Canadian Coalition for Seniors' Mental Health
To promote seniors' mental health by connecting people, ideas and resources.

Coalition Canadienne pour la Santé Mentale des Personnes Âgées
Promouvoir la santé mentale des personnes âgées en reliant les personnes, les idées et les ressources.

Seniors' Mental Health

An introduction to addressing the mental health needs of older adults in long-term care and at risk of delirium

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Learning Objectives

After completion of this webinar, you will be able to:

- **RECOGNIZE** the signs of mental health problems with a focus on mood and behaviours of older adults living in long-term care
- **IDENTIFY** treatment options (both social support and pharmacological) to support older adults who are experiencing mental health problems in long-term care
- **APPRECIATE** the seriousness of delirium, risk factors, symptoms, and causes of delirium
- **INTERVENE** with older clients/patients to detection, treat and prevent delirium

Resources

Presentation based on CCSMH National Guidelines.
Can be downloaded free of charge at www.ccsmh.ca

Mental Health in Long-Term Care

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REVIEW

Prevalence of psychiatric disorders among older adults in long-term care homes: a systematic review

Dallas Seitz,[1,2,3] Nitin Purandare[4] and David Conn[1]

- 74 studies met inclusion criteria
- 30 on dementia, 9 on BPSD and 26 on depression +
- Dementia – median prevalence = 58%
- BPSD – 78% (among those with dementia)
- Major depressive disorder = 10%

Depression is under-reported and under-treated in older adults

- **Stigma related to aging**
  - Depression is "normal"
- **Stigma related to depression**
  - Weakness of character; "should not feel this way"
- **Symptoms "masked" by other illnesses such as dementia, chronic pain.**
  - Symptom overlap
- **Cohort effect**
  - Older persons less likely to report depression based on previous life experiences and fear of "asylum"

(Butler-Jones, 2010; MDSC, 2009; CCSMH, 2006)

Diagnostic Criteria For Depression DSM-V

A cluster of symptoms present on most days, most of the time, for at least 2 weeks

- Depressed mood

or

- Loss of interest or pleasure in normal, previously enjoyed activities

And at least 4 of the following:

- Decreased energy & increased fatigue
- Sleep disturbance
- Inappropriate feelings of guilt
- Diminished ability to think or concentrate
- Appetite change (most likely loss of appetite in the elderly)
- Psychomotor agitation or retardation
- Suicidal ideation or recurrent thoughts of death (www.dsm5.org)

Quick tool for diagnosing geriatric depression

SIG: E caps (a prescription for Energy capsules)

- **S** for disturbed sleep
- **I** for loss of Interest
- **G** for excessive feelings of guilt or regrets
- **E** for low energy levels
- **C** for concentration difficulties
- **A** for appetite changes
- **P** for psychomotor changes (slowing or agitation)
- **S** for suicidal ideation, preoccupation with death

(De Jenike, 1989)

Depression: a multifactorial illness

- **Genetic factors:** "runs in the family"
- **Biological factors:** physical problems and brain changes
- **Psychological factors:** early losses/trauma, low self esteem
- **Social factors:** bereavement, losses, financial difficulties, interpersonal difficulties

(CCSMH, 2006)

Treatment Options

Non-pharmacological

Pharmacological

Non-Pharmacological Treatment Options

Improving health and social supports

- Small changes in lifestyle can improve mood
  - Focus on exercise and eating well
- Supportive care should be offered to all patients who are depressed, including group activities and hobbies (CCSMH, 2006)

Non-Pharmacological Treatment Options

Counselling and Psychotherapy

- Alone or in combination with an antidepressant
- Cognitive behavioural therapy and interpersonal therapy are the 2 most commonly recommended specific psychotherapies for geriatric depression

(CCSMH, 2006)

Pharmacological Treatment Options

- When depression is severe or “major”, medications combined with psychosocial or psychotherapy treatments provides the best results
- **First line treatment:** antidepressant alone, except if depression is part of bipolar illness when first line treatment will be a mood stabilizer, such as lithium
- SSRIs and SNRIs antidepressants with low anticholinergic properties are considered “geriatric-friendly choices”

Selecting the best antidepressant for a senior

- Previous response to treatment
- Side effect profile
- Existing medical problems
- Drug interactions
- Reasonable elimination half-life

(Mulsant et al., 2014; Hache et al., 2011; Max et al., 1992)

Behaviours and Psychological Symptoms of Dementia

What is it?

Causes and Models

Non-pharmacological and pharmacological management

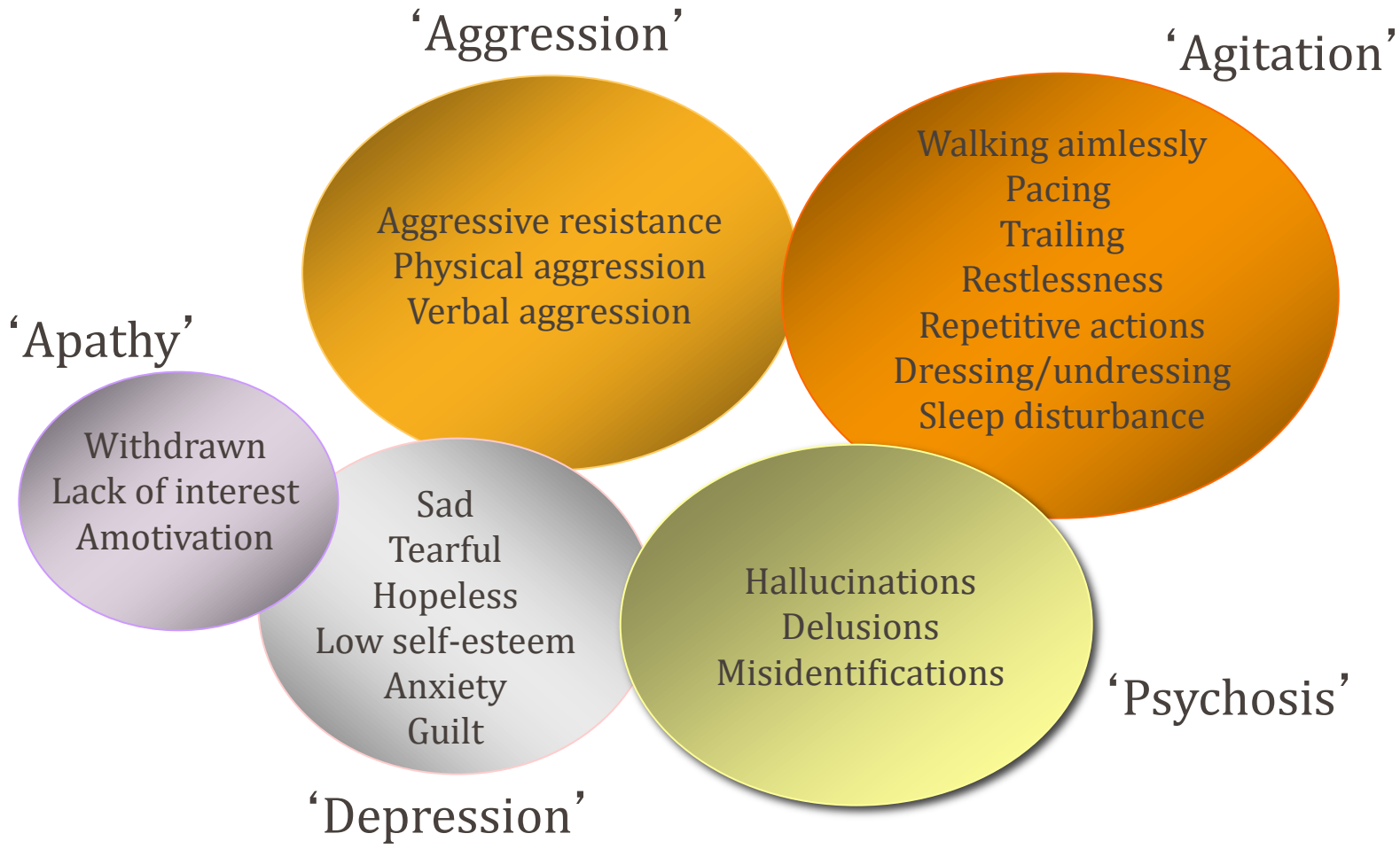
What are BPSD?

- Delusions
- Hallucinations
- Aggression
- Disinhibition
- Screaming
- Restlessness
- Wandering
- Sexual behaviours
- Depression
- Anxiety
- Apathy
- Sleep disturbance
- Compulsive or repetitive behavior

Agitation

- Inappropriate verbal, vocal, or motor activity that is not judged by an outside observer to result directly from apparent needs or confusion of the agitated individual
  - Aggressive behaviours
  - Physical non-aggressive behaviours
  - Verbal agitation

Neuropsychiatric Clusters in Dementia



(Adapted from McShane R. 2000)

Prevalence of BPSD in LTC using the Cohen-Mansfield Agitation Inventory

CMAI items	(%) weekly +	CMAI items	(%) weekly +
General restlessness	44%	Making strange noises	20%
Cursing/verbal aggression	33%	Inappropriate dress/ undress	18%
Constant request attention	32%	Handling things inappropriately	18%
Negativism	31%	Get to different place	16%
Repetitive questioning	30%	Hitting	13%
Pacing	29%	Screaming	13%
Repetitious mannerisms	28%	Hoarding	12%
Complaining	26%	Hiding	10%
Grabbing	24%		

(Zuidema et al. 2007)

Why are BPSD Important?

- Common
  - 60% in community
  - 80% in nursing homes

- More than 90% develop BPSD over 5 years
  - 85% of cases – serious clinical implications

(Steinberg et al. 2008)

Why are BPSD Important?

- Impaired quality of life, increased cost of care, rapid cognitive decline, caregiver burden
- Shorten time to nursing home placement
- Inadequate treatment of medical conditions
- Staff burnout/turnover
- Injuries to patients and staff

(Jeste et al. 2008; Salzman et al. 2008; Rabins et al. 2007)

Causes of BPSD

- Biological Factors
  - Genetic
  - Neurotransmitters
  - Structural brain changes
- Clinical Factors
- Psychological & Personality Factors
- Social & Environmental Factors
- Caregiver Factors

Models

- Unmet Needs Model
  - Unable to express needs
- Progressively Lowered Stress Threshold Model
  - Ability to deal with stress or stimuli is impaired
- ABC (learning theory)
- PIECES (Physical, Intellectual, Emotional, Capabilities, Environment, Social)

Assessment

- Cornerstone of treatment
- Multiple sources of information
  - Medical, social and personal Hx, habits
  - Interview of family, caregivers
  - Adequate physical exam, bloodwork, urine
- Look for patterns, triggers
- Understand cognitive impairments

Dementia Observation Scale

YMD							
Time							
7:30							
8:00							
8:30							
9:00							
9:30							
1000							

Other Common Tools

Scale	Assessment
CMAI The Cohen-Mansfield Agitation Inventory	29 agitated behaviors rated by caregiver on 7 point frequency scale
NPI-NH Neuro-psychiatric Inventory-Nursing Home Version	12 items rated by caregiver on a 4 point frequency and a 3 point severity scale
BEHAVE-AD The Behavioral Pathology in Alzheimer's Disease Rating Scale	25 symptoms rated by caregiver on a 4 point severity scale

ABC Charting

- A = antecedent
- B = behavior
- C = consequences

- Is there a pattern? Is it predictable?
- Most staff do not identify a pattern on their own

- Functional Analysis-Based Interventions

Medical Conditions

- Dehydration
- Constipation
- Urinary or chest infection
- Rule Out Delirium
- Dental pain/infection
- Pain

Environmental Factors

- Excessive noise or stimulation
- Lack of structure/routine
- Inadequate lighting
- Confusing surroundings
- Excessive demands
- Loneliness/boredom
- Behavior of others

(Lyketsos et al. 2006)

Environmental Design

- Fleming and Purandare (2010) recently reviewed 57 studies and synthesized the evidence of environmental design in LTC
- Recommendations
  - Spaces
  - Security
  - Single Rooms
  - Sight lines
  - Stimulation
  - Small, homelike, engage in ADLs, outside spaces

Non-pharmacological Techniques

- Reminiscence therapy
- Validation Therapy
- Reality orientation
- Cognitive stimulation
- Person-centered bathing
- Token economy
- PMR
- Written cues
- Behavioral reinforcement
- CBT
- Music
- Snoezelen
- White noise
- Sensory stimulation
- Exercise
- Physical changes to unit

Challenges in Interpretation of the Literature

- Lots of studies
- Small sample sizes, insufficient power
- Quasi-experimental designs
- Different ways to measure outcome
- No control groups
- Inadequate randomization
- Interventions not always practical

Systematic Review

- 40 studies included:
- Staff training, mental health consultation & treatment planning, exercise, recreational activities, music therapy or other forms of sensory stimulation
- 16/40 studies were positive
- 75% required significant resources and time commitments

(Seitz et al. 2012)

Behavioural Techniques

- Extinction
  - E.g., man screams and nurse soothes him → more screaming
  - Don't positively reinforce unwanted behaviors!

- Reinforcement of alternative behavior
  - E.g., screaming man gets attention when he is calm

Pharmacological Management

- Antipsychotics (typical/atypical)
- Antidepressants
- Cholinesterase inhibitors
- Anticonvulsants
- Memantine
- Benzodiazepines
- Hormones
- Others

Atypical Antipsychotics

- Best evidence for behavioral disturbance in dementia
  - **Risperidone** up to 2 mg (indication in Canada for BPSD)
  - **Aripiprazole** up to 10 mg
  - **Olanzapine** up to 7.5mg
  - *Quetiapine: mixed evidence – may try for those with parkinsonism (eg PD, DLB); recent meta analysis of 6 data sets -> unclear if clinically significant (3 points on NPI)

(*Cheung et al. 2011)

Atypical Antipsychotics
Cochrane Review Ballard et al. (2012)

- 16 placebo-controlled trials (9 included)
- Aggression: risp & olz > placebo
- Psychosis: risp > placebo
- Adverse events: Higher incidence of cerebrovascular events & EPS with risp & olz

Risks with Atypical Antipsychotics

- 2-3 fold increase in relative risk of cerebrovascular adverse event
- 1.7 fold increase in risk of death (FDA 2005)
- Risk of death highest for haloperidol, lowest for quetiapine (Kales et a., AM J Psych 2012)
- Falls, metabolic, EPS, hypotension, cognition, pneumonia

Antidepressants

- Best evidence - citalopram
  - RCT placebo vs citalopram vs perphenazine (Pollock et al. 2002)
  - Comparator trial citalopram vs risperidone (Pollock et al. 2007)
  - RCT placebo vs citalopram (Porsteinsson et al. 2014)

    - 186 patients, citalopram 10-30 mg .

    - Positive outcomes on both primary outcomes: (NBRS-A and mADCS-GCIC)

Pharmacological Summary

- 1st line:
  - *Atypical antipsychotics
  - Citalopram – (note – sertraline now used more often since concerns about citalopram and QTc interval)

- 2nd line:
  - Carbamazepine (rarely used due to side effects), trazodone

Optimizing the Use of Psychotropic Medications

Strategies for optimization/discontinuation:

- Education
- Medication review/Practice Audits
- Enhanced psychosocial care
- Legislation
- Discontinuation Trials

Summary

- Comprehensive assessment
- Medication is indicated when there is significant imminent risk to self or others
- Non-pharmacological treatment often works
- Requires team approach

Delirium Detection, Care, & Prevention

Delirium in Later Life

- Delirium is a sudden and severe disturbance in thinking. It can cause changes in a person's ability to stay alert, remember, be oriented to time or place, speak or reason clearly.
- **Delirium is a medical emergency.**

Diagnostic Criteria for Delirium DSM-V

A. A disturbance in attention & awareness (reduced orientation)

B. Develops over a short period, represents a change from baseline & tends to fluctuate in severity during the course of a day

C. An additional disturbance in cognition (e.g. memory, disorientation, language, visuospatial ability or perception)

D. A and C are not better explained by another pre-existing, established, or evolving neurocognitive disorder & do not occur in the context of a severely reduced level of arousal (e.g. coma)

E. There is evidence from the history, physical examination, or laboratory findings that the disturbance is a direct physiological consequence of another medical condition, substance intoxication or withdrawal, or exposure to a toxin, or is due to multiple causes.

(www.dsm5.org)

Clinical Features

- Acute onset
  - Usually develops over hours to days
  - Onset may be abrupt
- Prodromal phase
  - Initial symptoms can be mild/transient if onset is more gradual
    - Fatigue/daytime somnolence
    - Decreased concentration
    - Irritability
    - Restlessness/anxiety
    - Mild cognitive impairment

(Cole 2004, CCSMH 2006)

Clinical Features

- Fluctuation
  - Unpredictable
    - Over course of interview
    - Over course of 1 or more days
  - Intermittent
  - Often worse at night
  - Periods of lucidity
    - May function at “normal” level
- Psychomotor disturbance
  - Restless/agitated
  - Lethargic/inactive

Clinical Features

- Disturbance of consciousness
  - Hyperalert (overly sensitive to stimuli)
  - Alert (normal)
  - Lethargic (drowsy, but easily aroused)
  - Comatose (unrousable)
- Inattention
  - Reduced ability to focus/sustain/shift attention
  - Easily distractible
    - External stimuli interfere with cognition
  - May account for all other cognitive deficits

(Cole 2004, CCSMH 2006)

Clinical Features

- Disruption of sleep and wakefulness
  - Fragmentation/disruption of sleep
  - Vivid dreams and nightmares
    - Difficulty distinguishing dreams from real perceptions
  - Somnolent daytime experiences are “dreamlike”
- Emotional disturbance
  - Fear
  - Anxiety
  - Depression

(Cole 2004, CCSMH 2006)

Clinical Features

- Disorders of thought
  - Abnormalities in form and content of thinking are prominent
    - Impaired organization and utilization of information
    - Thinking may become bizarre or illogical
    - Content may be impoverished or psychotic
      - Delusions of persecution are common
    - Judgment and insight may be poor

Clinical Features

- Disorders of language
  - Slow and slurred speech
  - Word-finding difficulties
  - Difficulty with writing
- Disorders of memory and orientation
  - Poor registration
  - Impaired recent and remote memory
  - Confabulation can occur
  - Disorientation to time, place, and (sometimes) person

Clinical Features

Perceptual disturbances

- Distortions
  - Macropsia/micropsia
  - Derealization/depersonalization

Illusions

- Misinterpretation of external sensory stimuli

(Cole 2004, CCSMH 2006)

Hallucinations

- May respond as if they are real
- Visual
  - Often occur only at night
  - Simple to complex
- Auditory
  - Simple sounds, music, voices
- Tactile (less common)

Clinical Variants

Hyperactive

- Restless/agitated
- Aggressive/hyper-reactive
- Autonomic arousal

Mixed

Hypoactive

- Lethargic/drowsy
- Apathetic/inactive
- Quiet/confused
- Often escapes diagnosis
- Often mistaken for depression

(Voyer et al. 2008, Cole 2004, CCSMH 2006)

Delirium Screening Tools

Mini-Mental State Examination (MMSE)

CONFUSION ASSESSMENT METHOD (CAM)

MONTREAL COGNITIVE ASSESSMENT (MoCA)

Delirium Symptom Interview (complex cases)

CIWA-Ar (alcohol withdrawal)

(CCSMH 2006)

Delirium in the Hospital

- Emergency room ~ 10%
- At time of hospital admission (medical) ~ 10-20%
- During stay another ~ 5-10% will develop
- Post-operative ~ 10-15% (hip fracture ~ 40-50%)
- High rates in special populations
  - Palliative care/ advanced cancer (80%+)
  - ICU (70%)
  - Those with dementia who are hospitalized

(Hustey et al. 2002, Cole 2004, CCSMH 2006)

Delirium in Long-Term Care

- Poorly studied
- Prevalence ~ 10%

(Voyer et al. 2008)

How well do we detect Delirium?

- Only 30-50% have symptoms/signs documented by doctors
- Nurses document 60-90%
- Even if symptoms/signs noted – they are commonly misdiagnosed as dementia or depression
- Under-recognition – 80+, hypoactive, impaired vision, pre-existing dementia

(Inouye et al. 2001)

Why?

- Fluctuating course
- Overlap with dementia
- Lack of formal cognitive assessment
- Neglecting to determine the acuity of the change in cognition
- Under appreciation of its importance/ consequences
- Ageism (expectation; “Aren’t all older persons confused?”)

(Voyer 2008, Inouye et al. 2001)

Predisposing Factors

- Demographic – increasing age, men
- Cognition – **dementia/ cognitive impairment**, history of prior delirium, depression
- Function – impairment/ disability
- Sensory impairment – vision & hearing
- Intake – dehydration, malnutrition
- Drugs – number, psychotropics, alcohol abuse
- Coexisting conditions – **severe medical illness**

(CCSMH 2006)

Modifiable Environmental Factors

- Sensory Deprivation (windowless room, single room)
- Sensory Overload (too much noise, and activity)
- Isolation from family/friends, familiar objects
- Frequent room changes
- Absence of orientation devices (watch, clock or calendar)
- Absence of visual/hearing aids
- Use of restraints

(CCSMH 2006, McCusker et al. 2001)

Precipitating Factors

- Drugs – psychotropics, narcotics, anticholinergics, number, withdrawal (e.g., alcohol, benzodiazepines)
- Intercurrent illness - infections
- Surgery - orthopedic, cardiac
- Physiological - abnormal sodium
- Environment/ interventions - ICU, use of restraints, catheterization
- Psychological - sleep deprivation, stress, inadequate pain control

(CCSMH 2006)

Practical Advice for Providers

What can you do in your practice tomorrow to support older clients with depression and/or at risk for delirium?

Prevention

- Prevention efforts should be targeted to the older person's individual risk factors for delirium (D)
- Multi-component intervention targeting multiple risk factors should be implemented in hospitalized older persons who have intermediate to high risk for developing delirium (A)
- Proactive consultations should be considered for older persons undergoing emergency surgery (B)

(CCSMH 2006, CCSMH 2009, CCSMH 2014)

Interventions Based on Risk Factors

Cognitive Impairment

- Reality orientation
- Therapeutic Activities Program

Vision/Hearing Impairment

- Vision/Hearing Aids
- Adaptive Equipment

Immobilization

- Early Mobilization
- Minimizing immobilizing equipment

Psychoactive Medication Use

- Nonpharmacologic approaches to sleep/anxiety
- Restricted use of sleeping medications

Dehydration

- Early recognition
- Volume repletion

Sleep Deprivation

- Noise reduction strategies
- Sleep enhancement program

(Inouye,1999, CCSMH 2006)

Assessment

History should include:

- Known medical conditions (acute and chronic)
- Recent surgeries
- Full drug history including non-prescription drugs
- Thorough history of current patterns of alcohol and other substance use
- Previous cognitive functioning
- Functional abilities (i.e., basic and instrumental activities of daily living)
- Onset and course of the client's delirium

Delirium Outcome

- Worse prognosis in the elderly
- Independently associated with:
  - Increased functional disability
  - Increased length of hospital stay
  - Greater likelihood of admission to long-term care
  - Increased mortality
    - 1 month: 16%
    - 6 months: 26%
- Symptoms often persist 6 months later

(Cole 2004)

Conclusions

- Mental illness in **NOT** a normal part of aging
- Depression can be treated using social support , psychotherapy and pharmacological options
- Delirium can sometimes be prevented
- Delirium is a medical emergency – requires diligence to prevent, detect, and treat

Canadian Coalition for Seniors' Mental Health

The Canadian Coalition for Seniors' Mental Health (CCSMH) is hard at work ensuring that seniors' mental health is recognized as a key Canadian health and wellness issue. Working with partners across the country, the CCSMH is busy facilitating initiatives to enhance and promote seniors' mental health.

Become a Member Donate

Delirium

Depression

Long-Term Care

Suicide

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