Management of behavioural and psychological symptoms of dementia (BPSD): An integrative review

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ABSTRACT

Background: Behavioural and psychological symptoms of dementia (BPSD) describes any agitation, aggression or escalated behaviours in a person with dementia. Recommended best practice for managing challenging BPSD is the use of nonpharmacological interventions in the first instance. Antipsychotic PRN medication is not recommended as a first-line intervention, and yet it is often used in this way.

Aim: In this study, we used an integrative review to investigate why it may be challenging for staff to use nonpharmacological interventions for managing BPSD, leading them to rely on antipsychotics.

Methods: The review process was based on Whittemore and Knafl's (2005) steps for conducting an integrative review. Articles that studied the use of PRN antipsychotics, or non-pharmacological interventions, were accessed and analysed. Inclusion criteria were a focus on older adults, with a diagnosis of BPSD who were prescribed PRN anti-psychotic medication as well as non-pharmacological interventions and were hospitalised in aged residential care/acute settings. Excluded from the study were references to younger patients, those with dementia but not BPSD, and those living at home.

Results: Three themes emerged from the review: Low staff-to-patient ratios increased instances of problems with BPSD; numbers of staff with specialised training were low; and there was a need to educate staff further about the manifestation of BPSD and the implementation of person-centred care plans. Overall, use of care plans, focused on the individual, reduced use of PRN antipsychotics.

Conclusions: The management of BPSD is complicated by a mix of low staffing, and/or inadequate training opportunities, leading to increased risk for both the individual and possible staff burnout. The research has shown an increase in education/training reduces these risks when paired with implementation of non-pharmacological care plans.

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KEYWORDS

Behavioural and psychological symptoms of dementia, non-pharmacological interventions, behaviour management plans, aged residential care, acute psychotic older adult, nursing care

INTRODUCTION

Dementia is a term used to describe groups from more than 100 irreversible degenerative brain diseases with no cure. Each individual disease has its own symptoms; however, some are grouped together (Cloak & Al Khalili, 2022). The group that is the subject of this study is referred to as behavioural and psychological symptoms of dementia (BPSD); this describes any agitation, aggression, altered perception/thought content or escalated behaviours along with a diagnosis of dementia. Symptoms of BPSD can include disrupted thoughts, low mood/depression, altered perceptions or behaviours (such as agitation), psychosis, hallucinations, delusions and apathy (Dodd, et al., 2018). Each of the different symptoms is dependent on disease progression, and etiological factors, which manifest in biological, psychological and social ways (Byrne, et al., 2005). Of importance is the recognition that psychosis is no longer just related to schizophrenia. However, the profile of psychosis in dementia is significantly different from

that seen in schizophrenia diagnosis (Leroi et al, 2003). As Zakrzewka-Sito and Kuczyńska (2021) point out, the reason psychosis is different in the elderly is that it is associated with dysregulation of the serotonergic system.

BPSD is commonly accompanied by a variety of difficult and sometimes challenging symptoms, including disturbed behaviour, thought, mood and perception, and poor impulse control (Buhagiar, et al., 2011). This results in health professionals or caregivers being challenged, and at times frustrated, when it comes to planning therapeutic interventions for their care. Consequently, when a patient with BPSD is labelled as aggressive, agitated and/or unmanageable, PRN antipsychotic medication is often administered without trying to implement nonpharmacological interventions such as redirection, or distraction. PRN antipsychotic medication is not recommended as a first-line intervention for managing challenging BPSD, and yet it is often used in this way. Overprescribing of PRN antipsychotics can result in over-sedation of patients, which creates greater risk of falls. According to Moniz-Cook et al (2001), although there is evidence to suggest that nonpharmacological interventions are best for individuals, using this as a first point of action for the treatment of BPSD is only occurring in limited areas of aged care. There is also the risk that personalised treatment plans and other nonpharmacological therapies will only work on occasion, as each patient presents differently and responds in different ways to treatment (Moniz-Cook et al). Due to the differences even within BPSD, one patient presenting with hallucinations/delusion will require completely different treatment from a patient presenting with agitation and sleep disturbance (Imtiaz et al, 2018).

Table 1. PICO

Population of interest	Older adults with dementia (45+ years) A diagnosis of dementia with behavioural and psychological symptoms of dementia (BPSD)
Phenomenon of interest (intervention)	Use of PRN and the influencing factors in BPSD Nonpharmocological approaches to BPSD
Context	People with dementia in aged residential care/ acute settings requiring PRN medication

Table 2. Study inclusion and exclusion criteria

Inclusion criteria	Exclusion criteria
• Older adults	• Adolescents, children, young adults
• Behaviour and psychological symptoms of dementia, BPSD • Behaviour management plans	• Behaviour plans • Dementia without BPSD • Dementia diagnosis living at home
• Acute care, aged residential care, ARC • Non-pharmacological interventions	
Date limits: 2009-2012, 2012-2022	1989-2009

This integrative review is a critique of research to determine the factors that make it challenging to use nonpharmacological interventions, thus leading to a reliance on PRN antipsychotics, in the care of individuals who have a diagnosis of dementia and present with BPSD.

METHOD

In 2005, Whittemore and Knafl developed the process of integrative review as a research methodology. It includes five stages: identify the problem of interest; search literature; evaluate literature; synthesise data; and finally, present data in a comprehensive and succinct way. An integrative review allows for a holistic approach by using various data sources for the research; in doing so, it enables a broader perspective of research that has been conducted on a specific topic (Whittemore & Knafl, 2005). Although this process may be structured in different ways, depending on the topic/review question and content, all integrative reviews are expected to follow a structured template (Melillo, 2020). Drawing on the principles of meta-analysis (Goldberg et al., 2022), a researcher creating an integrative review can synthesise data from multiple pieces of research, thus delivering a precise evaluation of the effectiveness of a single intervention (Conner, 2014).

The mnemonic PICO is a tool researchers can use to examine the phenomenon of interest; it is formulated as follows: population, intervention, comparison and outcomes (Cochrane Library, 2001). Using PICO ensures the data search remains focused and specific, which is important when completing the systematic portion of the review. The parameters for the search are detailed in Table 1 (above).

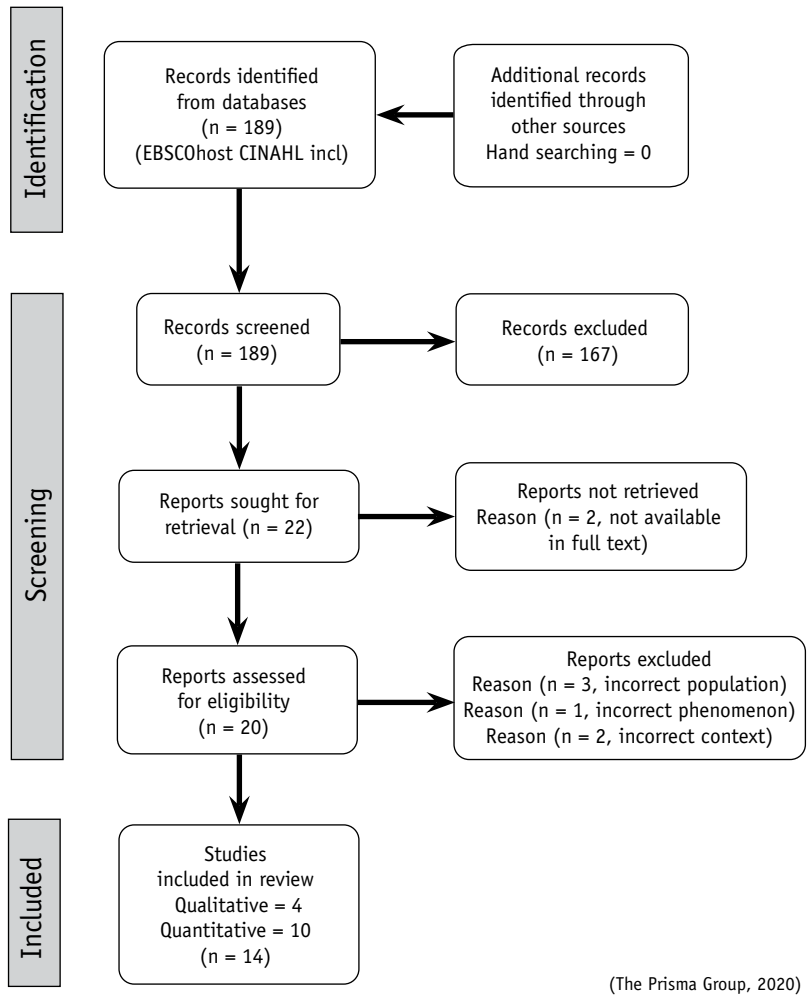
However, for this study, rather than trying to "compare" (as specified in the PICO framework), the idea of "context" was used instead, as comparisons would not address the research question and were only apparent in some of the included articles. Search terms included (and were limited to): "older adults", "behavioural and psychological symptoms of dementia", "BPSD", "behaviour management plans", "acute care" and "aged residential care". A 10-year date range was specified for articles to be accepted into the review. The only exception was the article by Crombie et al (2008), as its findings were particularly relevant to this review. The inclusion and exclusion criteria are summarised in Table 2 (above).

Using the specified search terms and inclusion/exclusion criteria, searches of databases revealed 189 potential articles for screening. The searches were recorded in a table, with the search strategy and study selection described using a Preferred Reporting Items for Systematic Reviews and Meta-analysis (PRISMA) flow diagram (see right). This process resulted in 14 studies being selected for the review – four of them qualitative and 10 quantitative.

Data analysis is the essential process of an integrative review, synthesising diverse sources and facilitating better understanding of the issue being studied (Conner, 2014). For our analysis, each of the 14 articles was scrutinised and dissected to find its basic foundations, then evaluated and tabulated into structured form. In some literature, this process is called a "review matrix", which is described as a way of extracting data from the relevant published research (Garrard, 2017). Table 3 (below) summarises how each article was assessed using the Joanna Briggs Institute (JBI) (Joanna Briggs Institute, 2020)appraisal for qualitative research, and also assessed for the strength of the evidence in accordance with guidelines developed by Ackley et al (2008).

The Ackley guidelines enable each article to be assessed in terms of how of the study design minimises the impact

FIGURE 1. IDENTIFICATION OF STUDIES VIA DATABASES AND REGISTERS



(The Prisma Group, 2020)

Table 3. Level of evidence rating system

Level of evidence (LOE)	Description
Level I	Evidence from a systematic review or meta-analysis of all relevant randomised controlled trials (RCTs) or evidence-based clinical practice guidelines based on systematic reviews of RCTs or three or more RCTs of good quality that have similar results.
Level II	Evidence obtained from at least one well-designed RCT (eg large multi-site RCT).
Level III	Evidence obtained from well-designed controlled trials without randomisation (ie quasi-experimental).
Level IV	Evidence from well-designed case-control or cohort studies.
Level V	Evidence from systematic reviews of descriptive and qualitative studies (meta-synthesis).
Level VI	Evidence from a single descriptive or qualitative study.
Level VII	Evidence from the opinion of authorities and/or reports of expert committees.

Based on Ackley et al (2008)

Table 4. Study characteristics and key elements

STAFF SHORTAGE

Authors	Type of study	Level of evidence	Risk of bias score	Participants	Core elements	Outcomes
Backhouse et al, 2014	Postal study to determine the prevalence of antipsychotic use in care homes, explore which behaviours care home staff find difficult to manage and which non-pharmacological interventions are currently used within care homes.	VI	JBI Y = 6/9 U = 3/9	Facility managers of care homes with specialist dementia care in four counties of east England.	• 73% of dementia facilities utilise antipsychotics as a means of managing aggressive behaviour. • Facilities with more qualified staff had a higher use of antipsychotic prescriptions but not documented between PRN and regular. • Greater emphasis on implementation of person-centred care plans required. • The use of antipsychotic (as required) medication was based on the judgment of staff (qualified and unqualified). • Importance of qualified staff to make appropriate judgment on medication use.	Further education required for staff on both the use of antipsychotic medication and the proper implementation of individualised care plans.
Backhouse et al, 2016	Ethnographic to explore the use of nonpharmacological interventions used to manage BPSD in care homes.	IV	CASP Y = 8/10 U = 2/10	Sample included registered and nonregistered staff, from four separate care homes.	• Antipsychotic medication prescribed frequently in BPSD with minimal efficacy. NICE suggests medication as a last resort; instead, utilising person-centred care. • Organisational factors in care homes influence practice. • Daily activities not utilised as interventions, however should be.	More research required with further staff education on use of nonpharmacological interventions.
Manso-Calderón et al, 2020	Prospective study to explore whether the BEVASDE Assessment profile of BPSD differs between dementia types and the effects of medication on severity.	III	JBI Y = 5/9 N = 1/9 U = 3/9	806 patients exhibiting BPSD enrolled with outpatient clinics.	• Almost 75% of patients included received some type of psychotropic drug as a first-line response to BPSD. • BPSD increased carer stress/burden, increased chances of admission to institutions with severity dependant on subtype of diagnosis. Nonpharmacological interventions more effective in vascular dementia than Alzheimer's dementia.	Increased staffing required to implement nonpharmacological care plan interventions. Improved instances for nonpharmacological interventions.
Ozaki et al, 2017	Cross-sectional survey to examine the use of psychotropic drugs related to the prevalence, numbers of symptoms, severity and care burden in BPSD.	VI	JBI Y = 5/9 N = 4/9	Dementia patients treated with psychotropic medication exhibiting BPSD in specialised cognitive and behavioural unit for dementia and cognitive impairment.	• BPSD are often treated with psychotropic medications. Over-prescription remains common and an important issue to continue to discuss. • Facilities with more access to nonpharmacological interventions had less use for medication to manage BPSD. • Prescription of antipsychotics were more influenced by staff's perceptions of psychiatric conditions and co-severity of symptoms rather than the standardised clinical criteria. • Nonpharmacological treatments are seen as a promising way to address BPSD, however requires more research to do so.	Increased staffing to ensure safer 'staff to patient' ratio. Education on nonpharmacological interventions rather than medication to reduce over-prescribing/sedating as a management plan.
Richter et al, 2019	Cluster-randomised controlled trial to investigate if a person-centred care approach in reduction of BPSD which had been successful in the United Kingdom could be adapted to German conditions.	III	JBI Y = 7/9 N = 2/9	37 nursing homes in the east, west and north of Germany; all with a control group and intervention group.	• To duplicate successful person-centred care plans from the United Kingdom to Germany. Regular medication reviews were completed to ensure robust amount of data collected. • When duplicated, in the first three months the control group rather than the intervention group was found to have reduced antipsychotic use. • After 12-month follow-up, intervention group was found to have significant reduction in medication.	Low staffing hinders use of nonpharmacological intervention, as not enough time or appropriately trained staff. When increased staff and training was documented, nonpharmacological interventions were more successful.

Table 4. Study characteristics and key elements, continued

SKILL MIX

Authors	Type of study	Level of evidence	Risk of bias score	Participants	Core elements	Outcomes
Crombie et al, 2008	Survey to determine environment, policies, staffing, staff education/ training, and behaviour management for staff caring for residents with BPSD.	IV	JBI Y = 6/9 N = 1/9 U = 2/9	Management staff in acute aged care facilities in rural regions and acute psychiatric wards in an urban area.	• 95% of patients in long-term acute care are diagnosed with dementia, with BPSD being a major cause of reduced quality of life, and carer stress. • Environment, behaviour management programmes and trained staff important. • Staff were found to have a lack of knowledge on disease progression/process, therefore unable to adequately manage inappropriate environment. • Reduced staff numbers negatively affected the use of nonpharmacological interventions.	Further education for staff required on BPSD and dementia disease progression as well as how to implement person-centred care plans.
Mallon et al, 2019	Cross-sectional survey to determine the views of care home staff in relation to experiencing and managing BPSD and if specialised training enhances person-centred care.	IV	JBI Y = 4/9 N = 5/9	54 dementia specialised long-term care homes.	• Guidelines for managing BPSD state patients should have comprehensive assessments completed on admission to establish factors influencing their symptoms. • Staff emphasised the importance of giving individuals time to understand their needs.	Staff agreeable to the implementation of person-centred care plans and using information gained from comprehensive assessments. Reduction in medication administration due to decreased BPSD symptoms.
Roe et al, 2020	Cross-sectional survey to explore the attitudes of direct-care staff in residential aged care when interacting with, and responding to, residents exhibiting BPSD.	IV	JBI Y = 5/9 N = 4/9	Caregivers (unregulated) and nurses working in aged residential facilities with BPSD; both registered and non-registered staff.	• 60% of dementia patients are placed in permanent care. • 80% of those diagnosed with dementia experience BPSD. • Routine administration of psychiatric medications, specifically antipsychotics or anti-anxiety agents, to treat BPSD is common practice in Australia and other western countries, with up to 78% of residents on some forms of psychotropic drugs. • Staff may need further education to be aware of potential risks of psychotropic medication and to be able to provide evidence-based care and appropriate medication administration.	Further education required for staff to increase use of person-centred care plans and reduce antipsychotic medication as a first response.
Saidlitz et al, 2016	Prospective study with systematic analysis to examine management of psycho-behavioural disorders in specialised units.	IV	JBI Y = 7/9 N = 2/9	General data was collected by reviewing patient files prior to staying in specialised cognitive behaviour units in hospital exhibiting BPSD and administered antipsychotic medication as a first response to management.	• More than half hospitalised patients receive psychotropic treatment during initial admission. • Staff tolerance towards behavioural diagnosis lower than those working in cognitive behaviour unit (CBU) teams. • Staff tolerance/patience was found to increase patient independence and decrease behaviours. • MDT collaboration along with nonpharmacological approach enables better care. • Inclusion of all disciplines within a hospital environment increased education about the individual, ensuring a holistic approach was taken.	Person-centred care is paramount in reduction of antipsychotic medication use. Further education for staff on BPSD increases staff tolerance, thus reducing difficult instances of behaviour.

Table 4. Study characteristics and key elements, continued

EDUCATION

Authors	Type of study	Level of evidence	Risk of bias score	Participants	Core elements	Outcomes
Carnahan et al, 2017	Quasi-experimental longitudinal study to evaluate the effectiveness of specialised training programmes on BPSD with a focus on reduction of antipsychotic medication use.	III	JBI Y = 5/9 N = 1/9 U = 3/9	Residents (aged 65 years +) of 426 specialised dementia care units exhibiting BPSD.	• Pharmacotherapy options for behavioural and psychological symptoms of dementia include antipsychotics, anticonvulsants, antidepressants and anxiolytics. Olanzapine IMI utilised frequently as a first response to BPSD. • Increased incidence of sedation found with the use of the antipsychotic. • Little documented research on nonpharmacological interventions available within the facility.	Further education required for staff on adverse effects of using antipsychotics as a first response. Within the education, discussion on implementation of person-centred care plans to reduce symptoms, therefore reduce PRN use.
Duong et al, 2015	Retrospective observational study to examine the use of short-acting intramuscular olanzapine and the efficiency of reduced symptoms.	IV	CASP Y = 8/10	Staff caring for dementia inpatients 65 years and older prescribed intramuscular olanzapine for acute agitation in BPSD. Medical records were reviewed retrospectively.	• Specialised training for staff in programmes on BPSD and the risks of antipsychotic medication. • Focus on reduction of antipsychotic medication use as a first line of treatment in reduction of BPSD symptoms. Training associated with reduction in antipsychotic use for BPSD.	Specialised training in person-centred care plans required. Use of person-centred care plans required to reduce antipsychotic medication use.
Honda et al, 2016	Multimodal comprehensive care to assess the use of the Humanitude care model as a reduction to BPSD.	IV	CASP Y = 3/10 N = 4/10 U = 3/10	Vulnerable dementia patients exhibiting BPSD in acute care wards in hospital, cared for by one of four nurses with specialist knowledge in Humanitude care model.	• People with dementia are frequently admitted to the acute care hospital; BPSD results in poor care quality and provides barriers for staff interventions. • Four out of 40 nurses in a medical ward were trained in Humanitude methodology. Utilisation of this method showed a greater response from the residents, decreased symptoms.	The use of person-centred care has shown to reduce behaviours. Educating and increasing staff numbers is a large part of this implementation being successful.
Lertkratoke et al, 2021	Quasi-experimental, to determine the effects of Thai Integrated Care Program for Older Adults with Dementia (TICPD) and explore the difference in function of those with BPSD and caregiver burden before and after implementation.	III	JBI Y = 7/9 U = 2/9	Two hospitals in north-east Thailand, both specialising in dementia care, utilising a holistic approach, including nonpharmacological interventions. Two outpatient departments of hospitals focused on holistic care. Participants were over 60 years, diagnosed with dementia, exhibiting BPSD and had a family caregiver.	• Caregiver stress/burden high in dementia care facilities. • Case management important post-discharge for continuation of care. • Non-pharmacological interventions limited in community setting. • BPSD and caregiver burden increase chances of institutionalisation and hospitalisation. Care programmes effective, with patients exhibiting mild BPSD, however less effective with severe cases.	Further education and skill training for staff necessary for severe cases of BPSD. Reduced caregiver stress linked to increased education of staff.
Resnick et al, 2018	To objectively evaluate the effectiveness of person-centred care plans in reducing BPSD symptoms and use of antipsychotics.	II	JBI Y = 7/9 N = 2/9	Long-term aged-care facilities, 100+ beds, and allowed a registered staff member to work with the research team. Individuals with a diagnosis of BPSD and on one or more antipsychotic medications.	• Pathophysiological, psychological, and environmental mechanisms which underlie symptoms of BPSD. 90% of residents in care homes experience these symptoms which are seen as “unmet needs”. • BPSD contributing factor to poor quality of life and increased cognitive then functional decline. Staff included changes to environment where appropriate (utilising gardens etc). • Time given to residents to allow for expression of needs. Care plans created using information gained about each individual.	Person-centred care plan linked to reduction in BPSD symptoms and antipsychotic use. Further education and training on care plans imperative to successful use and reduction of antipsychotic use.

of bias on results. A Level I study (systematic review of randomised control trials) is considered the strongest level of evidence. Based on their study designs, the 14 studies chosen for this review were rated as follows: Level II, n = 1; Level III, n= 4; Level IV, n = 7; Level V, n=0, Level VI, n = 2.

The review matrix is presented in Table 4 (see pages 44-46).

FINDINGS

Three themes emerged from the review. The first finding was that low staff-to-patient ratios increased instances of challenging BPSD. The second finding was that the numbers of staff with specialised training were low suggesting the need to educate staff about the progression of dementia and/or the manifestation of BPSD, as well as the implementation of person-centred care plans. Lastly, it was found that using person-centred care plans reduced instances of BPSD.

Low staff-to-patient ratio

Studies from the UK (Backhouse et al, 2014), Germany (Richter et al, 2019) and Thailand (Lertkratoke et al, 2021) suggest that with populations ageing and more people being diagnosed with dementia and BPSD, there is pressure on aged residential care (ARC) facilities, which are already under strain. According to the Australian Institute of Health and Welfare (2015), 60 per cent of those diagnosed with dementia will be placed in ARC at some stage during their disease process. This is a concern because there are not enough beds, the staff-to-patient ratio is low, and the number of individuals entering ARC at high-level needs has been increasing since 2008 (New Zealand Nurses Organisation, 2012). It is not just a matter of low staff numbers, but low numbers of qualified/higher trained staff that the research has highlighted as a concern. Without adequate staff numbers to facilitate basic care for their patients, there is even less of a chance they can take extra time to implement a personalised plan to manage BPSD, therefore reducing PRN antipsychotic use (Brodaty & Low, 2003). Crombie et al. (2008) support this finding, reporting that staff shortages and an inability to manage BPSD effectively is a difficult situation to remedy as dementia facilities rely on additional funding and specific reviews to enable any change.

Skill set and the use of antipsychotic medications

In addition to low staffing levels, another issue in relation to overuse of anti-psychotics is a lack of appropriately trained staff (Roe et al, 2020). Roe et al pointed out that insufficiently skilled staff are unaware of the potential risks of frequently using (or overusing) psychotropic medication. Or they may lack the ability to distinguish the severity of the episode of BPSD they are faced with. Instead, the staff stated the individual was just "being difficult" or "not behaving". What drives use of psychotropic medication may be the quantity of residents presenting with BPSD rather than the severity of the BPSD. For example, Carnahan et al (2017) report the use of antipsychotic drugs increased when the area was staffed more by nurse aides than when there was a registered nurse (RN) supervising care.

In some cases, while staff were willing to trial nonpharmacological interventions, there were gaps between their theoretical knowledge and their ability to put it into practice (Backhouse et al, 2016). Further education would be beneficial to encourage use of techniques such as de-escalation or distraction, which staff may be unaware of. To ensure the effectiveness of care plans, it is important staff are aware of the reasons behind nonpharmacological interventions, which requires further training. The principal author of this study notes from practice experience that just implementing such a document and expecting the staff to understand the desired outcome is short-sighted. Education becomes an essential aspect of this care and gives staff/caregivers the confidence to use person-centred care to help reduce the use of antipsychotic PRN medication.

Further training for staff

Training about the adverse effects of antipsychotic medication is imperative to reduce its use and encourage more nonpharmacological interventions. Understanding these medications, their mechanisms of action and their adverse effects are important aspects of care. Limiting their use also reduces the risk of over-sedation and falls. If this is not understood first, it is hard to expect staff to implement nonpharmacological interventions which are more work and take longer to show results (Roe et al, 2020).

Backhouse et al (2014) used postal surveys to obtain information about the management of BPSD, and concluded further staff training was imperative. They highlighted nonpharmacological interventions which aimed to both improve the individual's quality of life by reducing their symptoms, and to ensure staff were less burdened. An example of the importance of the training can be found in the work of Lertkratoke et al (2021), who conducted research comparing two hospitals which promoted holistic care in areas with high prevalence of BPSD. They reported that nonpharmacological interventions were only available where staff were specialised in managing BPSD. However such specialised units had only limited capacity, meaning only 25 per cent of patients had access to this level of care. Following a 12-week programme of specialised training for staff caring for patients with BPSD, as in Ozakia et al (2017), the intervention group presented with significantly less caregiver burden than those in the comparison group.

Staff with the skills required for individualised assessment and intervention are infrequently found in care homes where multiple approaches are required to manage the complexity of care (Backhouse et al, 2016).

DISCUSSION

Nonpharmacological interventions such as person-centred care are recommended as a first-line intervention. However, this is rarely the case in practice (NICE and SCIE, 2006). The use of antipsychotic medication to reduce BPSD is still required at times. However, according to Saidlitz et al (2016), antipsychotic medication should only be used in the most severe cases and never as a first response to management. The use of person-centred care (Backhouse et al, 2016; Backhouse et al, 2014)) where facilities had put in place programmes that focused on the individual's likes and dislikes was shown to be effective if the conditions were right. Small groups of residents were selected and observed for a trial which found that specific care plans were more effective in reducing BPSD. These researchers found it was important to try use of such plans more than once: Backhouse et al (2016) reported staff were required to "stick with it" when residents were unwilling to participate, or it appeared it wasn't working. However, these authors acknowledged this did require skill and time.

According to Goodwin & Mangan (1985), the key to a successful

individualised care plan is for staff to rid their thoughts of a "we/they" relationship with residents, turning instead to an "us" relationship. This message is still relevant 30 years after publication and remains best practice in this context. Gooodwin & Mangan's (1985) message is that those living in care homes need to be treated more as equals who play an important role in their own care. This requires staff to look at who that person was prior to diagnosis – their hobbies, job, and what they enjoyed or disliked; all important and relevant information for staff. There is a phrase used among health professionals, "short-term pain for long-term gain", which relates directly to the amount of work required to create and carry out a care plan individualised to the person. Resnick et al (2018) conducted their study by looking at the implementation of person-centred care to observe the correlation between care plans and care-plan checklists and any reduction of the symptoms of dementia. They found there is evidence to suggest care plans and care plan checklists are valid when caring for those with BPSD; however there was no direct link to reducing specific behaviours such as impulsivity, agitation and wandering. Further mentorship and motivation from senior staff did encourage the use of person-centred care plans, which is now the utilised first-line approach in long-term care settings (Resnick et al).

This approach is best found with research conducted by Honda et al (2016), who used a multimodal care approach called Humanitude. This approach, of French origin, is designed specifically for vulnerable older adults, and focuses on their emotions, communication and perceptions. These researchers used Humanitude in an acute-care hospital setting to assess its effect on BPSD. When this approach was compared to conventional care, a reduction was found in exhibited BPSD symptoms. Humanitude emphasises human emotion, with gentle touch, eye contact and verbal communication used in all interactions with patients in the study. It was found that in cases where the patient's care was more complex or the symptoms more severe, it took longer for this approach to work and required more patience from staff. The other important outcome they found was a reduction in polypharmacy, which led to a reduction in the use of antipsychotics. Saidlitz et al (2016) examined specialised cognitive behaviour units in France which were created as part of that country's Alzheimer Plan. The approach of these units to person-centred care was a combination of physical activity, relaxation, sensory and cognitive stimulation, and reorientation. These researchers examined the management of psychosocial behaviours (which they consider BPSD to fall under), and the effect it has on symptoms and the use of PRN antipsychotics as the first approach to care. Saidlitz et al (2016) found that using this style of management brought about a significant reduction in behavioural symptoms, particularly disruption to other patient care. There was an improvement in successful nonpharmacological interventions, leading to a reduction in antipsychotic use to treat behavioural issues.

As identified in this review by researchers including Honda et al (2016), Resnick et al (2018), Richter et al (2019) and Saidlitz et al (2016), facilities which used a "human" or individual approach found a decrease in problems with BPSD. Approaching a complex case by observing the whole person (including their past) reduces the risk of distress. This, along with appropriate humanistic cues, such as leading the individual by the hand to a room, ensures that the person feels safe, and is more likely to produce a positive response. Looking the person in the eye when speaking to them and talking to them in a clear and concise manner, gives the individual a better chance of understanding what the staff member is asking of them. Helping the person complete tasks rather than doing things to them, or for them, is the most important point to remember.

The fact that PRN medication is used more frequently than intended when prescribed raises issues about caring for those who present with BPSD. Ozaki et al (2017) suggested that clinicians are reluctant to use approaches other than pharmacological for fear of exacerbating BPSD behaviour. This is sometimes found to be a way for the staff to cope with what they feel is unmanageable or inappropriate behaviour and less about what might be sustainable long term. Learning how to manage clients using humanistic approaches is a skill that can be adapted to each individual's situation. Using antipsychotic medication as an intervention in these circumstances carries a high risk of sedation and closes off the potential for individual interpersonal responses that may have greater therapeutic benefit in the long term.

LIMITATIONS

Most of the research selected for this review was based in European countries, the United States or Australia. With only three articles based in Asian countries, there was a strong western perspective on managing people affected by BPSD. A limitation of the study is that culturally responsive approaches to care were not specifically identified in the findings of the included studies.

RECOMMENDATIONS

Nursing staff who have completed advanced education in management of complex care/BPSD, and antipsychotic medications and their uses, have a more comprehensive understanding of BPSD and the reasons behind it. These staff are then able to create care plans individualised to the patient which, as seen in the articles reviewed, has a positive effect when conducted correctly, thus encouraging nonpharmacological interventions. These specialised staff are able to role-model this care for fellow staff and provide them with advice and support.

- To ensure individualised care plans are created and used correctly, it is important staff are educated specifically on person-centred behaviour management.
- To encourage ongoing education, using a specialist dementia care nurse (such as a clinical nurse specialist) who provides regular training programmes will give staff the confidence to continue with care plans.

CONCLUSION

BPSD is complex and difficult to manage, complicated by a mix of low staffing, and/or inadequate training opportunities. As the research in this review shows, more training about BPSD and the risks of antipsychotic medication, paired with the use of nonpharmacological care plans, can reduce symptoms. These approaches can ultimately reduce the use of antipsychotic medication as a first response. Having staff in aged-care facilities with specialist knowledge benefits the entire institution. The reduction in BPSD has a ripple effect from the staff who care for these patients, to the management who don't need to find alternative care or deal with burnt-out staff.

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