

Late-life Depression: Current Issues and New Challenges

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Abstract

Introduction: Depression is a common psychiatric disorder in older people but tends to be underrecognised and undertreated, leading to impaired functioning, increased morbidity and mortality including suicide, and greater service utilisation. **Methods:** A Medline search of journal articles on depression in older people, which highlighted specific and pertinent issues of prevalence, classification, screening instruments, elderly suicide and various treatment modalities, was done. **Results:** Late-life depression represents a heterogenous group of mood disturbances that may present with atypical features and occur in a complex medical psychosocial context. Appropriate screening and assessment procedures and holistic, multidisciplinary treatment approaches are discussed. Future challenges lie in areas of early detection and intervention, advances in treatment strategies, training and service developments and effective prevention programmes. **Conclusion:** By raising awareness and understanding of depression among primary healthcare and other healthcare practitioners, more depressed elderly with comorbid medical problems can be successfully identified and helped.

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Key words: Comorbidity, Depressive disorder, Prevention, Primary healthcare

Introduction

Depression in late life (>60 years old) is one of the most common and treatable psychiatric disorders in the elderly. It not only causes distress and suffering, but leads to impairment of physical, mental and social functioning, worsens prognosis for certain medical conditions, aggravates suicidal risk and increases utilisation of health care services and healthcare cost.^{1,2} Despite being associated with excess morbidity and mortality, depression often goes unrecognised, underdiagnosed and misdiagnosed.³ Underdiagnosis and undertreatment of depression in primary healthcare represents a serious mental health problem.⁴

Prevalence

Prevalence of major depression ranges from 0.4% to 5%; the milder forms range from 3% to 15% in community surveys.⁵⁻⁸ Disparate results arise because depression in late life is a generic term and comprises many constructs. It may not be well-defined and may present with atypical features, such as prominent anxiety, somatic or cognitive symptoms. It may also be difficult to pick up because of the tendency for elderly to deny or “mask” their psychological distress.

Amongst the medically ill elderly, milder or subsyndromal forms are reported in up to 50%. In nursing homes, they are

seen in 12% to 16% of residents.⁹ Local prevalence rate was reported at 4.6% for milder types of depression and 3.4% for the moderate types, 5.4% for women and 3.6% for men. A higher prevalence is seen in the “young-old” (65 to 74 years) compared to the “old-old” (>75years).¹⁰

Classification

The current American diagnostic classification using the 4th edition of the Diagnostic and Statistical Manual (DSM-IV) and the World Health Organisation’s (WHO) International Classification of Diseases (ICD 10) provide different categories of mood disorders based on type and duration of symptoms (Table I). A major depressive episode is diagnosed when depressed mood or anhedonia (an inability to experience pleasure) has been present for more than 2 weeks and is associated with at least 5 of the following symptoms: significant weight loss or gain; insomnia or hypersomnia; psychomotor agitation or retardation; fatigue or loss of energy; loss of interest; feelings of worthlessness or excessive guilt; decreased concentration; and recurrent suicidal ideation. Delusions, usually of non-existence of self or parts of self, or those focused on gastrointestinal tracts or abdomen, were found to be more common in late-life depression.¹¹

There is much debate as to whether late-onset depression

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TABLE I: CLASSIFICATION OF DEPRESSIVE DISORDERS

Major depression	Non-major (subsyndromal) depression
Depressive episode (ICD-10* F32)	Minor depression (DSM-IV#)
Major depressive disorder (DSM 296)	Dysthymia (DSM 300.4, ICD F34.1)
Recurrent depressive disorder (ICD F33)	Adjustment disorder with depressed mood (DSM 309, ICD F43.2)
	Mixed anxiety and depressive disorder (ICD F41.2, DSM-IV)

Diagnostic and Statistical Manual of Mental Disorder, 4th edition

* International Statistical Classification of Diseases and Related Health Problems, 10th edition

represents a distinct mood syndrome separate from early-onset depression.¹² Arguments have centred around the clinical manifestations and role that organic or biological factors play in the aetiology of late-life depression.¹³

Older adults with vascular diseases, including hypertension, coronary artery disease and stroke, have relatively high rates of depression. “Vascular depression” is hypothesised to represent a subtype of late-onset depression characterised by psychomotor retardation, poor motivation and initiative, but less intense depressive ideation.¹⁴

Major depression accounts for only about a third of older people with depressive symptomatology. The term “minor or milder depression” has been used to characterise patients with late-life depression who do not meet the full criteria for major depression. They tend to present with low mood, decreased energy, poor concentration, constipation, poor perceived health, cognitive deficits and, often, in association with physical ill health.¹⁵ This non-major or subsyndromal form is not recognised as an official disorder and DSM-IV has proposed further research. It suffices to add that “minor depression” is not a single syndrome. It may represent a heterogeneous group of mood disturbances, an early or residual form of depression, a chronic, mild form of depression or simply a response to an identifiable stressor.¹⁶ Some theories viewed depression as a continuum of disorders ranging from major depression to minor depression, dysthymia, mixed depressive syndromes with anxiety and subsyndromal depression that may evolve and remit over time.¹⁷

Recognising Depression in the Elderly

The lack of a clear clinical definition may pose considerable challenge in early recognition and diagnosis. It is further compounded by the fact that depression may occur in a complex medical-psychosocial context.

Psychosocial antecedents and age-associated losses, such as deterioration of physical health, onset of sensory impairment, bereavement and residential placement, may divert attention away from clinical depression. Older people are less likely to report symptoms of dysphoria or may amplify physical symptoms in place of their psychological distress.

Medical comorbidities, such as strokes, heart disease, diabetes, hypertension, parkinsonism, use of multiple medications and presence of cognitive deficits, may further complicate clinical presentation and treatment.

Stereotypes about ageing and a heavily utilised public healthcare service that limits time spent in patient care may also contribute towards the underdiagnosis and undertreatment of depression in the older person. This trend is a cause for concern given the inseparability of mental and physical health in later life.

Screening for Depression

In view of the underrecognition and underdiagnosis of depression, screening for mental illness like depression especially in primary healthcare settings, has frequently been advocated. This is particularly pertinent as the majority of older adults with mental or psychological problems are seldom referred to a psychogeriatrician.

Screening for depressive disorders relies predominantly on the assessment of depressive symptoms as there are few, if any, reliable signs or biological markers for depression. The more frequently used self-assessment tools include the Beck Depression Inventory, Geriatric Depression Scale (GDS), Zung Self-rating Depression Scale and General Health Questionnaire. Because of the yes/no format, the GDS (which has less somatic items) is the easiest to use in older adults.¹⁸⁻²⁰ The 4-, 15- and 30-item versions are more commonly used (Appendix I).

A local study examined and validated the usefulness of 3 common screening instruments in an attempt to identify a practical scale for clinicians’ use in our elderly population.²¹ It compared the 15-item GDS, the Even Briefer Assessment Scale for Depression (EBS DEP)²² and the single question, “Do you often feel sad or depressed?”,²³ and found all 3 to be valid depression screening instruments. It proposed that the administration of the single question test, followed by either the GDS or EBS DEP, was an efficient diagnostic strategy.

However, we need to consider the inherent limitations of such scales. Cultural differences, tendency of older adults to deny or minimise emotional distress, social stigma attached to mental illnesses, paucity of suicide risk assessment and self-report format of some instruments may all affect the validity and reliability of such screening

instruments. Furthermore, other factors like time constraints, equivocal interpretations and inadequate follow-up may render these tools redundant.

Questions concerning when, where and under what circumstances to screen must be addressed. It has been mentioned that screening for mental health problems is only as good as the mental health service behind the screen. Our enthusiasm in advocating screening for depression must be tempered by the realities of current clinical practice and patient acceptance. A “screen and treat” (mainly with medication) protocol is not a substitute for appropriate diagnostic evaluation and a multimodal management approach.

For an effective screening programme at primary healthcare level, questionnaires should be targeted at high-risk populations, such as those suffering from chronic debilitating illness, recent major physical illness, bereavement, social isolation, complaints of persistent loneliness or sleep difficulties. Specific protocols as to when and how to refer for more specialised intervention should be put in place.

Psychiatric or psychogeriatric input must be considered if diagnosis is in doubt, when depression is severe with presence of psychotic features, when there is severe risk to health because of refusal to eat or drink or high suicidal risk, when complex therapy is indicated and when there is failure to respond to first-line treatment.

Elderly Suicide

Singapore has one of the highest suicide rates among the elderly. From 1985 to 1991, the mean annual suicide risk for those 65 years and above was 52 per 100,000 compared to 15.3 per 100,000 for the general population.²⁴ Although a more recent study has revealed declining trend,²⁵ suicide in the elderly remains a major mental and public health issue.

The strong relationship between elderly suicide and depression was well-documented.²⁶ Some studies revealed that older adults had seen their physician within one month of committing suicide. However, symptoms were not recognised or treatment had been inadequate.²⁷

Ko and Kua²⁴ postulated that sociocultural factors, such as lack of family support, loneliness and social isolation, to be major contributory factors for the higher rate of suicide in the Chinese compared to other ethnic groups.

More recent studies have reaffirmed the multidimensional nature of suicide with a complex interplay of medical, psychological and sociocultural factors. Completed suicides had more depression, functional limitations and a greater burden of physical illness.²⁸

Though it is difficult to predict accurately which patients may attempt suicide, there is growing evidence that

identifying and treating depression, especially within primary healthcare setting, remain a priority for suicide prevention in older people.²⁹

Treating Depression in the Elderly

Ideally, the management of depression has to be holistic, multidisciplinary, comprehensive and yet individualised. There should be a combination of biological (drugs and electroconvulsive therapy), psychological (supportive, cognitive-behavioural and grief work) and social (family intervention, support services, and activity programme) strategies.

Antidepressant Therapy

Consistent evidence showed that up to 60% to 80% of older patients, even the very old (>75 years), respond to antidepressants. They are reported to be equally effective in “minor depression”.³⁰ While tricyclics and monoamine oxidase inhibitors are efficacious, their side effect profiles make them less tolerable with the additional risk of increased morbidity and mortality due to overdosage (Tables II and III). With the advent of newer antidepressant drugs in the last decade, such as selective serotonin reuptake inhibitors (SSRIs), serotonin and adrenergic reuptake inhibitors (SNRIs) and noradrenergic and selective serotonin antidepressant (NaSSA), antidepressant drug therapy is now safer, better tolerated, equally efficacious and has a more simple dosing schedule.^{31,32}

SSRIs have been advocated as the first-line drug therapy for treatment of depressed elderly. However, special issues arising from its use, such as hyponatraemia, weight loss and balance problems, can be problematic.³³ Because they are metabolised by the cytochrome P450 system, there is a higher risk of interactions with other frequently used medications, such as theophylline, warfarin, phenytoin and beta-blockers.

SNRIs and NaSSA have been proven to be as effective as the older agents.^{34,35} As many of the newer drugs are “non-standard” medications, clinicians have to weigh the costs and benefits of each drug for patients. Common sense dictates that in older, more frail patients with comorbid medical problems and multiple medications, dosing concerns can be prudently approached by “starting low and going slow”. However, clinicians need to treat adequately as the optimal therapeutic doses may be similar to younger patients.

Older patients take longer to respond, sometimes up to 8 weeks. This time lapse, before any clinical efficacy is experienced, may affect compliance to treatment. Because the elderly with a first major depressive episode are at risk of recurrence and each recurrence poses problems of chronicity, assertive treatment must be advocated for at least 12 months, if not permanently.³⁶ The newer

TABLE II: SIDE EFFECT PROFILES OF MAIN ANTIDEPRESSANTS IN SINGAPORE

Class	Drug	Mode of action	Anticholinergic	Antihistaminic	α -adrenergic blocker
Tricyclic antidepressants	Amitriptyline	NA*++5HT#++	++++	++++	++++
	Imipramine	NA++5HT+	++	++	+++
	Dothiepin	NA++5HT+	++	++	++
Reversible inhibitors of monoamine oxidase A	Moclobemide	MAO ^ψ	0/+	0	0
Selective serotonin reuptake inhibitors	Fluvoxamine	5HT	0/+	0/+	0
	Fluoxetine	5HT	0/+	0	0
	Sertraline	5HT	0/+	0	0
	Citalopram	5HT	0/+	0	0
	Paroxetine	5HT	0/+	0	0
Noradrenaline and selective serotonin antidepressants	Mirtazepine	α 2,5HT2	0	++	0
Serotonin/Noradrenaline reuptake inhibitors	Venlafaxine	NA+5HT++	0/+	0	0/+

* Noradrenaline

Serotonin

^ψ Monoamines

TABLE III: COMMONLY USED ANTIDEPRESSANTS

Drug	Therapeutic dosage (mg)	Usual dose (mg)	Starting dose (mg)	Side effects
Amitriptyline	25-150	50-100	10-25	Dry mouth, blurred vision, constipation, urinary retention, cardiotoxicity, postural hypotension, sedation, delirium
Imipramine	25-150	50-100	25	
Dothiepin	25-150	75-150	25	
Fluoxetine	10-40	10-40	10	Nausea, vomiting, diarrhoea, insomnia, anxiety, agitation, sexual dysfunction, headache, hyponatraemia, syndrome of inappropriate antidiuretic hormone secretion (SIADH)
Fluvoxamine	25-200	100-150	25-50	
Citalopram	10-40	20-30	10	
Sertraline	25-200	50-150	25-50	
Moclobemide	150-450	300-450	150	Nausea, insomnia
Venlafaxine	25-200	75-150	25-37.5	Nausea, agitation, insomnia, tachycardia Elevations of blood pressure at higher doses
Mirtazepine	15-45	15-30	15	Sedation, weight gain

antidepressants, with fewer side effects, may be more acceptable for long-term maintenance.³⁷

Physicians must educate patients and families before initiation of drug treatment, on the purpose and nature of antidepressant medications, such as their non-addictive properties, common side effects, time lapse before any noticeable improvement and the importance of compliance.

Electroconvulsive Therapy (ECT)

A well-established mode of treatment for depression, ECT should be used if a rapid or definite response is required (such as when patient displays self-destructive behaviour like suicidal gestures and refusal to eat), if there are significant melancholic or psychotic features, and if there is poor response or toxicity arising from other treatment. It is safe and effective even in the physically ill

elderly.³⁸ There are no absolute contraindications, though medical illnesses must be properly evaluated before the risks and benefits of ECT can be considered. Older age and pre-existing cognitive deficits may increase the risk of side effects, such as memory disturbances and confusion, for which unilateral ECT may be offered.³⁹

Psychotherapy

One of the myths of ageing is that the elderly cannot change, and that psychotherapy is not effective. Though few studies have been performed in this area, some therapists found that psychotherapy (in its myriad forms and whether carried out on an individual or group basis) does have its value and place.^{40,41}

Cognitive-behavioural, problem-solving, interpersonal, brief psychodynamic, reminiscence therapy and life reviews

have been utilised with variable degrees of success, and most of them have focused on issues of grief, role disputes and transitions and interpersonal difficulties.⁴² Psychotherapy is effective as a main treatment for older patients with depression of mild to moderate severity. Suitable candidates include those who are averse to taking, or are intolerant to antidepressant medications but they have to be cognitively intact, verbally expressive, interested in gaining psychological understanding to their behaviours and moods, and motivated to change.

In offering psychotherapy to older individuals, we need to consider their cultural and educational backgrounds, previous exposure to therapy and age-associated changes. Structure and goal setting are important to prevent confusion about purpose and length of therapy. Supportive and more directive forms of therapies have been found useful when used in conjunction with medication in ambulatory patients with mild to moderate depression.⁴³

Though specific psychological interventions, such as cognitive behaviour, interpersonal and dynamic psychotherapies, must fall under the jurisdiction of appropriately trained therapists in various health and social settings, supportive care or counselling should be offered to elderly depressed patients and their relatives wherever possible.

With a better educated, informed and more vocal cohort of elderly, we may expect to see an increase in the demand for psychological treatment strategies.

Social Interventions

For all depressed elderly, it is important to work with their families because they play contributory roles in aetiology and influence outcome and management. The interactions between the depressed patient and family must be assessed. Referrals to appropriate agencies such as day care, befriender's service and family service centres, will help in the aftercare and follow-up.

Future Challenges

With one of the most rapidly ageing populations in Asia, we expect to see a higher prevalence of depression among the community-dwelling elderly, in association with a longer life span and more prevalent physical degenerative diseases such as strokes, heart diseases, hypertension, diabetes and cancers. Changes in demographic patterns, increased nuclearisation of families and more women going into paid employment will bring about changes in caregiving and living arrangements for the older person, which in turn, may predispose the elderly to other risk factors like social isolation.

What are the challenges for health care practitioners in the area of depression in older people? I see them in 4 broad categories.

Early Detection and Intervention

Depression in older age is particularly costly because of the excess disability that it causes and its deleterious interaction with physical health.⁴⁴ The patient makes frequent visits to the doctor, uses more medications, incurs higher cost and outpatient charges, and stays longer in hospital.

To facilitate prompt detection and treatment, it is important to foster greater public awareness through public education. Primary healthcare physicians, other healthcare professionals and social agencies working with the elderly can be trained to detect and treat depression, especially in the high-risk groups (the physically ill and socially isolated elderly).

Currently, the Institute of Mental Health works closely with the Health Promotion Board in driving an intensive and comprehensive 5-year national mental health awareness and promotion programme, which was launched in 2001. Various strategies encompassing the mass media, public forums and seminars, workshops, exhibitions, support groups and training courses for general practitioners, nurses and other paramedical workers were used.

Continuing medical education on mental health issues through distant or Internet learning will go a long way in keeping busy physicians updated. With the advent of newer and safer antidepressants, primary care doctors can improve their confidence in their usage. Primary and secondary care teams should be strengthened in suicide risk assessments. In this way, cases with milder depressive symptoms occurring in the context of poor physical health or social difficulties can be seen at primary healthcare and family service centres with support from mental health professionals. The more complex cases, such as those with severe melancholic or psychotic features and higher risk of suicide, can be handled by the psychogeriatric service.

Advances in Treatment Strategies

Advances in psychopharmacology see newer, safer and better tolerated antidepressant drugs in the pharmacopia. The challenge lies in the development of an "ideal" drug for the depressed elderly with physical comorbidity. It should be effective with minimal adverse side effects and interactions with other drugs, has rapid onset of action, can be administered once a day to improve compliance, and be relatively inexpensive.

We are also seeing the emergence of somatic therapeutic options, such as transcranial magnetic stimulation, vagus nerve stimulation and deep brain stimulation. Among the 3 strategies, preliminary studies on TMS show promise and suggest an antidepressant effect, though its use in the elderly has yet to be established.⁴⁵

Training and Service Development

Psychogeriatrics is a fledgeling discipline in Singapore with a limited number of trained medical, nursing and paramedical staff. There are service gaps, inadequate community outreach, poor case management and limited involvement at the primary healthcare level.

Hence, the challenge is to provide greater administrative and academic support in generating more specialist positions and to attract more junior doctors to take up this specialty. Mental health is inseparable from physical health and appropriate emphasis should be placed in undergraduate medical and nursing curricula.

There is a need to grow specialist services to reduce chronic disabilities and to improve the quality of life. Presently, psychogeriatric services are available in hospitals with specialist clinics and liaison-consultation functions. Decentralised clinics are also found in 2 polyclinics and one community mental health centre. There is also limited community outreach in residential and day care facilities.

The task is to create a better continuum and co-ordination of care in inpatient, day hospital, day care and residential facilities, to develop community mental health services, and to integrate mental health professionals in primary care to allow for speedy access to specialised services. This goes hand in hand with the training of primary care physicians, geriatricians and other healthcare and paramedical professionals working with the elderly, in order that they are equipped with the relevant knowledge and skills to manage depression and minor mental health problems.

Prevention

Lastly, appropriate preventive programmes, such as continuing public health education and the promotion of good mental health, are important strategies to improve the mental well-being of our people.

Joint healthcare and social promotion programmes conducted in community development councils and multi-service centres may help to highlight important life tasks for people as they age. Older people should be given opportunities to learn and to contribute to society in spite of the physiologic changes of ageing and increased health problems. A risk register with social agencies can assist the identification and support of vulnerable groups such as the bereaved, socially isolated and physically disabled.

Conclusion

Depression is a common and treatable psychiatric disorder in the elderly, and its importance in the general healthcare system cannot be ignored. Effective treatment encompasses holistic approaches and requires greater collaboration between primary, secondary and tertiary care.

Through training and educational outreach, involvement of primary care service and community mental health programmes, it is hoped that more depressed elderly can be treated promptly and adequately. This will help improve their quality of life, prevent premature death and maintain optimal levels of function and independence.

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Appendix I

Geriatric Depression Scale (GDS)¹⁸

Choose the best answer for how you have felt over the past week

1. <i>Are you basically satisfied with life?</i>	No
2. Have you dropped many of your activities and interests?	Yes
3. <i>Do you feel your life is empty?</i>	Yes
4. Do you often feel bored?	Yes
5. Are you hopeful about the future?	No
6. Are you bothered by thoughts you can't get out of your head?	Yes
7. Are you in good spirits most of the time?	No
8. <i>Are you afraid something bad is going to happen to you?</i>	Yes
9. <i>Do you feel happy most of the time?</i>	No
10. Do you often feel helpless?	Yes
11. Do you often get restless and fidgety?	Yes
12. Do you prefer to stay at home rather than going out and doing new things?	Yes
13. Do you frequently worry about the future?	Yes
14. Do you feel you have more problems with your memory than most?	Yes
15. Do you think it is wonderful to be alive now?	No
16. Do you often feel down-hearted and blue (sad)?	Yes
17. Do you feel pretty worthless the way you are?	Yes
18. Do you worry a lot about the past?	Yes
19. Do you find life very exciting?	Yes
20. Is it hard for you to start on new projects (plans)?	Yes
21. Do you feel full of energy?	No
22. Do you feel that your situation is hopeless?	Yes
23. Do you think most people are better off (in their lives) than you are?	Yes
24. Do you frequently get upset over little things?	Yes
25. Do you frequently feel like crying?	Yes
26. Do you have trouble concentrating?	Yes
27. Do you enjoy getting up in the morning?	No
28. Do you prefer to avoid social gatherings (get-togethers)?	Yes
29. Is it easy for you to make decisions?	No
30. Is your mind as clear as it used to be?	No

- Notes: 1) Answers refer to responses that score one point
 2) Questions in bold comprise the 15-item version*
 3) Questions in italics comprise the 4-item version
 4) Cut off scores for possible depression:
 ≥ 11 for GDS 30
 ≥ 5 for GDS 15
 ≥ 2 for GDS 4

* Validated in local study²¹

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