Editor’s view

Ageing and cognition

Ageing is associated with cognitive impairment, but there is variation in the rate of decline with advancing age. A research paper has examined the rate of cognitive decline in 1,049 older participants in the Religious Orders Study, who were followed for up to 15 years (pp. 684–689). The participants underwent extensive assessment at baseline, including neuropsychological testing and apolipoprotein E (APOE) genotyping. Cognitive function was assessed by a battery of tests performed on an annual basis. The participants also consented to donate their brains for neuropathological examination after death. The authors identified three sub-groups of subjects. The majority of participants (65%) did not experience substantial cognitive decline over the observation period, whereas 27% experienced moderate decline and only 8% experienced a rapid decline in cognitive function. There was higher mortality and greater frequency of subjects with one or more APOE 4 alleles in the sub-group with rapid decline in cognitive function. Post-mortem neuropathological examination of the brain was performed in 281 subjects, which demonstrated more amyloid plaques and neurofibrillary tangles in the group experiencing a rapid decline in cognitive function. The authors suggest that cognitive decline is not an inevitable feature of ageing, but is generally associated with some form of neuropathology. They highlight the need to validate their findings and to develop methods to identify the likely trajectory of cognitive decline, with a view to improving clinical decision making.

Falls in men

Falls and fractures are more common in women than men, so research exploring the epidemiology of both has concentrated on female rather than male populations. The Osteoporotic Fractures in Men (MrOS) Study is therefore particularly welcome, as it has generated a wealth of information about the epidemiology of fragility fractures in community-dwelling older men from the USA, Sweden and Hong Kong. In a research letter, the MrOS investigators present data on physical function and falls in over 10,000 men (pp. 744–749). Information on falls during the preceding year and activities of daily living was collected by questionnaire. Height, weight and hand grip strength were measured and a number of physical function tests performed, including repeated chair stands and timed walks under different conditions. Although the age distribution of the men in the cohorts from the three countries was similar, the prevalence of falls in the previous year was higher in men from the USA (21.2%) than men from Sweden (16.5%) and Hong Kong (15.4%). The differences in physical function between the three countries did not explain the variation in the prevalence of falls. In men aged 65–69 years, the fallers were taller and heavier than the non-fallers, whereas in the older age groups, fallers had lower hand grip strength, inferior physical function tests and were more sedentary than non-fallers. The study has a number of limitations, including retrospective design, the possibility that impaired physical function may be the result rather than the cause of falls and potential healthy volunteer bias. Hopefully, prospective follow-up of the MrOS cohorts may provide more useful information on the epidemiology of falls in men.

Involving older people in research

There is increasing recognition of the importance of including older people in clinical research, yet there appears to be difficulty in recruiting them to clinical trials. A paper reviews the involvement of older people in clinical research and provides practical advice on improving their recruitment into clinical trials (pp. 659–665). The authors analysed 14 randomized controlled trials published in Age and Aging over an 18-month period. Although most achieved their recruitment target, three potential subjects needed to be screened for every participant recruited. Exclusion rates ranged from 3.4 to 49%, while refusal rates were generally about 12–15% and withdrawal rates varied between 5 and 37%. The authors recommend strategies to improve recruitment of older people in clinical trials, including piloting with a representative sample of older adults, a ‘user-friendly’ environment and appropriate scheduling for the study visits, telephone confirmation of the appointments and involvement of relatives and other carers. They also suggest measures to include recruitment in specific settings, such as the acute hospital and rehabilitation wards, primary care and care homes, as well as in older people with mental incapacity and those from ethnic minority groups. Finally, they highlight the importance of patient and public involvement in research and ways that this may improve recruitment to clinical research.

Use of new technology in older people

Two papers highlight the potential of new technology to care of older people. The first describes the use of accelerometers and mobile ‘phone technology in the detection of
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falls (pp. 690–696). Although the research was conducted in a laboratory setting using healthy young adults who simulated falls, the authors suggest that it may provide a feasible way of detecting falls in older adults who live alone. The second explores the potential use of ‘YouTube’ in reminiscence therapy in older people with dementia (pp. 742–744). Although this observational study only involved six people, the results suggest that a larger controlled study is warranted.

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