Minimising psychotropic use for behavioural disturbance in residential aged care

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CPD

Background

With the ageing population there will be an increasing number of older Australians who have dementia and require residential care. Up to 90% of people with dementia in residential care show behavioural and psychological symptoms of dementia (BPSD). General practitioners (GPs) have an important role in managing these challenging behaviours. Psychotropic medications, although useful in certain clinical situations, can have significant side effects including increased risk of falls, over-sedation and increased mortality. Non-pharmacological strategies are first-line treatment for BPSDs.

Objectives

The aim of this article is to present the latest evidence in the management of BPSD in residential care.

Discussion

GPs can have a crucial role in managing the needs of people with dementia by providing regular reviews and supporting the implementation of simple, evidence-based, non-pharmacological strategies.

Keywords

dementia; behavioural symptoms; homes for the aged

Behavioural and psychological symptoms of dementia (BPSD) occur in most people with dementia and especially so in residential care. Management of these symptoms is best undertaken in a multidisciplinary team effort and the role of the general practitioner (GP) is central. This article highlights why minimising the use of psychotropic medication in this vulnerable patient group is important and will summarise the current evidence for non-pharmacological strategies.

What are behavioural and psychological symptoms of dementia?

BPSD, also known as neuropsychiatric symptoms, refers to the non-cognitive manifestations of dementia, including aggression, depression, apathy, psychosis and agitation.[1]

The prevalence of BPSD varies widely depending on setting, stage of dementia and the method of symptom ascertainment. In residential care, 90% of people with dementia have BPSD[2,3] and the presence of BPSD and associated carer burden is often one of the main reasons for admission to residential care.[4,5]

Case

Mr B, 81 years of age, has been at a high-care facility for the past 2 months, after his wife, who was his main carer, died 6 months ago. Mr B has had a known diagnosis of Alzheimer's dementia for the past 6 years, and has hypertension and type 2 diabetes, but is otherwise fit and well. He has a daughter, who lives 1 hour away. Mr B has been irritable with staff, resistant to personal care and verbally aggressive at times. He is isolative and reluctant to engage with activities such a bingo. During meal times, he sits at the large dining table and does not eat much. Control of his blood glucose has become problematic.

The symptoms of BPSD are many (*Table 1*) and vary according to the stage and type of dementia. The Cache County study estimated the point prevalence of any disturbance as 61%, 32% of which were 'serious' disturbance.[6] This study also confirmed that the severity of different types of BPSD can vary in different stages of dementia, although delusions, hallucinations, anxiety, apathy, irritability, elation and disinhibition are reported with similar severity at all stages.[6] Symptoms of depression and anxiety are more common during the early stages of cognitive impairment and in mild dementia, when insight into the loss of cognition and function may be preserved.[1] In advanced dementia, the loss of condition and physical function often lead to lower levels of aggression and apathy becomes more prevalent.[1]

Aetiology

The aetiology of BPSD is complex, multifactorial and not perfectly understood. Genetic, neuroimaging, neuroendocrine and neuropathological correlates of BPSD have been investigated, and there is some evidence that pathology in certain brain regions contributes to specific BPSD.[6,7] For example, frontal lobe dysfunction accentuates people's responses to environmental provocations[8] and is also related to psychotic symptoms.[9] Atrophy in the anterior cingulate gyrus is associated with apathy[10] and neuropathological studies confirm the importance of this area in the manifestation of apathy.[11]

Additionally, physical health factors such as pain, dehydration, infection, constipation and medication changes, and environmental factors such as temperature sensitivity, isolation, change of routine and staff can exacerbate BPSD. BPSD may also communicate an unmet need.[12,13]

Assessment of BPSD

BPSD can be challenging to assess as patients with dementia may have difficulty communicating or articulating their experiences.[14]

There are many scales available for assessing BPSD. The Cohen-Mansfield Agitation Inventory[15] and the Neuropsychiatric Inventory[16] have good specificity and reliability but take 15–20 minutes to complete. Useful questions to ask staff and family members about residents' BPSD are listed in *Table 2*. The onset, duration, type and triggers of the BPSD should be considered. Some residential facilities have their own behaviour charts, which may provide this information. Delirium should be considered as the main differential diagnosis.

Table 1. Types of BPSD

Psychotic symptoms	Delusions, hallucinations, misidentification
Mood symptoms	Depression, anxiety, apathy, euphoria
Restless/agitated behaviours	Aggression, agitation, wandering, vocally disruptive behaviours, nocturnal disruption
Disinhibited behaviours	Socially inappropriate behaviour, uncontrolled eating, sexually inappropriate behaviour

Case continued

The facility staff are concerned about Mr B. The GP reviews Mr B and, following a normal physical examination, orders basic pathology and a urine specimen to ensure there is no acute medical cause for his BPSD. The staff complete behaviour charts to highlight what exactly are the BPSD and when they occur. A food and fluid chart is also started. The staff also realise that Mr B's daughter has only been to visit him once and they contact her to inform her of Mr B's symptoms and to find out more about Mr B.

Pharmacological management of BPSD

Although the aim of this article is to highlight approaches that can help to minimise the use of antipsychotics in BPSD, these medications do have specific indications in this context,[17] especially when behaviours cause significant risks to the residents themselves and others. Low-dose risperidone can improve agitation, aggression and psychosis,[18] and is the only atypical antipsychotic subsidised in Australia for use with BPSD.[19]

Generally, medication should be used strategically to address the specific BPSD. This may lead to a better outcome and a lower risk of side effects.[19] Specific medications such as antidepressants, antipsychotics and short-acting benzodiazepines are beneficial in treating some depressive, psychotic and anxiety symptoms, respectively. They need to

Table 2. Assessment questions for BPSD

What behaviours does the resident usually present with?
What has changed/what are the behaviours now?
When and where do the BPSD occur?
How are the BSPD affecting the resident, staff and other residents?
Has anything recently changed, such as new/changed medication, illness, environmental differences (change of staff, family member unable to visit, new resident)?
Are there identifiable triggers to the BPSD, such as shower time or meal times?
Are there any strategies that seem to help?
What are the risks to the resident, staff and other residents?
What do the family/carers think about the new behaviours?

be used judiciously and be regularly monitored. However, the risk of adverse effects such as Parkinsonism, and increased risk of falls and cerebrovascular events including increased mortality, particularly for antipsychotics, needs to be taken into consideration.[20–24] Informing the family about these risks and documenting these discussions when antipsychotics are prescribed is recommended.[19]

Complex situations, and when there are serious risks to consider, warrant referral to the local aged mental health service.

Non-pharmacological management of BPSD

The limited evidence-base and concern about safety for psychotropic treatment of BPSD[25] have led to non-pharmacological strategies being first-line, though often both are used in combination. Non-pharmacological management tends to be practical and responsive to the factors contributing to BPSD. Person-centred care is central to the non-pharmacological approach and can offer a good chance of reducing BPSD.[1] It involves a collaborative and enabling relational approach where care is focused on meeting the person's needs and is consistent with their unique personal and social history.[1,26] A personal history of the person should be collected on admission to residential care and may contain this essential information.

Case continued

The GP reviews the behaviour charts, which highlight that Mr B stays in his room for most of the day, and becomes irritable when being showered. The food chart shows that he only eats a small amount. All the pathology tests are normal. Mr B's daughter comes to visit and the staff are able to find out about Mr B's personal history. Mr B was very close to his wife and they were married for over 60 years. Mrs B did most of the personal care tasks, refusing external services for assistance. They had lived in the same family home for the past 60 years. Mr B was a quiet man and, although he was sociable, was more of an introverted person. He was a botanist, loved gardening and enjoyed listening to classical music. His daughter informed the staff that her father had been taking an antidepressant for the previous 6 months, which had not been charted.

Table 3 outlines non-pharmacological strategies and their quality rating according to study design (High – level 1, consistent evidence, to Low – level 5, inconsistent evidence). These ratings were based on sample size (many studies had fewer than 30 participants), strength of study design (studies often were not of randomised control design), use of blinding and use of observers as raters (risk of recall and observer bias).[27,28] Five recent review papers informed this summary.[25,27–30]

In brief, taking note of residents' preferences (eg preferred

Table 3. Non-pharmacological strategies for BPSD and their evidence rating[25,27–30]

Strategy	Type of BPSD and other comments	Evidence rating
Sounds (mountain stream, ocean waves)	Verbal aggression	Moderate–high
Preferred music	Verbal aggression during bath and meal times	Moderate–high
Preferred music	Apathy	Low–moderate
Staff training (meetings, psychoeducation, behaviour management techniques)	Aggression	High
Carer training (psychoeducation, behaviour management techniques, problem solving)	Aggression	High
Individual recreational activities	Mood (positive affect)	High
Stimulated family presence and use of personalised audiotapes	Agitation	Moderate
'Bed baths'	Agitation and aggression	Moderate
Aromatherapy (lavender oil and lemon balm) delivered in a communal area or individually	Agitation, irritability and dysphoria Residents appeared more engaged and less socially isolated	Moderate–high
Cognitive stimulation	Neuropsychiatric symptoms	Moderate
Reminiscence therapy	Agitation	Low
Pet therapy	Apathy	Low–moderate
Bright light therapy	Wandering	Low

music and previous interests in activities) seemed to improve results.[28] With regard to music, live music produced more improvement than recorded music, but costs more. Bed baths reduced agitation, were as effective for hygiene and cleanliness as normal bathing or showering, and took no longer than usual care (showers).[28] Aromatherapy and massage have potential benefits, but need to be considered carefully on an individual basis. Advantages of staff and carer training include sustained reductions of BPSD in residents.[25,28]

Case continued

The ensuing discussion gives the facility staff an understanding of Mr B and places the BPSD in context of his current situation and his past history. The staff and Mr B's daughter agree that Mr B may be depressed, particularly in the context of grieving for his wife and the loss of his home. His unstable blood glucose levels may also be another cause of his irritability. The staff play his Bach CDs in the morning before and during his shower, which settles him somewhat. At meal times, he sits at a smaller table with only three others, rather than at the larger table. The leisure coordinator encourages Mr B to join in the small gardening group. His daughter will visit more frequently. The GP will monitor the situation and may consider recommencing an antidepressant if Mr B does not appear to improve in the next 3–4 weeks.

The challenge of conducting research in residential facilities is demonstrated by the use of convenience and small samples, as well as suboptimal study design, which often results in lower-quality ratings.[25] There are a number of helpful resources for staff (and families) caring for patients with dementia in residential facilities (*Table 4*). The Dementia Behaviour Management Advisory Service (DBMAS), a Commonwealth-funded initiative, aims to provide support and improve the quality of life for patients with dementia and their caregivers. As well as providing advice from professionals with experience in dementia care, DBMAS also provides information about individualised, non-pharmacological strategies. DBMAS recently released an electronic application for Apple and Android about BPSD.

Discussion

Current non-pharmacological studies are of varying quality. More high-quality, rigorous research using larger samples and randomised controlled designs is required to improve the evidence base. The most common BPSD studied are aggression (verbal and physical), resisting care, and agitation. A few published studies have investigated symptoms such as 'wandering' and vocalisation. Similarly to other BPSD, these two forms of BPSD occur frequently and can often be very distressing for the staff, family and the patient with dementia. Wandering and vocalisation do not respond well to psychotropic medications, so a discussion with all involved may be useful in problem solving. In a busy residential facility, it can be challenging to facilitate non-pharmacological interventions, which take time, effort and additional knowledge about residents' preferences. Staff may lack clear direction or training in identifying and implementing these strategies. For example, with aromatherapy, staff may not know exactly what it involves, nor the duration or timing, which can lead to reduced confidence to explore and administer non-pharmacological treatments. This can be one of the reasons why psychotropic medication is more often prescribed than indicated.

O'Connor and colleagues noted that 'empathic, attentive human interaction reduces anxiety and agitation'.[28] This is consistent with most of the evidence that, regardless of the type of strategy, individually tailored activities, such as music, and structured activities improve BPSD. This corresponds with person-centred care.[31] The role of the activity/lifestyle coordinator, if present in residential facilities, is crucial in this context. Staff training and education also seem to have positive effects, as this often leads to improved confidence when caring for people with BPSD.

Conclusion

GPs have an important role in managing people with BPSD in residential care. Pharmacological therapies have some role in managing these, but should be limited to high-risk situations or where non-pharmacological approaches have failed. For complex cases, a combination of non-pharmacological and pharmacological strategies might be necessary. Although the

Table 4. Useful resources

Organisation	Website	Telephone
Alzheimer's Australia	www.fightdementia.org.au	1800 100 500
Dementia Behaviour Management Advisory Service	www.dbmas.org.au	1800 699 799
Commonwealth Respite and Carelink Centre	www9.health.gov.au/ccsd/	1800 052 222
Carers Australia	www.carersaustralia.com.au	1800 242 636
Commonwealth My Aged Care	www.myagedcare.gov.au	1800 200 422

evidence base is limited, emphasising the notion of person-centred care and 'prescribing' effective non-pharmacological approaches that care staff of all levels can contribute to, should be considered for every resident showing significant BPSD. Engaging residents with recreational activities, including music, and trialling aromatherapy may be a start. In addition, staff training and regular case discussions should provide longer-term benefit in managing people with BPSD. Regular liaison with family members and the activities coordinator may also be helpful.

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