Non-pharmacologic Treatment of Depression in the Elderly

Michael J Rice Ph.D., APRN-NP FAAN

Professor: College of Nursing
University of Nebraska Medical Center
Objectives

1. Explain the application of traditional psychotherapy models in the treatment of depression in the elderly.
2. Review the use of spirituality in treatment of depression.
3. Examine the use of exercise programs with depression, such as Qigong, Tai Chi, and physical activity.
4. Discuss the use of bereavement therapy for the treatment of depression in the elderly.
5. Describe the use of reminiscent therapy to offset depression.
Elder Depression

Less likely to be seen in mental health
More likely to see primary care regularly
Of elders who complete suicide, most see primary care provider shortly before death
FORM OF ELDER DEPRESSION

Psychopathology differs from psychiatric sites
Point prevalence of 10% psychopathology seen
Often defined or received various labels including
  Dysthymic disorder,
  Minor depression,
  Subsyndromal, or subthreshold depression.
Elder Health Care Utilization

Greater with Major Depression

Consequently greater costs

Predict mortality,
Cognition

Associations between depressive symptoms and cognitive impairment

Complex and potentially bidirectional
Medical co morbidity

Hallmark of later life depression, and

Reciprocal relationships between the two

Cardio

Cerebrovascular risk factors
Functional status

Powerfully associated with functional disability in domains including

1. Occupational,
2. Social,
Personality Trait Neuroticism,

A well-characterized trait with demonstrated stability
Traditional Psychotherapy

Intentional interpersonal relationship used by trained psychotherapists to aid a client in solving problems
Types of Psychotherapy studied

Problem Solving
Insight Oriented
Psychodynamic
Cognitive Behavioral Therapy
Mindfulness
Modular Psychotherapy
## Evidence Overview

<table>
<thead>
<tr>
<th>Author</th>
<th>Design</th>
<th>Sample</th>
<th>Intervention</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jonkers 2010</td>
<td>RCT</td>
<td>361 older adults</td>
<td>Nurse managed One Group Pre post test CBT</td>
<td>Nine months after the intervention, significantly fewer depressive symptoms; ( \geq 50% ) reduction in depressive symptoms</td>
</tr>
<tr>
<td>Wetherell, et al 2009</td>
<td>RCT</td>
<td>31 older adults</td>
<td>Psychotherapy v. enhanced community treatment</td>
<td>Both interventions effective. Statistically significant improvements were found in anxiety symptoms, worry, depressive symptoms,</td>
</tr>
<tr>
<td>Wilson, Mottram &amp; Vassilas, 2009</td>
<td>Cochrane Review</td>
<td>7 trials on CBT controls 3 trials CBT vs Psychodynamic</td>
<td>CBT and CBT vs psychodynamic therapy</td>
<td>CBT was superior to active control interventions CBT equivalent to psychodynamic</td>
</tr>
<tr>
<td>Josten-Weyn 2008</td>
<td>one group pre post</td>
<td>22 Elders</td>
<td>One group Pre Post test</td>
<td>Positive changes after a CBT group for patients with mild cognitive impairment</td>
</tr>
<tr>
<td>Jonkers et. Al 2007</td>
<td>RCT</td>
<td>361 Elders</td>
<td>Nurse managed One Group Pre post test CBT</td>
<td>Increase in self efficacy</td>
</tr>
<tr>
<td>Van Schaik, et al 2006</td>
<td>RCT--2 groups</td>
<td>143 patients</td>
<td>10 sessions of IPT v. care as usual</td>
<td>Reduced depression improved social and mental functioning</td>
</tr>
</tbody>
</table>
Psychotherapy

Modular psychotherapy reduces anxiety symptoms, worry, depression and improved quality of life

Interpersonal therapy reduces depression, improves social and overall mental functioning

Interpersonal therapy increases time to remission of depression with lower cognitive functioning

Cognitive behavioral therapy reduces depression, worry, increases life satisfaction

Self-worth therapy reduces depressive symptoms two months after treatment

Problem-solving therapy reduces depressive symptoms and number of depressive days for up to 2 years after treatment
Cognitive Stimulation

Using stimulation of any basic cognitive function to prevent the decline of functional skills and offset depression
## Evidence Overview

<table>
<thead>
<tr>
<th>Author</th>
<th>Design</th>
<th>Sample</th>
<th>Intervention</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>McDougall, G 2010</td>
<td>RCT prospective</td>
<td>26 Elders</td>
<td>CBT memory</td>
<td>Significant change in functional status and depression</td>
</tr>
<tr>
<td>Optale, et al 2010</td>
<td>RCT</td>
<td></td>
<td>18 in the VR memory training group, 18 in the control group</td>
<td>training associated with improvement on memory tests (esp long-term recall)</td>
</tr>
<tr>
<td>Wolinsky, et al 2009</td>
<td>RCT</td>
<td></td>
<td>Memory, reasoning, speed-of-processing training, no-contact</td>
<td>speed of processing group had 30% less depression v. no-contact control group</td>
</tr>
<tr>
<td>Kawashima, et al 2005</td>
<td>RCT</td>
<td></td>
<td>Reading and Math Problems</td>
<td>Reading aloud and math problems can help restore frontal lobe function and independence</td>
</tr>
<tr>
<td>McDougall, G 2000</td>
<td>RCT prospective</td>
<td>110 elders</td>
<td>CBT model of everyday memory</td>
<td>Prospective memory items improved</td>
</tr>
</tbody>
</table>
Cognitive Exercises Summary

Visual Speed training (search, identify and locate visual information) can reduce depression rates at one year.

Reading and math problems help restore frontal lobe function and independence.

Virtual reality memory training can improve performance on memory and long term recall.
Exercise

Any bodily activity that enhances or maintains physical fitness and overall health.
# Evidence Overview

<table>
<thead>
<tr>
<th>Author</th>
<th>Design</th>
<th>Sample</th>
<th>Intervention</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kin, Yoshida &amp; Suzuki, 2010</td>
<td>RCT 2 group pre and post-test</td>
<td>31 in intervention, 30 in control</td>
<td>Multidimensional exercise</td>
<td>Intervention group showed greater and significant decrease in the score of MSGS</td>
</tr>
<tr>
<td>Dechamps et al. 2010</td>
<td>RCT2 programs</td>
<td>Tai Chi vs cognitive action</td>
<td>Exercise vs Cognition</td>
<td>The control group experienced a decline in ADL Vs tai chi and cognition-action groups</td>
</tr>
<tr>
<td>Chen et al. 2009</td>
<td>RCT--2 groups</td>
<td>129 adults over 60</td>
<td>70 min yoga, 3x/wk x 6 months</td>
<td>Yoga improves physical and mental health perception, and depression state</td>
</tr>
<tr>
<td>Lu &amp; Kuo 2006</td>
<td>Observation</td>
<td>90 elderly people</td>
<td>Tai Chi, Wai Tan Kung</td>
<td>Lowered sympathetic nervous system stimulation,</td>
</tr>
<tr>
<td>Motivala, Sollers, Thayer &amp; Irwin 2006</td>
<td>Prospectve, RCT, 2 groups</td>
<td>32 older adults</td>
<td>Tai Chi</td>
<td>Tai chi reduced sympathetic activity,</td>
</tr>
<tr>
<td>Baum, et al. 2003</td>
<td>Prospective, RCT, 2 groups</td>
<td>20 frail elderly LTC residents</td>
<td>Exercise group 1 hr 3x/wk for 6 months</td>
<td>Exercise increased MMSE scores by 3.1</td>
</tr>
<tr>
<td>Fitzsimmons &amp; Buettner 2002</td>
<td>Prospective, pre/post-test</td>
<td>29 adults over 65 living at home</td>
<td>Recreational therapy</td>
<td>RT reduced agitation and passivity</td>
</tr>
<tr>
<td>Fitzsimmons &amp; Buettner 2002</td>
<td>Prospective, pre/post-test</td>
<td>29 adults over 65 living at home</td>
<td>Recreational therapy</td>
<td>RT reduced agitation and passivity</td>
</tr>
</tbody>
</table>
Exercise

Yoga reduces daytime dysfunction, depression, improves sleep quality, physical and mental health

Exercise improves MMSE scores

Recreational therapy reduces agitation, passivity, and clinging to caregiver

Tai Chi and Wai Tan Kung reduce sympathetic nervous system activity
Reminiscence Therapy

Guided by a trained person to reflect on a variety of aspects relating to their lives. Reflections may be themed on one period in time or wider and reflect a guided discussion through an issue across time.
# Evidence Overview

<table>
<thead>
<tr>
<th>Author</th>
<th>Design</th>
<th>Sample</th>
<th>Intervention</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wang 2007</td>
<td>RCT 2 group pre and post-test</td>
<td>102 elderly</td>
<td>Group reminiscence therapy</td>
<td>Improved cognitive function and reduced depression</td>
</tr>
<tr>
<td>Chao, et al 2006</td>
<td>Quasi-experimental</td>
<td>24 elderly nursing home residents</td>
<td>Reminiscence therapy</td>
<td>Improved self-esteem, but not depression</td>
</tr>
<tr>
<td>Baillon, 2004</td>
<td>Crossover RCT</td>
<td>20 people with dementia</td>
<td>Snoezelen therapy, reminiscence therapy</td>
<td>Both interventions reduced agitated behavior</td>
</tr>
<tr>
<td>Wang 2004</td>
<td>Quasi-experimental design</td>
<td>48 elderly people</td>
<td>Individual reminiscence therapy</td>
<td>Effective for reducing agitation and depression in institutionalized people</td>
</tr>
<tr>
<td>Hsieh &amp; Wang 2003</td>
<td>Systematic Review</td>
<td>9 studies</td>
<td>Reminiscence therapy</td>
<td>Tx v. standard care: 4 studies favored tx, 4 showed no difference</td>
</tr>
<tr>
<td>Jones 2002</td>
<td>Quasi-experimental pre-test post-test</td>
<td>30 long-term care residence</td>
<td>Reminiscence therapy</td>
<td>Experimental group showed reduced depression</td>
</tr>
</tbody>
</table>
Reminiscence Therapy

Reminiscence therapy improves cognitive function, self-esteem, reduces depression.

Reminiscence therapy can be effective for institutionalized people.
Music Therapy

An interpersonal process in which the therapist uses music activities to help clients to improve or maintain their health.

Activities involve improvising, re-creating, composing, listening.

After the activity clients discuss the music, reactions to music, such as thoughts, images or feelings.
## Evidence Overview

<table>
<thead>
<tr>
<th>Author</th>
<th>Design</th>
<th>Sample</th>
<th>Intervention</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lou 2001</td>
<td>Systematic Review</td>
<td>7 studies</td>
<td>Music therapy and relaxation</td>
<td>Six out of seven studies showed that music reduces agitated behaviors</td>
</tr>
<tr>
<td>de Niet, Tiemens, Lendemeijer, &amp; Hutschemaekers 2009</td>
<td>Meta-analysis--5 studies</td>
<td>308 older adults total</td>
<td>Music-assisted relaxation</td>
<td>Music-assisted relaxation was associated with moderate sleep improvement</td>
</tr>
<tr>
<td>Remington 2002</td>
<td>Repeated measures</td>
<td>68 nursing home residents with dementia</td>
<td>Calming music, hand massage</td>
<td>All interventions significant in reducing behaviors for one hour post intervention</td>
</tr>
<tr>
<td>Wall, Duffy</td>
<td>Review of literature</td>
<td>13 studies</td>
<td>Music therapy</td>
<td>Most studies found music therapy effective in reducing agitation in individuals with dementia</td>
</tr>
<tr>
<td>Suzuki, et al 2004</td>
<td>Pre and post test</td>
<td>23 elderly</td>
<td>Music therapy</td>
<td>Music therapy group had improvement in language on MMSE and reduced irritability</td>
</tr>
<tr>
<td>Leger &amp; Baker 2007</td>
<td>Pre and post test</td>
<td>35 people with Alzheimer’s disease</td>
<td>Weekly music therapy groups</td>
<td>No significant differences found</td>
</tr>
</tbody>
</table>
Music Therapy

Music therapy can reduce irritability, agitation, and problem behaviors in people with depression and dementia.

Music therapy can improve language functioning in people with dementia.

Music therapy can improve sleep in depressed elders.
Community Vigilance and Treatment Models

Treatment approach designed to provide comprehensive, community-based psychiatric treatment and support to elders
Community Treatment Models

Gatekeeper Models

Assertive Community Treatment Models

Primary Care Problem Solving
## Evidence Overview

<table>
<thead>
<tr>
<th>Author</th>
<th>Design</th>
<th>Sample</th>
<th>Intervention</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corsentino, et al 2009</td>
<td>Longitudinal Survey</td>
<td>2938 adults over 65 in North Carolina</td>
<td>NA</td>
<td>More freq relationships and attendance associated with reduced cognitive decline</td>
</tr>
<tr>
<td>Van Critters &amp; Bartels 2004</td>
<td>Cochrane Systematic Review</td>
<td>14 studies</td>
<td>Community Psychosocial Interventions</td>
<td>All studies reported improved depressive symptoms.</td>
</tr>
<tr>
<td>Rabins et al. 2000</td>
<td>Prospective RCT</td>
<td>945 adults 60 and older</td>
<td>Screening group and control</td>
<td>Screening helps to reduce psychiatric symptoms and prevent higher levels of symptoms</td>
</tr>
</tbody>
</table>
Community

Enhanced community treatment reduces anxiety symptoms, worry, depressive symptoms, and improved mental health-related quality of life.

Mental health screening for elders helps providers to identify treatment needs and improve outcomes.

More frequent religious attendance is associated with reduced cognitive decline.
Dietary Supplements

A dietary supplement, also known as food supplement or nutritional supplement, is a preparation intended to supplement the diet and provide nutrients, that may be missing or may not be consumed in sufficient quantity in a person's diet.
## Evidence Overview

<table>
<thead>
<tr>
<th>Author</th>
<th>Design</th>
<th>Sample</th>
<th>Intervention</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Malouf, Grimley &amp; Areosa 2008</td>
<td>Systematic Cochrane Review</td>
<td>8 RCT</td>
<td>Folic Acid with B12</td>
<td>No evidence that folic acid with or without vitamin B12 improves cognitive function of unselected elderly people with or without dementia</td>
</tr>
<tr>
<td>Isaac, Quinn &amp; Tabet</td>
<td>Cochrane Systematic review</td>
<td>2 RCT’s</td>
<td>Vitamin E</td>
<td>No evidence of Vit. E effect.</td>
</tr>
</tbody>
</table>
Spirituality

Inner path enabling a person to discover their being and the “deepest values \ meanings by which people live.

Considered an integral aspect of religion
Evidence Overview

No RCT’s, Difficult to do

Observational reports and questionnaires
Religion Summary

Religion as a factor in helping elders them cope with stressful life events and medical illnesses (Koenig et al., 1992; Levin, 1995).

Religiousness associated with less severe depressive symptoms

More frequent religious attendance is associated with reduced cognitive decline
Remaining Interventions

Reiki- Reduces ALZ - no tests on depression

Pet Therapy

2 studies

One positive and one showed no effect
Grief

Bowlby’s (1980) on attachment and separation.

Research has identified psychiatric syndromes has relationships to Mortality, Bereavement-related behaviors, and Dementia (Harwood, 2001)
Grief

Normative process of movement

Linked with successful coping and resolution of a loss
Bereavement

Abnormal reaction to the stress of loss and the challenges of adaption

Correction of cognitive distortions associated with insecure attachment styles

Predispose to complicated grief
Bereavement (cont)

40% meet criteria for MDD within a month of the death.

At 12 months 15% are depressed and

At 2 years, 7% (Hensley PL 2006)
Bereavement

With medications, depression symptoms improve more than bereavement  Hensley 2006

Interpersonal psychotherapy
Bereavement RX

Remission for nortriptyline plus interpersonal psychotherapy was 69%  
Nortriptyline, 56%  
Interpersonal psychotherapy, 29%
Conclusion

A variety of non pharmacological interventions exist with demonstrated effectiveness in reducing and managing depression in the elderly.

Many interventions focus on proactive interventions

More complex issues of bereavement may need pharmacological support.