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Older Driver Safety: A Survey of Psychologists' Attitudes, Knowledge, and Practices*

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RÉSUMÉ

Utilisant un sondage en ligne, nous avons examiné les connaissances, les attitudes et les pratiques en ce qui concerne les problèmes de sécurité des conducteurs âgés détenus par des psychologues cliniciens de tout le Canada qui se sont identifiés comme travaillant avec au moins quelques conducteurs de plus de 60 ans. Quatre-vingt-quatre psychologues ont répondu au sondage, et beaucoup étaient au courant des questions relatives à la sécurité des conducteurs âgés, bien que seulement environ la moitié ont déclaré que l'évaluation de l'aptitude à conduire est une question importante dans leur pratique. La majorité (75%) ont indiqué qu'ils bénéficieraient de l'éducation relative à l'évaluation de l'aptitude à conduire. La principale recommandation qui ressort de cette enquête est qu'il faut des efforts accrus pour sensibiliser les psychologues sur l'évaluation liée à la conduite et les questions réglementaires en général, mais en particulier en ce qui concerne les personnes âgées. En tant que la population vieillit, il est d'une importance croissante que tous les fournisseurs de soins de santé comprennent l'influence des conditions mentales—y compris des troubles cognitifs et de la démence—sur les compétences de conduite.

ABSTRACT

Using an online survey, we examined the knowledge, attitudes, and practices with respect to older driver safety concerns of clinical psychologists from across Canada who self-identified as working with at least some drivers over 60 years of age. Eighty-four psychologists completed the survey, and many were aware of the issues relevant to older driver safety, although only about half reported that assessing fitness to drive was an important issue in their practice. The majority (75%) reported that they would benefit from education concerning evaluation of fitness to drive. The primary recommendation emerging from this investigation is to increase efforts to inform and educate psychologists about driving-related assessment and regulatory issues in general, and specifically with respect to older adults. As the population ages, it is of growing importance for all health care providers to understand the influence of mental health conditions—including cognitive impairment and dementia—on driving skills.

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Older driver safety is, and will continue to be, an important focus for policy makers and health care practitioners as people over the age of 80 years, many of whom will continue to drive, represent the fastest growing segment of the Canadian population (Statistics Canada, 2010). In Canada, the majority of older adults are dependent on the private motor vehicle for transportation as they live in areas with few accessible, affordable transportation alternatives (Turcotte, 2012). Concern about older drivers in North America stems from the observation of higher-than-average fatal motor vehicle crash (MVC) rates per kilometres/miles driven, especially for those over age 75 (e.g., Dellinger, Langlois, & Li, 2002). However, there has been considerable debate in the literature about the validity of these observations (e.g., Hakamies-Blomqvist, 2006; Langford, Methorst, & Hakamies-Blomqvist, 2006) and the use of mandatory age-based assessment of older drivers (Langford & Koppel, 2006; Siren & Meng, 2012). Instead, there is growing support internationally for a more targeted approach to identifying those older drivers most at risk (Organization for Economic Co-operation and Development, 2001).

It is generally agreed that it is not age, per se, but associated medical conditions and/or treatment for these conditions that can adversely impact driving (Tuokko & Hunter, 2002). A number of medical conditions affecting both mental and physical health have been identified that affect driving abilities (e.g., American Association of Motor Vehicle Administrators, 2009; Canadian Medical Association, 2012). The most frequently reported chronic health conditions that have been shown to directly affect driving outcomes for older adults involve vision as well as cardiovascular, pulmonary, musculoskeletal, and neurological systems (Anstey, Wood, Lord, & Walker, 2005; Ruechel & Mann, 2005). Arguably, cognitive decline and dementia are some of the most prevalent age-related conditions that are expected to have an impact on driving safety (Lloyd et al. 2001; Man-Son-Hing, Marshall, Molnar, & Wilson, 2007), particularly as neurodegenerative diseases progress (Adler, Rottunda, & Kuskowski, 1999).

Physicians may be the first contact for many older drivers with these types of medical conditions. A number of studies within Canada, the United States, and abroad have examined physicians' knowledge of, attitudes towards, and practices regarding issues relevant to older drivers. Although most physicians considered the assessment of fitness to drive of older people to be an important issue in their practices (Brooks et al., 2011; Jang et al., 2007; Ménard et al., 2006), many did not consider themselves to be qualified to identify unsafe drivers and felt that their involvement in these assessments could adversely affect their relationship with their patients (Jang et al., 2007; Marshall & Gilbert, 1999; Ménard et al., 2006). Moreover, in all studies, at least some physicians surveyed were unaware of or did not refer to professional guidelines concerning assessment of fitness to drive. Depending on the jurisdiction and area of practice, many were unsure of their legal responsibility to report unsafe drivers. Even when physicians reported being knowledgeable about reporting requirements and appropriate approaches to assessing fitness to drive, there was marked inconsistency as to the content of the assessment, particularly concerning cognitive functions (Wilson & Kirby, 2008).

Given the lack of consistency in whether and how physicians address the issue of older driver safety, it is imperative that all health care practitioners working with older adults be cognizant of the types of medical conditions that can influence driving and ways to address these concerns with those in their care. In particular, those professionals most involved in assessment and rehabilitation of older adults with mental health disorders, including cognitive impairment and dementia, need to be particularly attuned to age-related conditions and disorders that may affect driving. Moreover, in some jurisdictions, clinical psychologists, like physicians, have a duty to report unsafe drivers to the local authorities and need to know if and when to have discussions about driving safety and how to provide support and assistance with driving decisions. In some jurisdictions, it is mandatory to report people with cognitive impairment or a diagnosis of Alzheimer's disease (Reuben & St. George, 1996). This is not the case in Canada; instead, provinces may impose a duty on, or give discretion to, certain health care professionals to report patients who drive when it may be dangerous to do so (Tuokko & Hunter, 2002). The determination of when to report relies on subjective judgement of such individuals and the reporting requirements imposed on

various branches of the health care profession differ by province. In Newfoundland, Prince Edward Island, Northwest Territories, and Nunavut, the duty is restricted to medical practitioners (i.e., typically referring to a person qualified as a member of a College of Physicians and Surgeons). In Alberta, Saskatchewan, Manitoba, Ontario, New Brunswick, and the Yukon, the duty is imposed upon medical practitioners and optometrists. In British Columbia, the duty is imposed upon psychologists, optometrists, and medical practitioners. In Nova Scotia, medical practitioners and registered psychologists are the only professionals with a duty to report.

The present study was an exploratory investigation of the knowledge, attitudes, and practices of registered psychologists from across Canada with respect to older driver safety concerns. Specifically, the study addressed: (1) attitudes and beliefs about the determination of fitness to drive; (2) knowledge of jurisdictional reporting requirements and policies and programs relevant to older driver safety; (3) knowledge concerning older driver risks; and (4) clinical practices of psychologists when evaluating for fitness to drive. This was a descriptive study using an online survey to examine the knowledge, attitudes, and practices of clinical psychologists in Canada to enhance our understanding of the roles that clinical psychologists play in identifying unsafe older drivers and their perceptions concerning older driver safety issues.

Method

Participants

Provincial bodies responsible for registration of psychologists and the Canadian Psychological Association were approached to contact registered psychologists in Canada. A description of the study was provided with a request that the survey be sent to their members or that they provide contact information for potential participants. Access to contact information for licensed clinical psychologists was only provided by one province. All other provincial bodies acted as mediators, forwarding our request to their members. Only Nunavut did not take part in this process. Given the process adopted by most jurisdictions, we were limited in the techniques we could use to maximize the response rate. Potential participants were directed to a URL link to complete the study. They were assured of their anonymity and that their information could not be linked to their email address. Only those individuals who answered "yes" to each of the following criteria were eligible to take part in the study:

(1) Are you a practising clinical psychologist at least two days per week?
(2) Do some of your clients hold driver's licenses?
(3) Do you see older adults (over age 60) who could potentially be at risk due to their driving behaviours?

Measures and Procedure

Our online survey was based on mail-out questionnaires used in previous research to assess the knowledge, attitudes, and practices of physicians (Jang et al., 2007) and modified to pertain to clinical psychologists. In developing the content of their measure, Jang et al. (2007) reviewed the literature and consulted with family physicians, occupational therapists, geriatricians, and rehabilitation specialists with expertise in driving assessment.

Our online survey contained 68 items (see Table 1). Responses for most of the questions were on a 5-point ordinal scale (i.e., strongly agree, agree, neither agree/disagree, disagree, strongly disagree) with one response category available for participants to express either no opinion or lack of knowledge. Participants were requested to provide a "single best" response. The survey was divided into five sections: (1) attitudes and opinions towards determining fitness to drive; (2) frequency of practices or activities pertaining to driving assessment; (3) knowledge of the driving policies and programs in the participant's home province; (4) clinical practices when evaluating fitness to drive; and (5) demographic information pertaining to the practice. Those meeting eligibility criteria and volunteering to take part were informed that by completing the online survey, they agreed to have their data included and used in the study. Participants could end their participation in the study at any time and their data would be deleted. Prior to the study being conducted, the University of Victoria human research ethics board approved the project in accordance with the Canadian Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans.

Results

An overview of the characteristics of the 84 eligible respondents who completed the survey is shown in Table 2. Even though the survey was distributed nationwide, over 40 per cent of respondents were from British Columbia. The majority of the respondents were male, practicing in general private-practice settings in communities with populations larger than 100,000 residents. Tables 3, 4, 5, and 6 present the frequency of responses for items on the survey. The distributions of responses for each item were compared to the null hypothesis (i.e., occurred with equal probability or were normally distributed) using non-parametric statistics (i.e., one sample chi-square or one-sample Kolmogorov-Smirnov tests) using version 23 of IBM SPSS Statistics software (2015). The null hypothesis was rejected for each of the items on Tables 3, 4, 5, and 6.

Table 3 provides the frequency of responses to questions concerning attitudes and beliefs about the determination

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Table 1: Online survey

Part A – The following statements concern your *attitudes and opinions* towards determining fitness to drive. *Your replies are confidential. Please indicate your* single best *response*:

	Statements Regarding Attitudes and Opinions	Strongly Agree	Agree	Neither Agree / Disagree	Disagree	Strongly Disagree	No Opinion / Don't Know
1	Addressing my clients' fitness to drive is an important issue in my practice.	☐	☐	☐	☐	☐	☐
2	Psychologists should inquire about the driving ability of older drivers more frequently than middle aged drivers.	☐	☐	☐	☐	☐	☐
3	In general, individuals over certain ages have a higher risk of having a motor vehicle accident than the general population.						
	(a) over the age of 60	☐	☐	☐	☐	☐	☐
	(b) over the age of 70	☐	☐	☐	☐	☐	☐
	(c) over the age of 80	☐	☐	☐	☐	☐	☐
	(d) it is not age related but it is ability related	☐	☐	☐	☐	☐	☐
4	For every mile driven, older drivers are at a significantly higher risk of crashing than teenaged drivers.	☐	☐	☐	☐	☐	☐
5	For every mile driven, older drivers are at a significantly higher risk of crashing than middle-aged drivers.	☐	☐	☐	☐	☐	☐
6	Medication use contributes more to the risk of having a motor vehicle crash for older adults than for the general population.	☐	☐	☐	☐	☐	☐
7	I am confident in my ability to evaluate the driving fitness of my clients.	☐	☐	☐	☐	☐	☐
8	Psychologists are the most qualified professionals to identify clients with cognitive impairment who are unsafe to drive.	☐	☐	☐	☐	☐	☐
9	A clinical screening instrument that helps identify drivers at increased risk for accidents would be useful to my practice.	☐	☐	☐	☐	☐	☐
10	I would benefit from education about the evaluation of fitness to drive.	☐	☐	☐	☐	☐	☐
	NOTE: In the statements below, "to report" means to report to the provincial agency responsible for motor vehicle licensing.						
11	Psychologists in *my* province *are* legally required to report unsafe drivers to the provincial Department of Motor Vehicles.	☐	☐	☐	☐	☐	☐
12	Psychologists *should* be legally required to report unsafe drivers to the provincial Department of Motor Vehicles.	☐	☐	☐	☐	☐	☐
13	Psychologists face a conflict of interest (patient confidentiality vs. public safety) when they report.	☐	☐	☐	☐	☐	☐
14	Reporting clients considered to be unsafe drivers negatively impacts the psychologist-patient relationship.	☐	☐	☐	☐	☐	☐
15	A *client* who has had their licence revoked often experiences negative consequences.	☐	☐	☐	☐	☐	☐
16	When *clients* have their licence revoked, negative consequences may affect their family members.	☐	☐	☐	☐	☐	☐
17	If restricted licensing were available I would be more likely to report unsafe drivers (i.e., ability to drive only in certain conditions).	☐	☐	☐	☐	☐	☐
18	The provincial agency responsible for motor vehicle licensing evaluates reported potentially unsafe drivers in a timely fashion.	☐	☐	☐	☐	☐	☐

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Part B – The following statements concern the frequency of your *practices/activities* pertaining to driving assessment. *Please indicate the* single *response that best reflects your clinical behaviours*.

	Statements Regarding Frequency of Practices/Activities	**Always**	**Often**	**Sometimes**	**Rarely**	**Never**	**Not Applicable**
1	I am aware of whether my clients are active drivers.	☐	☐	☐	☐	☐	☐
2	I ask my clients about whether they have any driving difficulties.	☐	☐	☐	☐	☐	☐
3	I am aware of whether my clients with cognitive impairment are active drivers.	☐	☐	☐	☐	☐	☐
4	My assessments of clients' fitness to drive are triggered by a family member raising concerns about their relative's driving.	☐	☐	☐	☐	☐	☐
5	I inform my clients that there are certain health concerns that could impact their driving ability.	☐	☐	☐	☐	☐	☐
6	I refer my clients to a medical specialist when I am uncertain of their ability to drive safely.	☐	☐	☐	☐	☐	☐
7	I recommend a road test for when I am uncertain of the clients' ability to drive safely.	☐	☐	☐	☐	☐	☐
8	I use a manual that helps me better understand clients who could be at risk of unsafe driving when assessing my clients' fitness to drive.	☐	☐	☐	☐	☐	☐
9	Clients I speak to about being unsafe drivers accept my recommendation to stop driving.	☐	☐	☐	☐	☐	☐
	NOTE: In the statements below, "to report" means to report to the provincial agency responsible for motor vehicle licensing.						
10	I report a patient to the provincial Department of Motor Vehicles:	☐	☐	☐	☐	☐	☐
	(a) when I am uncertain of his/her ability to drive safely	☐	☐	☐	☐	☐	☐
	(b) whom I consider to be unsafe and who *refuses* to stop driving	☐	☐	☐	☐	☐	☐
	(c) whom I consider to be unsafe and who *agrees* to stop driving	☐	☐	☐	☐	☐	☐
11	When I report clients, I counsel them about alternative modes of transportation.	☐	☐	☐	☐	☐	☐
12	For clients that I report, the provincial agency responsible for motor vehicle licensing informs me of the final decision about the patient's driving status.	☐	☐	☐	☐	☐	☐
13	I have felt pressured by clients to reconsider my decision to report.	☐	☐	☐	☐	☐	☐
14	I have felt pressured by the family members of my clients to reconsider my decision to report.	☐	☐	☐	☐	☐	☐
15	Clients whom I have reported have left my practice.	☐	☐	☐	☐	☐	☐

Part C – The following statements concern *driving policies* and *programs* in your province and the current gaps in the health system. *Please indicate your response*:

	Statements Regarding Policies and Programs	**Yes**	**No**	**Don't Know**
1	In my province, it is mandatory for psychologists to report medically unsafe drivers to the licensing authority.	☐	☐	☐
2	I know the steps to take in reporting clients who I feel are unsafe to drive.	☐	☐	☐
3	Legislation in my province regarding reporting unsafe drivers protects me from being sued.	☐	☐	☐
4	The procedures used for evaluating potentially unsafe drivers by the provincial agency responsible for motor vehicle licensing are clear to me.	☐	☐	☐
5	Restricted licensing (i.e., ability to drive only under restricted conditions) is available in my province.	☐	☐	☐
6	Centres or organizations that carry out road tests, other than the provincial agency responsible for motor vehicle licensing, are available in my community.	☐	☐	☐
7	Programs that offer tips on safe driving strategies for older adults are available in my community at *No Charge*.	☐	☐	☐
8	Programs that offer tips on safe driving strategies for older adults are available in my community at *A Cost*.	☐	☐	☐
9	I have encountered difficulty finding a centre/specialist to assess my patient's ability to drive.	☐	☐	☐
10	I feel there is a lack of appropriate driving assessment tool(s) to assess the driving competency of older adults.	☐	☐	☐

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Part D – How frequently do you include the following in your assessment of fitness to drive? Please indicate your *single best* response: *(Note: If you have never assessed a patient's fitness to drive, please circle "Not Applicable to each question in this section".)*

	Element in Assessment of Fitness to Drive	**Always**	**Often**	**Sometimes**	**Rarely**	**Never**	**Not Applicable**
1	Driving history from the client	☐	☐	☐	☐	☐	☐
2	Driving history from relatives	☐	☐	☐	☐	☐	☐
3	History of driving infractions (e.g., speeding tickets, driving through a red light/stop sign)	☐	☐	☐	☐	☐	☐
4	Medical history	☐	☐	☐	☐	☐	☐
5	Psychiatric history	☐	☐	☐	☐	☐	☐
6	Medications	☐	☐	☐	☐	☐	☐
7	Alcohol / Drug use	☐	☐	☐	☐	☐	☐
8	Current psychiatric symptoms	☐	☐	☐	☐	☐	☐
9	Current cognitive status	☐	☐	☐	☐	☐	☐
10	Patient's insight	☐	☐	☐	☐	☐	☐
11	Compliance with medication and other treatments	☐	☐	☐	☐	☐	☐
12	Referral to a medical specialist to assess the patient's fitness to drive	☐	☐	☐	☐	☐	☐
13	Referral for a road test to the provincial agency responsible for motor vehicle licensing	☐	☐	☐	☐	☐	☐
14	Referral for a road test to a driving centre/specialist other than the provincial agency responsible for motor vehicle licensing	☐	☐	☐	☐	☐	☐
15	Other: please specify: _____	☐	☐	☐	☐	☐	☐

Part E – The following questions ask about you and your practice.

1 What is your gender? ☐ Male ☐ Female

2 How old are you? _____ years old.

3 How many years have you been in psychological practice (after completing postgraduate training)? _____ years.

4 In which province do you practice? _____.

5 What is the approximate size of the community in which you practice?
☐ < 10,000 ☐ 10,000–50,000 ☐ 50,001–100,000 ☐ 100,001–500,000 ☐ > 500,000

6 What is your work setting? *(Please indicate <u>all</u> that apply)*
☐ Teaching hospital ☐ Non-teaching hospital ☐ Private practice ☐ Mixed setting, specify_____
☐ University ☐ Other, specify_____

7 In which kind of service are you working? (*Please indicate* all *that apply)*
☐ In-clients ☐ Out-clients ☐ Day hospital ☐ Rehabilitation service ☐ Private practice
☐ Others, specify _____

8 What is your main clientele? *(Please indicate* all *that apply)*
☐ Psycho-geriatrics ☐ Neuropsychological disorders ☐ Mental Health ☐ General Population
☐ Others, specify _____

9 Approximately how many clients did you assess for fitness to drive in the last year?
_____ ☐ Check here if 0

10 How many clients did you report to the Provincial Department of Motor Vehicles in the last year? _____
_____ ☐ Check here if 0

Please provide us with any additional *comments* that you would like to make about any of the topics raised or the survey itself.
Thanks very much for your participation!
Note: Your participation is voluntary. By completing this online questionnaire you are indicating that you agree to have your answers included with the dissemination of our findings.

of fitness to drive. Approximately half of the respondents reported that assessing fitness to drive was an important issue in their practice and that they believe psychologists are the most qualified professionals to identify clients with cognitive impairment who are unsafe to drive. Yet only 20.2 per cent reported feeling confident in their abilities to do so. Over 75 per cent stated that they would benefit from education concerning evaluation of fitness to drive while almost 70 per cent agreed that a clinical screening instrument to aid in identification of those at risk for accidents would be useful in their practice. Most of the respondents agreed that reporting clients with unsafe driving practices might negatively impact the psychologist-client relationship (60.7%), and that negative consequences might be experienced by clients who have had their license revoked (77.4%) and by their families (73.8%).

Table 4 provides the distribution of responses concerning jurisdictional reporting requirements, policies, and

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Table 2: Characteristics of clinical psychologist respondents (*n* = 84) with clients over age 60 who may have been at risk for unsafe driving practices

Characteristic	% Respondents
Female	25.0
Years in Practice (*n* = 82)	
< 10	23.0
11–20	21.8
21–30	32.8
31–40	14.5
> 40	7.2
Province(s) of Practice	
British Columbia	42.9
Alberta / Saskatchewan / Manitoba	25.0
Ontario	10.7
Eastern Canada	20.3
Size of Practice Community	
< 10,000	4.8
10,000–50,000	16.7
50, 001–100,000	13.1
100,001–500,000	29.8
> 500,000	34.5
Primary Work Setting[a]	
Teaching hospital	23.8
University	7.1
Non-teaching hospital	9.5
Private practice	69.1
Community / Mental health / Geriatrics	13.0
Clientele[a]	
Psycho-geriatrics	14.3
Neuropsychological	29.8
Mental health	39.3
General population	54.8
Other (specify)	4.8

[a] **Two respondents chose not to answer this question, and valid percentage sums to greater than 100% because participants could answer "all that apply".**

programs relevant to older driver safety. A large percentage of respondents did not know if programs on safe driving strategies for older adults were available in their communities free of charge (75%) or for a fee (65.5%). Over half of the respondents were not clear as to the procedures used for evaluating potentially unsafe drivers by the provincial agency responsible for motor vehicle licensing (60.7%) and did not know whether legislation in their provinces regarding reporting unsafe drivers provided protection from being sued for the person doing the reporting (56%). Similarly, over half of the respondents did not know whether restricted licenses were available in their provinces (51.2%) and had difficulty finding centres/specialists to assess fitness to drive (53.6%). Less than half of the respondents acknowledged that psychologists in their jurisdictions were required to report unsafe drivers (46.4%), knew the steps to take in reporting unsafe drivers to the authorities (46.4%), and were aware whether centres or organizations, other than the provincial agency responsible for motor vehicle licensing, were available in their communities (44%). Over 60 per cent reported feeling that appropriate driving assessment tools to assess driving competency of older adults were lacking.

It is apparent from Table 5 that most respondents perceived there to be increased crash risk per mile/km driven for very old drivers (i.e., over age 80 years) and for teenagers (58.4%), acknowledging that higher crash risk is related to ability and not age, per se. Moreover, most respondents acknowledged that medication use contributes to this increased risk per kilometres/miles driven (60.8%) and that psychologists should inquire about the driving ability of older adults more frequently than with middle-aged drivers (56.0%).

Of particular note in Table 5 is the percentage of respondents indicating that they have never conducted assessments relevant to fitness to drive as indicated by endorsing the N/A option (over 40%). Of those assessing for fitness to drive, most enquired about medical recreational alcohol and drug use (57.1%) and a variety of factors relevant to medical status (e.g., medical history, 57.4%; medications, 57.2%; current psychiatric symptoms, 57.2%). Current cognitive status was evaluated somewhat less frequently (47.1%).

Discussion

This exploratory investigation revealed that many Canadian psychologists working with older adults are aware of the issues relevant to older driver safety although only about half of those completing the online survey reported that conducting assessments concerning fitness to drive was an important issue in their practice. This may reflect differences in reporting requirements for psychologists in different jurisdictions across Canada, or the nature of their clientele and practice. It is interesting to note that the largest proportion of our sample resided in a province where psychologists bear a duty to report (i.e., British Columbia).

Less than one quarter of respondents felt confident in their abilities to assess for issues relevant to fitness to drive, which is similar to that reported by Canadian psychiatrists (Ménard et al., 2006). Like our psychiatrist colleagues (Ménard et al., 2006), most of our respondents (i.e., over 75%) stated that they would benefit from education in performing such assessments. Conducting assessment of cognition was identified as an area where psychologists felt they could play a role regarding unsafe drivers, an area often overlooked by their medical and occupational therapy colleagues (Vrkljan, Myers, Crizzle, Blanchard, & Marshall, 2013; Wilson & Kirby, 2008).

Like their medical colleagues (Jang et al., 2007; Ménard et al., 2006), many psychologists acknowledged that assessing issues relevant to, and reporting

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Table 3: Frequency of responses for questions concerning attitudes and beliefs about the determination of fitness to drive*

Questions	% of Respondents					
	Strongly Agree	Agree	Neither Agree/ Disagree	Disagree	Strongly Disagree	Don't Know
Addressing my clients' fitness to drive is an important issue in my practice.	11.9	38.1	14.3	16.7	17.9	1.2
I am confident in my ability to evaluate the driving fitness of my clients.	0.0	20.2	26.2	38.1	15.5	0.0
Psychologists are the most qualified professionals to identify clients with cognitive impairment who are unsafe to drive.	6.0	45.2	28.6	17.9	0.0	2.4
I would benefit from education about the evaluation of fitness to drive.	35.4	40.2	17.1	7.3	0.0	0.0
A clinical screening instrument that helps identify drivers at increased risk for accidents would be useful to my practice.	27.4	40.5	13.1	16.7	2.4	0.0
Reporting clients considered to be unsafe drivers negatively impacts the psychologist-patient relationship.	11.9	48.8	22.6	9.5	2.4	4.8
Psychologists face a conflict of interest (patient confidentiality vs. public safety) when they report.	13.1	32.1	9.5	31.0	14.3	0.0
A client who has had their licence revoked often experiences negative consequences.	39.3	38.1	13.1	4.8	0.0	4.8
When clients have their licence revoked, negative consequences may affect their family members.	28.6	45.2	16.7	4.8	0.0	4.8

*** The null hypothesis was rejected for each item.**

clients with, unsafe driving practices may affect their psychologist-client relationships. Whether this would be the case in practice is unknown. In fact, Adler and Rottunda (2006) reported that some patients find discussing driving cessation plans with their physician to be helpful. Given the negative consequences that have been observed for older adults who have had to stop driving without the benefit of such support (e.g., Marottoli et al., 2000; Ragland, Satarino, & MacLeod, 2005), a more proactive approach to planning for "driving retirement" (MacLean, Berg-Weger, Meuser, & Carr, 2007) appears warranted, and psychologists are well-placed to engage in these discussions, particularly for those with cognitive or other mental health concerns. In terms of legal requirements to report and protection for those who do so, the concerns of psychologists are similar to those expressed by their medical colleagues (Adler & Rottunda, 2011). Despite these concerns about practitioner-client relationships, those with a duty to report may face litigation for not reporting

Table 4: Response percentages for questions concerning jurisdictional reporting requirements, policies, and programs relevant to older driver safety*

Questions	% Yes	% No	% Don't Know
In my province, it is mandatory for psychologists to report medically unsafe drivers to the licensing authority.	46.4	32.1	21.4
I know the steps to take in reporting clients who I feel are unsafe to drive.	46.4	32.1	21.4
Legislation in my province regarding reporting unsafe drivers protects me from being sued.	35.7	8.3	56.0
The procedures used for evaluating potentially unsafe drivers by the provincial agency responsible for motor vehicle licensing are clear to me.	20.2	60.7	19
Restricted licensing (i.e., ability to drive only under restricted conditions) is available in my province.	28.6	20.2	51.2
Centres or organizations that carry out road tests, other than the provincial agency responsible for motor vehicle licensing, are available in my community.	44.0	14.3	41.7
Programs that offer tips on safe driving strategies for older adults are available in my community at *No Charge*.	13.1	11.9	75.0
Programs that offer tips on safe driving strategies for older adults are available in my community at *A Cost*.	23.8	10.7	65.5
I have encountered difficulty finding a centre/specialist to assess my patient's ability to drive.	7.1	53.6	39.3
I feel there is a lack of appropriate driving assessment tool(s) to assess the driving competency of older adults.	61.9	11.9	26.2

*** The null hypothesis was rejected for each item.**

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Table 5: Percentages of responses concerning perceived risks for older drivers

Responses	% of Respondents					
	Strongly Agree	Agree	Neither Agree/ Disagree	Disagree	Strongly Disagree	Don't Know
Psychologists should inquire about the driving ability of older drivers more frequently than middle aged drivers.	15.5	40.5	26.2	15.5	2.4	0.0
In general, individuals over certain ages have a higher risk of having a motor vehicle accident than the general population:						
(a) over the age of 60	0.0	14.3	45.2	34.5	2.4	3.6
(b) over the age of 70	7.1	40.5	33.3	14.3	0.0	4.8
(c) over the age of 80	42.9	32.1	14.3	8.3	0.0	2.4
(d) it is not age related but it is ability related	32.1	41.7	9.5	11.9	2.4	2.4
For every mile driven, older drivers are at a significantly higher risk of crashing than teenaged drivers.	1.2	9.5	19.0	41.7	16.7	11.9
For every mile driven, older drivers are at a significantly higher risk of crashing than middle aged drivers.	3.6	41.7	21.4	21.4	2.4	9.5
Medication use contributes more to the risk of having a motor vehicle crash for older adults than for the general population.	6.0	54.8	23.8	13.1	0.0	2.4

*** The null hypothesis was rejected for each item.**

potentially unsafe drivers (Johnston, 1993; Kryworuk & Nickle, 2004; Redelmeier, Venkatesh, & Stanbrook, 2008) although, to date, no psychologist has been prosecuted in this regard in Canada.

The lack of adequate assessment tools to screen clients for issues related to unsafe driving has been identified as a concern for physicians (Wilson & Kirby, 2008). Most of our respondents agreed and reported that such instruments would be useful in their psychological practices. The type of instrument most useful to psychologists may differ from that most appropriate for physicians, where non-mental health issues (e.g., vision, cardiac, joints) might be the primary focus of concern. That is not to say that such tools necessarily would be applied with all older drivers indiscriminately or that such a tool would be used to make recommendations regarding fitness to drive; rather, having access to tools that could inform decision-making about the need for further investigation of driving issues may prove beneficial. The subsequent steps taken may involve the provision of information about driving safety and opportunities for the enhancement of driving skills, engaging in discussion of alternative transportation options, or a frank discussion about planning for driving cessation.

Regardless of reporting requirements and the jurisdiction within Canada, the government office responsible for driver licensing holds the authority to revoke driving privileges. That is, those with a duty to report are not, in fact, making the final decision about an individual's fitness to drive. Since this is the case, referrals to other agencies may be appropriate when psychologists have reason to be concerned about the safety of their clients but are unsure as to their overall fitness to drive. Some physicians enquire about a

Table 6: Self-reported clinical practices regarding the information collected by psychologists when evaluating for issues relevant to fitness to drive*

Clinical Practice	Always	Often	Sometimes	Rarely	Never	N/A[a]
Driving history from the client	20.2	0.0	25.0	2.4	0.0	52.4
Driving history from relatives	13.1	8.3	14.3	7.1	2.4	54.8
History of driving infractions (e.g., speeding tickets, driving through a red light/stop sign)	10.7	4.8	20.2	7.1	2.4	54.8
Medical history	45.5	7.1	4.8	0.0	0.0	42.9
Psychiatric history	38.1	11.9	4.8	2.4	0.0	42.9
Medications	42.9	4.8	9.5	0.0	0.0	42.9
Alcohol / Drug use	47.6	2.4	7.1	0.0	0.0	42.9
Current psychiatric symptoms	42.9	4.8	9.5	0.0	0.0	42.9
Current cognitive status	38.1	1.9	7.1	0.0	0.0	42.9
Patient's insight	42.9	9.5	4.8	0.0	0.0	42.9
Compliance with medication and other treatments	38.1	7.1	9.5	0.0	0.0	45.2

*** The null hypothesis was rejected for each item.**

[a] Respondents who had never assessed a patient's fitness to drive were instructed to endorse the N/A (not applicable) option.

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client's history of driving habits and behaviours, and if concerned, refer to driving rehabilitation specialists (Adler & Rottunda, 2011). It is apparent from our study that many psychologists are not aware of programs on safe driving strategies or centres/organizations that assess fitness to drive in their communities. It would appear that this reflects a lack of awareness rather than a lack of such programs/centres as 90 units from across Canada that evaluate medically at-risk drivers were identified by Vrkljan et al. (2013). Most of these driver assessment centres involve occupational therapists and use office-based and/or on-road assessments. In addition, however, the need for broad interdisciplinary assessment (Korner-Bitensky, Gelinas, Man-Son-Hing, & Marshall, 2005) and retraining opportunities has been articulated (Korner-Bitensky, Kua, von Zweck, & Van Benthem, 2007; Korner-Bitensky, Kua, von Zweck, & Van Benthem, 2009).

Limitations

Two major limitations of this exploratory investigation must be acknowledged: the response rate and the manner in which the recruitment took place in different provinces. Notably, only 84 psychologists from across Canada completed the online survey. Most licensing bodies for clinical psychologists in Canada collect only cursory information about the populations served by individual psychologists and the nature of the activities undertaken. We relied on psychologists to self-identify as meeting the criteria for study participation. Moreover, we did not have direct access to members of psychological organizations for recruitment. In most jurisdictions, we needed to rely on the licensing bodies to distribute our invitation to participate to their registrants. This may have affected our response rates in ways that we cannot evaluate, and reporting biases may have been introduced. We have no knowledge of the exact number of people contacted or how representative our sample may be of the people contacted by the licensing bodies. Moreover, our study is not representative of all eligible participants in Canada as we did not provide the survey in French. To conduct a more systematic evaluation of psychological practices regarding older drivers in Canada, it would be necessary to apply the same approach to data collection in each province, then find ways to determine the number of eligible participants in each jurisdiction, and finally to facilitate engagement with these parties specifically.

Another limitation is the use of an online survey. This has advantages over other approaches (e.g., mail-in) in terms of cost, accessibility, and speed of distribution but may also have been overlooked as a valid request given the magnitude of email communications experienced by many professionals. Finally, as with any self-report survey, social desirability may have affected the responses. However, the anonymity and confidentiality of the responses may have mitigated this possibility.

Recommendations

The primary recommendation emerging from this investigation is to increase efforts to inform and educate psychologists about driving-related assessment and regulatory issues in general and specifically with respect to older adults. Following are some suggestions of sources of information and education that psychologists could access. As the number of older adults seeking the services of clinical psychologists is likely to increase as the population ages, it is of growing importance that they understand the influence on driving skills of mental health conditions, including cognitive impairment and dementia. In addition, being able to identify the warning signs of unsafe driving, knowing when and where to refer clients for further driving evaluation, and understanding the reporting regulations and how these vary across jurisdictions are all necessary for the safety of clients, other road users, and practitioners, particularly those with a duty to report. Providing information about and support through the driving retirement processes for clients will necessitate knowledge of community resources and of how to access alternative forms of transportation.

Sets of guidelines concerning medically at-risk drivers exist and may prove useful for psychologists (e.g., Canadian Medical Association's Driver Guide and the American Association of Motor Vehicle Administrators' Fitness to Drive Medical Guidelines). Traditionally, these guidelines have been prepared by and for the medical community but are being broadened to address issues relevant to others (e.g., licensing authorities). For example, Meuser, Carr, Irmiter, Schwartzberg, and Ulfarsson (2010) have prepared the American Medical Association Older Driver Curriculum for Health Professionals as a two-hour Continuing Medical Education workshop. Educational opportunities such as these could be made available through large professional meetings or through web-based training that could provide easy access and flexibility in learning more about the topic. In addition, various materials are available to support older drivers that could be incorporated into psychological practice. These may include materials from U.S. and Canadian sources such as *At the Crossroads: Family Conversations and Alzheimer's Disease, Dementia & Driving* (The Hartford, 2010a), *When You Are Concerned* (LePore, 2011), *We Need to Talk: Family Conversations with Older Drivers* (The Hartford, 2010b), *Down the Road*: *An Interactive Toolkit for Caregivers about Driving*, (Jouk, 2014), and *No Particular Place to Go: A Theatre Production that Explores Issues Concerning Older Driver Safety* (BC Psychogeriatric

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Association, 2009). It has even been proposed that "Advance Driving Directives" be constructed to facilitate conversations between health providers and older drivers (or any medically at-risk group) focused on prevention and planning for driving cessation (Betz, Jones, Petroff, & Schwartz, 2013).

Conclusion

Psychologists who work with older adults, like other health care providers, need to be cognizant of the types of conditions that can influence older driver safety and ways to address these concerns with those in their care. Our findings suggest that psychologists recognize that they would benefit from education about issues relevant to driving-related assessment, regulatory issues, and knowing when and how to intervene for the safety of clients, other road users, and practitioners.

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