SESSION 3: Prevention of mental disorders and support to those mentally ill

Diana De Ronchi, MD PhD
Figure 1: Contribution by different non-communicable diseases to disability-adjusted life-years worldwide in 2005
Data adapted from WHO, with permission.
The Top 10 Hot Topics in Aging

- COGNITIVE DECLINE
- DEPRESSION

The urgency of addressing depression as a public-health priority to reduce disease burden and disability

- Moussavi, The Lancet 2007
Byers, et al, 2010
Figure 1: Suicide rates in selected regions and countries
In 2004 there were 110 million ED visits in the USA, an 18% increase from 1994. 

>65 yrs accounted for 14.3% of these visits

- Sociodemographic imperative
- Psychiatric illness prevalence
- Cohort effects
- Medical comorbidity
- Mental health care resources and utilization

ELDERLY NEED FOR PSYCHIATRIC EMERGENCY SERVICES (Walsh et al, 2008)
Increased prevalence of mental health conditions

Decreased mortality for serious mental disorders

Psychiatric admitting diagnosis from ED >65 years

• Dementia 38.8
• Mood disorder 29.5
• Schizophrenia/psychosis 19.8
• Substance-related 8.9
• Anxiety disorder 2.3
• Medication-induced 0.7
Depression exacerbates the outcome of medical illnesses. The elderly with depression are almost four times more likely than those without depression to die within 4 months of a myocardial infarction.
Risk of coronary heart disease

Depression

Relative risk (95% CI)

- Observational studies
- Genetic studies
- Randomised controlled trials

Aetiological
Prognostic
MTHFR v depression
APOE v depression
MTHFR v coronary heart disease
APOE v coronary heart disease
Cognitive behavioural therapy
IPT with or without citalopram
Mirtazapine or citalopram

Kuper, et al., BMJ 2009
Platelet aggregation is raised in depressed patients, suggesting that depression increases the risk for cardiovascular disease.
Silent infarcts (\(<3\) mm) are present in almost a half of elderly people with major depression.

Silent infarcts do cause subtle neurological deficits that often go unnoticed by both patients and physicians.

Psychological distress and stroke (Surtees et al, 2009)
## IADL disability

<table>
<thead>
<tr>
<th>Condition</th>
<th>OR*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nondemented without depression</td>
<td>1.0</td>
</tr>
<tr>
<td>Nondemented with depression</td>
<td>1.5</td>
</tr>
<tr>
<td>Cognitive impairment without depression</td>
<td>11.5</td>
</tr>
<tr>
<td>Cognitive impairment with depression</td>
<td>37.4</td>
</tr>
</tbody>
</table>

*Age-, gender- and education adjusted

De Ronchi, et al.  
Am J Ger Psych 2005
Very high risk for incident depression

- minor or subsyndromal depression,
- impaired functional status,
- and history of major or minor depression

- Lyness, et al, 2009
Meta-analysis of serotonin transporter gene promoter polymorphism (5-HTTLPR) association with selective serotonin reuptake inhibitor efficacy in depressed patients

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Molecular Psychiatry (2007) 12, 247–257
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www.nature.com/mp
Severity levels of disability and depressive symptoms were independent predictors of 10-year mortality among men aged 70 to 89 years at baseline.

**Figure 2**—Mortality risk for nine different combinations of disability severity and depressive symptoms

*Note.* Hazard ratio on z-axis, with men with no disability who were in the lowest tertile of depressive symptoms as reference group, adjusted for age, country, and chronic diseases.
for the development of preventive strategies and for the understanding of the underlying etiopathogenetic mechanisms of the different dementing disorders.

Model of the life course exposure to different risk and protective factors for dementia:

Risk Factors:
- Genetic risk factors
- SES-related factors
- Life habits: (e.g., smoking)
- Hypertension and other vascular risk factors
- Occupational exposure
- Vascular risk factors
- Vascular diseases
- Depression
- Head trauma

Protective Factors:
- High education
- Mental activities
- Rich social network
- Physical activities
- Diet: fish, vegetables, moderate alcohol, antihypertensive drugs, statins, NSAID

Fratiglioni et al, Lancet Neurol 2004
Molecular Psychiatry (2009)
The LEARn model: an epigenetic explanation for idiopathic neurobiological diseases
Lahiri et al
IS IT POSSIBLE TO DECREASE MORBIDITY & DISABILITY

**Risk Factors**

<table>
<thead>
<tr>
<th>Genetic factors</th>
<th>Biological changes</th>
<th>Morbidity</th>
</tr>
</thead>
</table>

**Health**
- Physical
- Psychological
- Social

**Life styles**
- Social & physical environment

**Protective Factors**

<table>
<thead>
<tr>
<th>Birth</th>
<th>Childhood-2nd decade</th>
<th>Adult life-Middle age</th>
<th>Transition</th>
<th>Old age</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>20</td>
<td>60</td>
<td>75</td>
<td></td>
</tr>
</tbody>
</table>
Nevertheless, late-life depression remains

- under-recognised and undertreated
- The use of guidelines and standardised screening instruments may improve this
European Pact for Mental Health, 2008

Priority area:

Prevention of depression and suicide

Early intervention is critical for the prevention and treatment of mental illnesses, particularly depression among the older population, particularly those with chronic physical health conditions.

Early identification creates the opportunity to prevent chronic and disabling morbidity which will cause protracted suffering and usually greater costs. Delays simply removes that opportunity.
There is no health without mental health

- can be enhanced by effective public health interventions
- Mental health is everybody’s business
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