

International and National Best Practice Principles and Models of Care regarding the Hospital Management of Patients with Severe Behavioural and Psychological Symptoms of Dementia (BPSD)

Rapid Literature Review

Prepared By:
National Ageing Research Institute
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Contributing authors: Ellen Gaffy, Sue Williams, Stephanie Garratt, Amy Parker, Frances Batchelor

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Enquiries regarding this report may be directed to Amy Parker via e-mail: a.parker@nari.edu.au

CONTENTS

EXECUTIVE SUMMARY	4
ABBREVIATIONS	6
BACKGROUND.....	7
Context	7
Aim of the Review	8
Definitions.....	8
DESIGN.....	9
Method	9
Search Terms.....	9
FINDINGS	11
1. Overview of Dementia in Hospitals	12
2. Specific Hospital Settings.....	13
3. Whole-of-Hospital Perspective	18
4. Workforce (Paid and Unpaid).....	21
5. Education and Training	24
6. System-Wide Approach	28
7. Physical Environments.....	29
DISCUSSION	30
EVIDENCE GAPS AND ISSUES	33
CONCLUSION	34
REFERENCES.....	35
APPENDIX	40

EXECUTIVE SUMMARY

This rapid literature review has been undertaken as part of the '*Improving the Management of Patients with Severe Behavioural and Psychological Symptoms of Dementia (BPSD) in Victorian Hospitals*' project.

Hospitals are known to be challenging places for people with dementia and, in particular, those presenting with BPSD. During a hospital stay, approximately 90% of people living with dementia will experience behavioural and psychological symptoms. Numerous physiological and psychosocial factors associated with being acutely unwell, combined with an unfamiliar and often unsuitable environment, can exacerbate behavioural and psychological symptoms. These new or changing symptoms or behaviours can be difficult to manage, can cause significant distress to patients, family members, staff and other patients, and can result in increased morbidity and mortality.

This rapid literature review was conducted to identify national and international best practice principles and models of care regarding the hospital management of patients with severe BPSD. Any publication type, published since 2010, describing either dementia-specific management (care management) strategies, models of care or best practice guidelines for the management and care of patients with severe BPSD admitted as inpatients or presenting to emergency departments (ED) were included in the review. Search terms included: dementia, BPSD, aggression, agitation, interventions, treatment, care, management, education, training, hospital setting, environment, acute care, workforce, staffing, risk management, patient and staff safety, harm minimisation, occupational and workplace safety. These were searched within the topic areas of: models of care and best practice principles, assessments scales, tools and measures, risk of harm to self and others, patient and staff safety, workforce rostering and care provision, decision making, occupational and workplace health and safety. A total of 1,339 results were retrieved from the search and 98 were included for review. Most references were excluded due to referring to the wrong setting.

Within the literature, the general consensus is that intervention and models of care need to be multi-component, multi-disciplinary and multi-level within organisations, with education and staff collaboration key components of most models of care. Common models of care, best-practice principles and interventions described in the literature include:

- Screening for BPSD on admission to identify potential for aggressive behaviours, to allow for early intervention in the management of behaviours and to assist in the development of individualised care plans.
- Addressing and acknowledging that patients living with dementia have greater and different care needs compared to other older patients in general inpatient wards.
- Allocating specialist dementia nurses to work within general inpatient wards to provide education, information and support to general ward staff on managing BPSD.
- Establishing dementia-specific wards that include both medical and mental health professionals. The model of care should include the provision of enhanced staff training in dementia and person-centred care, and include environmental modifications to increase patient and staff safety.
- Promoting general awareness and understanding among staff that unmet needs are the cause of BPSD and that these can lead to psychological or emotional distress which manifests in aggressive or agitated behaviours.
- Staff education to increase understanding, awareness, skills and competence in dementia care (dementia, person-centred care, identifying risk factors for aggressive behaviours, managing aggressive violent behaviours, communication, addressing unmet needs, understanding unmet needs as the underlying cause of BPSD). Effective education models and training programs are delivered in a timely manner, in face-to-face formats, and with skilled and experienced people delivering the education/training.

- Interdisciplinary staff models of care aiming to utilise knowledge, experience and skill sets within existing staff to better manage BPSD and provide appropriate care planning.
- Incorporating behavioural interventions and person-centred care approaches into care planning.
- Implementing dementia friendly design in wards, EDs and waiting areas.
- Ensuring that, if using one-on-one supervision and or rostered 'specialling' staff, the role is clearly defined so that appropriate supports can be implemented to ensure safe and quality care, and incorporates engagement between the older patient, their family, and the wider care team into the role.
- Management of staff workloads, particularly addressing the time pressures and multiple demands often experienced by nurses which can result in decreased care being provided to patients with BPSD.
- Establishing and/or strengthening existing Occupational Health and Safety (OHS) policies and procedures for reporting and acting on Occupational Violence and Aggression (OVA) incidents, particularly in relation to incidents involving people with dementia and BPSD.
- Promoting an organisational culture in which person-centred care is just as important as medical and physical care.
- Taking a systems-wide approach to care. Taking measures to ensure continuity of care and establishing pathways and processes for collaborative care between general and specialist staff, and family members.
- Investigating the potential of transferability of established tools and models currently being used to manage BPSD in residential care settings to acute care settings.

ABBREVIATIONS

ADEPT	Assess, Diagnose, Evaluate, Prevent, and Treat
BPSD	Behavioural and Psychological Symptoms of Dementia
DH	Department of Health
ED	Emergency Department
GEM	Geriatric Evaluation and Management
GPA	Gentle Persuasive Approaches
NARI	National Ageing Research Institute
NICE	National Institute for Health and Care Excellence
OHS	Occupational Health and Safety
OVA	Occupational Violence and Aggressions
PET	Protected Engagement Time
PICOT	Population; Intervention; Comparison Group; Outcome of Interest; Time
RAID	Rapid Assessment Interface and Discharge
VIPS	Value, Individualised, Perspective, Social

BACKGROUND

Context

For people who have been diagnosed with dementia, difficulties in communicating and expressing needs may manifest in many different ways. Collectively known as Behavioural and Psychological Symptoms of Dementia (BPSD), these refer to the non-cognitive presentations of dementia such as mood disturbances, hyperactivity-type symptoms, psychotic symptoms, changes in appetite, hoarding, night-time behaviour disturbances and wandering and can affect between 60 and 90% of people with dementia to varying extents (1). The term 'BPSD' is controversial as such symptoms may not only be neurologically innate but manifest because of the circumstances and situations perpetuated by other people and/or by external environments. However, the term is used in clinical contexts and in the literature alongside other terminology such as changed behaviours (2), behaviours of concern, challenging behaviours and non-cognitive or neuropsychiatric symptoms of dementia.

The seven-tiered model of service delivery proposed by Brodaty et al. (2003) describes BPSD according to seven tiers in ascending order of symptom severity – 'tier one' refers to no symptoms while 'tier seven' refers to extreme behavioural disturbance that requires management in intensive specialist care units (3). The boundaries between levels are not necessarily distinct and movement between levels can be fluid, particularly in the presence of an acute illness and/or infection which precipitates an often reversible severe behavioural disturbance, frequently resulting in hospital admission.

Hospitals are known to be challenging places for people with dementia and, in particular, those presenting with BPSD. Numerous physiological and psychosocial factors associated with being acutely unwell, combined with an unfamiliar and often unsuitable physical and social environment, can exacerbate symptoms. These new or changing symptoms can be difficult to manage, can cause significant distress to family members, staff and other patients and can result in increased morbidity and mortality. In November 2019, the Victorian Sub-acute Executive Peak Body discussed whether Victorian health services currently have the capacity to best meet the needs of a growing number, and increased severity, of people presenting and being admitted to hospitals with BPSD. A preliminary benchmarking survey of nine metropolitan and three regional health services in Victoria revealed that, while all of the health services provide care for patients with dementia and BPSD in sub-acute settings, the individual models of care developed to support this vulnerable patient population varied significantly (4). In addition, a number of challenges to achieving a responsive Geriatric Evaluation and Management (GEM) service for patients with dementia and BPSD, which is the most common specialist model of care used in Victoria to manage this vulnerable patient cohort, were identified. These include workforce recruitment, retention, level of skill and overall safety, access to specialist mental health services as well as issues relating to the built environment. Following discussions with the Victorian Department of Health (DH) and the National Ageing Research Institute (NARI), a project titled '*Improving the Management of Patients with Severe Behavioural and Psychological Symptoms of Dementia (BPSD) in Victorian Hospitals project*' was established. This rapid literature review forms part of that project.

Aim of the Review

To identify national and international best practice principles and models of care regarding the hospital management of patients with severe BPSD.

Definitions

Behavioural and Psychological Symptoms of Dementia (BPSD)

BPSD refers to the non-cognitive presentations of dementia such as mood disturbances (e.g. anxiety, apathy, depression, euphoria), hyperactivity-type symptoms (e.g. aberrant motor behaviour, aggression, agitation, disinhibition, irritability, restlessness), psychotic symptoms (e.g. delusions, hallucinations, paranoia), changes in appetite, hoarding, night-time behaviour disturbances and wandering.

'Severe BPSD'

For this review, 'severe BPSD' refers to behaviours where there is a risk to self or others, and/or from others, with the potential for harm. This acknowledges that, although behaviours themselves may not be considered 'severe' (e.g. on an assessment scale), the consequences of the behaviour may be considered 'severe'. Keyword search term combinations in this review included "severe", "agitation" and "aggression", excluding papers where there was not a focus on behaviour severity or agitation or aggression. While 'severe BPSD' is not a commonly used term within the literature, due to the variation in methods for determining severity, within the included articles behaviour severity is suggested through the presence of aggressive or agitated behaviours that are disruptive, challenging to manage and have the potential to impact on patient and staff safety.

Management

The definition of 'management' includes the direct and indirect responses required during an admission to hospital or a presentation to ED for a person demonstrating severe BPSD. It can include the undertaking of assessments, the provision of diagnoses, treatments, or interventions, the development and implementation of policies and procedures and/or the manipulation of structures, resources, finances, technology and systems. Pharmacological approaches have not been included in this review as they are outside the scope of the project.

Hospitals

For the purpose of this review, 'hospitals' are considered places where health care services (medical and surgical treatments and nursing care) are provided by health professionals, and where people can be admitted (stay overnight) for their care. The population considered in this review are people who are either admitted as an inpatient into a hospital or present to an ED for acute care services. Although hospitals provide many outpatient and ambulatory care services, these are not considered as part of this review.

Best Practice Principles

Best practice principles are the methods, techniques or ways that are accepted as the standard to which care and services should be aiming (as it is superior or 'gold-standard') or is being practiced.

Models of Care

A model of care incorporates overarching design for the provision of a particular type of health care service shaped by a) theoretical basis; b) evidence based practice and c) defined standards. A model of care has defined core elements and principles and has a framework that provides structure for implementation and subsequent evaluation of care (5).

DESIGN

Method

The literature review was undertaken utilising Population; Intervention; Comparison Group; Outcome of Interest; Time (PICOT) criteria (see Table 1).

Table 1: PICOT criteria for this review

<i>Population</i>	Hospital patients (inpatient admission or presentation to ED) with severe BPSD
<i>Intervention</i>	Interventions (non-pharmacological – single or multiple, pharmacological only if part of multiple intervention), models of care and best practice principles to support the care of hospital patients with severe BPSD
<i>Comparison group</i>	N/A
<i>Outcomes of interest</i>	Management and care of patients with severe BPSD in hospital
<i>Time</i>	The patient's stay in hospital (from admission to discharge) and/or time presenting at ED

The following parameters were used:

- PubMed and CINAHL databases were searched.
- Grey literature (reports, policy documents, conference proceedings) also searched via internet search engines (Google and Google Scholar).
- The inclusion criteria for the references were those published since 2010, published in English, any type of publication, from the hospital setting (inpatient admission / ED presentation) and include Dementia-specific management (care management) strategies, models of care, best practice principles or guidelines.
- References were excluded if the wrong setting.

Search Terms

The search terms used for the review relate to the assessment and management of severe BPSD, particularly aggression and agitation, in patients within the ED or hospital ward setting.

Given the considerable amount of existing literature related to pharmacological interventions, and also to the use of chemical and/or physical restraint in the management of severe BPSD, it was decided that each of these topic areas warranted in-depth exploration separate to this particular review. As a result, these highly detailed and complex management strategies were considered outside the scope of the current search, with references excluded if the only intervention described was pharmacological in nature and/or related to the use of restraint/s.

The specific topic areas and search terms included in the review were:

- Behavioural and psychological symptoms of dementia, Neuropsychiatric symptoms, Behavioural symptoms of dementia, Dementia / Severe, BPSD / Severe.
- Intervention, Treatment, Therapy, Care, Quality of care, Patient-centred care, Nursing care, Service, Education, Training, Management.
- Hospital, Emergency Departments, General hospital inpatient, Dementia-specific units, Acute care.
- Severe, Agitation, Aggression, Model/s of care, Best practice, Principle/s, Assessment scales/measures.
- Patient safety, Staff safety, Risk management, Harm, Harm minimisation, Occupational Health and Safety Occupational Violence and Aggression, Workplace Health and Safety.
- Workforce allocation, Environmental adaptation, Nurse “Specials”, Sitters, Aggression response teams.

Search terms used to identify relevant articles are represented in Table 2.

Table 2: Search terms used to identify relevant articles

1.	(behavioural and psychological symptoms of dementia) OR (dementia)
2.	(intervention) OR (treatment) OR (therapy) or (care) or (quality of care) or (patient-centred care) or (nursing care) or (service) or (education) or (training)
3.	#1 and #2
4.	(neuropsychiatric symptoms) AND (dementia)
5.	#4 and #2
6.	#3 and #5
7.	(hospital) OR (inpatient) OR (emergency department)
8.	#6 and #7
9.	(severe) OR (agitation) OR (aggression)
10.	#8 and #9

Following retrieval of the references, they were grouped by theme (e.g. models of care and best practice principles; assessment scales and tools; risk of harm to patient and others; workforce rostering and care provision decision making; and occupational health and safety and occupational violence and aggression). Articles for each theme were allocated to one of three researchers and data extraction was undertaken. This method of narrative synthesis where similar evidence is reviewed together as per a theme enabled the researchers to direct their attention to that specific area. Article and data quality (including assessment of bias) was not formally assessed using a tool but involved critical appraisal by the researcher which allowed for rapid delivery of information.

FINDINGS

There were 1,339 results retrieved from the search. After screening for exclusions and removing duplicate results, 98 articles were included for review. Most references were excluded due to being the wrong setting.

As mentioned in definitions above, the search strategy included keyword combinations which included “severe”, “agitation” or “aggression”, excluding papers where there was not a focus on behaviour severity or agitation or aggression. The review of publications showed the term ‘severe BPSD’ is not a commonly used term within the literature. This was due to the variation in methods for determining severity. Within the articles reviewed, behaviour severity is suggested through the presence of aggressive or agitated behaviours that are disruptive, challenging to manage and have to potential the impact on patient and staff safety.

1. Overview of Dementia in Hospitals

Summary of Findings / Key Recommendations:

- Dementia has been identified as a priority area for health in Australia.
- Hospitals are challenging places for people with dementia, with many patients experiencing adverse events and/or hospital acquired complications that result in increased length of stay and increased mortality.
- Implementation of multi-component approaches and interventions at various points of care and at all levels is recommended to improve the management of patients with dementia (including those with BPSD) in hospital.

Dementia is one of Australia's National Health Priority Areas, with an estimated 472,000 people living with dementia in Australia in 2021 (6). Dementia presents significant social, community and acute care provision challenges, with people living with dementia high users of hospital services. In 2017–18, dementia was recorded as the principal and/or additional diagnosis in 93,800 hospitalisations in Australia (7). In the UK, approximately 25% of hospital beds are occupied by people living with dementia (8), and in the US people living with dementia have double the amount of hospital visits per year compared to other older people (9).

1.1. Impact of hospitalisation

Hospitals are known to be challenging places for people with dementia and, in particular, those presenting with BPSD (mild or severe). Estimates range between 75-90% of people living with dementia experiencing behavioural and psychological symptoms during a hospital stay (10, 11), with agitation and aggression the most common. Numerous physiological and psychosocial factors associated with being acutely unwell, combined with unfamiliar and often unsuitable physical and social environments, can result in an exacerbation of behavioural and psychological symptoms. These new or changing symptoms or behaviours can be difficult to manage, and can cause significant distress to patients themselves, family members, staff and other patients.

1.2. Hospital acquired complications and adverse events

Patients with dementia frequently experience adverse events in hospital including falls, delirium, loss of function, increased length of stay and increased mortality (12). Contributory factors to these adverse events include inadequate assessment and treatment, inappropriate intervention, discrimination, low staff levels and lack of staff training. Additionally, addressing these contributory factors involves working to overcome the barriers of inappropriate ward environments, multiple wards moves and high workloads (13).

1.3. Approaches to dementia care

UK based researchers, George et al. (2013) advocate for a multi-factorial, multi-level approach at the seven levels of care - patient, task, staff, team, environment, organisation and institution - to improve care and safety of people living with dementia when they are in hospital (12). This is echoed by Naef et al. (2018), who found discrepancies within their Swiss-based hospital between defined best practice for people with cognitive impairment and the care patients actually experienced. They argue that multi-component interventions that aim to improve both structural (staff knowledge, skills, capacity and collaboration) and process (point of care interventions underpinned by person and family-centred models of care, staff and specialist collaboration, co-involvement of the family system and the home setting) dimensions of care quality may be promising (14). The literature review following supports these calls.

2. Specific Hospital Settings

Summary of Findings / Key Recommendations:

- Patients with dementia have greater and different care needs than other older patients in general inpatient wards. The physical environment, organisation/management of care and staff competence in providing person-centred care can impact on the patient with dementia's needs being adequately addressed.
- Specialist dementia nurses working on general inpatient wards can provide education, information and support to general ward staff on managing challenging behaviours, and can assist in care planning and providing support to families.
- Dementia-specific wards present an opportunity to provide specialist dementia care through specialised care teams, by providing enhanced staff training in dementia and person-centred care and a modified environment to increase patient and staff safety.
- The ED should be recognised as a site of care for people with dementia. Implementing systems changes can support the ability of staff to implement best practice when managing and providing care to individuals with dementia and BPSD in this setting.

2.1. General Inpatient Wards

Approximately 40% of patients over the age of 65 present with cognitive impairment upon admission to hospital as reported in a Scottish study of 10,014 admissions to one general hospital acute medical unit (15). Older adults with a dementia diagnosis are more likely to die during an emergency hospital admission, more likely to stay in hospital longer, and are at higher risk of falls, delirium, readmission, and unplanned entry into residential care (16, 17). This presents a complex challenge for hospital staff, as well as patients and their families/support people. Informal carers typically view general ward environments as unsuitable for patients with dementia and BPSD (18). General wards are seen as not conducive to the management of distress and confusion, and this can contribute to the deteriorating health of patients—ranging from deterioration in mental state, behavioural challenges, infections acquired whilst in hospital, bedsores, and increased falls (18).

2.1.1. Needs identification for patients with dementia

People living with dementia admitted to general inpatient wards have different and greater needs to other older patients. Healthcare professionals report that they experience difficulties in communication and struggle to deal with frequent walking and other changed behaviours of patients living with dementia (19, 20).

The literature identifies three main categories of need for patients living with dementia on general inpatient wards:

1. Physical environment (i.e. provide easy navigation, allows for independence, and is safe);
2. Organisation and management of care (i.e. staff knowledge and skills around dementia care, staff continuity, meaningful interaction with staff, and patients being consulted regarding their own care); and
3. Competence and person-centred care (prioritising patients with BPSD to avoid the worsening of symptoms, staff competence to ensure care quality; and avoiding the use of restraints) (21).

While staff are often aware of the greater needs of older people with dementia on general acute wards (22), time management is frequently reported as a significant issue in adequately addressing these.

In addition, staff tend to spend less time with people with cognitive impairment than with other patients (23, 24). Changes in behaviour for a person living with dementia are often the expression of unmet needs, with the behaviour manifesting as a means of communicating needs, such as discomfort, loneliness, pain, or boredom (25). Not addressing these needs can lead to worsening symptoms, particularly agitation and aggression, which can be challenging to manage in general clinical settings as they can severely disrupt patient care (26).

2.1.2. Understanding, preventing and responding to individual triggers for agitation and aggression

Current best practice for the non-pharmacological nursing management of agitation and aggression focuses on understanding individual triggers for agitation and aggression, and planning care to reduce frequency and effect (27). This includes promoting dignity when providing personal care, such as using a consistency in staffing as much as possible to reduce anxiety, providing pain relief, giving the patient warning of potential pain prior to procedures that might cause pain or discomfort, providing reassurance, explanations and seeking consent before assisting a person to perform personal care tasks or other activities of daily living (27).

Multi-component interventions incorporating both structural (staff knowledge of dementia and workload capacity) and process (development of a care relationship, assessment and intervention actions) factors are important for ensuring quality of care in inpatient settings for people with cognitive impairments and their families (14). Other effective interventions include psychosocial interventions, physical activity, cognitive and sensory stimulation therapy and psychotherapeutic interventions (26). In a systematic review of interventions to improve care and management of BPSD in hospitals, Feast et al. (2020) identified 24 studies, of which only 3 investigated the impact of the intervention on the presence of BPSD as the primary outcome (28). The majority of studies were educational interventions delivered to staff on the ward. While interventions did improve staff knowledge, competence, efficacy and communication, evidence was low quality, in that studies were not randomised controlled trials, relied on participant self-report, and that efficacy of individual components forming the interventions was difficult to ascertain due to the heterogeneous nature of the interventions examined.

2.1.3. Roles and responsibilities of specialist dementia nurses

Allocating specialist dementia nurses to work within general inpatient wards may improve patient outcomes and care experience. Dementia specialist nurses screen for, and confirm, likely dementia diagnosis in general inpatient wards while providing information and support to ward staff in managing changed behaviours and preventing the occurrence of falls. Specialist dementia nurses also support family carers, develop patient pathways and assist in care planning (29, 30). Placing dementia resource nurses on general inpatient wards can lead to positive experiences for staff, and also decrease family anxiety, compared to those who do not have access to specialist resource nurses (31).

2.2. Dementia-Specific Wards

Dementia-specific wards or units within a hospital aim to provide person-centred care within an environment that has been specifically designed to facilitate adequate care provision for the higher care needs of patients living with dementia.

2.2.1. Adopting person-centred care

Features of dementia-specific wards or units vary between hospitals but all aim to deliver best practice for people with dementia and BPSD. These may include provision of a comfortable home-like environment, individualised care plans and organised purposeful activity, as well as allowing freedom of movement within the ward (32).

Improved patient experience and carer satisfaction, measured by mood, activity levels and social interactions, has been linked to tailored care delivery processes including: joint staffing by medical and mental health professionals; enhanced staff training in delirium, dementia, and person-centred dementia care; provision of organised purposeful activity; environmental modification to meet the needs of those with cognitive impairment; delirium prevention; and a proactive, person-centred and inclusive approach to family carers (22). However this was not found to be associated with any convincing benefits in health status or service use nor patient readmission rates or number of days spent at home (22).

Specialist medical and mental health units supported person-centred care, with care delivered during activity sessions or meal times. In a 2014 study, although their mental health needs were addressed more than on the general ward and patients were able to walk around more freely in the specialist unit, the majority of staff time was still spent on delivering physical care (33). Conversely, the general acute ward setting was described as noisy, crowded and lacking in privacy which is not conducive to the care of older patients with cognitive impairment who had high physical and psychological needs (33).

2.2.2 Elements of quality care provision

Within dementia specific wards, particular interventions are associated with improved quality of care for patients. One example is a person-centred activity program delivered by Occupational Therapists and Nursing staff, leading to a 26% reduction in BPSD, and statistically significant reductions in agitation, restlessness and other physical behaviours, compared to prior to the intervention (34). The intervention incorporated pleasant events, identity cards, workstations and staff education together into a multi-component therapeutic program.

Restraint minimisation practices can be supported through education, clinical care and governance. Despite nursing staff recognising that aggressive behaviours frequently occur when a patient is being restrained (physically or using restraint tools), staff do not necessarily respond to this recognition by changing or adapting the management of patients with BPSD (35). Additionally, “blame” is often placed on the patient themselves for the behaviour rather than attributed or linked to management techniques used (i.e. restraint) (35). A study undertaken in a 30 bed high care dementia unit showed that to achieve practice change, education on alternatives to restraint use and on ways to address unmet needs that avoid restraint use, as well as reviewing organisational procedures relating to restraint use, are required (36).

Promoting multi-disciplinary collaboration and communication has also been found to be an effective means of developing shared values, beliefs and attitudes within a specific unit for patients with acute medical conditions and dementia (37).

2.2.3 Environmental design principles

Environmental design of dementia-specific wards or units is a further important consideration, in particular, how design influences the incidence of aggressive and violent behaviours and the impact this has on patient and staff safety.

However, there are limited high quality studies to guide the design of dementia-specific units (38) and further evaluation is required as evidence currently only exists in the form of opinion or observation. Good design facilitates patient observation and high nurse to patient ratios, which in turn promotes person-centred care. It is worth considering design strategies implemented in residential aged care facilities and explore transferability to hospital-based settings. These include increased privacy, neutral wall colours, pleasant sounds, aromas and artworks, soundproofing, easily visible and non-institutional bathroom facilities, and access to outdoor areas and nature (38).

2.2.4 Unintended consequences of dementia-specific wards

Although dementia-specific units are designed to minimise BPSD, symptoms may also be exacerbated in these environments. For example, Goldberg et al. (2014) found that more patients regularly called out for assistance in a specialist unit (33) compared to a general medical unit. The increase in vocalisation and disruptions may be related to the fact that patients with BPSD are clustered together on one ward and that even in a specialist dementia ward, providing “ideal” care is not always possible. While the specialist unit was an attempt to improve the quality of care for cognitively impaired older patients, making the care provided in this unit distinctly different from the standard care wards (33), the provision of ‘ideal’ care remained a challenge. It is important to note that family/carers reported greater satisfaction with care in the specialist unit and more complaints were raised about care in the general ward (39). In the case of the specialist unit, staff were also offered enhanced training in dementia, delirium and person-centred care, which was reported as being helpful and effective (39).

2.3 Emergency Department (ED)

The ED is a potentially harmful and challenging environment for individuals with dementia (40). Internationally, older adults (with or without formal dementia diagnosis) visit EDs at rates higher than other age groups (41). Despite this, individuals with BPSD may wait longer to be seen (42). ED staff often lack training in how to manage aggressive or agitated patients and there are knowledge translation gaps in how to best screen older adults for agitation and delirium (43). Overshadowing these issues is the built environment of ED and the potential for environmental factors to exacerbate BPSD, including the confusing environment, noise, lighting, long wait times and other patients in the waiting area exhibiting distress (43). In addition, ED systems do not always take into consideration dementia diagnosis when assessing acuity for triage, which may increase the risk of not recognising the potential for BPSD. All staff working in ED settings should be aware of the predictors of OVA, which include: dementia, schizophrenia, anxiety, acute stress reaction, suicidal ideation, and alcohol and drug intoxication (44). Parke et al. (2013) set out four interconnected consequences of the nature of ED and triage systems that may contribute to OVA:

1. Individuals with BPSD being under triaged.
2. People waiting and worrying about what was or is wrong.
3. Staff time pressures with lack of attention to basic needs.
4. Relationships and interactions lead to individuals feeling ignored, forgotten, and unimportant (41).

2.3.1 Staffing limitations and risks

Overall, individuals presenting to ED with BPSD and/or co-morbidities are significantly vulnerable and staff may feel unable to respond to even their basic care needs. Time pressures impacting the provision of such care, including attending to hunger, dehydration and incontinence, may mean that nurses only respond to a patient with dementia after they have become confused or agitated (40). Speroni (2014) found that ED nurses experienced a significantly greater number of Occupational Violence and Aggression (OVA) incidents than in other settings (43).

Portelli et al. (2018) found that when in ED direct observation of patients by nursing staff ('nurse specials') were ordered it was for mental health or drug related presentations, including individuals with dementia (96% of 'nurse specials') and not medically unstable patients. This is in contrast to hospital wide where 70% of the 'nurse specials' were for medically unstable patients. The authors propose diversion or more rapid transfer of mental health or drug related presentations to an appropriate inpatient ward as a possible solution for reducing staff and financial burden in ED (42).

Dementia care is complex and poses multiple challenges to how safety, effectiveness and quality of care is optimised in ED (41). Staff working in the ED should include the older individual and their family member/carer as the unit of care, communicating more regularly to build trust and maintain person-centred care (41). System and environmental changes needed in ED to support nurses' ability to provide best practice for people living with dementia include assessment practices at triage that take account of dementia, availability and support for caregivers, and access to equipment/washrooms/food for older people and their caregivers (41). Existing infrastructure supports such as clinical resource nurses and hospital orientation programs, which could be directed at specific dementia education programs for ED nurses should also be used (41).

2.3.2 Screening, assessing and managing agitation and aggression

Implementing assessment, screening and management practices in the ED can assist staff when managing patients presenting with BPSD. The ADEPT (Assess, Diagnose, Evaluate, Prevent, and Treat) tool, developed by Shenvi (2020), is an easy to use, point of care tool to assist emergency physicians when patients with dementia present with BPSD, in particular with agitation or aggression (45). ADEPT steps physicians through the process of conducting an evaluation to determine underlying causes of behaviours, screening for delirium and other major underlying disorders, completing a thorough evaluation and testing of behaviours, and taking measures to prevent delirium. It also promotes a multi-modal approach to management including the use of verbal de-escalation strategies and medication administration if appropriate (45).

3 Whole-of-Hospital Perspective

Summary of Findings / Key Recommendations:

- Screening for BPSD on admission can identify risk factors for aggression in patients, allows for early intervention in the management of behaviours and can assist in the development of individualised care plans.
- Aggressive events may be predicted and prevented by implementing behavioural interventions and person-centred care approaches such as behavioural analysis, individualised care planning tools, and learning and documenting individual patient triggers for aggression and agitation.
- Interdisciplinary staff models of care utilise knowledge, experience and skill sets of existing staff to better manage BPSD and provide appropriate care planning.

3.1. Care Provision Processes

Whereas some of the evidence focuses on the care of people with BPSD in specific single settings, it is important to consider a “whole-of-hospital” perspective. For example, in a national audit of dementia care in acute hospitals in Ireland, current practices were measured against international best practice guidelines (46), finding that dementia care relating to assessment, access to certain specialist services, staffing levels, training and support, and discharge planning was suboptimal. To improve quality of care provision for dementia patients across the whole of the acute sector, it was recommended that there needed to be a focus on putting in place suitable pathways, policies and care practices to meet the complex needs of patients with dementia (46).

3.1.1. Combined screening for BPSD and delirium

The first step in improving management of patients with dementia and BPSD is identification through appropriate screening. This should be done in combination with screening for delirium due to the close relationship between the two. Screening for BPSD and delirium is a key factor in care planning and ensuring that appropriate management strategies are implemented. In the case of delirium, risk assessment should be completed within 24 hours of admission to an acute hospital (47). Unfamiliarity and change can increase the likelihood of agitation, so those who are identified as having a high risk of delirium should receive care based on continuity and consistency (47). Therefore, staff should be allocated to the patient they are familiar with and efforts should be made to avoid moving patients between wards and bays (47). These recommendations from the *UK National Institute for Health and Care Excellence (NICE) Guidelines on Delirium* (47) can equally be applied to patients at risk of BPSD.

3.1.2. Identifying risk factors for aggressive behaviour

Screening and identifying risk factors for aggression is also important. Identifying risk factors for aggression in patients with dementia, whether a diagnosis of dementia is known or unknown to the hospital staff at admission, may ensure timelier planning of appropriate care. Delirium, together with an existing prescription for antipsychotic medication at intake, has been found to be predictive of aggression (48). This early identification could provide the opportunity to intervene at the earliest possible contact and therefore improve quality of care and safety in acute care (48). Other tools, such as violence risk assessment tools, may not be as useful in predicting aggressive behaviour in people with dementia. For example Ideker (2011) found low sensitivity of the Violence Risk Assessment Tool (M55) for prospectively identifying violent patients in medical and surgical units (49). However, although 40% of the 2063 patients included in the study were 70 years and older, the proportion of patients with dementia was not reported.

The authors did acknowledge that a history of dementia, Alzheimer's disease or confusion may play a role in violent behaviour as 34% (n=11) of the 32 "violent patients" identified by the tool had one of these conditions (49). It is important not only to identify risk factors and triggers for aggressive behaviours that are intrinsic to individual patients but also acknowledge that these can vary from moment to moment across the whole hospital stay. When the surrounding context is changed as part of care practice in a way that is unexpected, upsetting or confusing, or when pain is present, this can result in violence or aggression (50).

3.1.3. Tools and approaches to care planning

Structured care planning tools and other tools at the point of care have been found to be relatively easy to use and can assist hospital staff in recognising BPSD (14). The Birmingham Rapid Assessment Interface and Discharge (RAID) service model (51) is a liaison psychiatry service located on-site at an acute hospital in the UK that works closely with acute hospital clinicians to provide a comprehensive assessment of a person's physical and psychological well-being in a general hospital setting. The RAID model can provide support to hospital clinicians in managing BPSD, and providing appropriate care planning has been found to reduce length of stay, support discharge back to the patient's original residence rather than residential care and prevent re-admission to hospital.

Tools used in residential care settings may also have transferability to acute settings. The STAR-VA approach to the management of BPSD in residential care is one such approach that could be adapted for use in acute care (52). STAR-VA is an interdisciplinary, multi-component behavioural analysis and care planning approach that assesses the interpersonal and environmental activators of behaviours. When implemented in residential care settings, STAR-VA resulted in reduced severity and frequency of changed behaviours (53). Modifications to make the approach suitable for use in acute care include adapting to suit the rapid pace of hospitals, for example accommodating a more prompt cycle of analysis of patient evaluation and implementation of interventions. Potential use in hospital settings also needs to consider the availability of mental health professionals to support implementation (52).

3.1.4. Constant observation and engagement

Constant observation, or 'constant supervision', is another approach for managing BPSD. Constant supervision utilises one-to-one monitoring techniques to ensure patient safety (54). In an assessment of hospital provider practices associated with the use of constant observation, Singh et al (2013) observed that constant supervision was most frequently employed for patients with dementia with agitation (55). Patients older than 70 years made up 62% of constant observations and these were undertaken predominantly by nurse assistants (93%). Nearly half of staff felt pressured to discontinue constant observation, despite a strong perceived benefit, yet 78% of staff felt that those performing constant observation lacked the training to do so.

Protected Engagement Time (PET) is another approach to the management of BPSD. PET involves "an attempt to place the interpersonal relationship between staff and patients at the centre of ward practice, by reorganising the ward routines and operational policies to allow staff to spend time with patients without interruption" (56). However there was no evidence to suggest PET had any impact on adverse events in mental health wards when evaluated in a pilot trial comparing wards implementing PET compared to non-PET wards. Further research into constant observation and PET should consider large clinical trials.

3.2. Discharge Planning

Risk factors for delayed discharge in people with dementia include a lack of appropriate medical and social support, multiple and complex needs, psychiatric symptoms, challenging behaviours and an unmet need for appropriate residential care, according to one Australian study (57). However, it is unclear if this is applicable across the broader population of patients with dementia as the study only included people with alcohol-related dementia.

4. Workforce (Paid and Unpaid)

Summary of Findings / Key Recommendations:

- Nursing staff workloads require close monitoring. Time pressures and multiple demands often experienced by nurses can result in decreased care being provided to patients with BPSD.
- Specialising roles should be clearly defined to enable the implementation of support structures to ensure safe and quality care and have scope to incorporate engagement between the older patient, their family and the wider care team into the role.
- More research is required regarding the specific role of medical, allied health and diversional therapy in the non-pharmacological management of patients with severe BPSD.

4.1. Nursing

International literature around workforce, best practice, and care of individuals with BPSD consistently stresses the need to have appropriate staffing levels on acute wards (12, 58-63). Skilled nursing staff are an essential contributing factor in terms of best practice, not only as nurses, but leaders for other staff (for example, personal care assistants). Whilst education and training is important, staffing policies and rostering that help to reduce the likelihood of needing specials/sitters may improve the overall ability to provide person-centred care (60).

4.1.1. Rostering and workload management

Low staffing levels and high pressure environments have a negative impact on nursing staff and their ability to manage workload (35, 62). In their effort to perform care tasks efficiently, staff may not be able to spend the necessary time with patients that present with BPSD which can, in turn, lead to the patient's physical and psychosocial needs going unmet (62). A lack of consistency in nursing staff rostering on acute care wards also has the potential to create mutual distress (59). On one hand, staff may struggle to navigate the difficulties of providing quality care within time/resource constraints while, on the other, patients with BPSD in a new environment may find this care and the care setting distressing (59). If staff are under competing demands and interests it is difficult to meet the needs of patients with BPSD, particularly if the workload is heavily task orientated and more about patient safety and risk minimisation than the provision of person-centred care (35). After identifying 'burnout' in nurses juggling competing demands when caring for patients with dementia, Clissett (2014) suggests priority should be given to staff education, staff selection and resources to support nurses providing care to patients on an ongoing basis (e.g. clinical supervision) (19). General ward staff report disruption to their "routine" work when patients with dementia have complex care requirements, leading to nurses feeling overwhelmed and the "personhood" of the person with dementia not being considered (19). In this scenario, at the point of having to juggle the patients' needs and other demands, healthcare professionals believed the care they were providing was adequate, but not ideal, creating a negative emotional experience for staff.

4.1.2. 'Specialising' practices

The term 'specials' or 'specialising' usually refers to the practice of providing one-on-one supervision for patients who are deemed to have high risk behaviours (previous or anticipated) that could have severe negative impacts on themselves, other patients or staff. This supervision is in excess of the normal, prescribed or requisite processes ('supernumery'), however there is limited consensus about the exact definition, purpose, decision-making process and role clarity.

More specifically, there are concerns over the definition of the 'special / specialising' role in practice and, while the role relates to safety, patient care, and communication, it can be costly (64). Definitions related to specialising also focus on risk management from a patient and organisational perspective (e.g. falls prevention, avoiding use of restraint) (64). The literature suggests that, if specialising is to be used in acute hospitals, it should be implemented in such a way that it incorporates engagement between the older patient, their family, and the wider care team (64). According to Cook et al. (2020), delirium is the most common reason for specialising, with nursing assistants predominantly filling this role (65).

Positive specialising practices occur when staff are familiar to the older patient and the ward itself, however there appears to be large variation in specialising practices, related to the type of care required, whether patients had personal possessions with them, the presence of medical devices, patient acuity, and the busyness of the ward itself (65). It is often the most junior staff member who would be assigned to observe a patient, and staff reported very limited interaction with the confused patient, a missed opportunity for psychosocial care (35). Staff may believe that their role as a 'special' was not to have conversation or interaction but keep the patients safe.

The lack of evidence and lack of clarity in defining and operationalising the specialising role suggests that further work is required to understand when and how specials should be used, who should fulfil the role, what education is required and what care is provided by 'specials'. The specialising role requires a clear definition, which will also help to inform educational resources and preparation for staff (65). Similarly, if the specialising role is better defined in practice, appropriate supports could be implemented to ensure safe and quality care (66).

4.1.3. Experiences and impacts of occupational violence and aggression

Nurses are at the frontline in experiencing, preventing and managing occupational violence and aggression (OVA). Ensuring nursing staff health and well-being is paramount particularly in those exposed to OVA. A recent NSW study estimated that 47% of nurses and midwives across all settings (e.g. hospitals, aged care, community) had experienced an episode of violence in the previous week, and, alarmingly, 80% had experienced violence in the previous six months (67). Patients with cognitive impairment, substance misuse, mental health issues, or alcohol intoxication were perceived by the survey respondents to have the highest risk for potential violence (67). Younger and less experienced nurses/midwives were found to be at greater risk of violence and those from metropolitan areas were also more likely to report a physical or psychological injury than their regional and remote colleagues. Further investigation of this data may provide guidance regarding best practice, for example ensuring availability of older, more experienced nursing staff.

Staff use a variety of methods to manage their well-being in the context of the risk of workplace aggression and violence. For example, staff working with older adults with dementia and complex health needs in inpatient mental health settings in the UK reported that connecting with their emotions through reflective spaces, support of others and genuine connections with their patients were of help in sustaining well-being. Some staff reported that avoiding difficult emotions helped them with their well-being, but the authors acknowledge this may represent only short term benefit. Staff also suggested support of peers and other staff is important, for example including and embedding specialist dementia care staff in teams (68, 69).

The physical and non-physical impacts of OVA should not be underestimated in both the short and long term. Following an OVA incident, it is essential that support is immediate and ongoing (50, 67). Non-physical outcomes include considering leaving the profession, powerlessness, burnout, depression, fear of future episodes, anxiety, altered sleep patterns and reduced empathy which may affect the quality of care provision for patients (67).

4.2. Families and Unpaid Carers

Informal carers have a wealth of knowledge that can contribute to quality of care for patients with dementia (70). Families and informal carers expect that hospital wards are places where patients with behavioural disturbances can be appropriately and safely managed, whilst receiving good quality care (18, 70). Senior nursing staff view family involvement as an asset when providing care for an individual with BPSD in acute ward settings, but often no clear strategy about how to involve families is in place (35).

4.3. Hospital Volunteers

It has been suggested that volunteers could play a role in supporting hospital inpatients with dementia and this is most evident in rural settings (71). Volunteers can, at relatively low cost, provide an improved experience of being in hospital for patients with BPSD if they have a clear role scope, are screened appropriately, trained well, and have clear handover procedures (71). It is also important that volunteers be screened for personal qualities that lend themselves towards caring attitudes. Risks associated with the use of volunteers in the care of people with BPSD include the risk that volunteers overstep the boundaries of their role, that staff feel unsure about information sharing with volunteers and that the program collapses without a funded co-ordinator (71).

4.3.1. Volunteer programs

There is some evidence to indicate that a volunteer program might decrease length of stay for patients in rural hospitals, with an increase in the use of analgesic medications suggesting that volunteers may also facilitate the awareness of unrecognised pain (72). The nursing staff involved in the study by Bateman et al (2016) reported that volunteers had no effect on their stress levels or attitudes towards dementia, but appreciated that the volunteers had a valuable role in the care of the patients with dementia (72). Volunteers saw their work as rewarding, and gained significant confidence in interacting with individuals with dementia. The program was reviewed favourably, with 96% of staff and 100% of volunteers reporting it was beneficial (72). However, there is a lack of research into similar programs in urban hospital settings. Volunteer programs have also shown a decrease in readmission rates and a reduction in the need for 'specialling' rostering, with mentoring for volunteers considered key in implementation (73). Volunteers have also been shown to support care of older adults in acute settings by impacting positively on nutrition, falls and delirium-related health outcomes (71-74).

4.4. Other Clinical Staff

The literature identified in this rapid review did not encompass disciplines other than nursing. Diversional therapy literature is discussed primarily in residential care settings, geriatricians/medical staff are only mentioned in the context of pharmacological interventions, and allied health staff involvement is limited to improving knowledge of dementia. This lack of literature highlights a gap in published evidence for various members of the multi-disciplinary team.

5. Education and Training

Summary of Findings / Key Recommendations:

- Promote awareness and understanding amongst staff that the cause of BPSD is unmet needs. This may lead to the prevention or reduction of aggressive or violent incidents.
- Dementia-specific education and training can increase understanding and awareness of dementia and how it impacts behaviour, and help staff develop skills and competence in dementia care.
- Effective education models and training programs are those that are delivered in a timely manner, in face-to-face formats, and with skilled and experienced people delivering the education/training.

5.3. Supporting Rationale

Education and training are key components of many models of care and service improvement projects within the literature. Topics explored as being of most importance in increasing understanding, awareness, skills and competence in dementia care include: dementia as a condition, person-centred care, identifying risk factors for aggressive behaviours, managing aggressive and violent behaviours, communication, addressing unmet needs, and understanding unmet needs as the underlying cause of BPSD (26). The UK's National Dementia Strategy recommends that all staff working with older people in the health, social care and voluntary sectors have access to dementia care training (75).

Ongoing staff education on how to assess and care for patients with BPSD is essential in acute care settings. Education around what constitutes good quality care for this population helps staff in general to feel supported and more confident in their decision-making. Education also has the potential to shift workforce attitudes towards persons presenting with BPSD (76). Staff, who have received more education around dementia and person-centred practice resulting in dementia knowledge are more critical about the level of person-centred care they deliver particularly in the way they used evidence-based guidelines and external expertise and view them through a more critical lens. Additionally, those with more positive attitudes towards patients with dementia may perceive themselves as using more individualised care practices (77, 78).

Education and training should cover both intellectual and interpersonal skills as well as modules on OVA.

5.4. Target Population

It is widely accepted that in order for any type of education and training to be effective it is essential that the content and delivery method/s are tailored to the population for whom it is intended.

5.4.1. Patients, families and unpaid carers

The literature search has not identified patient, family and/or unpaid carer education in best practice models.

5.4.2. Clinical staff

Specific and targeted dementia education and training for clinical staff can increase understanding, awareness, skills and competence in dementia care and promote person-centred practice. Most of the literature regarding who benefits from education and training is focused around clinical staff, in particular, nursing staff. Family/carers are more likely to express general dissatisfaction with the care provided to their family members with dementia if they feel the staff have not been trained or equipped to deal with dementia and associated changed behaviours (79).

General dementia education interventions can help clinical staff feel more capable in providing care to patients with dementia. After completing a dementia education program focused on environmental, physical, interpersonal and social factors which can lead to expressions of unmet needs, hospital staff had increased self-efficacy, improved confidence working with patients living with dementia and decreased feelings of vulnerability when helping a patient displaying aggressive or agitated behaviours (80).

With high need for continuing education and training of staff in hospital settings, interprofessional training and ‘train-the-trainer’ education models are known to be effective in hospital settings for staff who provide care for individuals with cognitive impairment (81). Strong elements of person-centred care ideals and interprofessional collaboration are evident within trialled training programs (82, 83). Education and training aiming to upskill staff in providing care to patients presenting with cognitive impairment may be most effective when it is tailored according to setting, delivered in interprofessional teams and delivered alongside other care management quality improvement initiatives (83). Different approaches to providing education appear to be successful. For example, a ‘train-the-trainer’ program trialled across eight acute hospital trusts in London that encouraged changes in the physical hospital environment, based around person-centred care, led to significant improvements in staff sense of competence in dementia care and quality of interactions (82). Including elements on person-centred care in training programs is also essential, as found in Elvish’s (2014) ‘getting to know me’ training program for general hospital staff which showed improvements in staff dementia knowledge and confidence in working with people with dementia (84). More recently, an app that supports nursing care of patients with BPSD has been shown to be feasible and acceptable (85). The app (“BRAIN-TRK”) was co-developed with experts, nurses and a consumer to support nursing care of patients with BPSD and provide real-time access to assessment tools. While it is an easily accessed source of knowledge curated to support nurses’ clinical decision-making, as with any newly introduced technology, staff workload and unfamiliarity with the app were significant barriers to use.

5.5. Key Components

Given the complexity of dementia and dementia-care, education and training program content is wide-ranging.

5.5.1. Dementia knowledge

Improving general knowledge of dementia, how dementia presents and behaviours associated with dementia may help nursing staff provide better care and better manage changed behaviours. Healthcare professionals report that they experience difficulties in communication and struggle to deal with wandering and other changed behaviours (20). As Sprinks (2012) asserts “you can have the best designed ward in the world, but if the staff do not understand dementia then it will not make the slightest difference. We must have properly trained staff as well” (pp. 13) (86). Training program delivery methods have ranged from short YouTube videos describing the incidence of dementia and the stages and associated symptoms often shown during each stage (87) to multi-module manual based interventions, covering brain changes associated with dementia, the relationship of cognitive impairment to behaviour, and resulting care implications and strategies for care (88). Staff with better dementia knowledge may be more critical about the extent to which they use evidence-based guidelines and external expertise and may use more individualised care practices (78). To enhance person-centred dementia care in acute hospitals, staff training programs should develop both intellectual and interpersonal skills to improve knowledge and attitudes (78). Hospital staff need further training and support to improve their knowledge about, and attitudes towards, persons with dementia, enabling quality dementia care and person-centred care practices.

Dementia knowledge is essential for staff to become aware about the need to use evidence-based dementia care guidelines, while a positive attitude about dementia facilitates the introduction of interpersonal person-centred care practices. Thus, training programs for acute care staff should seek to improve the knowledge base as well as change attitudes. This can be encouraged by hospital administrators through training staff to develop technical/intellectual skills as well as interpersonal/morale skills in dementia care.

5.5.2. Person-centred care principles

Care provision for patients with BPSD should aim to be holistic, rather than being strictly task-orientated and overwhelmingly focused on safety (39). A focus of person-centred care in dementia care is on addressing the unmet needs of the patient with dementia to either prevent or manage changed behaviour. Focusing on the physical safety of people with dementia may result in their social and psychological well-being being overlooked (89). The 'Gentle Persuasive Approaches (GPA) in Dementia Care' intervention (88) focuses on person-centred care and finding the meaning behind behaviours and how to respond in non-threatening ways with positive reinforcement (83). The 'VIPS' (Value, Individualised, Perspective, Social) framework has also been applied within education interventions to promote person-centred approaches to care, because of the emphasis of the framework on the role of empathy when delivering individualised, respectful care of the patient and their family members (87).

In Australia, the use of restraints in acute hospital settings can be seen as contentious amongst staff (35). Nursing staff see restraint as an option to manage patients that are 'out of control' (safety justification), whereas some research has shown that senior managers are seen by staff on the wards as 'out of touch' with the realities, for example, stating that restraints were rarely used even when they were used semi-regularly. Staff education resources should address the need to provide care that considers the unmet needs of patients with BPSD and is driven by dignity and respect (35). This maps onto a main element of the education program used by Murray (2011) when implementing a restraint minimisation intervention, in that an understanding of the causes of the changed behaviours that were leading to restraint use is required (36). The education program highlighted that behaviour is usually a response to an unmet need, such as discomfort, pain, or boredom, and that, by addressing the unmet need, the use of restraints can be avoided entirely.

5.5.3. Identifying risk factors for aggressive behaviours

Education to assist nurses in the assessment of identified risk factors and documentation of behaviours, can help predict aggressive events and help nurses manage patient aggression (90). This focus needs to be supported by hospital safety and care policies (90).

5.5.4. Managing aggressive and violent behaviours

Education and training can also support more capable and confident management of aggressive and violent behaviours. The 'Gentle Persuasive Approaches (GPA) in Dementia Care' intervention focuses on unmet needs to reframe staff understanding of behaviour traditionally viewed as disruptive or aggressive (88). It highlights that these behaviours should be interpreted as self-protective or responsive, occurring because of an unmet need such as a patient trying to exert control or to protect themselves from something that may be frightening, frustrating, or threatening. In responding to such behaviours, the intervention promotes respectful self-protective physical techniques and body containment strategies as well as the role of teamwork. For those at high risk of exposure to workplace violence incidents, education programs are recommended. These programs should include training on caring for patients with dementia, patients with drug-seeking behaviour, or drug- or alcohol-influenced patients, and on accurate incident reporting (43, 44). Staff also need to be encouraged to speak up about incidents as it is thought there is much hidden workplace violence (91).

When designing education programs, the mode of delivery should be considered with face-to-face format the preferred mode (67). It also needs to be recognised that mandatory training for minimising aggressive and violent behaviours should be made available at the place of employment at the employers' expense (67)

5.5.5. Communication skills

Improving the communication skills of staff can have multiple impacts. The 'Progressively Lowered Stress Threshold' model has been used to develop strategies for reducing anxiety, and emphasising communication and behavioural strategies. Examples of strategies include the importance of remaining calm while caring for a patient, avoiding startling patients, methods to communicate to avoid arguments and escalation of behaviour, and distraction techniques that can improve care (87). Communication skills which enable good relationships can help reduce OVA incidents (43, 44).

5.5.6. Engaging families and unpaid carers in hospital care

It is important to engage with a patient's family and any unpaid carers when an individual is admitted and/or presents with BPSD. Tools and worksheets designed to gather information from family (e.g. 'Things I Would Like You to Know About Me' worksheet, (87); 'Getting to Know Me' card, (84)) can be used to personalise conversations between staff and the patient. Small and non-time consuming activities and tools actively involving the family can also support the relational elements of care and questioning that staff may not have time to do during routine care. These worksheets can also serve to identify routine activities designed to mirror the patient's home experience, which can be used to maintain that routine, mitigating some elements of change that naturally occur when an individual is moved from their home environment into the unfamiliar hospital environment. Engaging with families has benefits for staff, providing a way to reflect on personal experiences of how information from the patient and family was used in practice whilst caring for patients with dementia (87). Training staff to administer a worksheet, or to gather personal details about a patient where possible, also serves to engage patients' families, to reassure them that their family member is being treated as an individual.

6. System-Wide Approach

Summary of Findings / Key Recommendations:

- Improving OHS policies and procedures for reporting and acting on OVA incidents involves commitment from hospital management and employees.
- It is important to promote an organisational culture in which person-centred care is just as important as medical / physical care.
- A systems wide approach to care can ensure continuity of care and establish pathways and processes for collaborative care between general and specialist staff, and family members.

6.1. Organisational Culture

In addition to the management strategies described above, there is also evidence for a system-wide (i.e. hospital-wide and community-wide) approach. The complexity of improving dementia care highlights the need for shared values, flexible and diverse leadership styles and hospital strategies which align with the frontline practices. Organisational culture and more pragmatic issues such as hospital policies, funding models and reporting systems all need to be include quality care for people with dementia presenting with BPSD.

A number of organisational challenges are perceived by medical ward nurse managers in caring for patients with dementia in acute hospitals (77). Some nursing managers believe that hospital strategy needs to be realigned to emphasise the care of patients with dementia, given that many beds are occupied by patients with dementia (77). Support from community and long term care organisations to provide quality care during hospitalisation also impacts on care provision, along with other hospital structures such as skill mix, leadership styles and structure (77).

To adequately provide best care for patients with dementia, there needs to be an organisational culture change from fast-tracking, pushing for discharge and transferring patients, to care that is not solely oriented to acute and physical needs (92). Care is also impacted when older people are moved “from one ward to the next, to next” and when negative staff attitudes persist, according to one study of nursing students’ experiences (92). In addition, when acute medical care conflicts with the principles of dementia care, for example when time is limited, the care of people with dementia becomes challenging for nurses (63). To improve dementia care and management of BPSD in hospitals there is a need for organisational and systems change to recognise that the type of care required for vulnerable older people needs to be a high priority (12).

6.2. Occupational Violence and Aggression Prevention

With regard to OVA prevention, there needs to be management commitment and employee involvement in any workplace violence prevention programs (67). Policies and procedures for reporting and acting on OVA incidents and these policies need to be developed and enforced.

7. Physical Environments

Summary of Findings / Key Recommendations:

- Dementia friendly design (e.g. simple signposting, small communal spaces, altered lighting, noise reduction, clocks) in wards, EDs and waiting areas should be considered.
- Making hospital environments suitable places for people living with dementia can decrease confusion, disorientation and isolation, which can help to reduce the development and impact of BPSD.

7.1. Impact and Outcomes

Hospital environments need to be conducive to care and the needs of older adults with dementia, rather than being impersonal, disorientating, and isolating (92). A number of studies have reported on the physical environment and how this impacts on people living with dementia. Environments that are not dementia friendly have the potential to exacerbate confusion and agitation (62). Thoughtful physical design influences the usability and activities undertaken in a health care environment and ultimately has the potential to affect patient outcomes.

A UK evaluation of the re-design of wards to be dementia friendly found that the modifications that had been implemented, such as signposting, increasing opportunities for socialisation by creating small communal spaces, creating resting points in corridors and changing hospital toiletries for more traditional and recognisable items, were effective in reducing agitation and distress and improving staff morale (93). Moyle et al. (2011) found that staff working in acute care saw the physical environment as a barrier to optimal care delivery. In addition, nursing staff felt that the focus on safety led to excessive monitoring of patients, with less value placed on meaningful interaction with patients and basic nursing care (which may decrease aggression and agitation) (35). Moyle et al. (2011) emphasised the importance of patient dignity and how the physical environment can either support or diminish this. For example, Nurse Unit Managers described how they have to explain to patients that nursing staff would need to supervise the patients whilst they are toileting to ensure safety (35).

7.2. Design Principles

Achieving safe, quality hospital care for older people living with dementia is particularly challenging. More evidence of the effectiveness of design principles is needed to apply these to general medical and surgical units (where the bulk of older persons with and without dementia are treated) (40).

Despite this, there is some evidence related to the built and care environment of ED. As part of a larger project to improve care for people living with dementia, dementia-inclusive modifications, including noise reduction, altered lighting and the addition of an orientation aid and fixed seating for relatives, were made to two ED bays in a large acute care hospital in Ireland (94). ED nursing staff believed that being involved (directly or indirectly) in the modifications contributed to increasing awareness about the possible challenges faced by people living with dementia in the ED environment and the need to adopt a particular approach to their care. However as part of the process, it was identified that existing hospital policies represented a constraint to the design and implementation of bay modifications. Respondents noted that advocating for and obtaining change in the 'status quo' dictated by the existing policies was difficult and time consuming. Minimising stressful conditions in ED waiting rooms, frequent sites of assaults, through workplace design is encouraged to prevent and manage workplace violence in ED (44).

DISCUSSION

International research suggests approximately 40% of patients over the age of 65 present with cognitive impairment upon admission to hospital (15) and, of patients with dementia, 75-90% experience behavioural and psychological symptoms during a hospital stay (10, 11). Hospitals can potentially exacerbate or trigger BPSD symptoms and patients with dementia frequently experience adverse events in hospital, including falls, delirium, loss of function, increased length of stay and increased mortality (12) due to inadequate assessment and treatment, inappropriate intervention, discrimination, low staff levels and lack of staff training.

To address these issues, and prevent them from occurring, many interventions and models of care have been developed and implemented both in Australia and internationally, as presented in this review. Many studies focused on addressing identified barriers such as inappropriate ward environments, high staff workloads, lack of dementia-specific education for staff and insufficient application of person-centred care approaches. A considerable number of studies involved multiple components, including education, environmental adaptations, person-centred care interventions, behavioural interventions and identification and prevention strategies. Within the literature, multi-component approaches are advocated. Multi-component interventions or models of care should incorporate both structural factors (staff knowledge of dementia and workload capacity) and process factors (development of a care relationship, assessment and intervention actions) (14), and should be in place across the seven levels of care – patient, task, staff, team, environment, organisation and institution (12).

For this review, ‘severe BPSD’ referred to behaviours where there is a risk to others and/or from others with the potential for harm, including physical, psychological or emotional harm, as well as self-harm and neglect. In the reviewed literature, no explicit reference was made to ‘severe BPSD’. Rather, in the included articles, behaviour severity is suggested through the presence of aggressive or agitated behaviours that are disruptive, challenging to manage and have the potential to impact on patient and staff safety. Of the studies included in this review, most have the primary outcome as reduction in frequency or severity of agitation or aggression. However a significant number of the included studies have referred more generally to BPSD and not to severity specifically. They have been included in the review as the principles of care are consistent whether the observed behaviours are ‘severe’ or ‘mild’. This includes focusing on person-centred care and addressing unmet needs as a means of preventing severe behavioural and psychological symptoms and also as a behavioural management strategy.

The following factors represent best practice and, in some cases, have demonstrated effectiveness in reducing the frequency and severity of aggression and agitation in patients with BPSD, and improving staff efficacy in managing severe behavioural and psychological symptoms:

- **Screening for BPSD on admission** to identify potential for aggressive behaviours, to allow for early intervention in the management of behaviours and to assist in the development of individualised care plans.
- **Addressing and acknowledging that patients with dementia have greater and different care needs** as compared to other older patients in general inpatient wards and considering how the physical environment, organisation and management of care, and staff competence in providing person-centred care impacts on the patient with dementia’s needs being adequately addressed.

- **Allocating specialist dementia nurses to work within general inpatient wards** to provide education, information and support to general ward staff on managing BPSD, to assist in care planning, and to provide support to families.
- **Establishment of dementia-specific wards** which include both medical and mental health professionals. The model of care should include the provision of enhanced staff training in dementia and person-centred care, and include environmental modifications to increase patient and staff safety. While evidence shows that patient experience and family satisfaction may be improved by receiving care on a dementia-specific ward, benefits to health and service use remain uncertain. Additionally, the high care needs of patients on the ward may mean staff are unable to adequately address all patient care needs and increased vocalisation of patients on the ward has been observed. Specific interventions implemented within dementia-specific wards need to include person-centred activity programs and restraint-minimisation practices.
- **Promoting general staff awareness and understanding that the cause of BPSD is unmet needs** and that unmet needs can lead to psychological or emotional distress which manifests in aggressive or agitated behaviours. Such awareness may lead to preventing or reducing the occurrence of aggressive or violent incidents.
- **Facilitating staff education to increase understanding, awareness, skills and competence in dementia care** (dementia, person-centred care, identifying risk factors for aggressive behaviours, managing aggressive and violent behaviours, communication, addressing unmet needs, understanding unmet needs as the underlying cause of BPSD). Effective education models and training programs must be delivered in a timely manner, in face- to-face formats and with skilled and experienced people delivering the education/training.
- **Promoting interdisciplinary staff models of care aiming to utilise knowledge, experience and skill sets** within existing staff to better manage BPSD and provide appropriate care planning.
- **Adopting behavioural interventions and person-centred care approaches** including behavioural analysis (identifying behavioural triggers), utilising individualised care planning tools, developing understanding of individual patient triggers for aggression and agitation and establishing procedures and processes for the documentation of behaviours to help predict and prevent future aggressive events.
- **Implementing dementia friendly design in wards, EDs and waiting areas** to decrease confusion, disorientation and isolation, all of which can exacerbate BPSD.
- **Clearly defining the role of 'specials'** so that, where indicated, appropriate supports can be implemented to ensure safe/quality care and incorporate engagement between the older patient, their family, and the wider care team.
- **Proactively managing nursing staff workloads**, particularly addressing the time pressures and multiple demands often experienced by nurses which can result in decreased care being provided to patients with BPSD.

- **Recognising ED as a site of care of people with dementia** and implementing the required systems changes to support the ability of staff to carry out best practice when managing and providing care to individuals with BPSD in ED settings.
- **Establishing and/or strengthening existing OHS policies and procedures for reporting and acting on OVA incidents** involving commitment from management and involvement of employees.
- **Developing an organisational culture that recognises person-centred care** as being just as important as medical/physical care. This may take place by embedding person-centred care principles within education and training programs, a recognition from management that caring for a patient with dementia is complex and requires more time and how this impacts on staff workloads, and changing perceptions from over emphasis on patient safety, which can lead to excessive monitoring and decrease in adherence to person-centred care principles.
- **Taking a systems-wide approach** to ensure continuity of care and establish pathways and processes for collaborative care between general and specialist staff, and family members.
- **Investigating the potential transferability of established tools and models** to manage BPSD currently being used in residential care settings to acute care settings. Additionally, aspects of residential care facility design and practices may have transferability into specialist dementia or psychogeriatric units.

EVIDENCE GAPS AND ISSUES

A number of gaps in the research literature were identified in the process of undertaking this review. While not exhaustive, some gaps and suggested areas for further research are listed below.

1. The importance of taking a system-wide approach, to ensure continuity of care and collaborative practice, has been highlighted. However, there are no recent references focusing specifically on referral pathways or transitioning between different units or wards. Transitioning between wards often means many staff and environment changes, however familiarity is important in minimising confusion and reducing the potential impact on exacerbating behavioural and psychological symptoms. Person-centred care practices may also differ between different wards or units.
2. The role and training of 'specialling' staff is not clearly defined and this can impact on practices. Further studies identifying best practice principles are required where the need for one-on-one supervision has been identified.
3. There is also minimal research in relation to best practice when conducting planning for discharge. Timely discharge planning and establishing care management plans for ongoing management of BPSD at home can ensure successful discharge back into the community and prevent readmission to acute care. Timely discharge planning may also prevent prolonged hospital stays and decrease the likelihood of transition into residential care rather than home if BPSD has developed or worsened during a long hospital stay.
4. Although education and training programs feature as a key element of most of the multi-component interventions described throughout the review, not all stakeholders have been considered in education and training programs. The literature search has not identified education for patients or families and unpaid carers, nor non-clinical or corporate staff, in best practice models. Non-clinical and corporate staff education may be particularly important in changing organisation-wide culture by providing education on the complexity of caring for a person living with dementia in hospital.
5. Finally, while multi-component interventions are advocated for within the literature, further research and evaluation is required to fully inform the evidence base for these interventions.

CONCLUSION

Effectively managing BPSD in hospitals is important in preventing adverse events such as falls, delirium, loss of function, increased length of stay and staff burnout. In particular, managing or preventing more severe behavioural and psychological symptoms such as aggression and agitation is of significant importance in ensuring patient and staff safety. Within the literature, the consensus is that multi-component interventions or models of care that emphasise person-centred care may be the most beneficial. These should incorporate elements that aim to improve hospital processes and structure, such as multi-disciplinary staff collaboration, individualised behavioural analysis, development of individualised care plans and implementation of behavioural interventions. Additionally, multi-component interventions and models of care should consider involvement across all levels of care and of the organisation, which is important in the development and implementation of policies and procedures regarding staff training and education, workload management, establishing continuity of care and care pathways, and development of relevant OHS and workplace violence policies.

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APPENDIX

Relevant Policies, Procedures and External Documents

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