

Drowning Deaths in Older People: A 10 year analysis of drowning in people aged 50 years and over in Australia

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Introduction

Drowning deaths among older people currently account for over a third of all unintentional fatal drownings in Australian waterways annually [1]. With an aging population in Australia, it has been projected that the percentage of the population aged 50 years and over will rise from 38% in 2011 to 42% by 2051 [2].

Older people are at a greater risk of drowning due to loss or diminishment of a range of abilities such as loss of muscle strength, aerobic endurance, agility, balance, flexibility and bone density [3] [4] [5] [6], however aquatic activities represent an excellent way to rehabilitate muscles and bones after falls and offers an aerobically effective way to exercise in a low impact fashion [7].

Aims

This research aims to:

- Identify the incidence of drowning among people aged 50 years and over in Australia between 1 July 2002 and 30 June 2012
- Examine the risk factors associated with drowning deaths among people aged 50 years and over in Australian waterways and discuss potential prevention strategies.

Targets

The targets of this research are those involved with drowning prevention interventions and water safety initiatives concerned with reducing drowning deaths among older people in their respective countries.

Methods

Drowning data has been extracted from the Royal Life Saving National Fatal Drowning Database for all victims aged 50 years and older between 1 July 2002 and 30 June 2012. Information on drowning deaths is sourced from media and police reports and cross-referenced against the National Coronial Information System. Information is collected and analysed in SPSS.

Results

Between 1 July 2002 and 30 June 2012, there were 1,072 people aged 50 years and over drowned in Australian waterways [8]. Over the 12 years of this study the drowning rate per 100,000 has varied from a high of 2.06 in 2002/03 to a low of 1.31 in 2006/07.

Males accounted for 75% of all drowning deaths in the study period. For males the risk of drowning was higher before retirement age (less than 65 years) and for females, after retirement age (65 years and over).

Older people drown in a wide range of aquatic locations whilst undertaking a variety of activities. Rivers, creeks and streams were the main locations for drowning deaths in people aged 50 years and over accounting for 27% of all drownings, followed by ocean/harbour locations (20%). Before retirement older people were more exposed to drowning after using watercraft, compared to unintentional falls into water after retirement.

Medical conditions most likely to have contributed to the fatal drowning among people aged 65 years and older include dementia and frailty leading to simple falls into water hazards and cardiac conditions whilst swimming.

Discussion

The high number of drowning deaths among older people in Australian waterways can be reduced by encouraging aquatic activity at controlled locations such as public swimming pools, encouraging older people to recreate with other people to ensure help is on hand, to be aware of the role of underlying medical conditions and to consider the impact medications and alcohol may have on drowning risk.

Conclusion

Preventing drowning deaths in this broad age group is challenging but progress must be made in order to reduce drowning deaths in Australia. Lessons learned from interventions in Australia can be used to further prevention efforts internationally.

Acknowledgements

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