Summary of Key findings

Development of a web-based decision aid to assist occupational therapists to make optimal fitness-to-drive decisions for disabled and older drivers  
www.fitnesstodrive.com

Key findings

- Seven cues were found to be important to experts’ recommendations of disabled and older drivers’ driving ability: driving instructor intervention, client’s vehicle handling skills, road law knowledge, physical skills, sensory functions, cognitive and perceptual skills, and driving behaviour.

- Agreement between fitness-to-drive recommendations of international experts was very high, and therefore a professional consensus policy in the domain of occupational therapy driving assessment could be identified, and a training aid could be developed.

- The decision training aid that was developed based on experts’ consensus policy was found to be effective through a randomised controlled trial: trained novices were more able to detect ‘not fit-to-drive’ cases whereas the novices who did not receive training did not change their decision making strategy.

- The training aid can help occupational therapists to develop their capacity for making ‘fitness-to-drive’ recommendations as part of a driver assessment.

- A web-based e-learning tool can be used as an effective training media for professionals.

Project aims

- To create valid ‘driving’ case scenarios of people with disabilities and/or older people.
- To model and obtain consensus on how experienced OTDAs make optimal fitness-to-drive decisions for people with disabilities and older people.
- To produce a training aid.
- To test the effectiveness of the aid on novice occupational therapists’ capacity to make fitness-to-drive decisions.
- To host an open access web-based decision aid designed to promote optimal occupational therapy assessment for use by the profession internationally (www.fitnesstodrive.com)

Background

Driving offers independence, facilitates social inclusion, and promotes quality of life. Assessment and advice to support safe driving is required to protect drivers and other road users. Occupational Therapist Driver Assessors (OTDAs), with their combined health and performance expertise, are well equipped to conduct clinic-based and on-road driving assessments of older people and those with disabilities.

A standardised on-road assessment is generally viewed as unattainable due to the fact that each driving situation presents very differently. Very little is known about how experienced therapists use information to make decisions. This is a service provision where expertise needed to be shared in order to promote best practice internationally. In order to develop expertise in the UK, as well as internationally, this domain needed to be studied to provide an evidence base for occupational therapy services and for best practice to be shared through bespoke and easily accessible training.
Methodology

A Social Judgement Theory (SJT) approach was used to mathematically model and examine decisions made. Twelve cues were identified to be relevant to ‘fitness-to-drive’ recommendations. A set of 86 case scenarios of people with disabilities and older people were created using fractional factorial technique; the scenarios were discussed and agreed by the project advisory group and service user group. Experienced OTDAs (n=45) were asked to judge the case scenarios; an expert consensus policy was derived from the statistical analysis and validated by the expert panel and service user group. A decision aid was developed, incorporating the case scenarios together with the expert consensus standard.

An experimental web-site was developed and used in a randomised controlled trial (RCT) to test effectiveness of the training package. 166 pre-registration occupational therapy students from the UK and Australia took part in the RCT study and made fitness-to-drive recommendations for the 86 case scenarios (64 scenarios in the pre-training and 22 in the post-training). The training aid was found to be effective and finally it was made freely available on an open access website. On the open access website, the user is provided with feedback including any improvements on their decision making capacity as compared with expert judgements of the same case scenarios.

Conclusion

The approaches used can be used to develop and rigorously test professional decision training aids in the methodological field of judgement analysis.

The training aid can support novice occupational therapists by improving their capacity for making fitness-to-drive recommendations as part of a driver assessment.

The training aid needs to be made available through relevant professional organisations in order increase workforce capacity internationally.

Future studies with wider recruitment of international expert OTDAs, e.g. North American Certified Rehabilitation Specialists, can be carried out, in order to further scope the breadth of international decision policies.

Publications


Harries P, Unsworth C, Davies M (2014) An international study to determine how expert driver assessors use of information to make fitness-to-drive recommendations for older and/or disabled clients. World Federation of Occupational Therapists, Japan.


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