- Older driver safety can be enhanced through
 - education and information,
 - vehicle technology,
 - driver refresher education,
 - driver assessment and intervention, and
 - community mobility options.
- Occupational therapists can evaluate driving, develop programs to improve safe driving, help create driving retirement plans.

Information

For more information on downloading or ordering brochures or information on safe driving practices, please visit www.olderdriversafety.ca.



Vehicle adaptations and equipment: The role of the National Mobility Equipment Dealer's Association (NMEDA)

Ensuring a vehicle meets the specialized needs of drivers and passengers with disabilities can be a challenging task. Fortunately, the National Mobility Equipment Dealers' Association (NMEDA) can help (www.nmeda.org). NMEDA's Quality Assurance Program (QAP) is a recognized accreditation program for vehicle modifiers and manufacturers of adaptive driving equipment. The QAP program was developed to promote quality, safety, and reliability within a growing industry. Accredited NMEDA QAP dealers are audited annually to ensure vehicle equipment installations follow strict quality control guidelines and technicians are trained accordingly.

How do occupational therapists and NMEDA dealers work together? Take for example, a client who wants to return to driving but is paralyzed from the waist down. An occupational therapist working in the field of driver rehabilitation would first determine the client was safe to drive and then, based on his/her assessment, identify equipment necessary to safely operate the vehicle. In this case, hand controls (Figure 1) would likely be recommended. The occupational therapist would then

seek the services of a vehicle modifier. Vehicle modifiers accredited by NMEDA work with the occupational therapist and client (and/or family) to determine the vehicle and/or associated equipment that best suits their needs, including financial considerations. Once the equipment had been determined, the client in this case would take lessons using the equipment. He/she would then need to "pass" an on-road test in accordance with jurisdictional licensing requirements. The client's driver's license typically notes any special accommodations, such as assistive equipment (i.e., hand controls), but that depends on the licensing requirements in the province in which they are driving.

David Hutchison, the President of the NMEDA Canada and Operations Manager of Sparrow Hawk Industries (a division of Shoppers Home Healthcare), described his relationship with occupational therapists as "an important bridge between what needs to be done for the client and how it can be accomplished in a vehicle."

By working together, clients are most likely to receive a modified vehicle that best suits their needs.



Figure 1. Mechanical hand controls allow a person to operate the gas and brake without the use of your legs in almost any vehicle. Hand controls are typically combined with a spinner knob for better grip during low-speed turns.



Figure 2. A special seat and base can be added to certain vehicles to allow a sliding or standing-pivot transfer for the passenger. A lifter can be installed to pick up a scooter or wheelchair.



Figure 3. Mobility device lifters can be installed in many different vehicles. Larger devices require stronger lifters and larger vehicles.



Figure 4. A lowered floor minivan increases the door opening and interior height of the van allowing wheelchair occupants to enter and sit comfortably in their wheelchair.



Figure 5. A pick-up truck conversion allows storage of a mobility device in the bed of the truck, and seat-transfer via a swiveling or elevating transfer seat.



The Association for
**DRIVER REHABILITATION
SPECIALISTS**

Driving the field forward: Occupational therapy and the Association of Driver Rehabilitation Specialists

Margaret Young

The acronym ADED once stood for the Association of Driver Educators for the Disabled (ADED). Although the full name of this organization has since changed, the acronym and, more importantly, its focus on driver rehabilitation have not.

ADED, or the Association of Driver Rehabilitation Specialists, was officially founded in 1977 when the need arose for occupational therapists and driving instructors to communicate with each other. Since then membership has expanded both geographically and professionally. The majority of members are occupational therapists but also include driving instructors, manufacturers of driving equipment and vehicle modifiers. There are many members in Canada, although most are from the United States. A similar organization has also started in Europe.

About the author –

Margaret Young, is a retired occupational therapist and Certified Driving Rehabilitation Specialist and is a life member of ADED.

While ADED has a certification examination that evaluates a well-defined body of knowledge representative of professional practice in this field, only those who meet specific requirements are eligible to take the exam. For example, those taking the exam are expected to have experience

assessing drivers with disabilities. Those who pass the exam are credentialed as Certified Driver Rehabilitation Specialist (CDRS). To maintain the status of CDRS, evidence of participating in relevant continuing education units (CEU) every three years must be provided. The exam is offered at the annual ADED conference,

which is traditionally held in August in the United States. Unfortunately, the exam is not available in French. Since ADED's inception, Canadian occupational therapists with expertise in driver rehabilitation have ensured examination questions are congruent with Canadian legislation and practice.

However, you do not need to be CDRS-approved to belong to ADED. For example, Ontario has an active ADED Chapter that organizes bi-annual meetings for professionals interested in driver rehabilitation. Vehicle modifiers and manufacturers of adaptive driving equipment have a sister organization called NMEDA (National Mobility Equipment Dealers Association) whose members also attend ADED meetings. Such meetings provide a forum where professionals involved with driver assessment can share experiences, learn from others, and problem-solve together to find solutions. As well, a conference on driver rehabilitation has been organized in Canada every two to three years. This conference provides an opportunity to get a national perspective of issues related to transportation and mobility for persons with disabilities in our country. ADED members often present at such conferences as they are considered 'experts' with specialized knowledge.

With the population aging and more drivers with medical issues expected on Canadian roadways, organizations like ADED will be extremely important in providing a forum for occupational therapists to further develop the skills necessary to continue to be leaders in the field of driver rehabilitation.



Driving rehabilitation: Frequently asked questions and answers

Lynn Hunt

What is involved when completing a driving evaluation?

The driving evaluation consists of two parts. The first is the clinical evaluation that is completed by an occupational therapist and takes approximately two hours. It determines a client's abilities and impairments. Paper and pencil tests, computerized tests and simulators are used.

The second part is the on-road test that is completed in a vehicle with a dual brake and any necessary adaptive driving equipment. A driving instructor, who is employed by the program or is on contract, completes the evaluation with the occupational therapist. The on-road evaluation is completed in light to moderate business traffic and on the highway and takes approximately one hour to complete.

Most clients proceed to the on-road test as it is a functional test used to determine if the client is safe to drive or unsafe to drive. If the client is unsafe to drive, the clinical evaluation is reviewed to determine if the client would benefit from driving lessons or not. Lessons are only recommended if the client demonstrates insight into the errors made and the consequences of these errors.

Who should be asked to complete a driving evaluation?

Anyone who has a physical impairment, cognitive/perceptual impairment and/or a behavioural impairment that may affect their ability to drive should be referred for a driving evaluation. It is important to note that the diagnosis is not as important as functional abilities.

Physical: Do they have decreased sensation, strength or coordination in their right lower extremity or one or both upper extremities? Do they have decreased neck range of motion or impaired trunk mobility?

Cognitive/Perceptual: Do they have impaired multi-tasking skills, slowed speed of mental processing, decreased attention to visual details, visual spatial deficits, difficulty maintaining concentration or poor judgment? Do they have difficulty completing activities of daily living skills, particularly preparing meals or taking their medication?

Behaviour: Are they confused, extremely anxious particularly about driving, impulsive, or aggressive?

When should someone be referred for a driving evaluation?

They should be referred when they have reached their maximum potential following an illness or injury. If the client has had a stroke/traumatic brain injury and there is evidence of cognitive deficits then it is recommended that they not complete a driving evaluation for at least six months. However, there may be reasons to complete the evaluation earlier, for example, the client must be able to drive to return to work and it is thought that they may be safe to drive.

Are all occupational therapists able to complete driving evaluations?

Although all occupational therapists are skilled in determining if the client has a functional limitation that may affect their ability to drive, only occupational therapists who are specialized in the area of driving rehabilitation should complete evaluations and make recommendations regarding driving ability or adaptive driving equipment. Occupational therapists become specialized by attending courses and workshops that relate specifically to driving. Driving instructors who are affiliated with driving rehabilitation programs are also specialized in the area of driving rehabilitation.

About the author –

Lynn Hunt, OT Reg (Ont), is a Senior Occupational Therapist and Certified Driver Rehabilitation Specialist at The Driving Rehabilitation Service located at the Ottawa Hospital Rehabilitation Centre. She is co-president of the Ontario Chapter of the Association of Driver Rehabilitation Specialists (ADED).





Dementia and driving: From diagnosis to driving cessation and beyond

Lisa Kristalovich

Dementia is a group of disorders affecting a person's brain and cognitive function. The most common forms (e.g., Alzheimer's disease and vascular dementia) are progressive, degenerative diseases. Although more common in older people, dementia is not a normal part of aging.

Preliminary results from a study conducted by the Alzheimer Society in Canada (2009) revealed the following statistics related to dementia in Canada:

- 1 in 11 Canadians over the age of 65 has Alzheimer's disease or a related dementia.
- Of the 500,000 Canadians affected by dementia, more than 71,000 of them are under the age of 65, and approximately 50,000 of them are under the age of 60.
- In just five years, as many as 50% more Canadians and their families could be facing Alzheimer's disease or another form of dementia.
- The number of Canadians living with Alzheimer's disease or a related dementia will more than double within a generation (25 years).

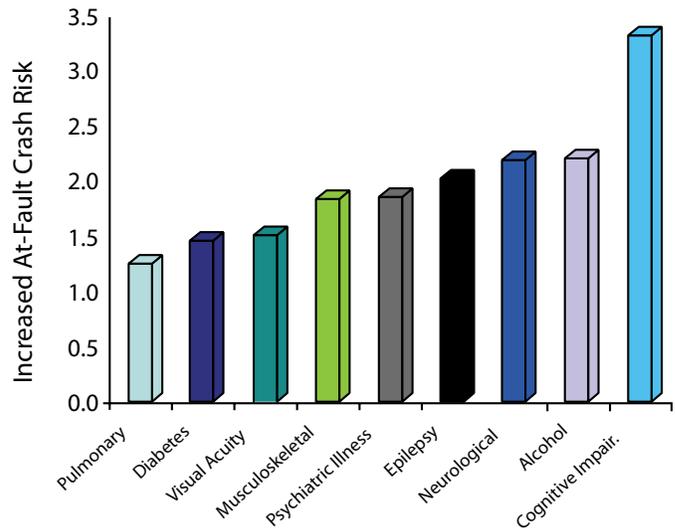
In British Columbia (BC), more than 70,000 people are currently living with dementia and nearly 10,000 of those are under the age of 65 (BC Alzheimer Society, 2009). Given the projected increases stated above, these numbers will exceed 140,000 and 20,000 respectively within the next 25 years.

Dementia and driving

There is overwhelming evidence that cognitive impairment affects the ability to drive safely. Dementia reduces memory, attention, visual-perception and executive function, all of which are needed to be a safe driver. According to Dobbs and colleagues (2009), "the progressive nature of dementia means that deterioration of driving skills is a certainty" (p.16).

People with dementia have poor insight into the risk they pose and are unlikely to self-regulate their driving. More than half (57%) of people with some form of cognitive impairment continue to drive, of which 30 to 50% will have a crash within three years and 80% will continue driving following a crash (Dobbs et al., 2009). Figure 1 compares the level of at-fault crashes for eight common medical conditions and alcohol impairment. It clearly demonstrates

that cognitive impairment increased at-fault crashes significantly more than any other factor.



Created and reprinted with permission from Dr. A. Dobbs (2000). Based on data from: Diller, E., Cook, L., Leonard, D., Reading, J., Dean, J.M., and Vernon, D. Evaluation of drivers licensed with medical conditions in Utah, 1992-1996. Washington (DC): National Highway Traffic Safety Administration.

Figure 1: Comparing at-fault crashes for eight common medical conditions and alcohol impairment.

A diagnosis of dementia does not indicate the ability to drive safely or not. Approximately one third of drivers with the early stage of the disease are competent. The key to ensuring that drivers with dementia cease to drive before they become a risk lies in a process that includes clear communication, appropriate assessment, and support for driving cessation.

The Dementia and Driving Working Group (DDWG)

DDWG was founded by the British Columbia Automobile Association Traffic Safety Foundation (BCAA TSF) and the Holy Family Hospital Driver Rehabilitation Program to review the current system in BC for the identification and assessment of the driving cessation process for drivers with dementia. As part of the occupational therapy department, the Driver Rehabilitation Program works towards client and public safety through evidence-based assessment and rehabilitation and by supporting healthcare

professionals with decisions related to older driver safety.

To gain an in-depth understanding of dementia, its impact on driving, and the current processes surrounding cessation of driving, the DDWG has been consulting with various stakeholders, including:

- BC Medical Association,
- Office of the Superintendent of Motor Vehicles (OSMV),
- Alzheimer Society of BC,
- University of Alberta Medically At Risk Driver's Centre, and
- Persons with dementia and their families.

The current system for driving cessation

The current system for drivers with dementia is a complex, non-linear continuum from the time a person is driving with undiagnosed dementia to driving cessation. To assist in identifying

Process:

- The existing complex process of driver evaluation/cessation makes it difficult for some stakeholders to fulfill their role.
- A diagnosis of dementia is often not achieved in a timely manner.
- Extended time delays exist for driving assessment, the communication of results, and licensing decisions.
- There is a reluctance by healthcare professionals to report a person's driving risk to the Office of the Superintendent of Motor Vehicles (OSMV).

Knowledge

- There is insufficient understanding of how dementia affects driving.
- There is inadequate awareness, preparation and acceptance for driving cessation (personal and societal).

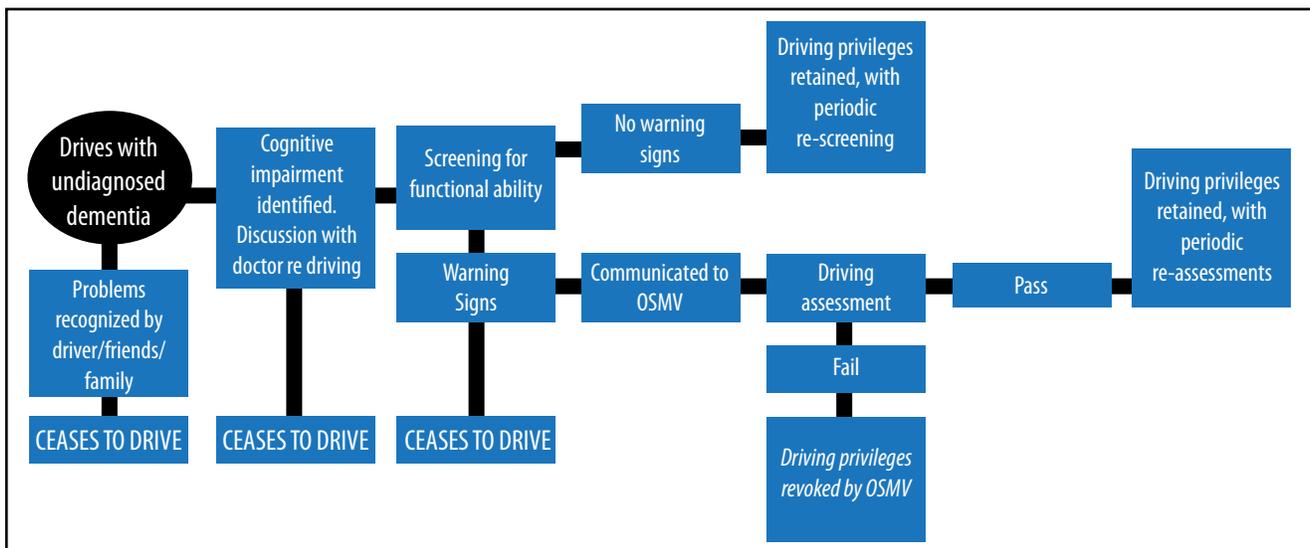


Figure 2: The current driving cessation pathway in BC.

opportunities for strategy development, the DDWG developed a graphic representation of the current driving cessation pathway (see Figure 2).

The primary stakeholders identified as having roles and responsibilities along the continuum include; health care professionals, family and friends, licensing organizations, and community service organizations.

Key issues

From a preliminary review of the current system and consultation with stakeholders, the DDWG has identified key issues for improvement, organized under four themes: process, knowledge, communication and resources.

Communication

- There is a fear of talking about cognitive impairment and driving because the topic triggers strong emotions due to society's reliance on driving.
- There are few resources that provide clear communication related to driving for the individual with dementia, their families, caregivers and healthcare professionals.
- There are communication gaps between healthcare professionals, OSMV, clients and families
- Unclear and inconsistent communication

Resources

- There are ineffective screening tools for driving for health professionals.
- There is limited accessibility to driving assessment centres.
- Medical specialists are underused.
- There are few alternatives to driving as a means of transportation for those with cognitive impairment.

Implications for occupational therapy

Occupational therapists are well-positioned to play a key role in the management of drivers with dementia. In the early stages of memory loss, with or without

a diagnosis, occupational therapists can discuss the functional implications of cognitive change in instrumental activities of daily living, including driving. Discussion on the inevitability of driver retirement with a progressive cognitive disease and early preparation for driver retirement may ease the transition to driver retirement and empower clients to voluntarily stop driving when appropriate.

Both before and after driver cessation, occupational therapists can assist with

community mobility. Providing a referral or registration to alternate transportation is not sufficient for the cognitively impaired client. Functional training in alternate transportation and assistance to setup a weekly routine using other

forms of community mobility will result in increased use of alternate transportation and participation in community activities.

Increasing numbers of occupational therapists with skills and knowledge in driver screening and assessment are needed. Providing additional support to occupational therapists to develop skills in driver screening, early planning for driver retirement, driver assessment and the transition following the loss of licensure is critical.

Occupational therapists have the potential to assist clients and families through a difficult, but inevitable, transition to driving cessation while facilitating their continued engagement in community-based activities. As a provincial strategy is developed in BC, there may be an increased need for occupational therapy services in all aspects of community mobility.

Acknowledgements

David Dunne, Lynda Griffiths and Marg Turner, of the BCAA Traffic Safety Foundation were instrumental in developing the *Dementia and Driving: Call to Action* paper from which this article was developed.

References

- Alzheimer's Society of BC (2009) *Put your mind to it*. Retrieved from www.alzheimerbc.org/put_your_mind_to_it.php.
- Dobbs, B., Zirk, H., Daly, S. (2009). Tackling a tough issue: Strategies for identifying, assessing and supporting drivers with dementia in the primary care setting. *The Canadian Review of Alzheimer's Disease and Other Dementias*, 12(1), 13-21.
- Rapoport, M.J., Herrmann, N., Molnar, F.J., Man-Son-Hing, M., Marshall, S.C., Shulman, K., Naglie, G. (2007). Sharing the responsibility for assessing the risk of the driver with dementia. *Canadian Medical Association Journal*, 177(6), 599.

About the authors—

Lisa Kristalovich, BMR(OT), Graduate Certificate in Assessing Driver Capability, MRSc (in progress), has been an occupational therapist since 1996, focusing on driver rehabilitation since 2001. Working in a geriatric hospital, Lisa is aware of a wide range of community mobility needs in the older adult population. Lisa can be reached at lkristalovich@providencehealth.bc.ca or 604-322-2617.

Removing barriers and paving the road ahead: Sustainable transportation for seniors is the way of the future



David Dunne

Since its invention in the late 1800s, we have had a love affair with the automobile, but along the way, we seem to have forgotten that while mobility is a right, driving is still a privilege. The personal privilege of driving must always be weighed against public safety. Driving requires sensory, motor, and cognitive functional ability. For an increasing number of people who no longer have the functional ability to drive safely, retirement from driving is inevitable.

The population over 65 years of age is expected to triple over the next 20 years. People are also living longer, outliving their driving ability, typically 7 years for men and 10 years for women. About 60,000 Canadians over 70 years of age stop driving each year. Unfortunately, few people ever plan ahead for retirement from driving. For most, giving up the car keys comes as tremendous shock for which they and their families are ill-prepared – particularly if it has not been their decision. Communities are under increasing pressure as many struggle with driving cessation issues while trying to maintain their mobility, independence and quality of life.

To begin addressing this looming problem, the British Columbia Automobile Association Traffic Safety Foundation (BCAA TSF) recently hosted a series of

“Safety is too often compromised because many people who should no longer drive delay or avoid the decision, and very few people ever plan ahead for their retirement from driving.”

roundtable discussions with stakeholders including seniors, healthcare organizations, supplemental transportation agencies, and the provincial government to open up discussions about seniors’ transportation needs, and we asked the obvious question: whose problem is this? While everyone recognized this was a growing concern, not surprisingly, many thought it was someone else’s responsibility.

The purpose of this article is to summarize the key issues we learned from this discussion. As you read this article, consider how these issues might resonate in other jurisdictions across Canada. Every year, more Canadians are faced with the issue of turning in their keys. While it is often seen as a personal and family problem, it is a significant social issue.

There are often multiple players involved when it comes to someone giving up the keys

Family, caregivers, and healthcare professionals all play a role in moving people from driver to passenger status. Cessation of driving is a hard conversation to begin, but research indicates that there are benefits from having a family member engaged in the conversation from the start to offer support and help develop a transportation plan. There are also benefits to having a driving evaluation or functional assessment performed by a trained professional that is not directly involved in their day-to-day care. An occupational therapist can play an integral role in helping determine when it’s time to hang up the keys and setting up an alternative mobility plan that works with the person’s out-of-home activity needs.

About the authors–
David Dunne is the Director of Road Safety for the British Columbia Automobile Association’s Traffic Safety Foundation.

Developing a multi-pronged approach to sustainable transportation in British Columbia

Individuals who continue to drive when they are no longer able due to changes in health status can pose a great risk to public safety. BCAA TSF felt the need to step in and take a leadership role to address this issue. Recognizing that many of these drivers were older, the BCAA TSF developed a Mature Drivers Strategy using a multi-pronged approach that focused on 3 key areas:

- 1) helping those who can and want to improve their driving,
- 2) addressing medically at risk drivers to ensure that unsafe drivers make a timely transition to driving cessation, and
- 3) exploring ‘senior-friendly’ transportation to address ongoing mobility needs

While we must recognize that driving is a privilege that comes with significant responsibilities, at the same time, we need to ensure that people maintain their right to mobility when they begin to experience physical and cognitive challenges and can no longer drive. We need to be sensitive to the needs of older adults, and this means that our communities, our regulations, and our services need to be oriented to

their particular needs. Without effective alternatives in place, we will degrade the quality of life for a growing segment of the Canadian population.

Creating viable transportation alternatives: Lessons learned from other jurisdictions

There are many challenges to consider when it comes to considering mobility beyond the personal automobile – the older adult’s health status and quality of life, public safety, legal and financial aspects, family and societal issues, operational and environmental challenges, to name a few. We need to be sensitive to the needs of seniors, and this means that our communities, our regulations, and our services need to be oriented to their particular needs.

“The population over 65 years of age is expected to triple over the next 20 years. People are also living longer, outliving their driving ability, typically 7 years for men and 10 years for women.”

To be effective, transportation alternatives need to be appealing to older users. The Beverly Foundation in the United States developed principles for supplemental transportation programs to incorporate in addressing their needs (www.beverlyfoundation.org). When viewed from the seniors’ perspective, transportation must be acceptable, customer-focused and satisfy individual preferences, as well as being accessible and adaptable for those who have a range of functionality and trip requirements. The service must also be affordable.

Individuals, families, caregivers, service providers, businesses, communities, planners, policy makers, governments and healthcare professionals, including oc-

cupational therapists, must all be engaged in creating solutions that work so that individuals can age in place, with dignity and freedom. And, most importantly, older adults themselves must be involved in the process. Recognizing that driving cessation is inevitable, seniors need to familiarize themselves with the alternatives, and plan where and how they will live to maintain their mobility and independence.

Facilitating mobility through fair and equitable access to transportation - A call for action

Our communities need a range of accessible and adaptable alternative transportation services – some free, some not – to address a range of changing needs and respect a senior’s dignity. Alternative transportation service providers must also provide services that are sustainable.

Learning from the lessons of others, utilizing the resources that are available through organizations like the Beverly Foundation, and partnering with stakeholders who have complementary objectives will help make the best use of limited resources. For example, occupational therapists were instrumental in partnering with the Public Health Agency of Canada to create the National Blueprint for Older Drivers. Many different partners came together from across Canada to contribute to this initiative. However, this is not a ‘one solution fits all’ type of problem. Transportation needs differ between communities.

There is no one, easy solution, but at least the conversation is beginning in communities across British Columbia. It has been exciting to see this process unfold in British Columbia. Has the conversation started in your community? If not, I challenge you to bring individuals together in your jurisdiction.

Fact sheet: Retirement from driving

National Blueprint for Injury Prevention in Older Drivers



Does age affect driving safety?

Aging can lead to changes in vision, perceptual skill, attention,

memory, decision-making, reaction time, processing speed, and physical ability that may affect driving. Changes in cognition and perception, for instance, have been linked to an increased risk of accidents (2-5). Specific medical conditions associated with aging such as stroke or diabetes can also influence driving. Current statistical information indicates older driver mortality and morbidity is on the rise and driving crashes are the leading cause of accidental deaths for Canadians aged 65 to 75 years. Individuals over the age of 75 have a 3.5 times higher crash rate compared to individuals aged 35 to 44 years (1).

How important is driving for older adults?

Older adults are the fastest growing portion of the driving population, with roughly 2.7 million drivers over the age of 65 on Canadian roads today. By the year 2040, this number is expected to double. Driving represents autonomy and independence, and contributes to quality-of-life by fostering a sense of well being and enabling the maintenance of family and other social contacts (6). Research indicates that alternate plans need to be put in place to allow for continued active community life after older adults stop driving. Driving retirement is currently associated with a decrease in both personal mobility and participation in out-of-home activities, (7) along with increased depressive symptoms (8).

When should an older driver plan for driving retirement?

All drivers must consider that their ability to drive may not continue throughout the lifespan. Before the effects of aging influence the ability to drive safely, older adults should start the transition to driving retirement and consider the mobility options that will suit their needs within their community.

How does an older driver transition to driving retirement?

Driving retirement can be a gradual process for some individuals. Older drivers and their families

may identify situations that pose challenges to safe driving such as driving in poor weather, during rush hour, on limited access highways. Older adults may choose to limit driving in these challenging situations. These self imposed limits can extend the ability to drive safely. Alternative transportation can be used at times when the older driver does not feel confident to drive.

When the time comes that an older adult no longer feels safe to drive or has been told that they can no longer drive, it is important to implement some strategies to help them stay connected to their community.

- Planning for driving retirement should begin before driving stops.
- Make a personal transportation plan and collect information on local transportation options.
- Become familiar and comfortable with alternative transportation options.

What options are available once an older driver stops driving?

A growing number of communities are exploring transportation alternatives such as; public transit, community shuttles, taxis, car hire services, specialized transit for seniors, volunteer drivers and community rideshare groups. It is recommended that older drivers become familiar and comfortable with alternative transportation in their region. If alternative transportation methods are not available, older drivers and their families should consider contacting their regional government or seniors organizations. Together they might be able to establish new services in their community. While the ability to drive may no longer be an option, all members of a community have the right to some form of transportation and should lobby for access to cost-effective and accessible transportation services.

References

- (1) Canada Safety Council. Seniors behind the wheel. (2005). Retrieved from <http://www.safetycouncil.org/news/sc/2000/Eng-1-00.pdf>.
- (2) Gresset, J.A., & Meyer, F.M. (1994). Risk of accidents among elderly car drivers with visual acuity equal to 6/12 or 6/15 and lack of binocular vision. *Ophthalmic and Physiological Optics*, 14, 33-37.
- (3) Johnson, C.A., & Keltner, L. (1983). Incidence of visual field loss in 20,000 eyes and its relationship to driving performance. *Archives of Ophthalmology*, 101, 371-375.

- (4) Morgan, R., & King, D. (1995). The older driver: a review. *Post-graduate Medicine Journal*, 71, 525-528.
- (5) Owsley, C., Ball, K., Sloane, M.E., Roenker, D.L., & Bruni, J.R. (1991). Visual/cognitive correlates of vehicle accidents in older drivers. *Ophthalmology and Aging*, 6(3), 403-415.
- (6) Ragland, D.R., Satariano, W.A, & MacLeod, K.E. (2004). Reasons given by older people for limitations or avoidance of driving. *The Gerontologist*, 44, 237-244.
- (7) Marottoli, R.A., Mendes de Leon, C.F., Glass, T.A, Williams, C.S., Cooney, L.M., & Berkman, L.F. (2000). Consequences of driving cessation: decreased out-of-home activity levels. *Journal of Gerontology*, 55, S334-340.
- (8) Ragland, D. R., Satariano, W. A. & MacLeod, K. E. (2005). Driving cessation and increased depressive symptoms. *Journals of Gerontology Series A-Biological Sciences & Medical Sciences*, 60(3), 399-403.

Engaging community partners to address at risk drivers with dementia



Briana Zur

The issue of driving and dementia is a difficult and growing concern, and there is substantial evidence that drivers with dementia with a certain level of cognitive impairment pose a significant risk to public safety (Dobbs, Zirk, & Daly, 2009). Concomitant with the aging of the Canadian population, older drivers are the fastest growing segment of the driving population (Canada Safety Council, 2005). The number of elderly people with driver's licences will increase exponentially over the coming decades, bringing concerns about age-related deficits and driving ability (Alzheimer Society of Canada, 2009; Canada Safety Council, 2005). While not all aging persons will face the challenges of dementia, the rate of motor vehicle crashes per kilometer of driving according to drivers age increases beyond the age of 80 (Molnar, 2008). It has been estimated that drivers over the age of 80 are the fastest-growing segment of Ontario's driving population (Hopkins, Kilik, Day, & Rows, 2004; Molnar, 2008). Persons with dementia have a 2.5 to 4.7 times greater risk of motor vehicle crashes than population-based controls (Man-Son-Hing, Marshall, Molnar, & Wilson, 2007). In Ontario, the estimated number of drivers with dementia grew from 15,000 in 1986 to nearly 34,000 in 2000, and by the year 2028, it has been estimated that there will some 100,000 drivers with dementia in Ontario alone (Hopkins, Kilik, Day, & Rows, 2004).

Persons with dementia, family care providers and health care professionals struggle with who is responsible for determining when and how the issue of driving retirement should be addressed, and how it should be addressed. There are ethical and moral implications to consider, balancing independence and safety.

“Persons with dementia, family care providers and health care professionals struggle with who is responsible for determining when and how the issue of driving retirement should be addressed, and how it should be addressed.”

Moreover, for occupational therapists, there is recognition that driving as a key occupation in contemporary society which enables participation in many other occupations that contribute to health and well-being (Canadian Association of Occupational Therapists [CAOT], 2009a).

The issue

In many Canadian jurisdictions, the responsibility for identifying fitness to drive of people with dementia falls within the responsibility of professionals in the health care system (Hopkins, Kilik, Day, & Rows, 2004). For example, in many provinces physicians are legislated to report any medical condition which may impact on a person's ability to drive (Coopersmith, Korner-Bitensky, & Mayo, 1989). When it has been determined that older adults are no longer safe to drive, in many cases barriers to continued community mobility significantly impede independent living and may cause depression and social isolation (Fonda, Wallace, & Herzog, 2001; Ontario Society of Occupational Therapists [OSOT] Aging Driver Interest Task Force, 2009). Changes in the ability to participate in meaningful occupations such as driving can also influence a person's occupational identity (Vrkljan & Polgar, 2007). To address the complex issues involved in enhancing the safety of aging drivers, CAOT has launched the *National Blueprint for Injury Prevention in Older Adults* (Blueprint) (CAOT, 2009b), and OSOT has released the Aging Driver Report (OSOT Aging Driver Interest Task Force, 2009).

As a practitioner working on a Specialized Geriatric Services outreach assessment team in Waterloo Region, it is not uncommon to come across clients diagnosed with dementia who have been deemed unfit to drive and have had their license revoked but who, for various reasons, continue to drive. Over the years several phone calls had been made to our regional police services who, while sympathetic to the situation (and my frustration), reported that they could only intervene if an infraction had occurred. Often it is the family who is left with the task of taking away the keys from their family member, with little support or guidance from health and medical practitioners.

Guidelines for addressing driving retirement

OSOTs Aging Driver Report (2009) recommends providing access to information about alternative

About the authors—

Briana works as an occupational therapist on the Specialized Geriatric Services outreach team in Waterloo Region. She is also pursuing her PhD in Health and Rehabilitation Sciences (Occupational Science field) at the University of Western Ontario in London, Ontario. She can be reached at bzur@uwo.ca.

transportation options that are senior friendly, and increasing the availability of supports for the transition to post-driving cessation. The report also recommends the development of a comprehensive communication strategy with the goal of educating professionals and the general public regarding issues related to the aging driver, including driving retirement.

The Blueprint (2009b) recommends engaging broad support and partnerships to achieve its vision which is that “older adults in Canada will utilize driving practices that prevent injury and promote health, well-being and public safety” (CAOT, 2009b). It also recommends providing information to stakeholders regarding older adult safe driving practices, policies and programs. Identified stakeholders include older drivers and their families, health care professionals, government officials, law enforcement, and the general public. This report emphasizes the need to increase visibility of older driver issues and to develop and disseminate evidence-based user friendly resources and information.

Guideline implementation

In November 2007, contact with the Community Resources Director at the regional police services resulted in an invitation to various stakeholders to join in forming an ad hoc committee to deal with at-risk drivers with dementia. This committee initially included the Waterloo Regional Police Services supervisor of Traffic Services, the Public Education Coordinator of the Alzheimer Society of Kitchener-Waterloo, and a representative from the Community Care Access Centre (now the Clinical Nurse Specialist, Geriatrics of the Waterloo Wellington CCAC). The goal of the committee is to raise awareness of the issue of the at-risk driver with dementia within our local community, to provide education and support to empower caregivers to deal with this difficult situation, and to provide family physicians with the tools to address this issue with their patients. As such, this group provides an example of how guidelines developed at federal and provincial levels can be taken up at the local level.

Over time the group has expanded to include a caregiver of a person with dementia and representatives from our regional Community Alzheimer Programs, District Stroke Education, Waterloo Wellington CCAC Geriatric Clinical Resource Consultant, Elder Abuse Response Team of the Waterloo Regional Police Services, and two representatives from the Department of Health Studies & Gerontology at the University of Waterloo. These new members added an increased level of diversity, expertise and community engagement which provided an opportunity to deepen our understanding

of the issues and concerns.

The working group is now developing a comprehensive communication strategy with the goal of educating professionals and the general public regarding issues related to the aging driver with dementia, including driving retirement. To date we have held a workshop to raise awareness and have developed an information brochure that includes local resources for alternative modes of transportation and community

“The goal of the committee is to raise awareness of the issue of the at-risk driver with dementia within our local community, to provide education and support to empower caregivers to deal with this difficult situation, and to provide family physicians with the tools to address this issue with their patients.”

agencies. It is anticipated that future strategies will involve education for families, family physicians and other health care professionals. It is hoped that this will attract attention and resources for the creation of alternative options for community mobility.

It must be recognized that people with dementia who drive when not competent to do so create an unacceptable risk for themselves and for their community. Driving is a privilege and not a right; however everyone should have the right to accessible and affordable community mobility. This example demonstrates that building community partnerships is an effective mechanism to address community concerns and creates opportunities for occupational therapists to use and develop their interpersonal and collaborative skills, integrating an occupational perspective into a community project. As occupational therapists we are well positioned to effectively contribute to this critical issue both in theory and in practice as a generation of baby boomers is just about to enter their retirement years.

References

- Alzheimer Society of Canada. (2009). *Rising Tide: The Impact of Dementia on Canadian Society*. Toronto, ON: Alzheimer Society of Canada' to end of reference.
- Canada Safety Council. (2005). *Seniors behind the wheel*. Retrieved from http://archive.safety-council.org/news/sc/2000/senior_wheel.html
- Canadian Association of Occupational Therapists. (2009a). CAOT Position Statement on *Occupational Therapy and Driver Rehabilitation*. Retrieved from <http://www.caot.ca/default.asp?pageid=1353>.
- Canadian Association of Occupational Therapists. (2009b). *National Blueprint for Injury Prevention in Older Drivers*. Retrieved from <http://www.caot.ca/default.asp?pageid=2190>.
- Coopersmith, H., Korner-Bitensky, N., & Mayo, N. (1989). Determining medical fitness to drive: physicians' responsibilities

in Canada. *Canadian Medical Association Journal*, 140(4), 375-378.

Dobbs, B., Zirk, H., & Daly, S. (2009). Tackling a tough issue: strategies for identifying, assessing, and supporting drivers with dementia in the primary care setting. *The Canadian Review of Alzheimer's Disease and Other Dementias*, Feb 13-21.

Driving and Dementia Working Group of the Kingston Frontenac Lennox and Addington (KFLA) Dementia Network. Driving and Dementia. Retrieved from http://www.providencecare.ca/cms/sitem.cfm/clinical_services/geriatric_psychiatry/driving_and_dementia/.

Fonda, S., Wallace, R., & Herzog, A. (2001). Changes in driving patterns and worsening depressive symptoms among older adults. *Journal of Gerontology: Medical Science*, 56B(6), S343-S351.

Hopkins, R., Kilik, L., Day, D., & Rows, C. (2004). Driving and dementia in Ontario: A quantitative assessment of the problem. *Canadian Journal of Psychiatry*, 49(7), 434-438.

Man-Son-Hing, M., Marshall, S., Molnar, F., & Wilson, K. (2007). Systematic Review of Driving Risk and the Efficacy of Compensatory Strategies in Persons with Dementia. *Journal of American Geriatrics Society*, 55(6), 878-884.

Molnar, F. (2008). Assessment of Fitness -to-Drive in Persons with Dementia. *Geriatrics and Aging*, 11(10), 24-26.

OSOT Aging Driver Interest Task Force. (2009). *Aging Driver Report*. Toronto, ON: OSOT.

Vrkljan, B., & Polgar, J. (2007). Linking occupational participation and occupational identity: an exploratory study of the transition from driving to driving cessation in older adulthood. *Journal of Occupational Science*, 14(1), 30-39.



My body the car

Anne M.

“It will be my doctor telling me to cool it...” Godley and Creme

“This is my first winter without snow tires,” Dad chimed in one December evening at the extended family dinner table as the lively conversation inevitably turned to driving and the impending winter. His milestone comment hit hard, as had my sister’s email just a few days earlier telling all of us about the revocation of Dad’s driver’s licence following the recommendation of his family doctor.

The loss of his license marked the end of a 68-year-long privilege of free-wheeling independence for Dad. Driving enabled Dad’s life: his work life – visiting Ontario’s regional Public Health offices, commuting to Queen’s Park; his social action – founding and serving countless charities and Boards, carving turkey at The Mission every Christmas Day; and, his social and family life – trekking up the highway most weekends to our remote cottage, getting to the YMCA pool weekdays, going to church, attending every family event and rite of passage. He even proposed to Mom in his car! Dad was proud of his virtually collision-free record. He loved all his shiny new cars, especially his metallic blue 1979 5.0 l. 5 speed manual shift Mustang hatchback.

Since turning 80, Dad had annually attended the Ontario Ministry of Transportation mandated driving seminar for seniors, feeling out of place among the “dotty old women.” As his eyesight declined, Dad had self-limited his driving, avoiding driving at night or on unfamiliar routes. He graciously accepted rides from family for out-of-town trips, always apologizing for putting us out. He continued to drive locally.

My “Is it time for Dad to stop driving?” radar began to blip in June when I took Dad’s Queen early in our weekly chess game; this was a first in fifty years of playing together. He saved face by blaming his failing vision, but I sensed it was his strategic thinking that had failed him. Soon after the game, I asked Dad what driving meant to him. “Driving is my independence. Without it, I will wither and die” was his uncharacteristically dramatic, unequivocal reply. My offer of alternatives was met with an abrupt “I’ve never taken a bus or cab in my life.” The matter was not up for discussion. Case closed.

As an occupational therapist, I know that driving requires a complex set of skills and abilities, including sensory (vision, hearing, kinesthetic, touch), motor (response speed, agility, coordination, range of motion), intellectual (memory, rule knowledge, directionality) and executive cognition (attention, problem-solving, strategic thinking, planfulness, execution). As a mental health occupational therapist, I also know that driving is key to continued engagement, especially for aging seniors living in their homes in the community: staying active and connected is paired in my mind with enjoying continued good health and a higher quality of life.

As a daughter, I was conflicted. On one hand, I had growing concerns that Dad’s subtle losses of cognitive function could have potentially tragic results for him and others on the road. On the other hand, I want Dad to be as independent as possible for as long as possible; to Dad, that meant continuing to drive, not pursuing new alternative transportation means. When do I communicate to my siblings my fears that Dad was nearing “stop driving now” territory? When do I encourage my sister, his health advocate, to prepare Dad for not driving and to help him decide to retire from driving, just as he had voluntarily decided to retire at 72?

My dilemma as a daughter and an occupational therapist deepened with Dad’s report that he had missed the September funeral of a lifelong friend because he couldn’t find the church. Any equivocation I felt that Dad’s procedural memory was compromised vanished a few weeks later when I arrived for our weekly dinner only to discover that he had been unable to clear his kitchen floor of the shards of a broken bottle.

The occupational therapist in me emerged that night convinced that Dad must stop driving; the daughter in me, knowing our family dynamics, was unsure about how to proceed. I did share my observations and concerns, but they were met with silence, resistance and inaction. Ultimately, the responsibility of deciding not to drive was shifted

About the author –

Anne M., BScOT, MSc (OT), OT Reg (Ont), is an occupational therapist living and working in Ontario, Canada. She has chosen to remain anonymous.

from Dad to his family physician, who took his license after doing a cognitive screening test – an abrupt and shocking development for Dad that he still refers to, almost daily.

Dinner conversation since December has reflected the arc of Dad's adjustment to life without his own car – beginning with stories of friends advising him on how to drive without a license and how to appeal the doctor's decision, followed by angst about the

low resale price of his car and filling an empty garage, then the mechanics of organizing taxi rides and, lately, the joys of not having to pay attention to gas prices or scrape icy windshields or warm up the car. Most recently, Dad's been regaling us at dinner with tales from the rich storehouse of local lore that each of his drivers shares during their rides together. "This is my first winter of warm cars and good stories" is how he usually begins.