The (ab)use of antipsychotics in people with dementia according to the living conditions.

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Abstract

The use of antipsychotics in dementia has been a concern. This study aimed to report the prevalence of antipsychotics in people with dementia and explore their use according to the living conditions (residential homes *vs.* community). Two groups of people with dementia were studied. Group 1 (n=38) was a convenience sample from the community and group 2 (n=38) was a randomised sample from residential homes. Socio-demographics, living condition and use of antipsychotics data were collected. Cognition and severity of dementia were assessed with the Mini-Mental State Examination. Of the total sample, 55.3% were prescribed with antipsychotics (1.2 ± 0.4). The groups were similar at baseline for marital status, education, cognition and severity of dementia. However, institutionalised participants (71.1%) were higher prescribed with antipsychotics than participants from the community (28.9%). The institutionalisation seems to influence the use of antipsychotics in people with dementia.

Introduction

Antipsychotic medication is widely used for the management of behavioural and psychological symptoms of dementia such as, agitation, wandering, anxiety and aggressive behaviours (Nishtala et al., 2009; Giron et al., 2001; Hartikainen et al., 2003). The evidence suggests that this medication increases the risk of dying, having a stroke and intensifies cognitive decline in older people with dementia with relatively modest benefits, i.e., the risk of its use is higher than its benefits (Schneider et al., 2006; Douglas and Smeeth, 2008). Therefore, there has been an international concern over the excessive and potential inappropriate use of antipsychotics in dementia (Oborne et al., 2002; O'Brien, 2008; Alzheimer's Society, 2011). Non-pharmacological interventions have been proposed, for example, multisensory stimulation, reality orientation, motor stimulation or reminiscence therapy, (Rabins et al., 2007; Fossey et al., 2006) as potential interventions to reduce the need of antipsychotic medication. Practice guidelines have also recommended the use of psychological or environmental management options as a first line approach to deal with behavioural and psychological symptoms of dementia and antipsychotics interruption, if symptoms have been absent or minimal for three months (Howard et al., 2001). Nevertheless, high levels of antipsychotic medication in people with dementia continue to be administered (Nishtala et al., 2009).

Most of the available evidence resulted from studies conducted in residential homes (Oborne et al., 2002; Alldred et al., 2007; Connelly et al., 2010) and research looking at medication prescription in different settings, e.g., residential homes *vs.* community, is lacking (Oborne et al., 2002; Alldred et al., 2007; Connelly et al., 2010). This information is essential to guide health professionals' practice and to estimate the workload implications as well as the resources needed to reduce inappropriate prescription (Shah et al., 2011). Therefore, this study aimed to report the prevalence of

antipsychotics in people with dementia and explore their use according to the living conditions, i.e., residential homes *vs.* community.

Methods

A cross-sectional study of people with medical diagnosis of dementia according to the DSM-IV criteria was performed in the central region of Portugal. Ethical approval was previously obtained by the Ethics Committee of the Research Unit of Health Sciences at the Health School of Nursing in Coimbra, Portugal. Written informed consent was obtained from the legal representatives of the participants.

Two groups of people with dementia were studied. Group 1 (n=38) was a convenience sample recruited from the community (day centres and home support services). Group 2 (n=38) was a randomised sample selected from a larger sample of 329 people with dementia in residential homes.

Socio-demographics, living condition and use of antipsychotics data were collected through a structured questionnaire based on ICF-checklist (World Health Organization, 2001). Cognition and severity of dementia was assessed with the Mini-Mental State Examination (MMSE). According to European studies (Fernandez, Gobartt, Balana, & Group, 2010; Miranda-Castillo et al., 2010), a MMSE score between 27-21 was considered mild dementia, 20-11 moderate dementia and 10-0 severe dementia.

Statistical analyses were performed using the PASW Statistics 18.0 for Windows. Descriptive statistics were applied to characterise the sample. The Mann-Whitney non-parametric test was applied to assess the differences of socio-demographics, cognition, severity of dementia and antipsychotics prescription in the two groups, as the parametric requirements were not verified. The level of significance considered was 0.05.

Results

Table 1 summarises the sample characteristics. Group 1 mean age was 77.8±6.3 years old. Half of the participants were female (n=19), most were married (n=22) and had 1 to 4 years of education (n=22). Group 2 mean age was 83.7±6.3 years old. Most were female (n=31), widows (n=24) and had 1 to 4 years of education (n=17).

Of the total sample, 55.3% (n=42) were prescribed with one or more antipsychotics (1.2 ± 0.4). No statistical significant differences were found between the groups for marital status (ρ=0.12), level of education (ρ=0.16), cognition (ρ=0.09) and severity of dementia (ρ=0.05). Institutionalised people with dementia (n=27; 71.1%) were significantly higher prescribed with antipsychotics than participants living in the community (n=11; 28.9%). Therefore, the living condition (i.e., residential homes or community) were found to be significantly associated with the use of antipsychotics (ρ=0.001).

Table 1: Sample characterisation

Sample characterisation	**Group 1**		**Group 2**	
	n	%	n	%
Gender				
Female	19	50	21	55.3
Male	19	50	17	44.7
Marital status				
Single	3	7.9	7	18.4
Married/Living with a partner	22	57.9	6	15.8
Divorced/Separated	1	2.6	1	2.6
widowed	12	31.6	24	63.2
Level of education (years)				
Illiterate	9	23.7	14	36.8
1-4	22	57.9	17	44.7
5-9	3	7.9	4	10.5
+10	2	5.3	1	2.6
Missing	2	5.3	4	10.5
Severity of dementia				
Mild	5	13.2	4	10.5
Moderate	20	5.3	10	26.3
Severe	13	34.2	22	57.9
Cognition (Mean± SD)	12.7±7.2		9.4±9.4	

Conclusions

Antipsychotics are highly prescribed in people with dementia and their higher use seems to be related with the institutionalisation. This result is in line with previous studies that reported a high amount of antipsychotics intake in people with dementia in residential homes (Nishtala et al., 2009; Alzheimer's Society, 2011; Shah et al., 2011; Feng et al., 2009).

Antipsychotics prescription is a serious health problem as: i) they are used as first line approach, without exploring other non-pharmacological strategies such as, trying to change the environment, interactions or the person life conditions (Musicco et al., 2011); ii) they are associated with a high number of side effects, which in most cases are not previously explored for each person (Schneider et al., 2006; Douglas and Smeeth, 2008); iii) people with dementia are repeatedly prescribed without regular medical revision (Shah et al., 2011; National Institute for Health and Clinical Excellence and National Collaborating Centre for Mental Health, 2006; Banerjee, 2009). Therefore, this matter requires awareness and appropriate measures.

Although a lower prescription of antipsychotics was found in the community, this study is limited by the small sample size. Further research should be conducted in community settings, with larger and randomised samples to improve knowledge, as prescription in the community is less well explored and documented (Shah et al., 2011). Research is also needed on non-pharmacological interventions, which have been

described as promising approaches to reduce the need of antipsychotics in people with dementia (Rabins et al., 2007; Fossey et al., 2006) however, the evidence on their implementation remains scarce.

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