SHORT REPORT

Ageism in stroke rehabilitation studies

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Abstract

Background: stroke is predominantly a disease of older people. While age bias has been demonstrated in studies of pharmacological therapeutic interventions in stroke, the extent of discrimination by age in stroke rehabilitation studies is unknown. The aim of this study was to systematically review the literature to assess the extent of ageism in stroke rehabilitation studies.

Methods: all randomised control trials (RCT) on stroke rehabilitation entered in the Cochrane database which reported mean age were included. Patient gender and exclusion criteria were also recorded.

Results: of 241 RCT’s identified, 182 were eligible for inclusion. The mean age of all patients was 64.3, almost a decade younger than those seen by stroke physicians in daily practice in global terms, and 11–12 years younger than encountered in hospital practice in the British Isles. Almost half (46%) of trials excluded patients with cognitive impairment, almost one-quarter (23%) patients with dysphasia and one-eighth (13%) excluded patients with multiple strokes.

Conclusion: we have identified a clear difference in the mean age of those included in stroke rehabilitation studies compared with the international mean age of stroke. In addition, a quarter of trials excluded dysphasic patients which may indicate omission of more severe strokes. This means that the evidence base for stroke rehabilitation is deficient in terms of matching the characteristics of patients encountered in clinical practice, and a more representative sample of older people and those with significant disability must be included in future trials.

Keywords: ageism, stroke, rehabilitation, older people

Introduction

Stroke is not only an illness of major global significance—15 million people suffer stroke worldwide each year, of which 5 million people die and a further 5 million are permanently disabled [1]—but is also predominantly a disease of older people. The average age of patients admitted to hospital each year with stroke in Ireland is 75 [2]. These figures are comparable with the United Kingdom National Stroke Audits that reports a mean age of 75.8 [3].

Existing research shows evidence of ageism in the clinical management of older people with acute stroke [4]. Ageism is also evident in the design and implementation of pharmacological, mechanical and surgical interventional research studies in stroke [5]. This needs to be addressed given the ensuing paradox that the treatments will be given mostly to older people among whom efficacy and safety has not been adequately assessed.

Rehabilitation is another critical component of recovery for many stroke survivors. While there is significance evidence of the efficacy of post-acute rehabilitation in reducing mortality and dependency of stroke patients [6], with post-stroke rehabilitation an ever-increasing focus of interest [7], it is not clear to what extent the populations of participants in these studies mirror the age profile of patients encountered in clinical practice.

We undertook a review of the current literature to evaluate whether ageism is also a feature in the design of studies in stroke rehabilitation. In addition, although all patients with stroke, except for those who either make a rapid and complete recovery or else die in the immediate aftermath, should benefit from rehabilitation, it is also not clear as to what proportion of those with more complex strokes has been excluded from trials of rehabilitation.

We analysed the mean ages, exclusion criteria and gender ratios of trials related to stroke rehabilitation included in the...
Exclusion criteria in stroke rehabilitation trials

<table>
<thead>
<tr>
<th>Exclusion criteria</th>
<th>N (%)</th>
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<tbody>
<tr>
<td>Cognitive impairment</td>
<td>68 (46)</td>
</tr>
<tr>
<td>Unstable hypertension or cardiovascular disease</td>
<td>43 (29)</td>
</tr>
<tr>
<td>Aphasia/dysphasia</td>
<td>34 (23)</td>
</tr>
<tr>
<td>Stroke/TIA</td>
<td>19 (13)</td>
</tr>
<tr>
<td>Ortho conditions</td>
<td>24 (12)</td>
</tr>
<tr>
<td>Psych conditions</td>
<td>18 (12)</td>
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</tbody>
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TIA, transient ischaemic attack.

Key points

- Ageism exists in stroke rehabilitation studies.
- Wider inclusion criteria for further research.
- Focus further studies on older stroke populations.
Conflicts of interest

None declared.

References


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