

Psychiatry of Old Age

Brian Draper MD
University of NSW
Sydney, Australia



Presentation Outline

- 1) Introduction: The Magnitude of the Problem
- 2) Measuring quality in geriatric mental health
- 3) Models of care
- 4) Review of the evidence of the effectiveness of geriatric mental health services – from prevention to long term care
- 5) Conclusion

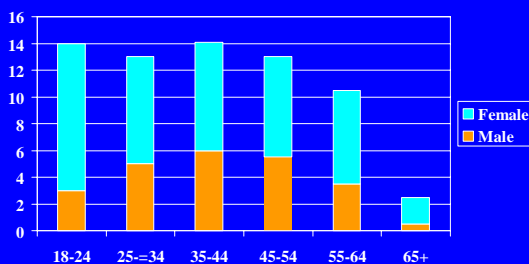
What is Geriatric Mental Health?

- Also called 'psychogeriatrics', 'geriatric psychiatry', 'old age psychiatry', 'aged care psychiatry' or 'old age mental health'.
- It is the branch of health care that deals with the mental health of older people
- It includes depression, dementia, anxiety, psychoses, delirium and associated behavioural disturbances

How common are mental disorders in the community in old age?

Depression	8-13%
Dementia	5% 65+ yrs 20% 80+ yrs
Anxiety	5-15%
Schizophrenia	1%
Alcohol Abuse	3-4% male, 1% female

How common is depression in Australia?



Prevalence of depression in physically ill older people

- (a) General Hospital Wards
23% - 45%
- (b) Medical Outpatients
20% - 24%
- (c) Nursing Home Residents
30% - 75% depressive symptoms
20% depressive disorders

What is Depression?

- Depression is not just a sad or low mood
- Depression is a serious medical disorder
- Depression has many physical and psychological symptoms
- Depression is common



Are You Depressed?

Over the last 2 weeks, have you:

- Felt sad or depressed?
AND/OR
- Lost interest or pleasure in normal activities?



Are You Depressed?

PLUS at least 2 of the following - over the last 2 weeks, have you:

- Felt guilty, worthless?
- Felt that life is not worth living/suicidal thoughts?
- Lacked motivation?
- Been forgetful?
- Slept poorly?



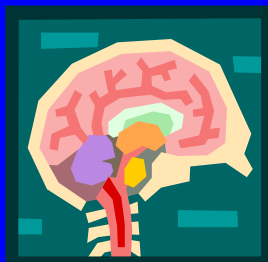
Are You Depressed?



- Felt restless?
- Unable to concentrate?
- Felt slowed down?
- Felt tired and listless?
- Poor appetite, lost weight?

Risk Factors for Depression in Late Life

- ✓ Age-related reduced serotonergic and dopaminergic function
- ✓ Genetic – mainly in early onset



Risk Factors for Depression in Late Life

Physical Health

- Main risk factor for depression in old age
- Increased risk with number of illnesses and illness severity
- Neurological disorders particularly important
- Minor depression most common outcome

Risk Factors for Depression in Late Life

Cerebrovascular Lesions

- atheromatous and ischaemic changes in white matter of dorsolateral & prefrontal cortex
- MRI scans – subcortical white matter hyperintensities

Risk Factors for Depression in Late Life

DISABILITY

- More important than illnesses
- Chronic pain
- Loss of independence
- Burden on family



Risk Factors for Depression in Late Life

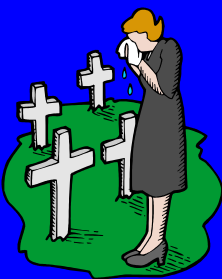


- ✓ Alcohol –
- ✓ Drugs – 22 different drugs implicated

Risk Factors for Depression in Late Life - Psychosocial

- Severe life events in combination with a lack of confidant - especially in men

Risk Factors for Depression in Late Life - Psychosocial



LIFE STRESSORS

- Death of spouse
- Divorce
- Recent losses e.g. pets,

Risk Factors for Depression in Late Life - Psychosocial



- Loneliness – increased risk of depression in next 3 years
- Living alone
- Poor accommodation

Is living in a nursing home depressing?

- Depressed elderly living in community and residential care in Canberra
- Multiple regression analyses showed that physical health variables accounted for 22.6% of variance
- Living in a nursing home had an insignificant effect

Protective Factors

- Good Physical Health
- Physical Fitness
- Adequate social support
- Marriage
- ??Social Activity
- ??Coping skills in early life
- ??Religion



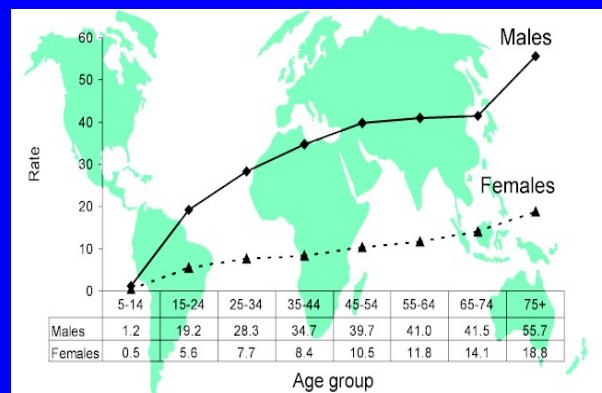
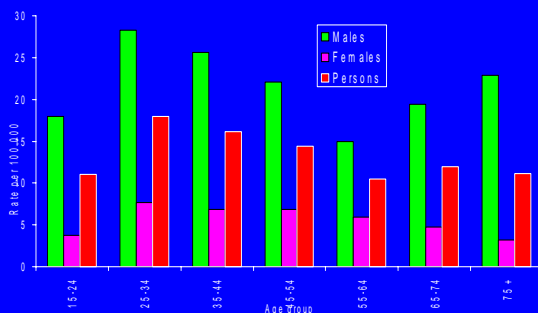
Factors hindering depression diagnosis in elderly

- Atypical presentations e.g. somatic symptoms, cognitive symptoms, behavioural change
- Poor recognition by GPs
- Older people less 'psychologically minded'
- Ageism – 'Normal to be old & depressed'

Outcomes of untreated depression

- Reduced Quality of Life
- Unnecessary suffering
- Burden – family, social, economic
- Suicide risk
- Increased health service use
- Increased physical morbidity and mortality

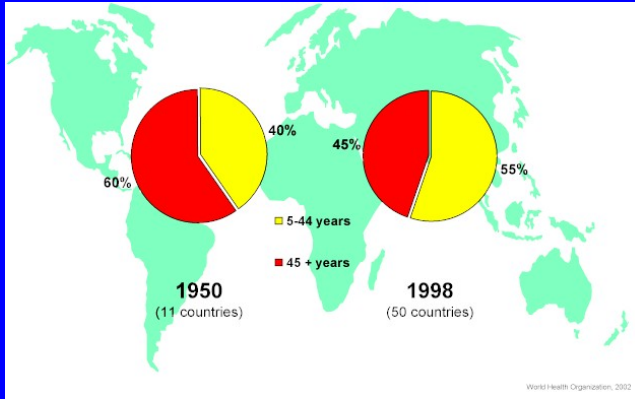
SUICIDE ACROSS THE LIFE SPAN AUSTRALIA. Age specific rates, 2003.



UTILISATION OF HEALTH SERVICES

Depressed physically ill elderly:

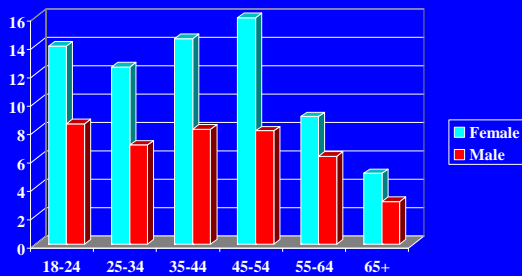
- use more hospital inpatient services
- use more hospital outpatient services
- have greater medical costs
- do not receive more mental health services



The global picture

Prevalence Anxiety Disorders in Australia, 1997

Henderson et al, 2000

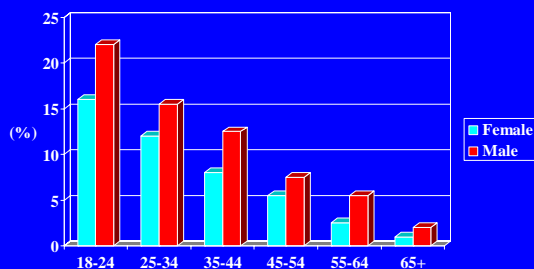


Anxiety Disorders

- Generalised Anxiety Disorder
- Phobias
- Panic Disorder
- Obsessive-Compulsive Disorder
- Post-Traumatic Stress Disorder

Prevalence of Substance Abuse, Australia 1997

Henderson, 2000



Schizophrenia, Paraphrenia and other Delusional Disorders

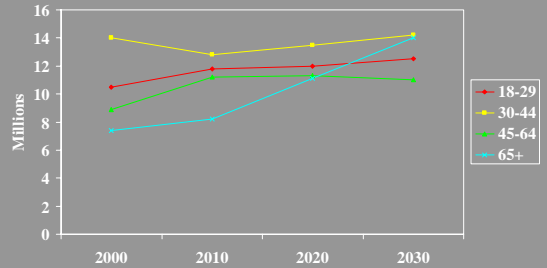
- Most cases of Schizophrenia develop before age 45
- Late life presentations are mainly female, have a higher rate of cerebrovascular disease, mainly paranoid type
- High risk of comorbid medical problems & depression
- Approximately 25% develop dementia within 3 years

Prevalence of Delirium

- Approximately 15% of elderly medical inpatients



Estimated Prevalence of Major Psychiatric Disorders by age-group Bartels 2003



Some attributes of quality in health care (Donabedian, 1992)

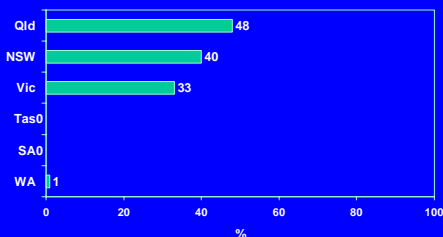
- **effectiveness** - the ability to attain the greatest improvements in health now achievable in best care;
- **efficiency** - the ability to lower the cost of care without diminishing attainable improvements in health;
- **optimality** - the balancing of costs against the effects of care on health (or on the benefit of health care, meaning the monetary value of improvements in health) so as to attain the most advantageous balance;
- **acceptability** - conformity with the wishes, desires and expectations of patients and responsible members of their families;
- **legitimacy** - conformity with social preferences as expressed in ethical principles, values, norms, laws and regulations; and
- **equity** - conformity with a principle that determines what is just or fair in the distribution of healthcare and of its benefits among the members of a population.

Equity in Geriatric Mental Health Service Provision

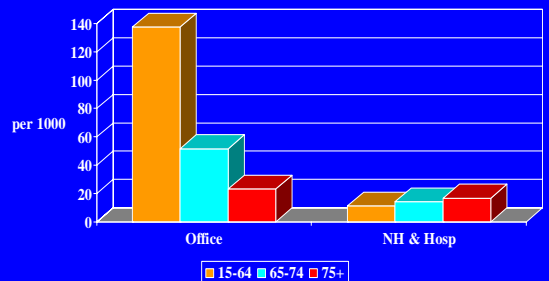
Issues

- ❖ Regional Service Distribution
- ❖ Age distribution of resource allocation
- ❖ Service delivery to minority groups

Regional equity – proportion of geriatric psychiatry beds in non-urban centres in Australia (O'Connor 2003)

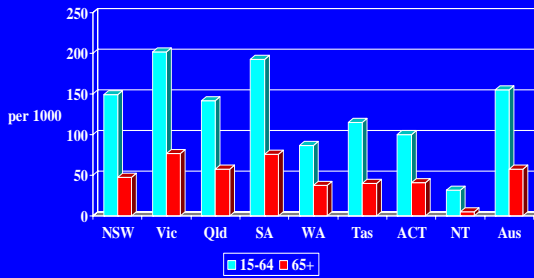


Private Psychiatric services by age (Draper & Koschera, 2001)



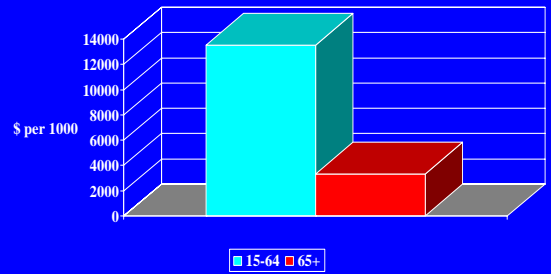
Total Private Services, 1998

Draper & Koschera, 2001



Per capita Medicare Psychiatric benefit by age, Australia, 1998

Draper & Koschera, 2001



Pathways to Mental Health Care in Australia

(Issakidis & Andrews, 2006)

- People aged 55 years and over are less likely to be treated by GP for a mental health problem (despite better access to GP care) or receive an outpatient mental health consultation than younger people (25% of the population receive 10% consults)

Unmet Needs Concerning Mental Disorders in Old Age

- The combined demands for a resolution of health problems by patients, their families, and their communities to which the health system has an effective response
- Effective interventions are those that have a predictable and significant positive effect and are acceptable

Evidence-based medicine is the use of contemporaneous appraised research findings as the basis for clinical decisions

Designation of Levels of Evidence

Level I	Evidence obtained from a systematic review of all relevant randomised controlled trials.
Level II	Evidence obtained from at least one properly designed randomised controlled trial
Level III	Evidence obtained from non-randomised controlled trials
Level IV	Evidence obtained from case series

How effective are interventions in geriatric mental health?

Depression

- Antidepressants – Level I evidence even when comorbid with physical illness
- Cognitive Behaviour Therapy – Level I evidence
- Physical Exercise – Level II evidence
- ECT - Level III evidence

How effective are interventions in geriatric mental health?

Dementia

- Cognitive decline – Level 1 evidence of modest effect of cholinesterase inhibitors
- BPSD – Level 1 evidence of modest effect of antipsychotic drugs and some psychosocial interventions
- Carer Stress – Level 1 evidence of effectiveness of carer support/education programs to reduce stress and delay placement

Translating effective interventions into practice

- Ensure adequate training of geriatric mental health staff
- Specialist geriatric mental health services vs general mental health services
- Use of clinical pathways – improves efficiency but effect on mental health outcomes unknown
- Use of best practice protocols – popular but unproven in geriatric mental health

Models of Service Delivery

Johri et al (2003) – systematic review of 7 demonstration projects testing innovative models of care for elderly in OECD countries (USA, Canada, Italy, UK)

common features of effective systems included:

- Single entry point
- Case management
- Geriatric assessment & multidisciplinary team
- Use of financial incentives to encourage community care

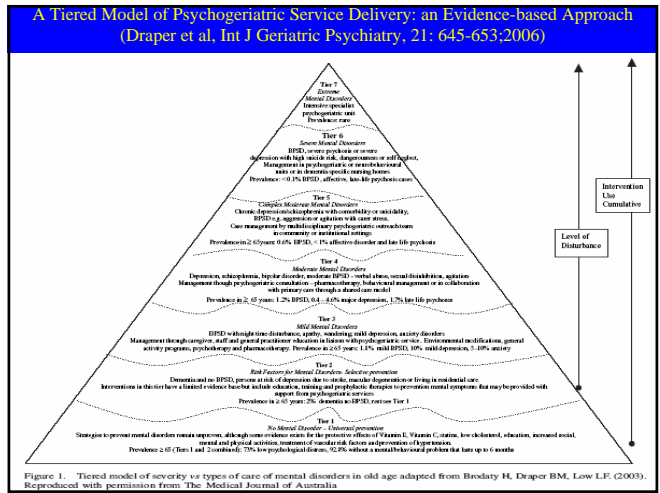
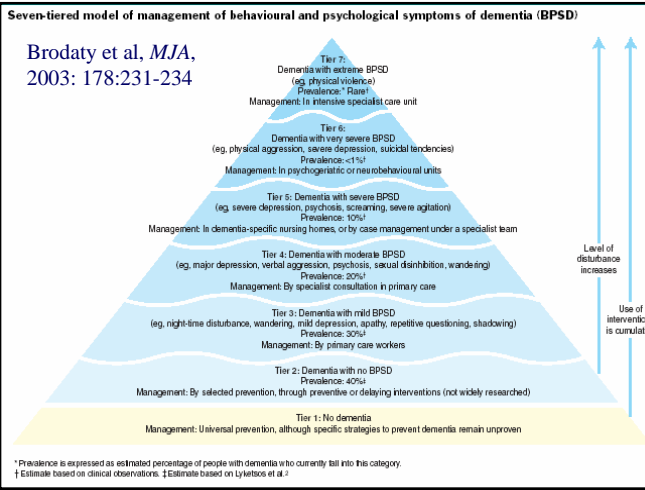
Public Health Model

Cole 2002

- Targets mental health of all older people in a defined population by systematic case identification, facilitation of access to treatment, delivery of quality care and assessment of outcomes.
- Has a strong health promotion and disease prevention focus

Public Health Model – Types of Interventions

- **universal interventions** - applied to entire populations and are not identified based on individual risk;
- **selective interventions** - applied to high risk asymptomatic or presymptomatic individuals;
- **indicated interventions** - applied to individuals with detectable symptoms and/or other proximal risk factors for depression.



Tier 1: No Mental Disorder

Bruce Campbell, MBE
Senior Australian of the Year

- The whole population without mental disorders
- *Management:* universal prevention for mental disorders
- No strategy proven

Risk Factors for Dementia and Depression

DEMENTIA	DEPRESSION
• Age	Sex
• Sex	Genetic Factors
• Genetic Factors	Physical illness & disability
• Education	Vascular Factors – cerebrovascular disease
• Vascular factors – cholesterol, homocysteine, hypertension, fats	Physical inactivity
• Physical inactivity	Alcohol & drugs
• Smoking	Social isolation
• Oxidative stress	Relationship problems
• Head injury	Personality factors
• Alcohol	
• Thyroid disease	

Universal Prevention Strategies in Later Life

- Control of vascular risk factors
 - Smoking
 - Hypertension
 - Physical exercise
 - Lower cholesterol - low fat diet with grains and greens
 - Folate/B¹² supplements

Mental Health Prevention Strategies in Later Life

- Train gatekeepers (clergy, community nurses, home care workers, emergency ward staff, police etc) in recognition of symptomatic and at risk older people

Universal Prevention Strategies in Later Life

Encourage older people to participate in social activities – volunteers, casual work, clubs.

Provide better access to affordable transport for older people



Tiers 2 & 3: Mild Mental Disorders

Mild or no BPSD

- sleep disturbance, wandering, apathy, repetitive questioning
- *Management* by primary health workers ± shared care
- *Strategies*
 - Education & support of primary care, cholinesterase inhibitors
 - Education for family caregivers, especially on behavioural Mx techniques

Minor Depression

- Often associated with physical disability, demoralisation, loneliness
- *Management* by primary health workers ± shared care
- *Strategies*
 - Education and support of primary health workers and older people
 - Psychosocial interventions – psychotherapy, physical and mental exercise, socialisation, counselling, music therapy, pleasant events,

Primary Care Collaborations

Llewellyn-Jones *et al* (1999)

RCT 220 depressed self-care unit and hostel patients aged ≥ 65 living in residential care facilities

Intervention group received multidisciplinary consultation and collaboration, training of GP and carers on management of depression, health education and activity programmes

Control group received usual care

9.5 month FU - significant improvement on depression in intervention group compared to controls and higher use of antidepressants

Tier 4: Moderate Mental Disorders

Moderate BPSD

- depression, verbal abuse, psychosis, sexual disinhibition, wandering
- *Management* by specialist consultation and liaison with primary care
- *Strategies* - specialist consultation, tailored behavioural programs, pharmacotherapy, geriatric referral if necessary

Moderate Depression

- Major depression, mixed anxiety/depressive disorders
- *Management* by specialist consultation and liaison with primary care
- *Strategies* - specialist consultation, psychosocial interventions e.g. community nurse support, antidepressant medication,

Primary Care Collaborations

Unutzer *et al* (2000) (Quality 0.94)

Patients from 18 primary care clinics aged ≥ 60 with major depression and/or dysthymic disorder

Intervention group had 12 months access to a depression care manager offering support for primary care physician or brief psychotherapy for depression

Control group received usual care

Intervention group had greater rates of depression treatment, more satisfaction with depression care, lower depression severity, less functional impairment and greater quality of life than controls at 3, 6, 9, 12 months FU

Primary Care Collaborations

Callahan *et al* (2006)

18 month RCT of 153 AD patients – collaborative care management (1 year of protocol based care management by an interdisciplinary team led by an advanced practice nurse working with patient's family and integrated within primary care) vs augmented usual care

Intervention patients had less BPSD at 12 & 18 months, carers had less distress at 12 months & less depression at 18 months

Primary Care Collaborations

Draper & Low (WHO Health Evidence Network, 2004)

- On the evidence hierarchy there is **LEVEL II** evidence that geriatric mental health services primary care collaborations are effective

Tier 5: Severe Mental Disorders

Severe BPSD

- depression, psychosis, screaming, severe agitation
- *Prevalence* in dementia, about 10%
- *Management* in dementia specific nursing homes or by specialist team case management
- *Strategies* include psychiatrist review and prescription, nurse liaison, psychologist specially tailored behavioural plan, social worker involving family

Severe Depression

- Melancholic, psychotic depression, agoraphobia, social isolation and poor health
- *Management* in acute geriatric psychiatry units or by specialist community team case management
- *Strategies* include antidepressant medications, ECT, psychiatrist review, nurse liaison, psycho-social interventions, social worker involving family

Geriatric Mental Health Outreach to Long Term Care

Rovner et al (1996)

- dementia care program consisting of activities, guidelines for psychotropic medications and educational rounds
- prevalence of behaviour disorders, use of antipsychotic medication and restraints were all reduced at 6 month follow-up.

Geriatric Mental Health Outreach to Long Term Care

Brodsky, Draper et al (2003)

Compared the outcomes of:

- a psychogeriatric team approach
- a consultative general practice model
- standard care

for residents of nursing homes with dementia complicated by depression or psychosis

- Residents improved regardless of intervention - ?Hawthorn effect

Geriatric Mental Health outreach to long-term care

Draper & Low (WHO Health Evidence Network, 2004)

On the evidence hierarchy there is

- **Level II** evidence that liaison-style geriatric mental health outreach services are effective;
- **Level III** evidence that consultation style geriatric mental health outreach services are effective

Consultation or Liaison Service Style?

CONSULTATION

- See patients upon request
- Advise on diagnostic and management issues
- Direct service provision mainly by primary care provider, some by specialist

LIAISON

- Greater focus on education and support of primary care
- More emphasis upon supervision of primary care management
- See patients upon request

Meta-analysis of Consultation and Liaison Service Styles

Draper & Green

- Consultation style studies were found to be **ineffective** with a effect size of -0.06
- Liaison style studies were **effective** with an effect size of 0.60

Unresolved Questions

- What is the 'minimum effective dose' of geriatric mental health outreach to aged care facilities?
- Is the liaison style service delivery cost effective?
- What are the essential components of outreach services?



Community Geriatric Mental Health Services - Depression

Banerjee et al (1996)

- RCT of the treatment of depression by psychogeriatric team in patients receiving home care.
- Individual care packages formulated by multidisciplinary team and implemented by researcher, control group treated by GP.
- Six month outcome
 - 58% intervention group recovered
 - 25% controls recovered (OR 9.0)

Community Geriatric Mental Health Services

Draper & Low (WHO Health Evidence Network, 2004)

- On the evidence hierarchy there is **Level I** evidence that community geriatric mental health services are effective

What are the key features that appear to increase effectiveness in community settings?

- Home-based initial assessment (to improve accessibility)
- Multidisciplinary teams, individualised treatment plans
- Case management approach
- Collaboration with GP case management that involves education and/or support of GP by service
- Involvement of patient/carer – lacks evidence but likely to be important

Tiers 6 and 7 – Very Severe Mental Disorders in Old Age

Three groups that require institutional management due to the severity of the disorder

- I. Agitation/psychosis due to delirium
- II. Severe psychosis or depression with associated danger to self or others
- III. Severe behavioural disturbance, usually aggression, associated with dementia, alcohol-related brain damage or head injury

Group 1: Severe Agitation or Psychosis due to Delirium

- *Managed* in medical wards by geriatricians with input from geriatric mental health
- ?Role of 'Medical Psychogeriatric' wards – seems sensible but inadequate evaluation hinders development

Consultation/Liaison to Medical wards

- **Level II** evidence that C/L services reduce LOS and costs, but mental health outcomes are not significantly better

Group 2: Severe Depression or Psychosis



- Suicidal patients, self neglect, treatment resistance, comorbidities etc
- *Management* through acute hospitalisation

Acute Hospital Care

Unlike Adult Mental Health (e.g. Hoult & Reynolds, 1984) and Geriatric Medicine (e.g. Caplan et al, 1999), there have been no RCTs comparing hospital based and community based care

Also.....

There are no RCTs comparing the treatment outcomes of older people in Acute Geriatric Psychiatry units and Acute General Psychiatry Units

Older People in Acute Psychiatry Wards Draper & Low (WHO Health Evidence Network, 2004)

On the evidence hierarchy,

- acute geriatric psychiatry wards have **Level III** evidence for depression, **Level IV** for BPSD
- acute general psychiatry wards have **Level IV** evidence for depression, **no evidence** for BPSD

What features of acute geriatric psychiatry wards increase effectiveness?

- There is a major gap in evidence
- Some suggestion that better effect with increased 'intensity' of admission – longer index admission, use of ECT, adequate pharmacotherapy – but weak evidence
- Linkage with community FU – better hospital/community integration

Integrated Hospital and Community Care

Philpot et al (2000) (Quality 0.67)

Compared two neighbouring services over 5-8 years

Depression readmissions less likely in the service with a community orientation, longer index admissions, and where community psychiatric FU arranged

Integrated Hospital and Community Care

Draper & Low (WHO Health Evidence Network, 2004)

- On the evidence hierarchy there is **Level II** evidence that integrated hospital and community geriatric mental health care is effective

Group 3: Severe BPSD

- Patients with **severe behavioural disturbance** such as dangerous physical aggression
- Estimate: need 7 beds /10,000 population 65+
- *Management* in special-care facilities e.g. psychogeriatric, aged-care, special care or neurobehavioural units

Long Term Institutional Care

Draper & Low (WHO Health Evidence Network, 2004)

- Purpose built community based residential facilities have advantages over long stay psychogeriatric wards for less dependent patients with dementia and chronic schizophrenia (Level III evidence)

Unresolved Questions

- Are there specific patient groups that are best suited in long term psychogeriatric wards as opposed to community residences e.g. violent patients, forensic patients?
- Is it best practice to have the most difficult long term patients managed in facilities run by psychogeriatric services?
- How do we determine best practice for these patient groups?

Conclusion

Effective geriatric mental health services feature:

- ✓ Accessible, multidisciplinary, integrated, hospital/community teams that collaborate with primary care, other service providers and patients/carers with an educational & health promotion focus.
- ✓ A commitment to outcomes oriented evidence based practice.

Thank You!

Brian Draper

B.Draper@unsw.edu.au

