

study. The program was delivered to 183/190 (96%) of drivers allocated to the intervention. In vehicle monitoring data was available for 351 participants (92%) for a median of 52 weeks [inter-quartile range (IQR) 44–52] and 5487 [IQR 3294–8641] km of travel. 218/351 (62%) drivers had at least one RDE and the median number of RDEs was 1 [IQR 0–4]. There was no between group difference in the rate of RDEs per distance driven (incident rate ratio (IRR) 0.85, 95% CI 0.61–1.18). Crashes were reported by 14 participants in the intervention and 19 in the control group ($p = 0.46$). Pre-planned sub-group analyses showed that the intervention was effective in significantly reducing RDEs (IRR 0.41, 95% CI 0.20–0.81), in drivers with a DriveSafe/DriveAware score of 96 or higher (fit to continue driving).

Conclusions Older drivers with good visual and cognitive function are responsive to a one-on-one education program to improve their safety on the road. These drivers reduced their involvement in RDE events by more than half, however this approach was not effective in drivers with poorer function.

171 OLDER PEOPLE, ALCOHOL AND SAFETY ISSUES AT HOME – THE PERSPECTIVE OF HOME CARE WORKERS

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Background Finland is a rapidly ageing society. The Finnish ageing policy prioritises older people living at home. Alcohol use of older people has become more common. Heavy drinking in particular leads to the need of increasing daily assistance and care. This paper discusses the challenging social situations of daily work of home care workers visiting alcohol consuming older people in their homes. This study, called “Ageing, alcohol and needs for services in home care” (2014–2015), is a part of the larger project “Harms to others from drinking: effects on health, wellbeing and the burden to society”.

Methods The data consists of 13 thematic interviews with home care workers ($n = 10$) and their supervisors ($n = 3$). The interviews were conducted in one home care district in the metropolitan area in Finland.

Results When making their home visits home care workers have to handle challenging safety issues, such as alcohol-drug interactions, injury prevention and their own safety at work. Home care workers encounter unpredictable situations where they for safety reasons cannot fulfil their professional intentions.

Conclusions Home care workers are in need of further training about special skills to manage alcohol-related safety questions. Collaboration crossing professional and sectoral boundaries should be created to help those older people who are at the risk of alcohol-related safety issues. Further research is needed on older peoples’ alcohol use from the point of view of home care workers.

172 NEIGHBOURHOOD SAFETY AND INJURY PREVENTION AMONG OLDER ADULTS: A SYSTEMATIC LITERATURE REVIEW

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Background Neighbourhood safety is important for older adults’ health, including injury prevention and safety promotion, but there is a dearth of information about this construct in the literature.

Methods During 2014, we conducted a systematic literature review on the associations among identifiable neighbourhood safety factors, health outcomes, and health behaviours of older adults (≥ 50) in the U.S. using MEDLINE, CINAHL, Embase, SportDis, and Transportation Databases.

Results Of 32 articles identified for our final review, 16 (50%) examined health outcomes, such as health status and the other 16 focused on health behaviours, such as physical activity. Five domains of neighbourhood safety were identified: general neighbourhood safety; crime-related safety; traffic-related safety; fall-related safety; and proxies for safety (e.g., vandalism, graffiti). Although falls are the leading cause of injuries in older adults, fall-related safety was the least frequently addressed safety domain. General neighbourhood safety, traffic-related safety, and proxies for safety appeared most relevant to health behaviours, while crime-related safety was most pertinent to health outcomes, such as mental health and physical function. Traffic-related safety showed more consistent associations for physical activity, while crime-related safety was more consistently associated with walking. We also found that specific measures or constructs of safety were not applied consistently across the different studies making it difficult to compare study findings.

Conclusions This review identified several patterns as well as many important gaps in the existing studies dealing with neighbourhood safety-injury prevention among older adults. We recommend that multi-dimensional neighbourhood safety factors should be considered in establishing location interventions, particularly related to injury prevention and safety promotion, which require further attention in future studies in the U.S. as well as globally.

173 SEAT BELT FIT AND USE BEHAVIOURS OBSERVED AMONG DRIVERS AGED 75+ YEARS IN THEIR OWN VEHICLES

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Background Older occupants are at increased risk of serious injury in a crash compared to younger occupants. While seatbelts reduce injury risk, effectiveness relies on good belt fit and positioning. Laboratory research indicates increased likelihood of poor belt fit with increasing age, however little is known about seat belt use in this age group. The aims of this work are to (i) describe belt fit and use among drivers aged 75+ years in their own vehicles, and (ii) examine the influence of body mass index (BMI), comfort and comorbidities on belt fit and use.

Methods Photographs were taken of drivers in their vehicles to assess belt fit and accessory use. Surveys of comorbidities and belt use, and measurements of height and weight were made. Logistic regression and mediation analysis examined associations between BMI, comfort, comorbidities and belt fit, belt repositioning behaviour, and accessory use.

Results 367 drivers were photographed, mean age 80 years, 23% used an accessory, 47% had poor sash and 41% poor lap

belt fit. While 90% reported their belt as comfortable, 21% reported repositioning their belt. Poor lap belt fit was more likely in obese (OR 2.2, 95% CI: 1.2–4.0) and overweight drivers (OR 1.8, 95% CI: 1.1–3.0), and females (2.2, 95% CI: 1.3–3.5). Comfort pads were associated with shorter stature (OR 1.1, 95% CI: 1.02–1.1), and cushions with belt discomfort (OR 2.5, 95% CI: 1.1–5.6). Musculoskeletal comorbidities increased belt repositioning (OR 1.3, 95% CI: 1.1–1.6), and comfort partially mediated this relationship ($p = 0.03$). General comorbidities, increased the odds of accessory use (OR 1.2, 95% CI: 1.04–1.3).

Conclusions Older drivers face challenges achieving comfortable and correct belt fit, and many reposition belts and use comfort accessories. This may negatively impact crash protection. Older drivers need to be aware of the importance of good belt positioning, particularly those with comorbidities. The impact of accessories on injury risk needs examination.

174

ADDRESSING ELDER ABUSE IN THE UNITED STATES: FEDERAL GUIDELINES FOR ADULT PROTECTIVE SERVICES

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Background Elder abuse—any knowing, intentional, or negligent act by a caregiver or any other person that causes harm or a serious risk of harm to people over the age of 60—impacts at least 6% of older adults across the globe, but only 17% of countries have collected national data to measure the scope of the problem.¹ In the U.S., Adult Protective Services (APS) systems play a critical role in identifying and responding to abuse, neglect, self-neglect, and financial exploitation faced by older adults and persons with disabilities; however, APS varies across and within states, lacking uniform guidance that hinders cross-jurisdictional cooperation, information sharing, and investigation. Further, lack of standardised service provision contributes to the absence of critical supports for victims. To address this gap, in 2014, the Administration for Community Living (ACL) established the Elder Justice and Adult Protective Services Program to support state APS systems to provide consistent, evidence-based services, so victims receive quality support regardless of their state or jurisdiction.

Methods The program seeks to improve APS systems nationwide by: developing federal guidelines to provide a standard for APS services through the input of expert stakeholders; implementing a National Adult Protective Services Data Collection System; and, funding demonstration grants to 11 states to enhance their APS systems through innovative practices.

Results Preliminary results demonstrate program success, with participation from more than 75% of state and territory jurisdictions in the data collection effort, and 600+ pages of public comments in support of the national guidelines. Phase 1 results (2 years of these collective efforts) are anticipated in June 2017.

Conclusions ACL's efforts to facilitate the development of a coordinated, national approach to APS systems shows promise for

enhancing state and local responses to investigating and responding to abuse, neglect, and exploitation of older adults, incorporating data collection to guide current practice and future research, evidence-based practices, and uniform response standards.

NOTE

¹ Global Status Report on Violence Prevention 2014. World Health Organisation, 2014.

175

INJURIOUS FALLS AND SUBSEQUENT ADVERSE DRUG EVENTS AMONG ELDERLY – A SWEDISH POPULATION-BASED MATCHED CASE-CONTROL STUDY

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Background Various factors, including chronic diseases, multiple morbidity and polypharmacy, but also injuries like falls can put elderly at increased risks for adverse drug events (ADE). Despite numerous studies underlining the significance of healthy ageing, epidemiologic studies on community dwelling populations remain scarce in this field. In our study we determine the subsequent association between injurious falls and ADEs among older people, while recognising the role of number and type of medications, as well as co-morbidity.

Methods We used a matched case-control design for our study among Swedish residents 60 years and older. ADEs by unintentional poisoning resulting in hospitalisation or death were considered as cases. These were extracted from the National Patient Register (NPR) and the Cause of Death Register from January 2006 to December 2009. Cases were matched with four controls by sex, age and residential area. The medication prescribed during the four month period prior to index date, was extracted from the Swedish Prescribed Drug Register (SPDR), while previous episodes of injurious falls were extracted from the NPR. For our analysis we used conditional logistics regression and estimated our effects with odds ratios (OR) and 95% confidence intervals (CI). In the analysis, we adjusted for confounders, including comorbidity.

Results Within six-month after an injurious fall, we found a three-fold increased risk for an ADE among older people. Although the risk for an ADE after a fall injury is significantly high over the whole period, it was highest in the one to three weeks period immediately after an injurious fall. Younger older individuals (60–79 year), were at a higher risk than older ones (80+ year). Older people with an ADE up to three weeks following a fall injury had a tendency to have been prescribed a higher number of medications, but were less likely to have a previous medical history involving other fall-related hospitalizations.

Conclusions Older people with an injurious fall are at an increased risk for a subsequent ADE. The period after an injurious fall could serve as potential point for the prevention of ADEs. Falls are common among the older population group, and the medicinal options for treatments after a fall should be carefully regarded by physicians and their patients in consideration of the potential risk for ADEs.