Assessment and non-pharmacological management among adults with a dementia diagnosis in a residential care setting: a best practice implementation project

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Key dates

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Executive summary

Background

This evidence implementation project reports on a project conducted in the 17 bed special care unit of Symes Thorpe Residential Facility in Queensland, that focused on improving assessment and management of elderly residents diagnosed with dementia. The motivation for the project, and its value, should be understood in the context of a lack of a validated tool or standardized documentation being used to assess behaviors of residents diagnosed with dementia, as well as little targeted education being provided to staff on behaviour management strategies.

Objectives

To promote evidence based assessment and non-pharmacological management of challenging behavior in elderly adults living with dementia in a residential setting in Queensland.

Methods

The project design was based on the Joanna Briggs Institute's Practical Application of Clinical Evidence System and Getting Research into Practice audit and feedback tool. A baseline audit of care documentation in the 17 residents in the special care unit was conducted. Meetings were held with the project team to reflect on the findings of the baseline audit and plan strategies to improve practice. A validated tool, the Cohen-Mansfield Agitation Inventory, was introduced to improve assessment of patients together with a program of staff education to inform the use of the Inventory. A staff education program was introduced to improve staff awareness and use of strategies for behavior management of residents in the special care unit. Two follow up audits were conducted. The second audit was undertaken 3 months post introduction of the Cohen Mansfield Agitation Inventory and staff education program.

Results

The follow up audits demonstrated 100% compliance in use of the Cohen Mansfield Agitation Inventory, and 100% staff attendance at education sessions. The audit also showed significant increase and improvement in quality of related resident care documentation, for example documenting outcomes of use of non-pharmacological therapy such as music, exercise, pets etc.

Conclusions

The findings show that a comprehensive education program can make an effective contribution to the understanding of challenging behaviors in dementia residents, and the associated documentation required to monitor them effectively.

Keywords

best practice; implementation; dementia; non-pharmacological; challenging behaviors

Background

This best practice implementation project was based on an audit and feedback tool that had the purpose of improving assessment and management of challenging behavior in individuals with dementia living in a residential facility. The focus in the project was on assessment and utilization of music and multisensory stimulation.

Dementia may be defined as 'a syndrome typically characterized by chronic, often progressive disturbances in higher cognitive functioning including memory, thought processing, orientation, comprehension, calculation, learning capacity, language, judgment and physical capacity'.[1] With the increase in prevalence of a diagnosis of dementia, the need for strategies to support and manage adverse behaviors and alterations in mood as they arise using non-invasive and non-pharmacological intervention has increased.

A key concern raised by staff or carers tending to the daily care and support of individuals with dementia is the high level of agitation that these individuals experience. [2] Agitation has been defined as the 'inappropriate verbal, vocal, or motor activity that is not explained by needs or confusion'. (p

512) [2] Pharmacological interventions are commonly prescribed to decrease the level of agitation, however the effect of many of these medications is often varied. [2,3]

The use of non-pharmacological interventions as a supportive mechanism for reducing behavioral challenges and agitation in individuals is popular.[2,4,5,6] A range of strategies for supporting residents with a diagnosis of dementia are commonly used in practice and identified in the literature as interventions, which are potentially effective in managing challenging behavior. These include music and aromatherapy, pet therapy, massage, multisensory stimulation and exercise. [2,3] This project chose to introduce into the facility non-pharmacological music and multisensory stimulation interventions as a means to promote evidence best practice in the care of patients with dementia. The intention of a potential reduction in challenging behaviors amongst dementia residents and thereby their improved wellbeing.

This project was undertaken within a residential care facility located in a regional centre in Queensland. The facility has 82 beds. The beds are allocated to high and low care residents. Within the facility a special care secure unit exists that contains 17 beds. This unit caters for those residents with a diagnosis of advanced dementia that are fully mobile; however require comprehensive care requirements to maintain their safety. The study was undertaken within the special care secure unit only.

The focus of this evidence implementation project and selection of music as a strategy for enhancing management of challenging behavior was informed by three considerations. Firstly the author/project leaders' interest in providing support to enhance the quality of life for those with dementia in the setting in which she works, as well as for the health workers experience of managing challenging behavior in the setting. Secondly, the project leader/authors understanding that some aspects of the practice for managing challenging behavior in the setting were not congruent with best practice standards, and hence that assessment and management of challenging behavior could be easily improved by introducing best practice assessment tools and strategies. Thirdly, the author learning about the potential for music to be used to improve the quality of life and reduce agitated behavior in individuals with dementia. The author/project leader attended a Dementia Conference held in Tasmania (2013) at which presentations and expert discussions highlighted the use and potential remedial power of diversional therapies, such as music and multisensory stimulation for enhancing the quality of daily living for individuals with dementia. There was an indication that by implementing these therapies a possible impact resulting in a reduction of challenging behaviors may occur. The literature identified a study where following the introduction of music therapy, significant reductions in agitation and disruptive behavior scores were observed. [6] The study also indicated that the prescription use of pharmacological intervention was not increased in the study timeframe, suggesting that the impact of music therapy was positive to the individuals involved. [6]

To facilitate understanding of the motivation for the project, and what aspect of practice it changed, it is necessary to describe the method of assessing behavior in dementia residents used in the facility prior to the introduction of the project. In this regard, assessment is documented on admission to the residential setting, then again within the first two months using the Aged Care Funding Instrument. This

documentation is required to meet the requirements from the Department of Health and Ageing, and also to accurately develop the initial care plan for the individual. These assessments, whilst meeting initial behavior patterns are often not revisited and do not reflect the ongoing changing behaviors of the individuals unless overt or prolonged problematical behaviors are displayed. The introduction of a non-generic documentation tool such as the Cohen Mansfield Agitation Inventory[7] actioned on a three monthly basis clearly captures the changing and challenging behaviors experienced in the secure special care unit. This tool is effective, as the tool is an objective rather than a subjective tool which clearly collects objective information opposed to the non-specific subjective complex form which was currently being used.

The audit criteria used in this project were informed by the evidence on best practice non-pharmacological management of challenging behavior in individuals with dementia living in the residential setting. The key features of best practice management of challenging behavior, which informed the audit criteria, are as follows:[7]

- All staff working with older people with dementia in the nursing home setting should receive education on challenging behavior and how to manage them.
- All individuals with dementia should receive a comprehensive behavior assessment which includes use of a recommended behavior screening tool.
- Health workers conducting the behavior assessment should have received training in the assessment tool used.
- An individually tailored management plan for each person informed by the behavior assessment should be developed.
- The evidence suggests that a range of non-pharmacological strategies may be effective and should be considered by clinicians to manage challenging behaviors, including music therapy, exercise, animal assisted therapy and multisensory stimulation.
- As the evidence indicates that individuals may respond differently to different intervention strategies, the range, frequency and severity of disturbing behaviors should be assessed on a continual basis, to monitor response to interventions implemented and identify any need for change.
- The results of behavior assessment and the strategy for managing challenging behavior should be documented in the older person with dementia's nursing home records.

Aim and objectives

The aim of this project was to promote evidence based assessment and management of challenging behavior in elderly adults living with dementia in a residential setting in Queensland.

More specifically, the objectives of the project were:

- To improve local practice in the assessment of agitation and challenging behavior within elderly residents in an allocated special care unit.

- To facilitate appropriate non pharmacological interventions for addressing challenging behavior being implemented in the resident with a diagnosis of dementia according to the best available evidence.
- To reflect on the results from the baseline audit and design and implement strategies to address areas of non-compliance with best practice in non-pharmacological management of agitation in dementia residents.
- To undertake a follow up audit, assess the extent and nature of increased compliance with evidence based best practice, and identify areas and strategies to sustain and enhance care in delivery of non-pharmacological management of agitation in dementia residents.

Methods

This project used the Joanna Briggs Institute (JBI) Practical Application of Clinical Evidence System (PACES). JBI PACES is an online tool for health professionals and/or researchers to use to conduct efficient audits in small or large healthcare settings. PACES has been designed to facilitate audits being used to promote evidence informed health practice and includes a Getting Research Into Practice (GRIP) framework that was used to help identify factors underpinning gaps between practice and best practice, and strategies to overcome them. The project activities, best described as three distinct yet interrelated phases of activities, are described directly below.

Phase 1: Stakeholder engagement (or team establishment) and baseline audit

The first activity in phase 1, was the development of evidence informed criteria for auditing practice. The second was the establishment of a project team for the project and a mid cycle audit. The third activity was a baseline audit of best practice.

The project team consisted of the Facility Manager, Clinical Nurse Consultant, Clinical Nurse Educator and Registered Nurses working specifically within the 17 bed special care secure unit. The staff within the project team were responsible for the collection of audit data and the implementation of the Cohen Mansfield Agitation Inventory and the education of staff. The project team also offered support and guidance to staff in the audit process, and in understanding the use of evidence in practice.

The audit criteria developed for use in the project (baseline audit and follow up audits) are set out in table 1 below, together with an explanation of how compliance was measured and the audit sample. The size of the sample (patients/residents with dementia and staff) was the same across audits.

Table 1: Audit criteria from PACES

Audit criterion	**Sample size.**	**Method used to measure compliance with best practice.**
1. A comprehensive behavior assessment is undertaken using a screening tool recommended by experts (CMAI).	17 special care residents diagnozed with dementia	Resident's chart checked. A comprehensive assessment was seen to have been conducted if it was evident in the resident chart. Assessment/measurement conducted by the Registered nurse at scheduled three monthly intervals.
2. All staff working in the residential facility received training in the last year on how to manage challenging behavior.	80 staff comprising of qualified registered staff and Personal care workers	Review of staff training attendance records. Yes awarded if evidence of training on how to manage challenging behavior in last 12 months.
3. The management plan for each individual includes one or more non-pharmacological therapy (music, exercise and multi sensory stimulation).	17 special care residents diagnozed with dementia	Checking management plans are inclusive of non pharmaceutical interventions in a residents chart. Assessment/measurement conducted by the diversional therapy team in collaboration with the Registered nurses at scheduled three monthly intervals.
4. Behavior is reassessed every three months to identify adverse or positive response to the interventions.	17 special care residents diagnozed with dementia	Checking in the charts that the behavior assessments have been actioned and reassessed.
5. Behavior assessments and management plans for each older person with dementia are documented and filed in resident charts.	17 special care residents diagnozed with dementia	Checking that the relevant documents are filed in the appropriate place. These documents include the behavior assessment form and the resident management plan.

The project utilized a select group of residents that met all of the following criteria –

- They were residents within the special care secure unit who had a diagnosis of dementia
- They were receiving non pharmacological intervention as part of their care requirements.

A total of 17 residents were chosen for the purpose of this project. The audit criteria 1, 3, 4 & 5 was used to collect data collected for this group of individuals.

In relation to staff training in behaviors associated with dementia, data was collected from 80 staff who participated in the education program to address audit criteria number 2.

The baseline audit was undertaken during August and September 2013, over 45 days. A mid cycle audit was undertaken in October 2013, culminating in the final audit occurring in December 2013.

Phase 2: Design and implementation of strategies to improve practice (GRiP)

The results of the baseline audit were reviewed by the team members. The results of the initial audit were discussed by the key members of the team, and using the JBI GRIP tool, barriers were identified in relation to implementation of this best practice model. The results of GRIP are shown in Table 2 below.

All team members involved were invited to two meetings to discuss the initial audit findings and formalize a strategy to promote best practise and overcome barriers identified. Engaging staff and getting staff to attend meetings proved a challenge.

As is related in the results section, in Table 2, one of the barriers identified during the meeting was resistance of qualified staff to change current practise, for example reticence to introduce a new documentation tool (CMAI) when a generic form had been in use previously.

Strategies to improve practise was to introduce the Cohen Mansfield Agitation Inventory at a qualified nurses meeting with full explanation and education session on completion of the tool. All qualified staff were encouraged to feed back any issues or concerns with the tool to the key team members, so that it could be addressed and or revisited.

The Clinical Educator contacted Alzheimer's Australia for assistance in educational materials suitable for all levels of staff regarding management of behaviors as a result of dementia. A DVD was sought from the Aged Care channel specifically on behavior management, along with a simple questionnaire as a follow up for staff involved. Posters were strategically placed in the facility including a laminated poster which was put into the ensuites of the 17 residents involved in the audit, with tips and strategies to deal with behaviors which raised awareness of the staff in this area. The DVD sessions were held twice weekly for six weeks to capture as many staff as possible, and any staff who were unable to attend were offered one to one sessions with the clinical educator.

Phase 3: Follow up audit post implementation of change strategy

Two follow up audits were conducted. A mid cycle audit was undertaken in October 2013, culminating in the final audit occurring in December 2013. The same sample size of 17 residents was used in each audit cycle.

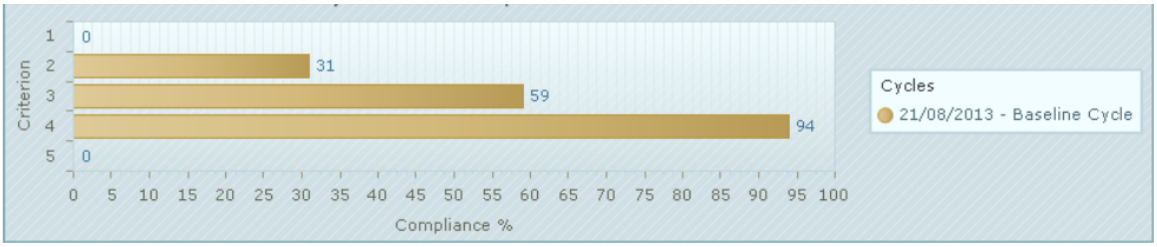
As the audit criteria involved reassessment at three monthly intervals for criteria1, 3 and 4 it was decided to review all of the criteria mid cycle 22/10/13 and complete the final cycle 01/12/13.

Results

Baseline audit

Figure 1 below shows the percentage compliance with best practice for each of the five audit criteria in the baseline audit.

Figure 1: Baseline compliance with best practice for audit criteria (percentage).



Criteria Legend

1 1. A comprehensive behavior assessment is undertaken using a screening tool recommended by experts (for example Cohen Mansfield Agitation Inventory) (17 of 17 samples taken)

2 2. All staff working in the residential facility received training in the last year on how to manage challenging behavior (80 of 80 samples taken)

3 3. The management plan for each individual includes one or more non-pharmacological therapy (music therapy, exercise, animal assisted therapy and multisensory stimulation) (17 of 17 samples taken)

4 4. Behavior is reassessed at regular intervals (timing determined by residential policy) to identify adverse or positive response to interventions (17 of 17 samples taken)

5 5. Behavior assessments and management plans for each older person with dementia are documented and filed in resident chart (17 of 17 samples taken)

As can be seen from Figure 1, the best performance was seen for the criteria three (59%) and four (94%). These criteria related to three monthly reviews of resident behavior management care plans and assessment as per Anglicare protocol. Poor compliance was highlighted in criteria two which applied to staff education received in the last twelve months (31%) in management of challenging behavior. For criteria one and five, the 0% compliance was expected as the project team was aware that an assessment tool was not in use. The baseline audit result clearly indicated the need for introduction of an assessment tool and education in behavior management for all staff.

Phase 2: Strategies for Getting Research into Practice (GRIP)

The main barriers, strategies, resources and outcomes identified are presented in table 2 below. Three strategies were identified to overcome barriers to best practice, of which all were implemented in the facility throughout the process.

Table 2: GRIP matrix

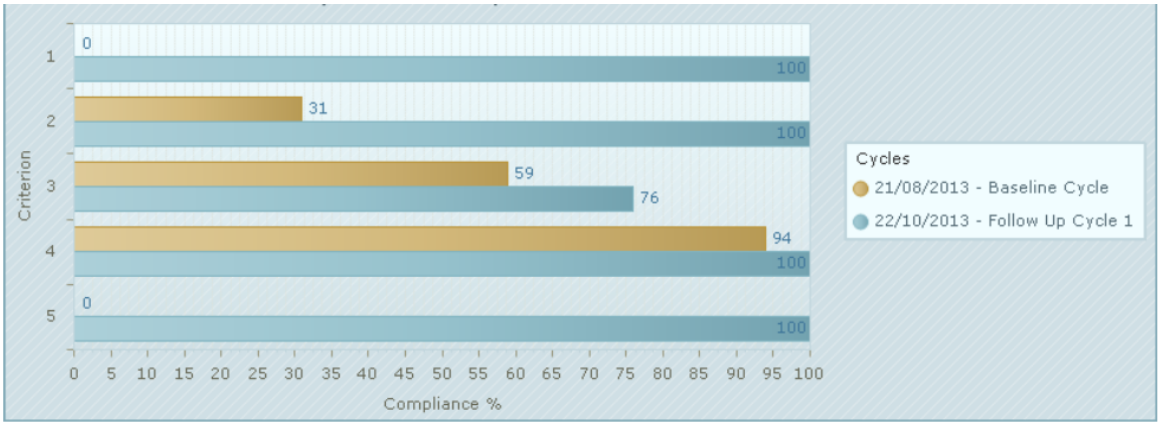
Barrier	**Strategy**	**Resources**	**Outcomes**
No validated assessment tool in use	Implementation of a validated tool for assessment of increase or decrease	Staff time Validated assessment tool	Use of validated assessment tool.
Reluctance of qualified staff to incorporate a validated assessment tool into the three monthly reviews.	Educate qualified staff in the implementation and benefits of using a validated tool	Staff time	Improved documentation and assessment
No standardized education program for staff	To educate staff in behavior management of residents with a diagnosis of Dementia. Liaison with external providers to obtain educational materials.	Education tools e.g. DVD and questionnaire. Posters showing 10 simple tips to address behaviors Staff time	All staff received a standardized level of education and awareness regarding behavior management strategies for residents with a Dementia diagnosis. Posters laminated and displayed in the ensuite of a resident with a Dementia diagnosis.

Phase 3: Follow-up audit(s)

Follow up audit 1

Figure 2 shows the % compliance with best practice found in the first follow up audit.

Figure 2: Compliance with best practice audit criteria in follow up audit one compared to baseline audit (%)



Criteria Legend

1	1. A comprehensive behavior assessment is undertaken using a screening tool recommended by experts (for example Cohen Mansfield Agitation Inventory) (17 of 17 samples taken)
2	2. All staff working in the residential facility received training in the last year on how to manage challenging behavior (80 of 80 samples taken)
3	3. The management plan for each individual includes one or more non-pharmacological therapy (music therapy, exercise, animal assisted therapy and multisensory stimulation) (17 of 17 samples taken)
4	4. Behavior is reassessed at regular intervals (timing determined by residential policy) to identify adverse or positive response to interventions (17 of 17 samples taken)
5	5. Behavior assessments and management plans for each older person with dementia are documented and filed in resident chart (17 of 17 samples taken)

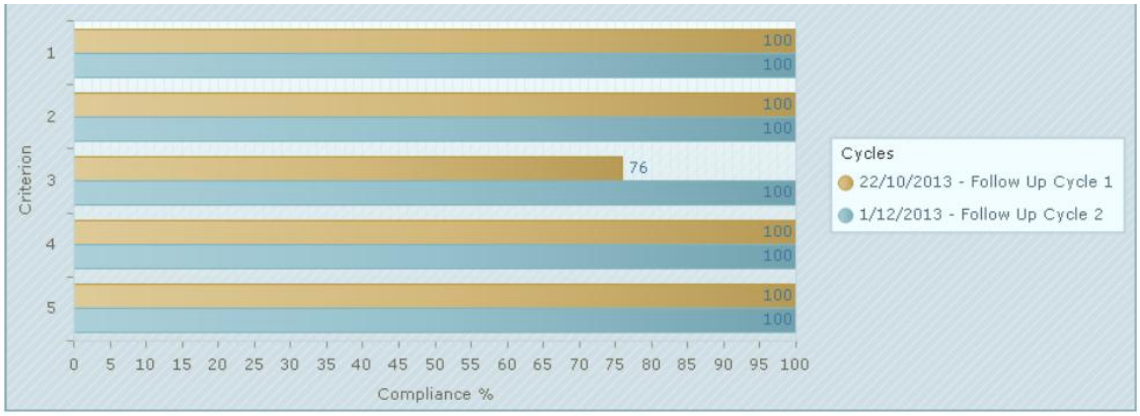
As can be seen in Figure 2, all criteria audited showed significant improvement. This included criteria one and five for which 100% was achieved. This achievement reflected the introduction of the comprehensive behavior assessment tool. 100% compliance was achieved in criteria two, which related to education of all staff in the management of challenging behaviors in residents with Dementia. Criteria three and four improved to 76% and 94% respectively, both of which related to the reassessment and review of the resident behavior management plan.

Follow up audit 2

The project team reconvened and reviewed the results of the previous audits. As no further barriers were identified, it was decided to continue to reinforce the earlier identified strategies. The results were tabled at a qualified staff meeting, Personal Care Worker meeting and also at a general meeting.

Figure 3 below which presents the % compliance for each audit criteria in the second follow up audit, shows that further improvement was made in criteria four, which improved from a compliance of 94% to full compliance of 100%.

Figure 3: Compliance with best practice audit criteria in follow up audit 2 compared to follow up audit 1 (%)



Discussion

This project looked at the introduction and implementation of a validated behavior management tool into the Special Care unit which houses 17 residents with a diagnosis of Dementia within an 82 bed residential facility. The project also looked to create an effective standardized education program for all staff.

The main successes of the project were improved knowledge of behavior assessment, and management strategies for residents with dementia in staff.

The education program was undertaken using materials from an external service provider, and constant follow up over a six week period by the clinical educator was well received.

The introduction of a validated behavior assessment tool (CMAI) which effectively monitored both increase and decrease of behavior, was used on a three monthly basis as part of scheduled care plan review.

The implementation of a comprehensive assessment tool combined with education of staff has proved to be beneficial as it reflects the current behavior status of residents.

The project undertaken, despite the initial barriers identified, has been successful. The validated behavior assessment tool will continue to be incorporated in the scheduled three monthly reviews by the qualified staff.

Education of staff in the management of challenging behavior has been added to the annual training schedule.

Conclusion

In conclusion, the aims of the project were realized. This was in no small part to the cohesive team approach to improve best practise and to obtain materials to accurately monitor resident behavior. The educational program, inclusive of close liaison with external service providers (Alzheimer's Australia) was successful and well received by all staff. The strategies carried out in this project will be continued in the Anglicare Symes Thorpe residential facility. Now that Symes Thorpe has a validated tool in place, further research will be undertaken into the effects of music therapy in the Dementia setting, specifically Tibetan singing bowl therapy and the impact this therapy has on reduction of challenging behavior.

The project was successful in increasing knowledge in this area, and providing future direction for sustaining evidence-based practice change. Future plans and ideas are in place and have been discussed. Further audits will need to be carried out in order to maintain the practice change, and ensure the project is supported and maintained.

Conflict of Interest

No conflicts of interest were identified.

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