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Mental Health Aspects of Diabetes in Elders from Diverse Ethnic Backgrounds

Overview

Prepared by:
Jill LeCount, RN, MS, CNS

Based on work by:
Jill LeCount, RN, MS, CNS; Melen McBride, RN, PhD; Caroline Fee, MA; Levanne Hendrix, GNP, PhD; Gwen Yeo, PhD

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Objectives

- Discuss the risks of depression and cognitive loss among elders with diabetes.
- Identify general guidelines for screening, assessment, and health promotion in older adults with diabetes.

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What can we learn about the details of diabetes, depression, and cognitive loss that might lead to care improvements?

Significance of problems and specifics within existing "good" studies:

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- Large, multi-site randomized controlled clinical trials with diverse populations
- Meta-analyses of studies that compare and analyze studies
- Variables spelled out, statistical significance explained, conclusions match data
- Gaps: some large studies exist, but specifics on minority populations are not always easy to find

What do we know about diabetes and depression?

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- Depression is more common in people with Diabetes Mellitus (DM)
- This fact may impede self-management
- Depressed older adults with DM incur higher non-mental health costs than those who are not depressed
- Older adults have high rates of under diagnosis and under treatment of their depressive symptoms
- Poorer outcomes of DM care for patients with unrecognized depression

American Geriatrics Society and California Healthcare Foundation, (May 2003). "Guidelines for Improving the Care of the Older Person with Diabetes Mellitus"

What do we know about diabetes and depression? (cont.)

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- Depression is more prevalent among adults with diabetes and they have a higher recurrence and longer duration of major depressive disorder and depressive symptoms (Talbot & Nouwen, 2000)
- Higher odds of functional disability with comorbid diabetes and depression (Egede, 2004)
- Major depressive disorder predicted the onset of diabetes (Eaton, Armenian, Gallo, Pratt & Ford, 1996)

Highlights of some of the meta-analyses:

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- Meta-analysis of 42 studies concluded that the presence of diabetes double the odds of co-morbid depression with higher incidence among women (Anderson, Freeland, Clouse, & Lustman, 2001)
- Meta-analysis of 27 studies and a large retrospective study (16,180 subjects) concurred (Nichols & Brown, 2003)

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- Risk of depression in any chronic illness vs. risk in DM: DM places the unique burden of invasive blood glucose monitoring, diet, and exercise resulting in greater prevalence for depression compared to those with other chronic illnesses (Harris, 2003)

How does cognitive impairment among diabetics come into play?

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- The risk for co-morbid cognitive loss and diabetes is greater than in years past due to the increased mean age of individuals with DM

  (Koro et al ‘04; Hewer et al. ‘03; Mohammad et al.2003; Ott, 1999)
- Better glycemic control = better cognitive function (Gradman et al. 1993 and Stewart et al. 1999)

How does cognitive impairment among diabetics come into play? (cont.)

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- When severe hypoglycemia does occur, cognitive and mood declines return to baseline quickly with prompt treatment (Strachan et al. 2000)
- Cognitive impairment does not necessarily worsen the mortality rate for people with DM (Gambassi, et al. 1999)

Criteria for diagnosis of DM among older adults *includes 1 or more of the following:*

- Symptoms of diabetes (e.g. polyuria, polydipsia, polyphagia, unexplained weight loss) plus casual plasma glucose concentration of ≥ 200 mg/dl
- Fasting (no caloric intake for ≥ 8 hours) plasma glucose ≥ 126 mg/dl
- 2 hour plasma glucose ≥ 200 during an oral glucose tolerance test (Reuben, Herr, Pacala, et al. 2004)

Comprehensive Evaluation Might Also Include:

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- Social & economic history
- Family health history
- Physical examination
- Physical activity
- Mental health
- Nutrition
- Attitude towards diabetes treatment & management
- Emergency preparedness

Educational Interventions – Are they effective?

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"Intensive lifestyle interventions" were effective

- The National Institute of Diabetes and Digestive, and Kidney Disease (NIDDK) Diabetes Prevention Program study 1996-2002
- 3,234 participants
- Average age 51
- 45% minority groups
- Interventions focused on diet and exercise

Educational Interventions – Are they effective? (cont.)

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- The Diabetes Prevention Program (DPP) concluded that “diet and exercise can effectively delay diabetes in a diverse American population of overweight people with impaired glucose tolerance” (NIDDK, 2002)

Educational Interventions – Are they effective? (cont.)

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- Self-Management Training in Diabetes Reviews
  - Evidence that identifying depression in diabetics coupled with self-management training can improve outcomes under specific circumstances
  - 72 randomized controlled trials (Norris, Engelgau, & Narayan, 2001)

Educational Interventions – Are they effective? (cont.)

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- Decrease Co-morbid Depression Risk Factors
  - Social support
  - Being married
  - Having accommodations for functional limitations
  - Interactive rather than didactic training better
  - Drug therapy in combination with behavioral treatment more effective than RX alone; SSRI's over Tricyclics (due to hyperglycemic and carb. craving effects of the later)

These specific circumstances are the very things that can vary so much in different populations and individuals!

Guidelines for Improving the Care of the Older Person with Diabetes Mellitus

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(California Healthcare Foundation/ American Geriatrics Society Panel on Improving Care for Elders with Diabetes, 2003)

- Screen for depression and cognitive impairment
- Make recommendations for management of risk factors and prevention of complications
- Emphasize maintaining ≤ 7% hemoglobin A1c
- Urges culturally and linguistically appropriate methods of diabetes education

What are some of the culturally and linguistically appropriate?

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- Assessments
- Clinical interventions
- Methods of teaching