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Comorbidities and medication intake among people with dementia living in long-term care facilities

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ABSTRACT

Information on comorbidities and medication of people with dementia (PWD) in long-term-facilities (LTF) is scarce. This study analysed type and number of comorbidities and medication of PWD in LTF. A descriptive-study was conducted in 40 LTF, characterising 329 PWD. Socio-demographics, dementia type, comorbidities and medication were collected with International-Classification-of-Functionality-checklist. Cognitive impairment was assessed with Mini-Mental-State-Examination. One or more comorbidities (2.1 ± 1.6) were found in 271 participants. Hypertension, osteoarticular-problems, heart-disease and type-II-diabetes were the frequently comorbidities. 327 participants consumed one or more medicines (7.3 ± 3.2), mainly for cardiovascular system, anxiolytics and antipsychotics. Comorbidities and medication amount was significantly different among cognitive impairment levels. Vascular comorbidities were present in all dementia types.

Comorbilidades e medicação em pessoas com demência em lares de idosos

RESUMO

O conhecimento acerca das comorbilidades e da medicação em pessoas com demência (PCD) que vivem em lares de idosos é limitado. Assim, este estudo analisou o tipo e número de comorbilidades e medicação de PCD que vivem em lares de idosos portugueses. Um estudo descritivo foi conduzido em 40 em lares de idosos. Foram incluídas 329 pessoas com diagnóstico de demência, das quais foram recolhidas informações sociodemográficas, das

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comorbididades e medicação com a checklist da Classificação Internacional de Funcionalidade. O défice cognitivo foi avaliado através do Mini-Mental State Examination. Uma ou mais comorbidades (2,1 ± 1,6) foi encontrada em 271 participantes. Hipertensão, problemas osteoarticulares, doença cardíaca e diabetes tipo II foram as comorbidades mais frequentes. 327 participantes consumiam um ou mais medicamentos (7,3 ± 3,2), principalmente medicação para o sistema cardiovascular, ansiolíticos e anti-psicóticos. A quantidade de comorbidades e medicação foi significativamente diferente entre os níveis de défice cognitivo. Comorbididades vasculares estavam presentes em todos os tipos de demência.

Introduction

Dementia is a global health challenge.[1] In the year 2010 it was estimated that 35.6 million people had Alzheimer's disease and other dementias worldwide.[2] This number will increase with an ageing world population and will reach 66 million by the year 2030 and 115 million by 2050.[1]

Comorbidities are highly prevalent among people with dementia[3] and have been reported as risk factors for cognitive impairment and dementia progression. A study associated comorbidities to half of the Alzheimer's disease cases worldwide and it has been suggested that the reduction of 10–25% in these factors could prevent 3 million cases of Alzheimer's disease worldwide.[4] Consequently, comorbidities contributes to dementia onset[4] and may also lead to faster progression of the disease, representing an additional factor for disability and increased costs.[5] However, the levels of comorbidities in people with dementia remain a controversial issue, with some studies reporting that this population present fewer than non-demented people[6,7] and others suggesting more comorbidities than generally thought.[8,9] This controversy causes difficulties when appropriate measures to prevent and treat comorbidities in dementia have to be defined.[10] Additionally, high levels of comorbidities have been linked with high amount of prescribed medication in people with dementia when compared with other individuals.[11] The use of psychotropic medication (antipsychotics, antidepressants and anxiolytics) in people with dementia has been studied.[11] However, this medication, consumed specially by people living in long-term care facilities, showed to be inappropriate and has been associated with numerous adverse events, which led to hospitalisation and higher mortality.[11] Nevertheless, the overall medication description in people with dementia living in long-term care facilities[10,12] is still unknown, as this population due to their cognitive impairment tend to be excluded from the studies. In a time in which reducing costs and optimising health care is crucial,[2] characterising comorbidities and medication intake of people with dementia becomes crucial, as this information has the potential to inform decision on appropriate strategies to prevent and treat comorbidities, adjust medication and support planning of health and social resources.[13] Therefore, this study aimed to analyse the type and number of comorbidities and medication of people with dementia living in long-term care facilities.

Methods

Study design

An exploratory descriptive study was conducted in the central region of Portugal. The study was submitted to the Ethics Committee of the Research Unit of Health Sciences at the Health School of Nursing in Coimbra (UICISA: E), Portugal (Ref. 5-11/2010) and approval was obtained. Legal representatives were invited to attend a meeting where verbal and written information about the study was provided. A brief explanation about the study was also given to people with dementia. Written informed consents were collected from the legal representatives of the people with dementia living in the long-term care facilities prior to any data collection.

Participants

Fifty-seven long-term care facilities were contacted and information about the study was provided to the service managers in an arranged meeting. Forty care facilities with a total of 1780 residents accepted to participate. Participants were included in the study if they presented a medical diagnosis of irreversible dementia according to the Diagnostic and Statistical Manual of Mental Disorders IV (DSM-IV) criteria.[14] People with dementia were excluded if: (i) refused to answer to the Mini-Mental State Examination (MMSE); (ii) were severe or total sightless and/or severe hearing impaired; (iii) had not been at the care facility for at least 3 months (considered the minimum individual time needed to adjust to the institution dynamics); (iv) did not have a legal representative to sign the written informed consent; (v) or died during the data collection.

From the total individuals living in the long-term care facilities, 353 (19.8%) had a medical diagnosis of dementia. However, 24 subjects were excluded as they: (i) refused to answer to the MMSE ($n = 4$) or their family did not sign the written informed consent ($n = 2$); (ii) were severe or total sightless ($n = 4$) and/or severe hearing impaired ($n = 2$); (iii) have not been at the care facility for at least 3 months ($n = 6$); (v) or died during the data collection ($n = 10$). Thus, a total of 329 people with dementia were included.