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Presenter:

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The Importance of Differentially Diagnosing the Three D's: Dementia, Delirium and Depression

The Three D's: Depression, Dementia, and Delirium

Adapted From: A Learning Module for Effective Social Work Practice with Older Adults

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Overview

- Rationale for learning about older adults and the three D's.
- Overview of the three D's:
  - Symptoms
  - Epidemiology
  - Assessment tools
- Differential diagnosis of the three D's.

Why Learn about Working with Older Adults?

- The demographic imperative.
  - Older adults are the fastest growing segment of the population.
  - Among older adults, those age 85 and over are the fastest growing group.
  - Illness, cognitive decline, and mental health issues are not normal manifestations of aging, however, the incidence of these conditions increases with age.

Why Learn about Working with Older Adults?

- <u>Bottom Line:</u>
- The largest growing segment of the population, the oldest-old, is also most likely to experience stressful health and mental health conditions, which often bring them in contact with social work practitioners.

Why Learn about Working with Older Adults?

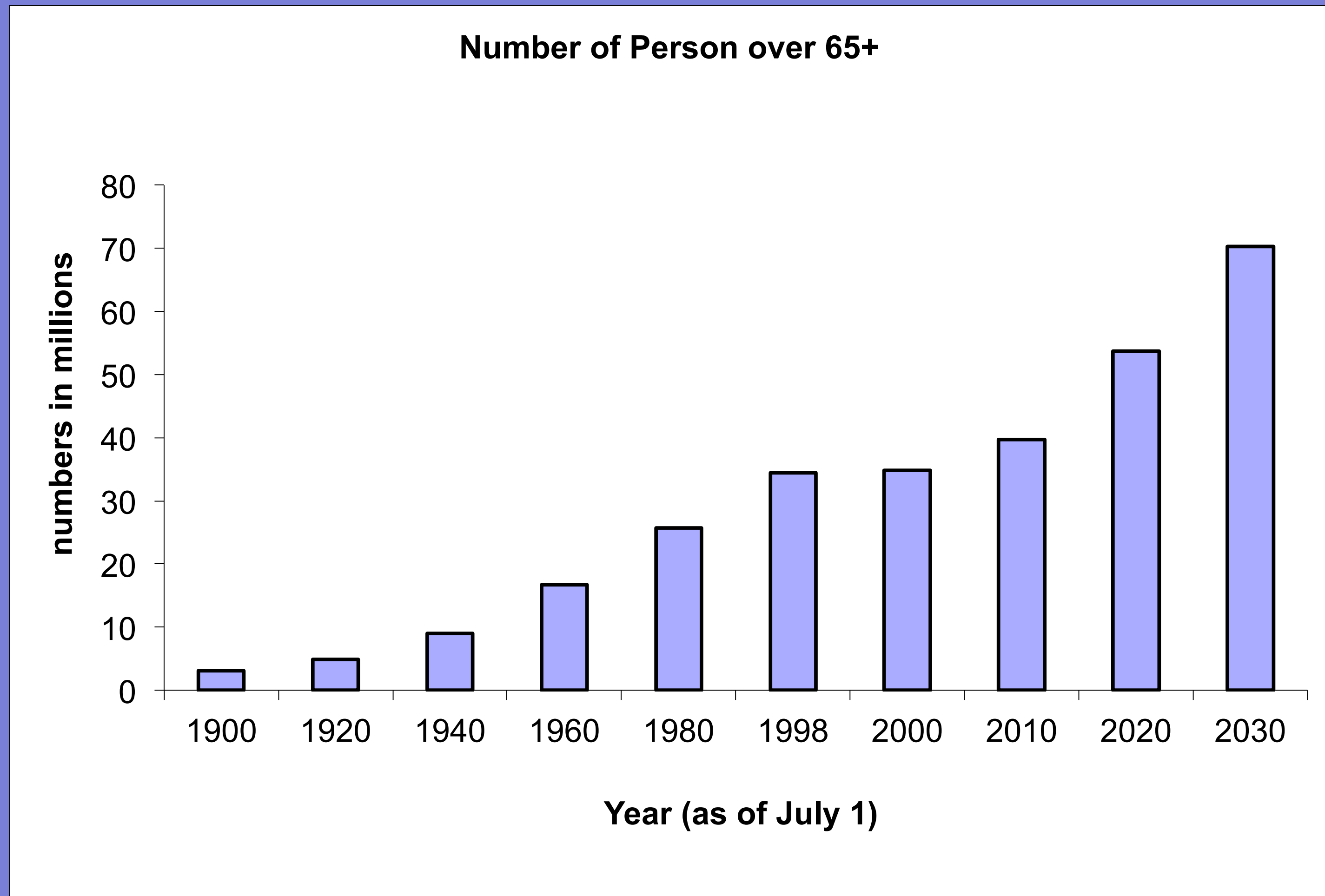
- Given these demographics:
  - There is an urgent need for social workers to address the needs of the growing older population.
- However,
  - Per CSWE[1], 72 percent of social workers provide services to older adults without expecting to do so and without knowledge of this population’s unique needs.

[1]Council on Social Work Education

Why Learn about Working with Older Adults?

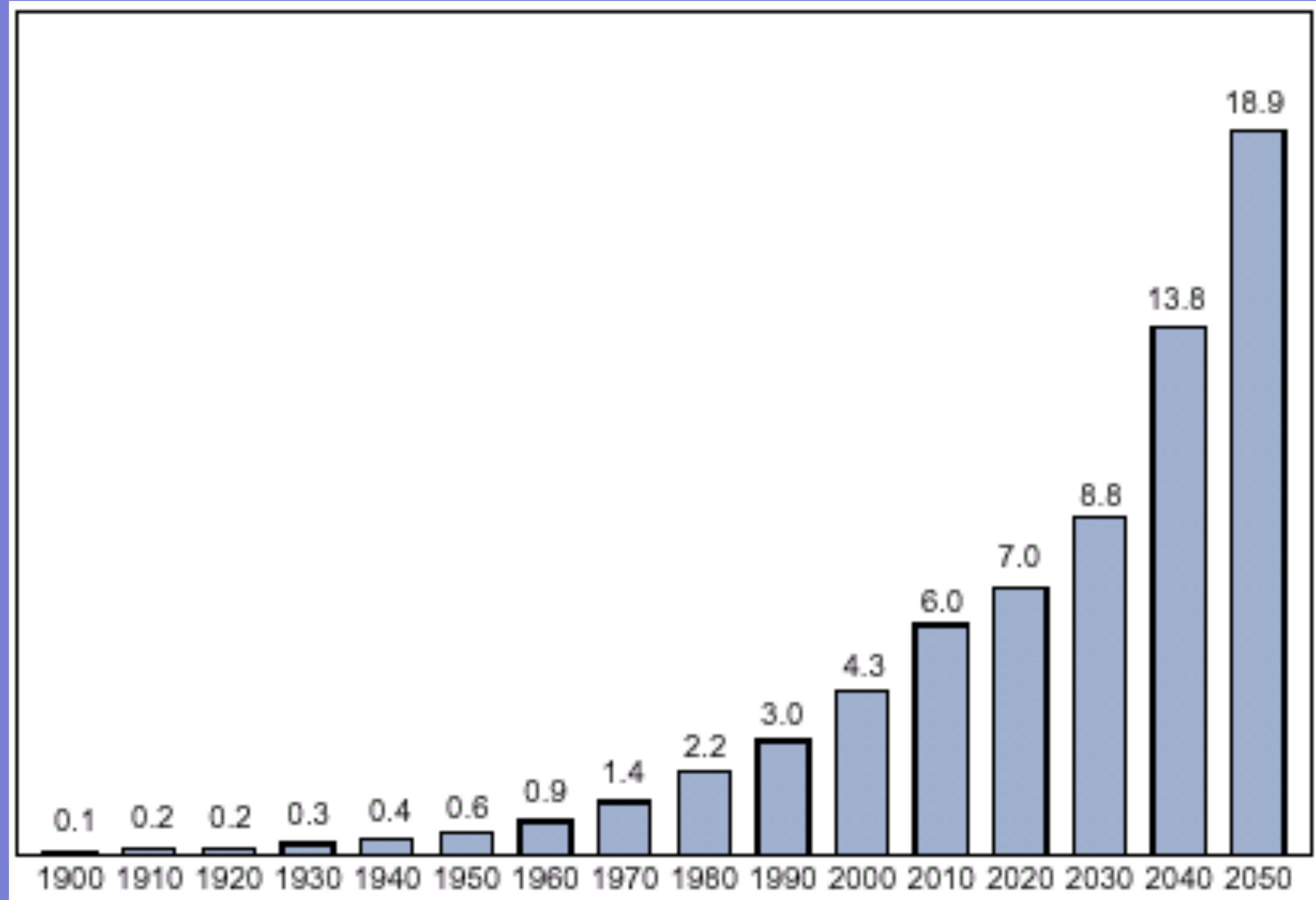
- As ethical and competent practitioners, it is important to prepare ourselves for effective practice with client groups we are likely to serve.
- These next slides illustrate the projected growth of the population over 65 in the U.S. and internationally…

Number of Persons 65 and over from 1900 to 2030



(Administration on Aging, 2000)

Number of Persons 85 and Over 1900 to 2050



(U.S. Census Bureau, 1996)

Why Learn about Depression, Dementia, and Delirium

- Depression, dementia, and delirium are the three most common mental health conditions among older adults.
- These conditions are complex and multi-faceted in older individuals and often:
  - Are unrecognized and untreated.
  - Occur simultaneously and overlapping symptoms are difficult to distinguish.
  - Negatively impact health, well-being, and quality of life.

The Three D’s

- Symptoms
- Epidemiology
- Assessment Tools

Depression in Older Adults

Depression: Symptoms

- You are probably fairly familiar this point with the symptoms of depression …
- However, depression manifests differently in older adults than it does in younger populations.
- This section reviews the symptoms of depression, highlighting common differences specific to older adults.

Depression: Symptoms

- Three types of symptoms:
  - Mood
  - Physical
  - Cognitive

Depression: Mood Symptoms

- Sadness
  - In older adults, sadness may be denied -- many complain of bodily aches and pains, rather than admitting to their true feelings of sadness.
- Loss of interest and pleasure in usual activities.
- Irritability
  - This is especially common in older adults.

Depression: Physical Symptoms

- Abnormal appetite with weight loss or weight gain.
- Abnormal sleep
  - Difficulty falling asleep, frequent awakenings during the night or very early morning awakening.
- Fatigue or loss of energy.
- Psychomotor retardation or agitation.

Depression: Cognitive Symptoms

- Abnormal self-reproach or inappropriate guilt.
- Abnormal poor concentration or indecisiveness.
  - The term "abnormal" here and on the previous slide means different from the individual's usual functioning. In other words, "abnormal for him or her."
- Pseudo dementia= depression with cognitive impairments
- Morbid thoughts of death (not just fear of dying or thoughts about death) or suicide.

Depression: Epidemiology

- Of particular concern to social workers …
- … the incidence of depression is higher among older adults in clinical settings.
- For example, depressive symptoms occur in:
  - 15 to 20 percent of community-based elders.
  - 37 percent of elders in primary care settings.
  - 50 percent of elders in long-term care settings.

Depression: Epidemiology

- Among older adults:
  - Depression is associated with increased mortality and morbidity rates.
  - The incidence of depression increases in conjunction with medical conditions (Conwell, 1994).
  - Depression can lead to increased mortality from other diseases such as heart disease, myocardial infarction, and cancer (U.S. Dept. of Health and Human Services, 1997).

Depression: Epidemiology

- Among older adults untreated depression may also result in:
  - Increased substance abuse.
  - Slowed recovery from medical illness or surgery.
  - Malnutrition.
  - Social isolation (Katz, 1996).

Depression: Epidemiology

- One of the most troubling outcomes of depression is elder suicide.
- Older adults have the highest risk of suicide of any age group.
  - The suicide rate for individuals aged 85 and older is the highest at about 21 suicides per 100,000 people.
  - Studies reveal that single, white, elderly males have the highest rate of suicide and are more likely to succeed than their female counterparts.

Depression: Assessment Tools

- Geriatric Depression Scale (GDS)
- Cornell Depression Scale for Depression in Dementia
  - This is appropriate for clients with cognitive deficits (MMSE scores 12 or below) since the GDS requires the ability to respond accurately to yes/no questions.
- Center for Epidemiological Studies Depression Scale (CES-D)
- Suicide risk assessment

Dementia and Older Adults

Dementia: Definition

- A chronic and progressive loss of intellectual functions severe enough to interfere with everyday life.

Dementia: Symptoms

- Include disturbances of multiple higher functions of the brain including:
  - Memory
  - Thinking
  - Orientation
  - Comprehension
  - Calculation
  - Learning capacity
  - Language and judgment.
- Symptoms frequently cause changes in mood, behavior, and personality.

10 Warning Signs of Dementia

- Memory loss
- Difficulty performing familiar tasks
- Problems with language
- Disorientation to time and place
- Poor or decreased judgment
- Problems with abstract thinking
- Misplacing things
- Changes in mood or behavior
- Changes in personality
- Loss of initiative

Most Common Types of Dementia

- 56 percent = Alzheimer's disease
- 14 percent = Vascular or multi-infarct dementia
- 12 percent = Multiple causes
- 8 percent = Parkinson's disease
- 6 percent = Other
- 4 percent = Head injury

Since Alzheimer’s Disease is the most common type of dementia

We’ll focus specifically on it…

Alzheimer's: Epidemiology

- Not a normal part of aging, but the prevalence of Alzheimer's increases with age.
- For example, risk doubles every 5 years after age 65:
  - 2 percent ages 65 to 74.
  - 19 percent ages 75 to 84.
  - 47 percent age 85 and older.
- Currently there are 5.2 million persons with Alzheimer's dementia in the U.S; by 2050 projections suggest an increase from 11 to 16 million.

Alzheimer’s: Epidemiology

- According to the Alzheimer’s Association, every 71 seconds, someone develops Alzheimer’s.
- Alzheimer's is the seventh-leading cause of death.
  - Next to cancer, Alzheimer’s is the most feared disease among all age groups.
  - After age 55, fear of developing Alzheimer’s surpasses fear of cancer.
  - 3 out of 5 adults worry that they will be responsible for caring for someone with dementia.
- The direct and indirect costs of Alzheimer’s amount to more than $148 billion each year.

What is Alzheimer's Disease?

- Like all dementias, it is a disease of the brain causing progressive declines in memory.
- Results in the loss of intellectual functions severe enough to interfere with everyday life specifically related to:
  - Thinking
  - Remembering
  - Reasoning

What is Alzheimer's Disease?

- Hallmarks: Begins gradually with individual variation in the rate of progression.

- Symptoms:
  - Forget recent events
  - Have difficulty performing familiar tasks
  - Confusion
  - Personality and behavioral changes
  - Impaired judgment
  - Communication difficulties
  - In late stages, the individual is totally unable to care for him or herself.

Difference Between Alzheimer's and Normal Memory Difficulties?

- Many older adults fear that minor memory problems they experience may signify Alzheimer's dementia.
- The following slide contrasts the memory problems related to Alzheimer's dementia with the minor memory problems sometimes associated with aging …

Difference Between Alzheimer's and Normal Memory Difficulties?

Activity	*Alzheimer's Disease*	*Age-associated Memory Problems*
Forgets	Whole experiences	Parts of an experience
Remembers later	Rarely	Often
Can follow written or spoken directions	Gradually unable	Usually able
Can use notes	Gradually unable	Usually able
Can care for self	Gradually unable	Usually able

Difference Between Alzheimer's and Normal Memory Difficulties?

- An example of forgetting part of an experience with normal memory challenges: *You forget where you put your car keys.*
- How this would present with Alzheimer's Dementia: *You forget what your car keys are for.*

Stages of Alzheimer's

Alzheimer's disease has recognizable stages:

1. No cognitive impairment
2. Very mild decline
3. Mild cognitive decline
4. Moderate cognitive decline
5. Moderately severe cognitive decline
6. Severe cognitive decline
7. Very severe cognitive decline

Alzheimer's: Assessment

- There is no absolute method for diagnosing Alzheimer's dementia other than autopsy.
- The clinical diagnosis of this condition is accomplished by ruling out other potential causes of cognitive decline.

Rule Outs for Alzheimer's Dementia

TESTS	*RATIONALE – rule out…*
Urinalysis	Kidney dysfunction, toxic encephalopathy
CBC, sedimentation rate, electrolytes	Anemia, electrolyte imbalance
Blood Urea Nitrogen (BUN)/creatinine, liver function test	Liver dysfunction
Thyroid function	Thyroid dysfunction
Serum B 12	Vitamin deficiency
Syphilis serology	Syphilis
HIV test	AIDS dementia
Neuroimaging studies: CT or MRI	Tumor, subdural hematomas, abscess, stroke, or hydrocephalus

Alzheimer's: Assessment

- Assessment tools that help determine an individual's stage of Alzheimer's dementia:
  - Global Deterioration Scale
  - Brief Cognitive Rating Scale
  - Functional Assessment Staging Tool
- Mini Mental Status Exam (MMSE)
  - Cannot diagnosis Alzheimer's dementia, but it can help identify an individual's cognitive strengths and limitations.
  - Often used as a screening tool.
- Other cognitive tests: Clock test, SLUMS exam, Brief Portable Mental Status Questionnaire.

Normal Pressure Hydrocephalus

- 375,000 Americans may have NPH and be misdiagnosed with Alzheimer's or Parkinson's or other types of Dementia.
- Clinical Features are Similar to Dementia
- It is imperative that NPH is properly diagnosed and treated because in many cases the symptoms can be reversed.
- ViDEO: NPH The Untold Story 60 Min's

Delirium in Older Adults

Delirium: Definition

- A mental disturbance characterized by sudden changes in mental functioning or acute confusion and fluctuating levels of consciousness.
- Delirium is the most acute condition of the three D's and is a true medical emergency.

Delirium: Symptoms

- Disorganized thinking
- Disorientation to time and place
- Reduced level of attention (drowsiness)
  - Client may fall asleep during an interview.
- Increased or decreased psychomotor activity
  - Or apathy, which is sometimes mistaken for depression
- Increased agitation
- Disturbances in sleep cycle

Delirium: Symptoms

- Three Types:
  - Hyperactive: Features of this type of delirium include psychomotor agitation, increased arousal and delusions. The degree of cognitive impairment may be variable and even minimal in some instances.
  - Hypoactive: Features of this type of delirium include withdrawal, lethargy and reduced arousal.
  - Mixed: Characteristics of both hyperactive and hypoactive delirium.
- The hypoactive form is the most frequently overlooked because patients present with less problematic behavioral symptoms.

Delirium: Symptoms

- Four criteria are assessed in diagnosing delirium:
  - Acute onset and fluctuating course
  - Inattention
  - Disorganized thinking
  - Altered level of consciousness
- The diagnosis of delirium requires the presence of criteria 1 and 2 and either 3 or 4.

Delirium: Epidemiology

- Present in 10-15 percent of older adult hospital admissions.
- Occurs in:
  - 10-30% 0f hospitalized older adults.
  - More than 50% of post-operative hospitalized patients.
  - 70-80% in the ICU.
  - Up to 60% of nursing home residents over age 75 may have delirium at any time!
- 1 year mortality rate is 35-40 percent.

What Causes Delirium?

- The primary causes are underlying medical conditions, medications, or drug withdrawal:
  - Urinary tract infections
  - Reaction to prescribed medications or illicit drugs
  - Low blood pressure
  - Head injuries or falls
  - Dehydration
  - Alcohol withdrawal
  - Sensory deprivation (often experienced by hospitalized seniors, those having hearing impairments, or other sensory input limitations).

Delirium: Assessment

- Because delirium is an emergency medical condition, medical (rather than social work) assessment and intervention is warranted.
- However, given that delirium is one of the most under-recognized conditions in older adults, social work awareness of how to identify it is critical to enhancing quality of care.
- Similarly, familiarity with standards of care for the treatment of delirium will help social workers serve as informed advocates for their older clients.

Now that you have an understanding of the differences among the three D's …

… Things get more complicated.

It is common for older adults to experience more than one of the three D’s at the same time!

- So how do you tell the difference among the three of them?
- Next we’ll look at differential diagnosis of the three D’s …

Depression and Dementia

- 20-40 percent incidence rate; equal across men and women.
- In the nursing home setting, rates may be as high as 50 to 75 percent.

Depression in Dementia: Difficult to Diagnose

- Some symptoms of dementia mimic those of depression (see handout):
  - Apathy
  - Loss of interest
  - Social withdrawal
- Cognitive deficits hinder verbalization of sadness, hopelessness, guilt and other feelings associated with depression.

Delirium and Dementia

- The prevalence of delirium superimposed on dementia ranges from 22% to 89% in hospitalized and community populations aged 65 and older.
- Delirium is even more likely to be overlooked in the context of dementia; predictors for under-recognition:
  - Presence of the hypoactive form of delirium
  - Age 80 and older
  - Vision impairment
  - Dementia diagnosis
- Results of untreated delirium in persons with dementia:
  - Accelerated and long-term cognitive and functional decline
  - Need for institutionalization
  - Rehospitalization
  - Increased mortality (Fick, Agostini, & Inouye, 2002).

Delirium and Dementia

Is it Delirium or Dementia?		
	Delirium	Dementia
Onset	Rapid (hours/days); rapid decrease in MMSE score.	Slow (months, years); slow decline of 2 to 3 MMSE points over a period of years.
Symptoms	Fluctuate over the course of the day.	Relatively stable.
Duration	Days to weeks.	Years.
Orientation	Disorientation and disturbed thinking are intermittent.	Persistent disorientation.
Level of consciousness	Fluctuates, with inability to concentrate.	Alert, stable.
Sleep/wake cycle	Sleep/wake cycle may be reversed.	Sleep may be fragmented.

Resources for Obtaining Assessment Tools

- Geriatric Depression Scale: http://www.stanford.edu/~yesavage/GDS.html
- Indian Depression Schedule: Manson, S.M., Shore, J.H., & Bloom, J.D. (1985). The depressive experience in American Indian communities: A challenge for psychiatric theory and diagnosis. In A. Kleinman and B. Good (Eds.) *Culture and depression: Studies in the anthropology and cross-cultural psychiatry of affect and disorder,* pp. 331-368. Berkeley, CA: University of California Press.
- Cornell Scale for Depression in Dementia: http://img.medscape.com/pi/emed/ckb/psychiatry/285911-1335300-1356106-1392041.pdf
- CES-D: http://patienteducation.stanford.edu/research/cesd.pdf

Resources for Obtaining Assessment Tools

- Suicide risk assessment: http://www.valueoptions.com/providers/Network/NCSC_Government/Suicide_Risk_assessment_Form.pdf
- MMSE: http://www.minimental.com/
- SLUMS: http://medschool.slu.edu/agingsuccessfully/pdfsurveys/slumsexam_05.pdf
- Clock Drawing Test: http://alzheimers.about.com/od/diagnosisissues/a/clock_test.htm
- Short portable mental status questionnaire: http://www.npcrc.org/usr_doc/adhoc/psychosocial/

Resources for Obtaining Assessment Tools

- Brief Cognitive Rating Scale: http://www.zarcrom.com/users/alzheimers/4-cp8a.html
- Global Deterioration Scale: http://web.missouri.edu/~proste/tool/cog/Global-Deterioration-Scale.pdf
- Functional Assessment Staging (FAST): http://www.bigtreemurphy.com/Reisberg%20FAST.htm