

Master of Clinical Science

A systematic review of appropriateness and effectiveness of management strategies used for the Behavioural and Psychological Symptoms of Dementia in the residential care setting.

Matt Kowald RN BA Nurs Prac

Student number a 1316130

The Joanna Briggs Institute

Faculty of Health Sciences

The University of Adelaide

Matthew.kowald@health.sa.gov.au

Date May 28th 2013



THE JOANNA BRIGGS
INSTITUTE



THE UNIVERSITY
of ADELAIDE

A systematic review of appropriateness and effectiveness of management strategies used for the Behavioural and Psychological Symptoms of Dementia in the residential care setting.

Matt Kowald RN BA Nurs Prac

Eudunda Hospital, Country Health SA Local Health Network, Barossa Hills Fleurieu Rural Region and Masters of Clinical Sciences Candidate, The Joanna Briggs Institute, Faculty of Health Sciences, The University of Adelaide.

Matthew.kowald@health.sa.gov.au

Supervisors:

Professor Jenny Abbey RN PhD FRCNA

Honorary Clinical Professor, The Joanna Briggs Institute, Faculty of Health Sciences, University of Adelaide

jennyabbey6642@gmail.com

Sarahlouise White BSc (Hons) MSClinSci PhD

The Joanna Briggs Institute, Faculty of Health Sciences, the University of Adelaide

Sarahlouise.white@adelaide.edu.au

Alexa McArthur RN RM MPH MClSci.

The Joanna Briggs Institute, Faculty of Health Sciences, the University of Adelaide

Alexa.mcarthur@adelaide.edu.au

Table of Contents

Table of contents	3
Table of figures and tables	5
Abstract	6
Student declaration	8
List of abbreviations	9

Chapter 1: Introduction

1.1 Introduction to comprehensive systematic reviews of effectiveness and appropriateness in healthcare	11
1.2 The structure of this thesis	11
1.3 Situating this review	12
1.4 An introduction to systematic reviews	12
1.5 Effectiveness and appropriateness	14
1.6 Research into effectiveness and appropriateness	15
1.7 Effectiveness and appropriateness in residential aged care	15
1.8 Challenges in undertaking a comprehensive systematic review	16

Chapter2: Background

2.1 Introduction to the behavioural and psychological symptoms of dementia	18
2.2 Dementia	18
2.3 Behavioural and psychological symptoms of dementia	19
2.4 Behavioural and psychological symptoms of dementia in residential care	19
2.5 Management of Behavioural and psychological symptoms of dementia in residential care ...	19

Chapter 3: The systematic review protocol

3.1 The systematic review protocol	21
3.2 Background	21
3.3 Objective	23
3.4 Review question	23

3.5	Criteria for considering studies for this review - Inclusion criteria.....	24
3.6	Search strategy and process	27
3.7	Method of the review.....	28
Chapter 4: Results		
4.1	Results of search	30
4.2	Methodological assessment of studies	32
4.3	Findings from Individual Included Studies.....	43
4.4	Synthesis of review findings.....	64
Chapter 5: Discussion		
5.1	Standard behavioral therapies	69
5.2	Alternative therapies	70
5.3	Complementary therapies.....	71
5.4	Psychotherapies	72
5.5	Environmental conditions.....	72
5.6	Pharmacological management	73
5.7	Effectiveness of agents.....	73
5.8	Longitudinal studies	74
5.9	Medication optimization and expert opinion	75
5.10	Methodological issues in research.....	76
5.11	Limitations of this study.....	76
Chapter 6: Conclusions and Recommendations		
6.1	Conclusions	78
6.2	Recommendations for Practice	79
6.3	Recommendations for further research.....	80
References	81
Acknowledgement	83
Appendices	84

List of tables and figures

Figure 1	Flow chart detailing study identification and selection.....	31
Figure 2	Synthesized findings of Qualitative studies.....	65
Figure 3	Meta-Analysis Risperidone vs. Placebo.....	66
Table 1	Qualitative Studies critical appraisal	32
Table 2	Critical appraisal of Randomized Control Trial / Pseudo-randomized Trial.....	35
Table 3	Critical appraisal of Comparable Cohort / Case Control Studies.....	38
Table 4	Critical appraisal of Descriptive / Case Series Studies	40
Table 5	Findings: Use of individualized music by trained staff and family: translating research into practice.....	44
Table 6	Findings: The influence of caregiver singing and background music on vocally expressed emotions and moods in dementia care: a qualitative analysis...	46
Table 7	Joanna Briggs Institute levels of credibility of qualitative evidence.....	64

Abstract

Background

The incidence of dementia is increasing throughout the world. People with dementia often require residential care. The management of behaviours in residential care is a significant and stressful part of caring for people with dementia. The ability to apply appropriate and effective management strategies to these behaviours is vital to maintain the safety of the person with dementia and the people who live with them and care for them.

Objectives

The aim of this review is to identify and synthesise the best available evidence of the appropriateness and effectiveness of different strategies used to manage the behavioural and psychological symptoms of dementia in the residential care setting.

Inclusion criteria

Types of participants

Adults aged 65 years and older regardless of gender, ethnicity, co-morbidities who reside in a residential care facility. The subjects must have a diagnosis of dementia and exhibit behaviours which require a degree of modification or management so that they can be safely managed in a residential care facility.

Types of interventions/Phenomenon of Interest

Interventions types examined in this review were: Standard behavioural therapies, Alternative therapies, Complementary therapies, Psychotherapies, Environmental factors, Pharmacological interventions.

Types of studies

This comprehensive review considered both qualitative and quantitative studies. Included quantitative studies were randomized control trials, case control and cohort studies. The qualitative studies focused on the experiences of the people with dementia and the people who care for them.

Types of Outcome Measures

There was a wide range of outcome measures in the selected studies. The outcome strategies focused on both prevalence and severity of behaviours to illustrate effectiveness of interventions.

Search Strategy

Both published and unpublished English language studies were considered, from inception of the eight databases searched up to March 2012. A three-step search strategy was utilized in each component of this review.

Methodological quality

20 papers were assessed for methodological quality by two independent reviewers, using standardised Joanna Briggs Institute instruments. Of these papers, two were qualitative and the remaining 18 were quantitative through this process studies were considered to be of moderate to high quality as assessed against the Joanna Briggs critical appraisal tools. No studies were excluded based on methodological quality.

Data Collection and Data Synthesis

Data was extracted using standardized data extraction tools. Meta-analysis of quantitative data was appropriate for two of the studies, it was not attempted on the others due to lack of clinical and statistical heterogeneity; therefore findings are presented as a narrative. Meta-aggregation of qualitative findings was conducted in order to generate synthesised findings.

Results

20 papers were identified for this systematic review. 18 of these papers were quantitative and two were qualitative. These papers described effective and appropriate management of the behavioural and psychological symptoms using a variety of methods, pharmacological and non-pharmacological.

Conclusion

Effectiveness in management of behavioural and psychological symptoms of dementia is dependent on correct diagnosis of the behaviour and the detection of underlying pathology organic or psychiatric. Interventions need to be targeted at the resident and based on the residents lived experiences.

Student declaration

This work contains no material which has been accepted for the award of any other degree or diploma in any university or other tertiary institution to Matt Kowald and, to the best of my knowledge and belief, contains no material previously published or written by another person, except where due reference has been made in the text.

I give consent to this copy of my thesis, when deposited in the University Library, being made available for loan and photocopying, subject to the provisions of the Copyright Act 1968.

I also give permission for the digital version of my thesis to be made available on the web, via the University's digital research repository, the library catalogue and also through web search engines, unless permission has been granted by the University to restrict access for a period of time.

Signed:

Matt Kowald

Dated: / /2013

List of Abbreviations

ABMI.....	Agitation Behaviour Mapping Instrument
ACTUARI	Analysis of Cost, Technology and Utilization Assessment and Review Instrument
BEHAVE-AD	Behaviour Pathology in Alzheimer's disease Rating Scale
BPSD.....	Behavioural and Psychological Symptoms of Dementia
BMS.....	Behavior Measurement scale
CGIC.....	Clinical global impression of change
CI	Confidence interval
CMAI	Cohen Mansfield Agitation Inventory
CReMS.....	Comprehensive Review Management System
EPS.....	Extra-pyramidal symptoms
FAST.....	Functional Activity Staging Test
GDS.....	Global Deterioration Scale
MAI.....	Medication appropriateness index
MAKS.....	Multimodal or multi component therapy
MAStARI.....	Meta Analysis of Statistics Assessment and Review Instrument
MCMI.....	Modified Cohen Mansfield Agitation Inventory
MeSH.....	Medical subject headings
MMSE	Mini Mental State Exam
M-NCAS.....	Modified Nursing Care Assessment Scale
NBRS.....	Neurobehavioral rating scale
NHBPS.....	Nursing home behavioral problem score

NOSGER.....Nurses Observation Scale for Geriatric Patients
NOTARI.....Narrative Opinion and Text Assessment and Review Instrument
NPI.....Neuro-Psychiatric Inventory
NPI-NH.....Neuro-psychiatric Inventory Nursing home version
PSMS.....Physical Self Maintenance Scale
QARI Qualitative Assessment and Review Instrument
RACF Residential Aged Care Facility
RUD-FOCA.....Resource Utilization in Dementia – Formal Care
TREA.....Treatment Routes for Exploring Agitation
UKU.....Udvalg for Kliniske Undersogelser