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Driving and depression: Health professional's perspectives in Ireland

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ABSTRACT

Background: Assessing the fitness to drive (FTD) of individuals with depression is important for their safety and the safety of other road users. Although medical fitness to drive (FTD) guidelines exist in Ireland little is known about how the guidelines are used in practice or how driving is addressed by health professionals.
Aim: To examine General Practitioners, Consultant Psychiatrists and Occupational Therapists in Ireland knowledge, attitudes and current practice related to FTD for individuals with depression.
Method: A cross-sectional survey employing a purposely designed questionnaire.
Results: Surveys were returned by 228 participants (60 Consultant Psychiatrists, 72 General Practitioners and 96 Occupational Therapists. Assessment of FTD was deemed important by 75% of respondents. Driving was routinely discussed by 39.5% of respondents. Clinical reasoning was considered important in FTD decisions by 91.6% of respondents, with an informal discussion/assessment the most common type of measurement used. Respondents identified impaired cognition, decreased concentration, medication side-effects, suicidal ideation/intent and decreased reaction time as the factors that most influence their FTD decisions. The largest percentage of Consultant Psychiatrists and Occupational Therapists felt that addressing driving would not negatively influence the therapeutic relationship while General Practitioners reported concern about impact on the therapeutic relationship. Physicians were not considered the best profession to assess FTD by a large percentage of respondents. Varying levels of confidence and competence were self-reported by all professions. All respondents reported the need for additional training. These findings require further validation as low response rates make it difficult to generalize the results.
Conclusion: A gap exists between what is expected of health professionals according to the Irish Slainte agus Tiomaint Guidelines and respondent's self–reported practices in addressing driving with their patients with depression. Further research to delineate the role of each profession and to explore assessment practices in greater detail is required.

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1. Introduction

1.1. Background

An estimated 350 million people worldwide experience depression at any given time (WHO World Health Organization, 2017). Driving is linked to independence and is an enabler of many other activities (Di Stefano et al., 2012; Marottoli et al., 2000) such as engagement in social roles and employment which are important in mental health recovery (Hendryx et al., 2009; Boardman et al., 2003). However, concern has been raised about the capacity of individuals with depression to drive safely due to a complex array of factors including the impact of symptoms on driving ability and the side effects of psychotropic medication (Hill et al., 2017). National guidelines on medical fitness to drive were introduced in Ireland in 2013 (RSA Road Safety Authority, 2013) however no national consensus on the specific process of determining fitness to drive (FTD) for individuals with depression exists. The responsibility to assess and/or refer for assessment typically lies with the patients General Practitioner (GP), Psychiatrist or on occasion the Occupational Therapist (OT). Although health professionals should be knowledgeable about the impact depression can have on driving and should assess the driving needs and abilities of their patients (Cunningham and Regan, 2016; Buckley et al., 2015) it appears that many health professionals may neglect this area (Ménard et al., 2006). It is recognised that assessment of FTD can raise ethical dilemmas (De las Cuevas and Sanz, 2008). Little is known about the knowledge, attitudes, or practices of health professionals in Ireland in assessing the FTD of individuals with depression.

1.2. The impact of depression on driving

The impact of depression on driving performance and safety has not been extensively studied, however, in the research completed to date there appears to be an association between depression and motor vehicle crash risk. A recent meta-analysis based on pooled data from six studies indicates that depression nearly doubles the risk of involvement in a car crash (summary OR = 1.90; 95% CI,1.06–3.39) (Hill et al., 2017). This meta-analysis included three case control (LeRoy and Morse, 2008; Sagberg, 2006; Wickens et al., 2013) and three cohort studies (Mann et al., 2010; Margolis et al., 2002, Sims et al., 2000). Findings of this meta-analysis have to be interpreted in light of the limitations posed by variation in study population and study design (Hill et al., 2017).

Psychotropic medication, or any drug that acts on the central nervous system, may impair alertness, concentration and driving performance (RSA Road Safety Authority, 2016a, 2016b). In a sample of 1200 Spanish driving license holders 15% reported they were consuming psychotropic drugs (Alonso et al., 2014), similarly, in a sample of 2434 drivers in New Zealand 11% reported taking anti-depressants, and 3% reported taking anti-anxiety medication, prior to driving (Starkey et al., 2017). Numerous studies indicate that benzodiazepine use affects driving (Papoutsis et al., 2016; Rapoport et al., 2009) and that anti-depressants and other psychoactive drug use is associated with elevated crash risk (Gjerde et al., 2015; Chang et al., 2013; Hill et al., 2017).

Although anti-depressants may improve the symptoms of depression they may also negatively affect driving through the impact of medication side effects such as drowsiness and interactions with other medications (Hill et al., 2017). It is generally recognised that the impact of psychotropic medication is most likely to be evident at the initiation of treatment or when dosage is being increased, and may lessen over time as the individual adjusts to the dosage (RSA Road Safety Authority, 2016a, 2016b; Ménard and Korner-Bitensky, 2008; Harris, 2000). A systematic review concluded that antidepressants co-administered with other psychotropic medication, prescribed based on clinical symptoms and under a maintenance dose did not appear to impede fitness to drive (Brunnauer and Laux, 2013).

An often cited, potential reason, for the association between depression and crash risk is the impact of depression on cognitive abilities and psychomotor function. Depression can negatively affect problem solving, attention span, the ability to multitask, decision making (Bulmash et al., 2006; Redepenning, 2006; Ravnkilde et al., 2002; Metzner, 1993) concentration and reaction time (Wickens et al., 2014; Charlton et al., 2010; Bulmash et al., 2006). Another potential reason for the association between depression and motor vehicle accidents is self-harm. It is widely acknowledged that rates of suicide disguised as traffic accident may be underestimated (Milner and De Leo, 2012; Gauthier et al., 2015) and depression is a known risk factor for suicide (Beghi and Rosenbaum, 2010; Crump et al., 2014). A link between depression and aggressive or risky driving behaviour has also been identified (Wickens et al., 2014; Vaughn et al., 2011). Therefore depression appears to negatively affect driving performance and safety with multiple proposed mechanisms to explain this.

1.3. Fitness to drive guidelines

Fitness to drive is a medico-legal concept, implying that the license holder fulfils the necessary physical and mental requirements for safe driving (Larsson et al., 2007). National guidelines exist in many countries with the aim of providing a guiding framework on fitness to drive with various medical conditions, increasing road safety, and informing health professionals and drivers with these conditions of their responsibilities (RSA Road Safety Authority, 2016a, 2016b; Beran, 2013). In Ireland the Slainte agus Tiomaint guidelines were first published in 2013 and are revised annually (RSA Road Safety Authority, 2016a, 2016b). The Irish guidelines are informed by comparable international guidelines, particularly, ‘Assessing fitness to drive-A guide for medical professionals’ published by the UK Driver and Vehicle Licensing Agency (DVLA, 2016), and other international guidelines including the Australian guidelines (Austroads, 2012) and the Canadian Medical Association (CMA) Driver's Guide (2012).

The Irish guidelines on driving and depression are similar to other international guidelines (DVLA, 2016) stating that individuals with more severe depression should cease driving pending the outcome of a medical investigation, and a period of stability is required