

AIMS OF GUIDELINE: The CCSMH is proud to have been able to facilitate the development of these clinical guidelines. These are the first interdisciplinary, national best practices guidelines to specifically address key areas in seniors' mental health. These guidelines were written by and for interdisciplinary teams of health care professionals from across Canada. The aim of these guidelines is to improve the assessment, treatment, management and prevention of key mental health issues for seniors, through the provision of evidence-based recommendations. The recommendations are based on the best available evidence at the time of publication and, when necessary, supplemented by the consensus opinion of the guideline development group.

AIMS OF GUIDELINE UPDATE: Guideline Updates summarize significant developments in the practice since the publication of the original guidelines in 2006. Guideline Updates are authored and reviewed by experts associated with the original guideline development project. Please refer to the original guideline, found on our website at www.ccsmh.ca, for more detailed information regarding the specific practice recommendations.

**DISCLAIMER:** This publication is intended for information purposes only, and is not intended to be interpreted or used as a standard of medical practice. Best efforts were used to ensure that the information in this publication is accurate; however the publisher and every person involved in the creation of this publication disclaim any warranty as to the accuracy, completeness or value of the contents of this publication. This publication is distributed with the understanding that neither the publisher nor any person involved in the creation of this publication is rendering professional advice. Physicians and other readers must determine the appropriate clinical care for each individual patient on the basis of all the clinical data available for the individual case. The publisher and every person involved in the creation of this publication disclaim any liability arising from contract, negligence, or any other cause of action, to any party, for the publication contents or any consequences arising from its use.

SUGGESTED CITATION: Conn D, Gibson M, & McCabe D. (2014). 2014 CCSMH Guideline Update - The Assessment and Treatment of Mental Health Issues in Long Term Care Homes: (Focus on Mood and Behaviour Symptoms). Toronto: Canadian Coalition for Seniors' Mental Health (CCSMH), www.ccsmh.ca.

**ACKNOWLEDGEMENT:** This Guideline Update was made possible through a 2010 CIHR-Institute of Aging Betty Havens Award for Knowledge Translation in Aging.









Since the publication of the 2006 Canadian Coalition for Seniors' Mental Health (CCSMH) guidelines on the Assessment and Treatment of Mental Health Issues in Long Term Care: (A *Focus on Mood and Behaviours*) (Conn *et al.* 2006), much of the more recent literature is consistent with or enhances the recommendations made in 2006. This update focuses on the discussions and recommendations from the 2006 Guidelines related to assessment, psychological and social interventions, pharmacological interventions and organizational issues in long term care (LTC). It also includes two modified and one new recommendation summarized below.

#### **Summary of Modified Recommendations**

For easy reference, all modified or additional recommendations are presented together with the page numbers for the original guideline recommendations at the beginning of this update. Subsequently, in each section we present the recommendation with a discussion of the relevant literature since the original publication in 2006. We strongly encourage readers to refer to the original 2006 guidelines and the discussion below, rather than only using the summary of modified recommendations.

### 2006 Recommendations: Depressive Symptoms: Pharmacological Interventions (page 30-31)

First-line treatment for residents who meet criteria for major depression should include an antidepressant [A].

Appropriate first-line antidepressants for LTC home residents include selective serotonin reuptake inhibitors (e.g., citalopram and sertraline), venlafaxine, mirtazapine, buproprion [B].

#### 2014 Modified Recommendations

Treatment for residents with severe major depression should include an antidepressant. Residents with less severe depression should receive psychosocial interventions as a first step. If the depression persists, an antidepressant should be considered [A].

Appropriate first-line antidepressants for LTC home residents include selective serotonin reuptake inhibitors (e.g., citalopram, escitalopram and sertraline), venlafaxine, mirtazapine, buproprion and duloxetine [B].

#### Added Recommendation: Organizational Issues (page 39-41)

Long-term care home staff should develop quality improvement initiatives focused on how to optimize prescribing of psychotropic medication [A].

#### Methods

The search terms used were the same as for the 2006 Guidelines (Conn et al. 2006). The database search included Medline, Embase and PsychINFO and was restricted to English papers published between July 2005 and June 2014.

A total of 411 papers were identified. One of the authors reviewed the titles and abstracts of these papers in order to select which should undergo a full-text review. Controlled trials (especially randomized), meta-analyses, reviews (especially systematic), and practice guidelines potentially relevant to the subject area were selected. Eighty-nine of the 411 papers identified in the literature search were selected for full-text review. The authors identified additional relevant papers of which they were aware. Based on this full-text review of identified papers, two modified and one new recommendations were developed by the authors.

### Part 3: Assessment of Mental Health Problems and Mental Disorders: Discussion

Several reviews (Bruhl, Luijendijk & Muller 2007; Kallenbach & Rigler 2006; Onega 2006) published in the mid-2000s draw conclusions that are consistent with the assessment recommendations for screening, detailed investigation, and ongoing evaluation in the CCSMH Long Term Care guideline (Conn et al. 2006). Reviews:

- support regular mental health screening (including within the early admission phase)
- underscore the value of using screening scales to improve detection of depressive symptoms by nurses
- attest to the importance of considering all contributing factors (e.g., comorbid medical conditions) when identifying and interpreting mood and behavior
- advocate for use of a logical and consistent process for connecting assessment findings with intervention.

A more recent review of guidelines and new research published by the International Psychogeriatric Association Task Force on Mental Health Issues in Long-term Care Homes (Koopmans, Zuidema, Leontjevas & Gerritsen 2010) includes recommendations for specific assessment scales, consistent with the CCSMH recommendation that tool selection should be determined by the characteristics of the situation (e.g., resident capacity for self-report, nature of the presenting problem).

The CCSMH guideline recommends that diagnosis and differential diagnosis should be an assessment objective and that the end point of assessment should be the determination of treatment need, type and intensity. Using descriptive research methodology, studies document inconsistencies between diagnoses and treatment among LTC residents with

depression (Kramer, Allgaier, Fejtkova, Mergl & Hegerl 2009; Stones, Clyburn, Gibson & Woodbury 2006). Because elevated assessment findings do not always prompt further monitoring or treatment, some researchers suggest that clinical outcomes might improve if assessment tools were paired with response protocols (Davison et al. 2011). Similarly, others suggest implementing clinical algorithms that integrate assessment with treatment (Kovach et al. 2006; Pieper et al. 2011). Persistent challenges to effective assessment in long-term care include heavy caseloads and unmet needs (Simons et al. 2012).

### Part 4 & 5: Treatment of Depressive and Behavioural Symptoms: Discussion of Psychological and Social Interventions

Numerous reviews and guidelines are consistent with the CCSMH recommendations (Conn et al. 2006) in providing cautious support for a broad range of non-pharmacological interventions to treat depressive and behavior symptoms in long-term care homes (Kong, Evans & Guevara 2009; Seitz et al. 2012; Turner 2005; Verkaik, van Weert & Francke 2005; Vernooij-Dassen, Vasse, Zuidema, Cohen-Mansfield & Moyle 2010). The scope of non-pharmacological interventions varies considerably. Whereas some interventions address broad aspects of personhood such as spirituality (Keast, Leskovar & Brohm 2010) others target highly specific behaviours such as disruptive vocalizations (McMinn & Draper 2005). Reflecting the high prevalence of dementia in LTC homes (Seitz, Purandare & Conn 2010), much of the recent literature is specific to those LTC residents living with dementia (Gauthier et al. 2010; Kverno, Black, Nolan & Rabins 2009).

Since the publication of the CCSMH Guidelines, a number of studies have provided additional evidence for the use of psychological and social interventions to treat mood and behavior symptoms. New research documents the benefits of social contact interventions (Ballard et al. 2009; Cohen-Mansfield et al. 2010) to manage behavioural symptoms in LTC residents with dementia. In the domain of sensory stimulation, there is increased evidence for the efficacy of music therapy (Ballard et al. 2009; Cohen-Mansfield et al. 2010; Raglio et al. 2008; Sung, Chang, Lee & Lee 2006), acupressure (Yang, Wu, Lin & Lin 2007), and therapeutic touch (Hawranik, Johnston & Deatrich 2008; Woods, Craven & Whitney 2005) for treating behavioural symptoms, and for snoezelen to treat both behavior and mood symptoms (van Weert, van Dulmen, Spreeuwenberg, Ribbe & Bensing 2005). The role of exercise as a component of non-pharmacological intervention in the treatment of LTC residents with mood and behavior symptoms is also receiving increased attention in the literature (Tseng, Gau & Lou 2011; Williams & Tappen 2007).

Programmatic and institutional approaches to managing depressive and behavioural symptoms in LTC have also

received further attention. Evidence-based design principles bolster the recommendation that LTCs should develop the physical environment to be responsive to the cognitive and behavioral symptoms of dementia (Fleming & Purandare 2010). Other studies have addressed the impact of different care models and program-level non-pharmacological interventions in LTC homes (Ballard et al. 2009; Chenoweth et al. 2009; Deudon et al. 2009; Earthy, MacCourt & Mitchell 2008; Kuske et al. 2007; Levy-Storms 2008; Snowdon 2010; Testad, Ballard, Bronnick & Aarsland 2010; Vasse, Vernooij-Dassen, Spijker, Rikkert & Koopmans 2010; Verkaik et al. 2011). A major theme emerging from these approaches is the importance of staff training. Objectives for staff training include:

- improving communication between staff and residents;
- identifying unmet needs;
- understanding, recognizing and responding to mood and behavioral concerns in the LTC setting;
- increasing familiarity with practical intervention strategies such as therapeutic communication and pleasant activity scheduling; and
- enhancing capacity to cope with the stresses of difficult behavior (in recognition of the interrelationship between quality of workplace environment and resident behaviors).

In order to more efficiently direct limited resources, it will be necessary to better

understand the mechanisms by which nonpharmacological interventions impact mood and behavior. In the case of sensory interventions, additional research is needed to determine the relative contribution of common factors (e.g., increased stimulation independent of sensory modality) versus interventionspecific characteristics (e.g., targeting specific senses and/or employing specific protocols). Furthermore, LTC homes will need to determine how to incorporate discrete interventions, which may yield short-term, symptom-specific improvement, within models of care that target symptom prevention and are directed more broadly towards sustained gains in overall well-being (Livingston et al. 2005; Seitz et al. 2012).

### Part 4.4: Pharmacological Treatment of Depressive Symptoms and Disorders and Behavioural **Symptoms: Discussion and Modified** Recommendations

Since the publication of the 2006 CCSMH Guidelines, numerous studies of psychotropic prescribing in LTC homes have reported continued high rates of utilization. A study from Norway reported that the prevalence of all psychotropic medications combined increased from 57.6% to 70.5% between 1997 and 2009. with the greatest increase being for antidepressants (31.5% to 50.9%) (Ruths et al. 2012). An Austrian study found that 45.9% of residents had a prescription for an antipsychotic and 36.8% for an antidepressant (Mann et al. 2009). Recent

analyses of the United States National Nursing Home 2004 survey reported that 24.8% of residents (>age 65) received an antipsychotic medication and 46.2% received an antidepressant (Kamble et al. 2008, Karkare et al. 2011). Studies from the United States and Germany also suggest that antidepressants are variably underused, overused or inappropriately used (Hanlon et al. 2011; Kramer et al. 2009).

With respect to the 2006 pharmacological recommendations for the treatment of depression, a few minor modifications are suggested. As noted previously, we suggest that the reader also consult the CCSMH Guidelines on the Assessment and Treatment of Depression in Older Adults for additional recommendations (CCSMH 2006a; CCSMH forthcoming). The 2006 Long-term Care Guidelines recommended that "First-line treatment for residents who meet criteria for major depression should include an antidepressant" (Conn et al. 2006: 30).

The 2006 CCSMH Depression guidelines made slightly different recommendations for mild to moderate versus severe major depression. For patients with mild to moderate major depression, the Guidelines recommended an antidepressant medication or psychotherapy or a combination of both. When services were available, a combination of the two was recommended for severe major depression. A recent review of the effectiveness of antidepressant medication for depressed nursing home residents reported on a total

of eleven eligible studies, including four randomized trials and seven nonrandomized open label trials (Boyce et al. 2012). The authors concluded that the limited amount of evidence suggests that depressed nursing home residents have a modest response to antidepressant medication. It is worth noting that the only two placebo-controlled randomized trials were both negative. There have also been recent meta-analyses casting some doubt regarding the effectiveness of antidepressants in milder forms of depression (Fournier et al. 2010).

**Modified Recommendation: Depressive Symptoms: Pharmacological Interventions** (page 30-31)

Treatment for residents with severe major depression should include an antidepressant. Residents with less severe depression should receive psychosocial interventions as a first step. If the depression persists, an antidepressant should be considered [A].

Appropriate first-line antidepressants for LTC home residents include selective serotonin reuptake inhibitors (e.g., citalopram, escitalopram and sertraline), venlafaxine, mirtazapine, buproprion and duloxetine.[B]

Escitalopram and duloxetine will be added to the list of appropriate first-line antidepressants (page 30). Duloxetine may have an additional benefit for patients with

chronic pain syndromes (Gaynor et al. 2011). Clinicians should be aware that concern has been raised about use of higher dosages of citalogram (above 20mg per day) and escitalopram (above 10mg per day) in older adults due to possible prolongation of the QTc interval.

Some new evidence provides additional support for the use of psychostimulants (e.g., methylphenidate) for the treatment of apathy associated with Alzheimer Disease (Herrmann et al. 2008; Rosenberg et al. 2013), supporting the original recommendation (Conn et al. 2006: 31).

#### Part 5: Treatment of Behavioural Symptoms

There have been no major advances in the pharmacological treatment of behavioural symptoms over the past seven years that would warrant significant changes to the 2006 recommendations. We continue to emphasize the need to rule out underlying medical problems (e.g. delirium, pain, drug toxicity) and the need to use psychosocial interventions prior to using medication. We also emphasize the need to carefully weigh the potential benefits of pharmacological intervention versus the potential for harm. There continues to be concern about over-prescribing of psychotropic medication (especially antipsychotics) for people with dementia. In some countries, such as, the United Kingdom, national targets have been set for reduced usage (Banerjee 2009), with recent evidence that significant reductions have taken place (Martinez et al. 2013). We continue to believe that for some

individuals, atypical antipsychotic medication can be of benefit. The best evidence in terms of pharmacological intervention for aggression and psychosis remains for this group of medication (Seitz et al. 2013). Nevertheless, concerns about increased rates of death and cerebrovascular events, as well as other adverse effects, underline the need for fully informed consent prior to initiation of treatment. As stated in the 2006 Guidelines, antipsychotics should be used only if there is marked risk, disability or suffering associated with the symptoms. The CCSMH has recently produced a pocket tool to assist clinicians in the pharmacological treatment of behavioural symptoms of dementia (Seitz et al. 2012, available at www.ccsmh.ca).

There is some evidence that selective serotonin reuptake inhibitors (SSRIs citalopram and sertraline) can reduce agitation associated with dementia (Seitz et al 2011). Clinicians may therefore prefer to initially prescribe an SSRI, as serious adverse effects appear to be less likely than with antipsychotics. That being said, a recent study reported that even at low doses, SSRIs are associated with increased risk of an injurious fall in residents with dementia, and higher dosages are associated with greater risk (Sterke et al. 2012). The evidence with respect to trazodone for the treatment of agitation remains relatively weak.

The evidence regarding the possible benefits of cholinesterase inhibitors for

behavioural symptoms is relatively weak, with only one existing randomized placebo-controlled trial for which the primary outcome measure was behavior (Howard et al. 2007). In this trial, donepezil was no more effective than placebo. In a recent systematic review of 14 studies that examined the effect of cholinesterase inhibitors in BPSD (13 as a secondary outcome), 11 found no significant reduction in behavioural symptoms compared to placebo (Rodda et al. 2009). The evidence with respect to possible benefits of memantine is also weak (Maidment et al. 2008), although there is some evidence that memantine might delay the emergence of behavioural symptoms (Wilcock et al. 2008).

### Part 6: Organizational and System Issues: Discussion and Recommendation

Some advances have been made with respect to our understanding of how to optimize prescribing in LTC settings. A Cochrane review of psychosocial interventions for reducing antipsychotic use suggests that reduction can be achieved through education and training for staff and/or multidisciplinary team meetings (Richter et al. 2012). Another Cochrane review of interventions to optimize prescribing in LTC homes included eight studies (Alldred et al. 2013). Medication review, multidisciplinary caseconferencing, education of staff, and use of clinical decision support technology were variably utilized. The authors concluded that the interventions led to the

identification and resolution of medication-related problems, however evidence of an effect on resident-related outcomes was not established. A third Cochrane review focused on evidence for withdrawal versus continuation of antipsychotic medication in this population (Declercq et al. 2013). Nine studies were included in the review. The authors concluded that many individuals can be withdrawn from chronic antipsychotic medication without detrimental effects on their behaviour. However, two studies of people whose agitation or psychosis had previously responded well to antipsychotic medication found an increased risk of relapse or shorter time to relapse after discontinuation. Two other studies reported that people with more severe symptoms at baseline could benefit from continuing antipsychotic medication. This suggests that clinicians should be especially cautious when withdrawing antipsychotic medication from this group of residents. These studies led to the addition of one additional recommendation related to optimal prescribing of psychotropic medications in LTC.

### Added Recommendation: **Organizational Issues** (page 39-41)

Long Term Care Home staff should develop Quality Improvement initiatives focused on how to optimize prescribing of psychotropic medication [A].

#### References on Assessment

Bruhl KG, Luijendijk HJ & Muller MT. (2007). Nurses' and nursing assistants' recognition of depression in elderly who depend on long-term care. Journal of the American Medical Directors Association, 8(7), 441-445.

Conn D, Gibson M, Feldman S, Hirst S, Leung S & MacCourt P. (2006). National guidelines for seniors' mental health: The assessment and treatment of mental health issues in long-term care homes (focus on mood and behaviour symptoms). Toronto: Canadian Coalition for Seniors Mental Health.

Davison T E, Snowdon J, Castle N, McCabe MP, Mellor D, Karantzas G & Allan J. (2011). An evaluation of a national program to implement the Cornell Scale for Depression in Dementia into routine practice in aged care facilities. International Psychogeriatrics / IPA, 24(4):631-641.

Kallenbach LE & Rigler SK. (2006). Identification and management of depression in nursing facility residents. Journal of the American Medical Directors Association, 7(7), 448-455.

Koopmans RT, Zuidema SU, Leontjevas R & Gerritsen DL. (2010). Comprehensive assessment of depression and behavioral problems in long-term care. International Psychogeriatrics / IPA, 22(7), 1054-1062.

Kovach CR, Logan BR, Noonan PE, Schlidt AM, Smerz J, Simpson M & Wells T. (2006). Effects of the serial trial intervention on discomfort and behavior of nursing home residents with dementia. American Journal of Alzheimer's Disease and Other Dementias, 21(3), 147-155.

Kramer D, Allgaier AK, Fejtkova S, Mergl R & Hegerl U. (2009). Depression in nursing homes: Prevalence, recognition, and treatment. International Journal of Psychiatry in Medicine, 39(4), 345-358.

Onega LL. (2006). Assessment of psychoemotional and behavioral status in patients with dementia. The Nursing Clinics of North America, 41(1), 23-41.

Pieper MJ, Achterberg WP, Francke AL, van der Steen JT, Scherder EJ & Kovach CR. (2011). The implementation of the serial trial intervention for pain and challenging behaviour in advanced dementia patients (STA OP!): A clustered randomized controlled trial. BMC Geriatrics, 11, 12. Simons K, Connolly RP, Bonifas R, Allen PD, Bailey K, Downes D & Galambos C. (2012). Psychosocial assessment of nursing home residents via MDS

3.0: Recommendations for social service training, staffing, and roles in interdisciplinary care. Journal of the American Medical Directors Association, 13(2), 190.e9-190.e15.

Stones MJ, Clyburn LD, Gibson MC & Woodbury MG. (2006). Predicting diagnosed depression and antidepressant treatment in institutionalized older adults by symptom profiles: A closer look at anhedonia and dysphoria. Canadian Journal on Aging, 25(2), 153-159.

#### References on Psychological and Social Interventions

Ballard C, Brown R, Fossey J, Douglas S, Bradley P, Hancock J. James IA, Juszczak E, Bentham P, Burns A, Lindesay J, Jacoby R, O'Brien J, Bullock R, Johnson T, Holmes C & Howard R. (2009). Brief psychosocial therapy for the treatment of agitation in Alzheimer disease (the CALM-AD trial). The American Journal of Geriatric Psychiatry: Official Journal of the American Association for Geriatric Psychiatry, 17(9), 726-733.

Canadian Coalition for Seniors' Mental Health (CCSMH). (2006a). National Guidelines for Seniors' Mental Health: The Assessment & Treatment of Depression. Toronto: Author.

CCSMH. (forthcoming). 2014 Guideline Update: The Assessment & Treatment of Depression. Toronto:

Chenoweth L, King MT, Jeon YH, Brodaty H, Stein-Parbury J, Norman R, Haas M & Luscombe G. (2009). Caring for aged dementia care resident study (CADRES) of person-centred care, dementiacare mapping, and usual care in dementia: A cluster-randomised trial. Lancet Neurology, 8(4),

Cohen-Mansfield J, Marx MS, Dakheel-Ali M, Regier NG, Thein K & Freedman L. (2010). Can agitated behavior of nursing home residents with dementia be prevented with the use of standardized stimuli? Journal of the American Geriatrics Society, 58(8), 1459-1464.

Conn D, Gibson M, Feldman S, Hirst S, Leung S & MacCourt P. (2006). National guidelines for seniors' mental health: The assessment and treatment of mental health issues in long-term care homes (focus on mood and behaviour symptoms). Toronto, Ontario: Canadian Coalition for Seniors Mental Health.

Deudon A, Maubourguet N, Gervais X, Leone E, Brocker P, Carcaillon L, Riff S, Lavallart B & Robert PH. (2009). Non-pharmacological management of behavioural symptoms in nursing homes. International Journal of Geriatric Psychiatry, 24(12), 1386-1395.

Earthy A, MacCourt P & Mitchell J. (2008). Promoting a cultural shift and a system change to respond to agitated and excessive behaviours (REAB). Perspectives (Gerontological Nursing Association (Canada)), 32(3), 5-13.

Fleming R & Purandare N. (2010). Long-term care for people with dementia: Environmental design guidelines. International Psychogeriatrics / IPA, 22(7), 1084-1096.

Gauthier, S., Cummings, J., Ballard, C., Brodaty, H., Grossberg, G., Robert, P., & Lyketsos, C. (2010). Management of behavioral problems in alzheimer's disease. International Psychogeriatrics / IPA, 22(3), 346-372.

Hawranik P, Johnston P & Deatrich J. (2008). Therapeutic touch and agitation in individuals with Alzheimer's disease. Western Journal of Nursing Research, 30(4), 417-434.

Keast K, Leskovar C & Brohm R. (2010). A systematic reveiw of spirituality and dementia in LTC. Annals of Long-Term Care: Clinical Care and Aging, 18(10), 41-47.

Kong EH, Evans LK & Guevara JP. (2009). Nonpharmacological intervention for agitation in dementia: A systematic review and meta-analysis. Aging & Mental Health, 13(4), 512-520.

Kuske B, Hanns S, Luck T, Angermeyer MC, Behrens J & Riedel-Heller SG. (2007). Nursing home staff training in dementia care: A systematic review of evaluated programs. International Psychogeriatrics / IPA, 19(5), 818-841.

Kverno KS, Black BS, Nolan MT & Rabins PV. (2009). Research on treating neuropsychiatric symptoms of advanced dementia with non-pharmacological strategies, 1998-2008: A systematic literature review. International Psychogeriatrics / IPA, 21(5), 825-843.

Levy-Storms L. (2008). Therapeutic communication training in long-term care institutions: Recommendations for future research. Patient Education and Counseling, 73(1), 8-21.

Livingston G, Johnston K, Katona C, Paton J, Lyketsos CG, & Old Age Task Force of the World Federation of Biological Psychiatry. (2005).

Systematic review of psychological approaches to the management of neuropsychiatric symptoms of dementia. The American Journal of Psychiatry, 162(11), 1996-2021.

McMinn B & Draper B. (2005). Vocally disruptive behaviour in dementia: Development of an evidence based practice guideline. Aging & Mental Health, 9(1), 16-24.

Raglio A, Bellelli G, Traficante D, Gianotti M, Ubezio MC, Villani D & Trabucchi M. (2008). Efficacy of music therapy in the treatment of behavioral and psychiatric symptoms of dementia. Alzheimer Disease and Associated Disorders, 22(2), 158-162.

Seitz DP, Purandare N & Conn D. (2010). Prevalence of psychiatric disorders among older adults in longterm care homes: A systematic review. International Psychogeriatrics / IPA, 22(7), 1025-1039.

Seitz DP, BrisbinS, Herrmann N, Rapoport MJ, Wilson K, Gill SS, Rines J, Le Clair K & Conn D. (2012). Efficacy and feasibility of nonpharmacological interventions for neuropsychiatric symptoms of dementia in longterm care: A systematic review. Journal of the American Medical Directors Association, 13(6), 503-506.e2.

Snowdon J. (2010). Mental health service delivery in long-term care homes. International Psychogeriatrics / IPA, 22(7), 1063-1071.

Sung HC, Chang SM, Lee WL & Lee MS. (2006). The effects of group music with movement intervention on agitated behaviours of institutionalized elders with dementia in Taiwan. Complementary Therapies in Medicine, 14(2), 113-119.

Testad I, Ballard C, Bronnick K & Aarsland D. (2010). The effect of staff training on agitation and use of restraint in nursing home residents with dementia: A single-blind, randomized controlled trial. The Journal of Clinical Psychiatry, 71(1), 80-

Tseng CN, Gau BS & Lou MF. (2011). The effectiveness of exercise on improving cognitive function in older people: A systematic review. The Journal of Nursing Research: JNR, 19(2), 119-131.

Turner S. (2005). Behavioural symptoms of dementia in residential settings: A selective review of non-pharmacological interventions. Aging & Mental Health, 9(2), 93-104.

van Weert JC, van Dulmen AM, Spreeuwenberg PM, Ribbe MW & Bensing JM. (2005). Behavioral and mood effects of snoezelen integrated into 24-hour

dementia care. Journal of the American Geriatrics Society, 53(1), 24-33.

Vasse E, Vernooij-Dassen M, Spijker A, Rikkert MO & Koopmans R. (2010). A systematic review of communication strategies for people with dementia in residential and nursing homes. International Psychogeriatrics / IPA, 22(2), 189-200.

Verkaik R, Francke AL, van Meijel B, Spreeuwenberg PM, Ribbe MW & Bensing JM. (2011). The effects of a nursing guideline on depression in psychogeriatric nursing home residents with dementia. International Journal of Geriatric Psychiatry, 26(7), 723-732.

Verkaik R, van Weert JC & Francke AL. (2005). The effects of psychosocial methods on depressed, aggressive and apathetic behaviors of people with dementia: A systematic review. International Journal of Geriatric Psychiatry, 20(4), 301-314.

Vernooij-Dassen M, Vasse E, Zuidema S, Cohen-Mansfield J & Moyle W. (2010). Psychosocial interventions for dementia patients in long-term care. International Psychogeriatrics / IPA, 22(7), 1121-1128.

Williams CL & Tappen RM. (2007). Effect of exercise on mood in nursing home residents with alzheimer's disease. American Journal of Alzheimer's Disease and Other Dementias, 22(5), 389-397.

Woods DL, Craven RF & Whitney J. (2005). The effect of therapeutic touch on behavioral symptoms of persons with dementia. Alternative Therapies in Health and Medicine, 11(1), 66-74.

Yang MH, Wu SC, Lin JG & Lin LC. (2007). The efficacy of acupressure for decreasing agitated behaviour in dementia: A pilot study. Journal of Clinical Nursing, 16(2), 308-315.

## References on Pharmacological Interventions

Alldred DP, Raynor DK, Hughes C, Barber N, Chen TF & Spoor P. (2013). Interventions to optimize prescribing for older people in care homes. Cochrane Database Syst Rev. 2013 Feb 28; 2:CD009095.

Ballard C & Waite J. (2006). The effectiveness of atypical antipsychotics for the treatment of aggression and psychosis in Alzheimer's disease. Cochrane Database Syst Rev. 2006 Jan 5; (1):CD003476.

Boyce RD, Hanlon JT, Karp JF, Kloke J, Saleh A & Handler SM. (2012). A review of the effectiveness of antidepressant medications for depressed nursing home residents. J Am Med Dir Assoc. 2012 May; 13(4):326-31.

Declerca T, Petrovic M, Azermai M, Vander Stichele R. De Sutter AI. van Driel ML & Christiaens T. (2013). Withdrawal versus continuation of chronic antipsychotic drugs for behavioural and psychological symptoms in older people with dementia. Cochrane Database Syst Rev. 2013 Mar 28; 3:CD007726.

Fournier JC, DeRubeis RJ, Hollon SD, Dimidjian S, Amsterdam JD, Shelton RC & Fawcett J. (2010). Antidepressant drug effects and depression severity: a patient-level meta-analysis. JAMA. 2010 Ian 6: 303(1):47-53.

Gaynor PJ, Gopal M, Zheng W, Martinez JM, Robinson MJ & Marangell LB. (2011). A randomized placebo-controlled trial of duloxetine in patients with major depressive disorder and associated painful physical symptoms. Curr Med Res Opin. 2011 Oct; 27(10):1849-58.

Hanlon JT, Wang X, Castle NG, Stone RA, Handler SM, Semla TP, Pugh MJ, Berlowitz DR & Dysken MW. (2011). Potential underuse, overuse, and inappropriate use of antidepressants in older veteran nursing home residents. J Am Geriatr Soc. 2011 Aug; 59(8):1412-20.

Herrmann N, Rothenburg LS, Black SE, Ryan M, Liu BA, Busto UE & Lanctôt KL. (2008). Methylphenidate for the treatment of apathy in Alzheimer disease: prediction of response using dextroamphetamine challenge. I Clin Psychopharmacol. 2008 Jun; 28(3):296-301.

Howard RJ, Juszczak E, Ballard CG, Bentham P, Brown RG, Bullock R, Burns AS, Holmes C, Jacoby R, Johnson T, Knapp M, Lindesay J, O'Brien JT, Wilcock G, Katona C, Jones RW, DeCesare J, Rodger M & CALM-AD Trial Group. (2007). Donepezil for the treatment of agitation in Alzheimer's disease. N Engl J Med. 2007 Oct 4; 357(14):1382-92.

Kamble P, Chen H, Sherer J & Aparasu RR. (2008). Antipsychotic drug use among elderly nursing home residents in the United States. Am J Geriatr Pharmacother. 2008 Oct; 6(4):187-97.

Karkare SU, Bhattacharjee S, Kamble P & Aparasu R. (2011). Prevalence and predictors of antidepressant prescribing in nursing home

residents in the United States. Am J Geriatr Pharmacother. 2011 Apr; 9(2):109-19.

Kramer D, Allgaier AK, Fejtkova S, Mergl R & Hegerl U. (2009). Depression in nursing homes: prevalence, recognition, and treatment. Int J Psychiatry Med. 2009; 39(4):345-58.

Maidment ID, Fox CG, Boustani M, Rodriguez I, Brown RC & Katona CL. (2008). Efficacy of memantine on behavioral and psychological symptoms related to dementia: a systematic metaanalysis. Ann Pharmacother. 2008 Jan; 42(1):32-8.

Mann E, Köpke S, Haastert B, Pitkälä K, Meyer G. (2009). Psychotropic medication use among nursing home residents in Austria: a cross-sectional study. BMC Geriatr. 2009 May 21; 9:18.

Martinez C, Jones RW & Rietbrock S. (2013). Trends in the prevalence of antipsychotic drug use among patients with Alzheimer's disease and other dementias including those treated with antidementia drugs in the community in the UK: a cohort study. BMJ Open. 2013 Jan 7; 3(1).

Richter T, Meyer G, Möhler R & Köpke S. (2012). Psychosocial interventions for reducing antipsychotic medication in care home residents. Cochrane Database Syst Rev. 2012 Dec 12; 12:CD008634.

Rosenberg P et al. (2013). Safety and efficacy of methylphenidate for apathy in Alzheimer's Disease: A Randomized placebo-controlled trial. I Clin Psychiatry. 74(8): 810-816.

Ruths S. Sørensen PH. Kirkevold O. Husebø BS. Krüger K, Halvorsen KH & Selbaek G. (2013). Trends in psychotropic drug prescribing in Norwegian nursing homes from 1997 to 2009: a comparison of six cohorts. Int J Geriatr Psychiatry. 28(8):868-76.

Rodda J, Morgan S & Walker Z. (2009). Are cholinesterase inhibitors effective in the management of the behavioral and psychological symptoms of dementia in Alzheimer's disease? A systematic review of randomized, placebocontrolled trials of donepezil, rivastigmine and galantamine. Int Psychogeriatr. 21(5):813-24.

Seitz DP, Adunuri N, Gill SS, Gruneir A, Herrmann N, Rochon P. (2011). Antidepressants for agitation and psychosis in dementia. Cochrane Database Syst Rev. 2011 Feb 16; (2):CD008191.

Seitz D, Herrmann N, Rapoport MJ, Le Clair K, Conn D, Gill SS & Wilson K. (2012). Tool on Pharmacological Treatment of Behavioural

Symptoms of Dementia in Long-term Care Facilities for Older Adults. Toronto: CCSMH.

Seitz DP, Gill SS, Herrmann N, Brisbin S, Rapoport MJ, Rines J, Wilson K, Le Clair K & Conn DK. (2013). Pharmacological treatments for neuropsychiatric symptoms of dementia in long-term care: a systematic review. Int Psychogeriatr. 25(2):185-203.

Wilcock GK, Ballard CG, Cooper JA & Loft H. (2008). Memantine for agitation/aggression and psychosis in moderately severe to severe Alzheimer's disease: a pooled analysis of 3 studies. J Clin Psychiatry. 2008 69(3): 341-8.

# **ABOUT CCSMH**

**MISSION:** To promote the mental health of seniors by connecting people, ideas and resources.

**VALUE STATEMENT:** Mental illness is not a normal part of aging. All seniors have the right and deserve to receive services and care that promotes their mental health and responds to their mental illness needs.

**PRINCIPLES:** Our actions and decisions are guided by:

- Collaboration
- Multidisciplinary Inclusiveness
- Integrity

- Accountability
- Effectiveness
- Transparency

**STRATEGIC PRIORITIES:** The following are current priorities areas for the CCSMH:

- Advocacy and Public Awareness
- Education
- Research

- Promoting Best/Promising Practices
- Caregiving
- Human Resources/Capacity Building

#### **CONTACT INFORMATION:**



© CANADIAN COALITION FOR SENIORS' MENTAL HEALTH. (2014).