

Identification of
Common Mental Disorders
and Management of
Depression in Primary Care

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Statement of intent

Evidence-based best practice guidelines are produced to help health care practitioners and consumers make decisions about health care in specific clinical circumstances. Research has shown that if properly developed, communicated and implemented, guidelines can improve care. The advice in this guideline is based on evidence from epidemiological studies and other research. Where no evidence is available, but guidance is needed, recommendations for best practice are developed through a systematic consensus process based on the experience of the Guideline Development Team.

While guidelines represent a statement of best practice based on the latest available evidence (at the time of publishing), flexibility will be required in local interpretation and they are not intended to replace the health practitioner's judgment in each individual case.

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Citation: New Zealand Guidelines Group. Identification of Common Mental Disorders and Management of Depression in Primary Care. An Evidence-based Best Practice Guideline. Published by New Zealand Guidelines Group; Wellington: 2008.

Published: July 2008

Review Date: 2011

ISBN (Print): 978-0-473-13683-3

ISBN (Electronic): 978-0-473-13684-0

Hard copies of this guideline are available free from: Wickliffe: 04 496 2277
Order Nos. HP: 4597 (full); HP: 4619 (summary)

This guideline is also available online at: New Zealand Guidelines Group (<http://www.nzgg.org.nz>) and the Ministry of Health (<http://www.moh.govt.nz>)

Ministry of Health

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**Ehara tāku toa i te toa takitahi,
ēngari he toa takitini**

Mine is not the strength of an individual,
but the strength of many

Endorsements



The Royal New Zealand
College of General Practitioners



Te Ao Maramatanga

New Zealand College of Mental Health Nurses (Inc.)
Partnership, Voice, Excellence in Mental Health Nursing



THE ROYAL
AUSTRALIAN AND NEW ZEALAND
COLLEGE OF PSYCHIATRISTS

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Purpose

The purpose of this guideline is to provide a summary of current New Zealand and overseas evidence about the identification of common mental disorders and the management of depression among young people and adults in the primary care setting. Among young people the focus is largely on adolescents as they are the most vulnerable.

The guideline has been developed for health care practitioners in primary care, and for health service provider organisations and funders.

The guideline identifies evidence-based practice for most people, in most circumstances. It thus forms the basis for decision-making by the health care practitioner in discussion with the person in developing an individualised care plan.

About the guideline

Foreword

The New Zealand Guidelines Group Incorporated (NZGG) is a not-for-profit non-governmental organisation committed to leading the effective use of reliable evidence in the New Zealand health and disability sector. One way it shows leadership is through the production of evidence-based guidelines.

Our guidelines are developed from systematic reviews of international literature. The evidence is placed within the New Zealand context, so that recommendations on best practice can be implemented by all people affected by the guideline, whether they are practitioners, consumers or policy makers.

Scope of the guideline

This guideline addresses the identification of common mental disorders and the management of depression in primary care in all age groups. Special issues pertaining to older adults and mental disorders in the antenatal and postnatal period are also addressed. Among young people the focus is largely on adolescents as the prevalence of mental disorders is high in this group.

The guideline does not detail the management of common mental disorders other than depression. It is intended for use by all health care practitioners practising in a primary care setting, including general practitioners, practice nurses, midwives, counsellors, nurse practitioners, psychologists, psychotherapists, social workers and school nurses. While the guideline is intended to inform development of service frameworks, it does not make specific recommendations in this area.

In this guideline, the term depression is used as shorthand for a disorder meeting the Diagnostic and Statistical Manual of Mental Disorders (DSM) or the International Statistical Classification of Diseases and Related Health Problems (ICD) diagnostic criteria for major depression/major depressive episode. Depressive disorder is used to refer to a condition meeting DSM or ICD diagnostic criteria for a depressive disorder (eg, major depression, dysthymia, postnatal depression).

Treaty of Waitangi

The New Zealand Guidelines Group acknowledges the importance of the Treaty of Waitangi to New Zealand, and considers the treaty principles of partnership, participation and protection as central to improving Māori health. As part of its commitment to the Treaty, NZGG explicitly involves Māori consumers and health care practitioners in all its work. This guideline seeks to promote clinical practice that will protect and improve Māori mental health. Māori collaboration in the development of the guideline is described in the guideline development process section.

Guideline development process

The New Zealand Guidelines Group convened a Guideline Development Team (GDT) in October 2006. GDT members were nominated by a variety of stakeholder groups and are acknowledged in the next section.

The GDT identified key issues and developed clinical questions to be addressed by this guideline, taking into account parameters specified by the Ministry of Health. To answer the clinical questions, NZGG's researchers undertook a systematic literature review of the evidence, appraised the studies for quality and summarised the results. (see Appendix A: Guideline Development Process for further details).

The results were presented to the GDT in the form of evidence tables (the search strategy and evidence tables are available online at <http://www.nzgg.org.nz>). The GDT discussed the evidence and developed graded recommendations suitable for the New Zealand context, using the considered judgment process (see Appendix B: Evidence and Recommendation Grading System).

The guideline text was drafted by the project team with contributions from members of the GDT, based upon the agreed recommendations. Māori-specific content was drafted with the help of the two Māori members of the GDT, who met with members of the research team to discuss the final draft, and with the perspectives of Māori members of the NZGG Board of Directors.

The guideline was finalised after accounting for feedback received at consultation.

Guideline development team

Professor Tony Dowell (Chair)

General Practitioner, Island Bay, Wellington

Professor of Primary Health Care and General Practice, University of Otago, Wellington

Invited by NZGG

Tim Antric (from August 2007)

Project Manager – National Depression Campaign, Wellington

Mental Health Foundation of New Zealand, Auckland

Nominated by the Mental Health Foundation of New Zealand

Professor Bruce Arroll

Professor and Head of Department, Department of General Practice and Primary Health Care, University of Auckland, Auckland

Invited by NZGG

Dr Clive Bensemam

Psychiatrist, Mental Health Services for Older Adults, Waitemata

Invited by NZGG

Dr Sunny Collings

Consultant Psychiatrist, Capital & Coast District Health Board, Wellington

Senior Lecturer in Social Psychiatry and Population Mental Health, University of Otago, Wellington

Invited by NZGG

Dr John Cosgriff

General Practitioner, South Auckland

GP Liaison Mental Health Services, Counties Manukau District Health Board, South Auckland

Nominated by the Royal New Zealand College of General Practitioners

Joanna Davison

Nurse Educator, Bachelor of Nursing Programme, Whitireia Community Polytechnic, Porirua

Nominated by College of Nurses, Aotearoa (NZ) Inc

Professor Pete Ellis

Head of Department, Psychological Medicine, University of Otago, Wellington

Invited by NZGG

Lita Foliaki

Pacific Perspective

Pacific Health Manager, Waitemata District Health Board, Auckland

Invited by NZGG

Dr Allen Fraser

Consultant Psychiatrist, Auckland Mind Psychiatric Consultants

Senior Lecturer (Hon) Department of Psychiatry, University of Auckland, Auckland

Chief Medical Officer, Waitemata District Health Board, North Shore City

Chairman, New Zealand National Committee, RANZCP

Nominated by The Royal Australian and New Zealand College of Psychiatrists

Karin Keith

Consumer Perspective
Manager, Wellington Mental Health Consumers Union Inc, Wellington
Nominated by the Mental Health Consumers Union of New Zealand

Associate Professor Ngaire Kerse

Senior Lecturer, Division of General Practice and Primary Health Care,
University of Auckland, Auckland
Invited by NZGG

Dr Sally Merry

Senior Lecturer in Child & Adolescent Psychiatry, The Werry Centre for Child and
Adolescent Mental Health, Department of Psychological Medicine, University of
Auckland, Auckland
Invited by NZGG

Aroha Noema

Māori Perspective
Project Leader, Te Rau Matatini, Palmerston North
Invited by NZGG

Janet Peters

Registered Psychologist, Tauranga
Nominated by the Mental Health Foundation of New Zealand

Carol Seymour

Nurse Leader Mental Health Services and Ambulatory Services Auckland District
Health Board, Auckland
Nominated by the Directors of Mental Health Nursing and Te Ao Maramatanga
(College of Mental Health Nurses New Zealand)

Claudine Tule

Māori Perspective
Project Manager Māori Health, Funding Division, MidCentral District
Health Board, Palmerston North
Nominated by Te Rau Matatini

Dr Peter Watson

Paediatrician and Youth Health Specialist, Whirinaki, Counties Manukau District
Health Board Child and Adolescent Mental Health Services, South Auckland
Nominated by the Royal Australasian College of Physicians

Rebecca Webster

Consultant Clinical Psychologist, South Community Mental Health Team, Wellington
Nominated by the New Zealand College of Clinical Psychologists

Paediatric subgroup

Professor Tony Dowell (Chair)
Claudine Tule
Dr John Cosgriff
Dr Peter Watson
Dr Sally Merry

Older adults subgroup

Professor Tony Dowell (Chair)
Associate Professor Ngaire Kerse
Dr Clive Bensemman
Dr John Cosgriff
Karin Keith

NZGG team

Dr Roshan Perera, Manager Guidelines and Research
Jane Marjoribanks, Lead Researcher
Mark Ayson, Researcher
Anne Buckley, Medical Writer/Editor
Catherine Coop, Researcher
Anita Fitzgerald, Researcher
Dr Tannis Laidlaw, Researcher
Christina Kinney, Research Administrator
Emma Sutich, Mental Health Adviser

Declarations of competing interests

Professor Bruce Arroll is on the primary care committee of the Future Forum, funded by Astra Zeneca UK and has received financial support to attend the annual conference in Europe for the past four years. Bruce received financial support from the PHARMAC seminar committee to run three CME (continuing medical education) sessions.

Dr Sunny Collings has received research funding from the Health Research Council and the Ministry of Health.

Dr John Cosgriff has received financial support from Janssen-Cilag for the Metabolic Symposium Atypical Antipsychotics.

Professor Pete Ellis has received financial support from Eli Lilly for funding a PhD student for investigator initiated research, ending June 2006. Pete Ellis has a beneficial interest with shares in CSL Limited, GlaxoSmithKline, Pfizer and Roche.

Dr Allen Fraser has received financial support from Sanofi Synthelabo to attend the annual bipolar disorder meeting, 2001–2006, and the International Society for Bipolar Disorders Pittsburgh 2003.

Dr Mark Huthwaite has received financial support from Eli Lilly, Lundbeck, Jansen Cilag, Astra-Zeneca and Pfizer to conduct clinical drug trials and to attend and present at conferences and meetings.

Consultation

A draft of this guideline was circulated to 263 individuals and organisations for comment in December 2007 as part of the peer review process. Comments were received from the following organisations and individuals:

Central Potential – Te Rito Maaia Inc
Child and Adolescent Mental Health Service, Wairoa
College of Nurses Aotearoa (NZ) Inc
David Hopcroft, General Practitioner
Dept Applied Mental Health and Psychotherapy, Auckland University of Technology
Dunedin School of Medicine, University of Otago
East Health Trust Primary Health Organisation
Framework Trust
Hauora Taranaki Primary Health Organisation
Hawkes Bay Primary Health Organisation
Hilary Stace, Research Fellow
William Ferguson, Kumeu Village Medical Centre
Mary Jane Gilmer, Nurse Practitioner
Mental Health Commission
Mental Health Foundation of New Zealand
Ministry of Health
New Zealand Association of Counsellors
New Zealand College of Clinical Psychologists
New Zealand College of Midwives Inc
New Zealand Healthcare Pharmacists Association, Pharmacists in Mental Health
Special Interest Group
Newtown Union Health Service
One-Act for Mental Health
Partnership Health Canterbury Primary Health Organisation
Pegasus Health
Platform
ProCare Health Limited

Royal New Zealand College of General Practitioners
Skylight
South East & City Primary Health Organisation
Te Rau Matatini
The New Zealand Association of Psychotherapists
The Pharmacy Guild of New Zealand Inc
The Royal Australian and New Zealand College of Psychiatrists
ThroughBlue
Waiora Primary Healthcare Organisation
Western Bay of Plenty Primary Health Organisation
Wellington Independent Practitioners Association

Acknowledgements

We would like to thank the following for very helpful comments on redrafts:

- **Dr William Ferguson** (GP, Kumeu Village Medical Centre)
- **Dr Sarah Hetrick** (Research Fellow, Orygen Research Centre, Department of Psychiatry, University of Melbourne)
- **Dr Helen Rodenburg** (GP, Wellington Independent Practice Association)
- **Alison Hussey** (Clinical Advisor, Plunket Society) and other members of the Plunket Clinical Advisor Team
- **Lesley Dixon** and other members of the Practice Advice and Education team at the New Zealand College of Midwives.

We would also like to thank **Dr Mark Huthwaite** (Consultant Psychiatrist, Maternal Mental Health Service, Capital and Coast District Health Board) for extensive help with later drafts of Chapter 7, **Associate Professor Felicity Goodyear-Smith** (Department of General Practice and Primary Health Care, University of Auckland) for information about the Case-finding and Help Assessment Tool (CHAT), **Mary Newman** (Information Specialist, Wellington School of Medicine), for assistance with literature searches and **Professor Tony Kendrick** (Department of Primary Medical Care, University of Southampton) for participation ex officio at the Older Adults Subgroup meeting in October 2007.

Funding

This guideline was funded by the Ministry of Health and its development was independently managed by the New Zealand Guidelines Group. Appraisal of the evidence, formulation and reporting of recommendations are independent of the Ministry of Health.

Summary

Key messages

- Mental disorders are common in primary care and are a major cause of disability
- All assessment, support and treatment of mental disorders in primary care should be culturally appropriate
- Routine psychosocial assessment is the key to improving the recognition of common mental disorders
- The use of verbal 2–3 question screening tools is recommended as a support for clinical assessment, when targeting adults at high risk for common mental disorders
- A high index of suspicion is needed for substance use disorder which is common but often hard to recognise as it is relatively less disabling than other mental disorders
- Most young people and adults with depression can be managed within primary care using a ‘stepped care’ approach. A good outcome depends on partnership between the patient and practitioner and on provision of active treatment and support for a sufficient length of time
- Planned treatment for depression should reflect the individual’s values and preferences and the risks and benefits of different treatment options
- Use of self-management strategies for depression should be encouraged and supported by practitioners
- Psychological and pharmacological therapies are equally effective for treating adults with moderate depression, on the basis of current evidence
- Brief psychological interventions for depression such as structured problem-solving therapy should be available in the primary care setting
- Where antidepressant therapy is planned, selective serotonin reuptake inhibitors are first-line treatment, with few exceptions

Algorithm 1

Management of depression in young people in primary care

Immediate referral* !

Refer at any stage if:

- serious suicidal intent
- psychotic symptoms
- severe self-neglect.

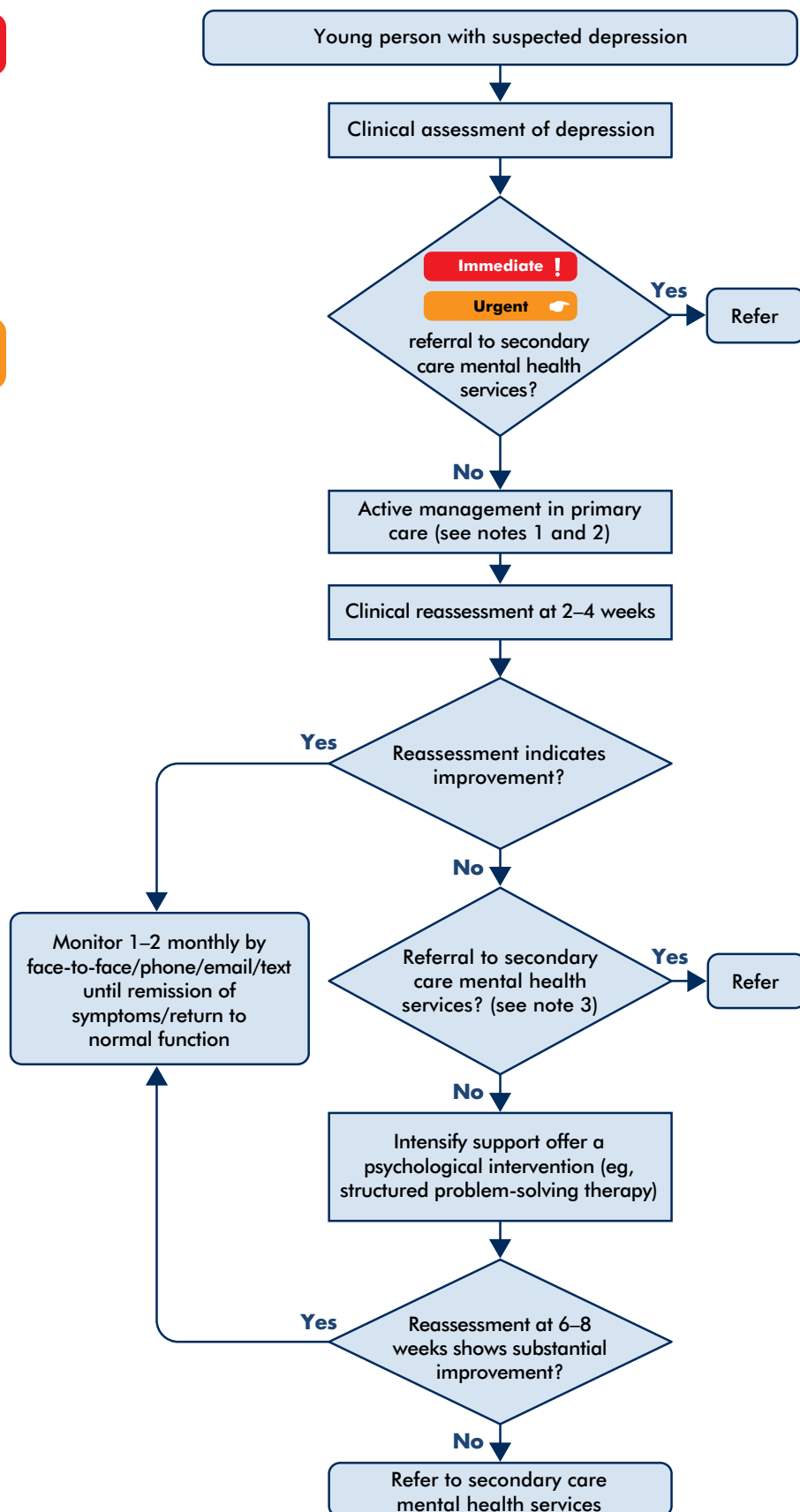
* **Immediate referral:** referral is to be made by the primary care practitioner that day with the expectation of a same-day response to the referral

Urgent referral†

Refer at any stage if:

- severe depression
- persistent symptoms
- profound hopelessness
- other serious mental or substance use disorders
- significant functional impairment (eg, unable to do most daily activities)
- suspected bipolar disorder.

† **Urgent referral:** referral is to be made by the primary care practitioner within 24 hours, with the expectation that the person referred will be seen within 7–10 days, or sooner depending on secondary care service availability



Note 1

Initial management should include active listening, problem identification, advice about simple self-management strategies and active follow-up (2-weekly monitoring by face-to-face/phone/text/email).

Note 2

Consider involving support services such as school guidance counsellors or family services.

Note 3

Review whether referral is indicated at this point given lack of improvement or other concerns.

Algorithm 2 Management of depression in adults in primary care

Immediate referral* !

Refer at any stage if:

- serious suicidal intent
- psychotic symptoms
- severe self-neglect.

* **Immediate referral:** referral is to be made by the primary care practitioner that day with the expectation of a same-day response to the referral

Urgent referral† 🗓️

Refer at any stage if:

- significant but not immediate risk of harm to self/others
- suspected new-onset bipolar disorder
- treatment resistant.

† **Urgent referral:** referral is to be made by the primary care practitioner within 24 hours, with the expectation that the person referred will be seen within 7–10 days, or sooner depending on secondary care service availability

Consider referral 📝

Refer at any stage if:

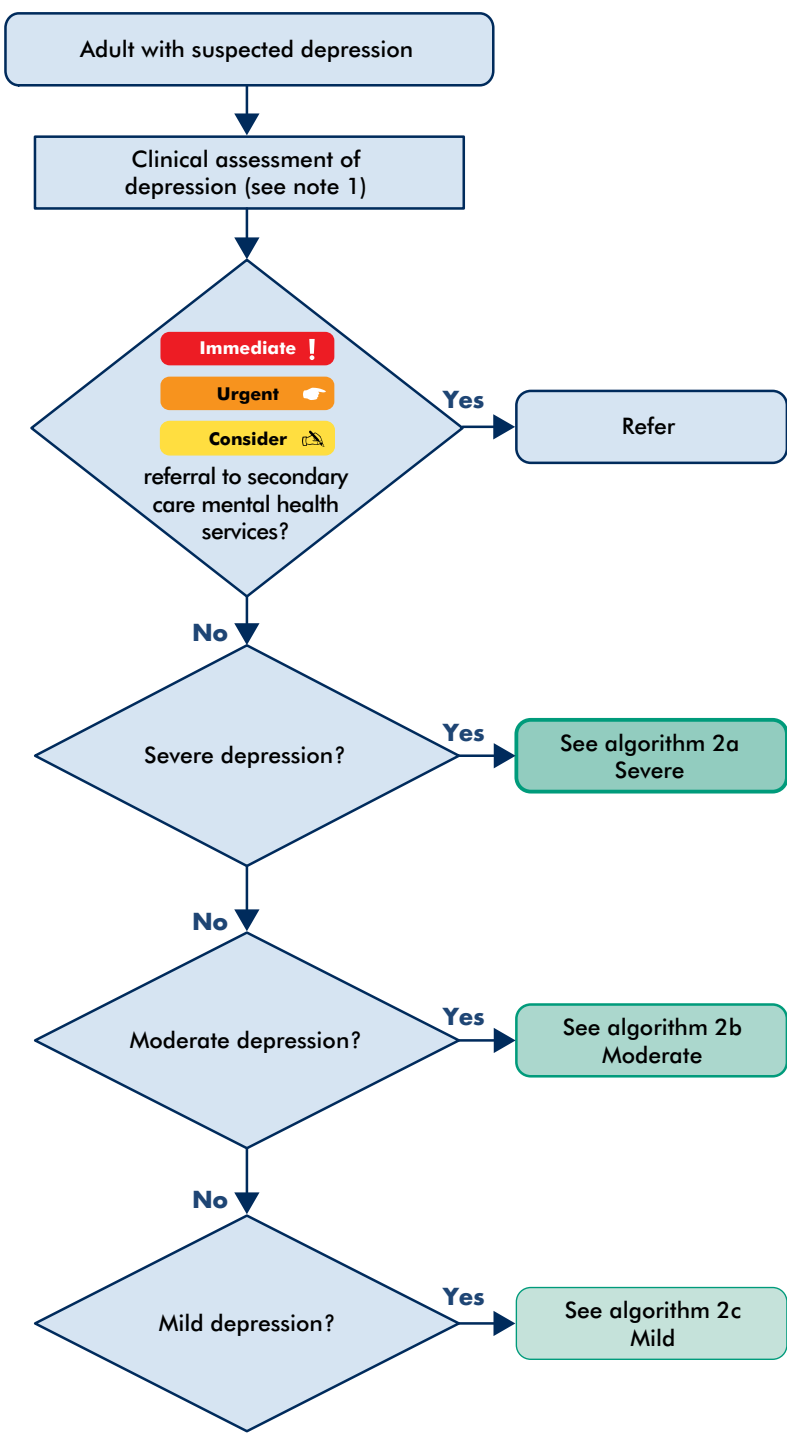
- comorbid medical condition that impacts on antidepressant use
- recurrent depression
- atypical depression resistant to initial treatment
- diagnostic uncertainty.

Note 1
Accurate assessment of acuity and severity is important for appropriate management and referral. In addition to the practitioner’s clinical assessment, consideration should be given to the use of assessment tools. Tools such as the Patient Health Questionnaire for Depression (PHQ-9) will enable the practitioner to appropriately attribute the degree of severity.

PHQ-9 score for Major Depression

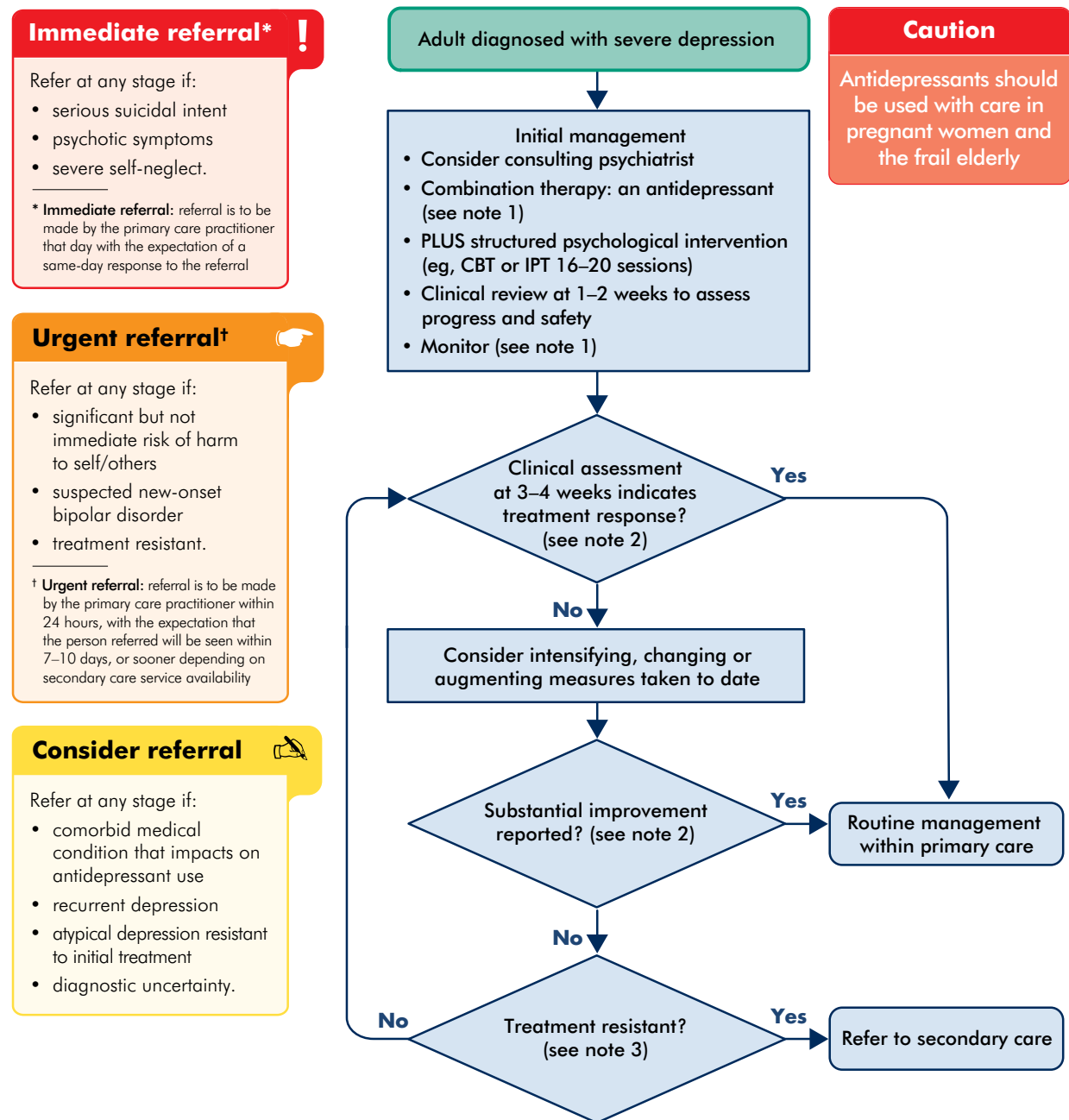
PHQ-9 score	Provisional diagnosis
10–14*	Mild depression
15–19*	Moderate depression
≥20*	Severe depression

* In addition, question 10 about difficulty at work or home or getting along with others should be answered at least ‘somewhat difficult’



Algorithm 2a

Management of severe depression in adults in primary care



Note 1: Monitoring after initiation of an antidepressant

If at increased risk of suicide:

see at 1 week, monitor 1–2 weekly, preferably face-to-face, until the risk is not significant, then at least 2-weekly until clear improvement.

If not at increased risk of suicide:

review within 1–2 weeks, then monitor at least 2-weekly until clear improvement.

Note 2: Antidepressants

At 3–4 weeks

If only a partial response, consider increasing the dose.

If no response or minimal response, or unacceptable side effects, consider changing antidepressant, or changing to or adding a psychological therapy.

At 4–6 weeks

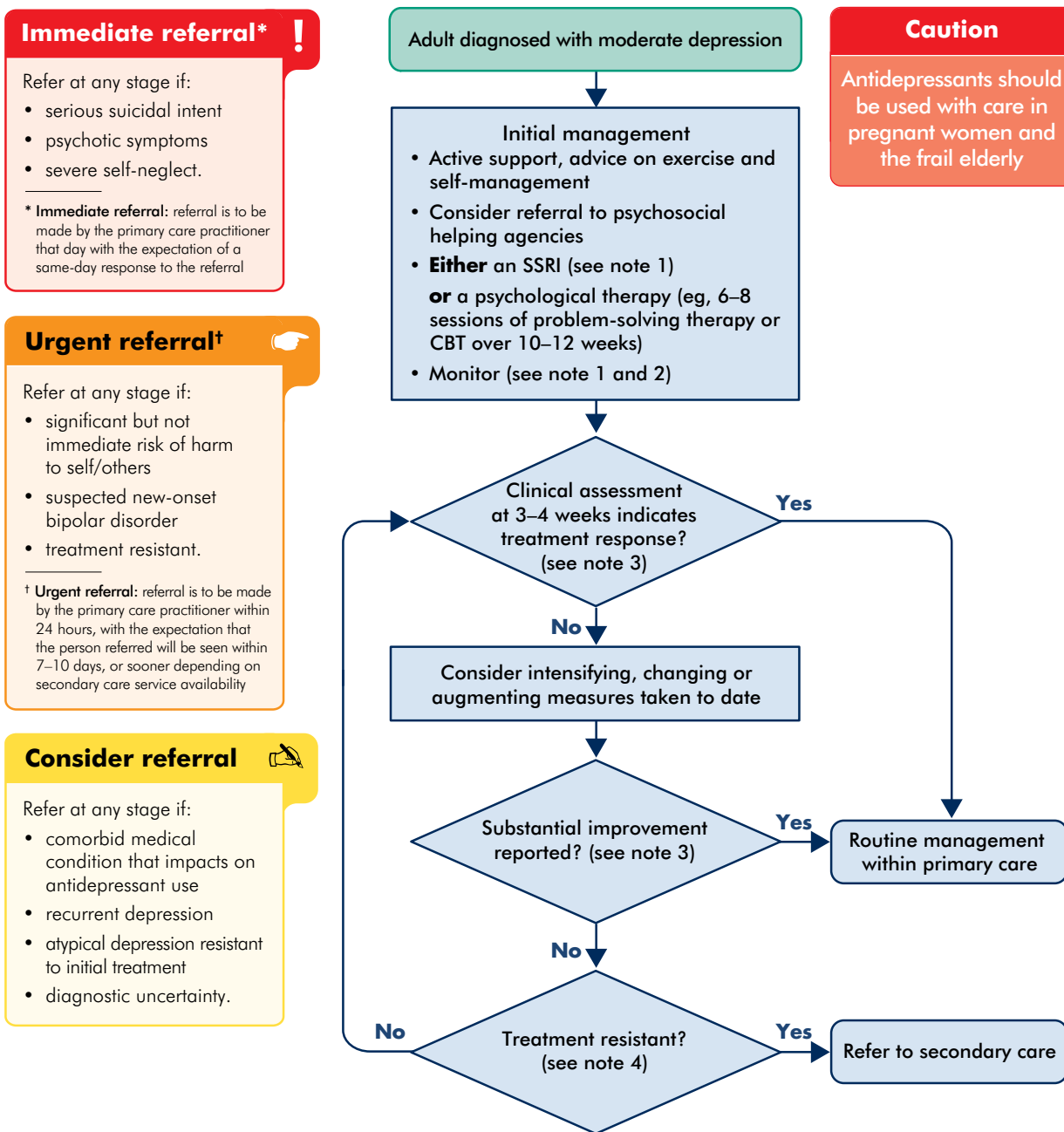
If the person has not responded to treatment, consider increasing the dose, changing antidepressant, or changing to or adding a psychological therapy.

Antidepressants should normally be continued for at least 6 months after remission, to reduce the risk of relapse.

Note 3: Treatment resistance

Treatment resistance is defined as lack of a satisfactory response after trial of two antidepressants given sequentially at an adequate dose for an adequate time (with or without psychological therapy).

Algorithm 2b Management of moderate depression in adults in primary care



Immediate referral* !

Refer at any stage if:

- serious suicidal intent
- psychotic symptoms
- severe self-neglect.

* **Immediate referral:** referral is to be made by the primary care practitioner that day with the expectation of a same-day response to the referral

Urgent referral† 📞

Refer at any stage if:

- significant but not immediate risk of harm to self/others
- suspected new-onset bipolar disorder
- treatment resistant.

† **Urgent referral:** referral is to be made by the primary care practitioner within 24 hours, with the expectation that the person referred will be seen within 7–10 days, or sooner depending on secondary care service availability

Consider referral 📝

Refer at any stage if:

- comorbid medical condition that impacts on antidepressant use
- recurrent depression
- atypical depression resistant to initial treatment
- diagnostic uncertainty.

Caution

Antidepressants should be used with care in pregnant women and the frail elderly

Note 1: Monitoring
Initial monitoring
 Monitor at 1–2 weeks by face-to-face/ phone/text/email to:

- check severity
- gauge progress
- encourage treatment adherence
- take remedial action.

Note 2: Monitoring after initiation of an antidepressant
If at increased risk of suicide:
 see at 1 week, monitor 1–2 weekly, preferably

face-to-face, until the risk is not significant, then at least 2-weekly until clear improvement.

If not at increased risk of suicide:
 review within 1–2 weeks, then monitor at least 2-weekly until clear improvement.

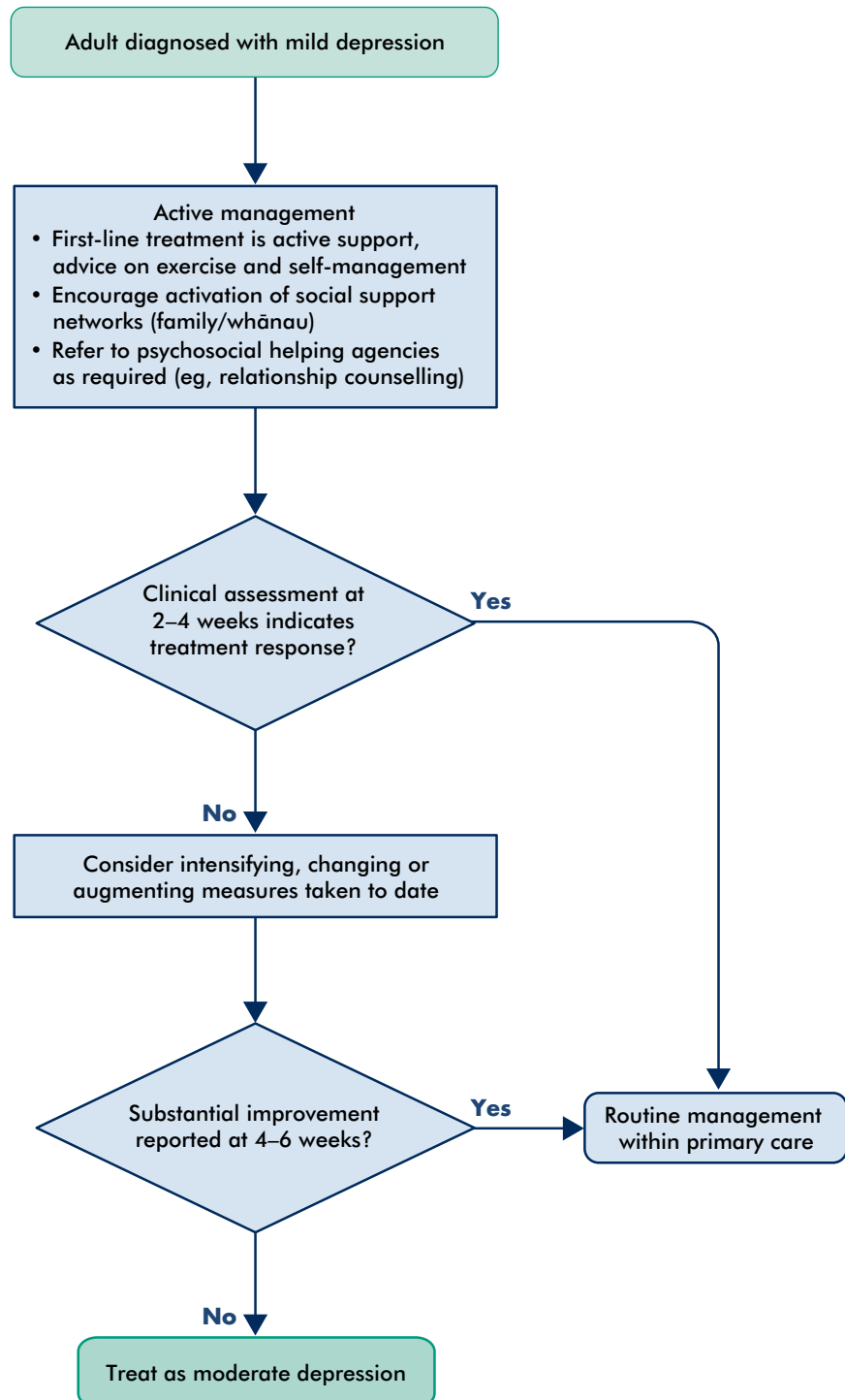
Note 3: Antidepressants
At 3–4 weeks
 If only a partial response, consider increasing the dose.
 If no response or minimal response, or unacceptable side effects, consider changing antidepressant, or changing to or adding a psychological therapy.

At 4–6 weeks
 If the person has not responded to treatment, consider increasing the dose, changing antidepressant, or changing to or adding a psychological therapy.
 Antidepressants should normally be continued for at least 6 months after remission, to reduce the risk of relapse.

Note 4: Treatment resistance
 Treatment resistance is defined as lack of a satisfactory response after trial of two antidepressants given sequentially at an adequate dose for an adequate time (with or without psychological therapy).

Algorithm 2c

Management of mild depression in adults in primary care



1 Background

1.1 Primary care challenges

The identification and management of mental disorders in primary care is a challenging and complex process. Mental disorders are extremely common in this setting, with over one third of adults attending primary care likely to have met the criteria for a DSM-IV® diagnosis within the past 12 months.¹

The identification of common mental disorders is dependent on a number of factors, not least the availability of treatment resources that make identification worthwhile. There is evidence that identification rates might be improved by encouraging disclosure, fostering continuity of care and having a high index of suspicion with patients who have known risk factors for common mental disorders.² However, practitioners rarely address mental disorders in isolation from other health problems and must prioritise between competing clinician, patient and practice needs, often within difficult time and resource constraints. Low identification rates of mental disorders can be attributed partly to a process of prioritisation, whereby practitioners treat only those with marked mental distress and address other more urgent problems in patients with minimal functional impairment.³

Presentations of psychosocial distress in primary care often do not correspond well with standard diagnostic criteria, as subthreshold conditions are often associated with significant functional impairment, while people meeting diagnostic criteria are not always as disabled.^{4,5} There is ongoing debate about diagnostic cut-off points.^{6,7}

A high proportion of patients in primary care practice present with medically unexplained symptoms, that is, a mix of physical and psychological symptoms with no identifiable pathology.⁸ Although practitioners recognise that in most cases medically unexplained symptoms are an expression of psychosocial distress, it can be difficult to know what approach to take. A sense of frustration (and concern about missing a possible biomedical disease) can make the patient-practitioner relationship difficult.⁸

A British Columbia guideline on depression⁹ claims that even when depression has been recognised, treatment is often suboptimal. The guideline suggests that this is due to the following problems, several of which may apply in New Zealand:

- patient reluctance to seek and/or comply with treatment, due to the stigma associated with mental disorders
- inadequate dosage and duration of antidepressant therapy
- failure to educate patients about the nature of depression and to support self-management
- failure to recommend evidence-based psychotherapy

- limited access to psychiatrists and other mental health practitioners
- lack of ongoing monitoring and maintenance treatment despite high rates of relapse and recurrence.

Given competing demands, resource constraints and uncertain diagnostic criteria, it can be difficult for the primary practitioner to allocate intervention thresholds. For more intensive treatments, such as psychological therapies, there is a constant tension between need and treatment availability. It is the intention of this guideline to focus on best practice notwithstanding current resource constraints.

1.2 Cultural perspectives

Cultural constructs of mental health

The assessment of mental disorders requires culturally sensitive practice.¹⁰ This includes an openness to holistic views of health with a spiritual dimension, though no assumptions can be made about an individual based solely on culture or ethnicity as there is wide diversity within any cultural group.¹¹ Symptoms described in one cultural group do not necessarily have a counterpart in others. For example, some beliefs regarded as delusional in one culture may be accepted within another.¹²

Traditional Māori and Pacific perspectives challenge some commonly-held assumptions in Western psychological and counselling theory, such as the Western focus on developing individuality and self-advocacy.^{13,14} Māori may question the view that detachment from the family is a sign of strength and likewise query the merits of verbalising thoughts and feelings.^{13,15} There is speculation that some counselling therapies that focus on the individual may be less relevant and less acceptable for Māori and Pacific patients, who place more emphasis on relationships beyond the person than on self-searching.^{16,17}

Māori and Pacific models of wellbeing emphasise collectivity over individualism, continuity over the 'here and now' and spirituality over the secular. Māori models of wellbeing, such as Te Wheke¹⁸ and Whare Tapa Wha,¹⁹ view the wellbeing of the individual as inseparable from the wellbeing of the whānau, hapū, iwi and family in all its dimensions, as do Pacific models, such as Fonofale.¹⁴

Interventions serve to sustain these various dimensions, rather than to correct dysfunction.^{18,20} The wairua or spiritual wellbeing is not only the key to one's identity but also provides a link to the wider whānau, thus connecting the individual with the wider community that provides strength, support and safety.²¹

Medical terminology may be misinterpreted and concepts such as 'chemical imbalance' may not be easily understood if they are at variance with beliefs that ascribe mental disorder to wider causes.²² Similarly, clinicians using restricted interpretations of

psychiatric phenomena are at risk of misinterpreting their significance,²³ and might, for example, ignore spiritual experiences or regard them as pathological.^{22,24}

Models of mental health are now embracing more holistic views, with an acceptance of the significant impact that social, economic and environmental factors have on wellbeing, an awareness of diversity and a recognition that mental distress is part of common human experience.²⁵ Even so, utilisation of Māori and Pacific community-based mental health service providers, such as kaumātua (koroua/kuia), tohunga and traditional healers, requires a level of understanding of theoretical and methodological differences on the part of most New Zealand health practitioners.^{22,26,27}

Cultural barriers to mental health care

Māori

As a group, Māori have poorer health status than non-Māori, regardless of their level of education, income or occupation.²⁸ Māori have a high prevalence of mental disorders²⁹ and tend to access mental health services at a later stage of illness and with more severe symptoms.²⁸ Disparities in outcome have been attributed to different variables including historical, economic, cultural and social factors, and both interpersonal and institutional racism.^{30,31} There is also evidence that ineffective communication between provider and patient contributes to some of the disparity in Māori primary mental health outcomes.¹⁵

Although the burden of addressing disparities cannot be taken up solely by health practitioners, they need to be aware of the context within which they are delivering health care to Māori, and the potential barriers to, and facilitators of, the delivery process.¹¹

Pacific peoples

Pacific peoples in New Zealand are also relatively disadvantaged across most social, economic and health indicators and their health status falls about midway between that of Māori and non-Māori groups.³² Pacific peoples have a high prevalence of mental disorders and suicidal behaviour, compounded by significant underutilisation of health services.³³ Prevalence rates of mental disorders also appear to increase as a function of time spent in New Zealand.³⁴ Pacific people frequently present late to services,³³ and report difficulty accessing culturally appropriate care and information.³³ In addition, Pacific people may face language barriers.³⁵ Doctors responding to the National Primary Care Medical Survey rated 22% of Pacific people attending primary care as lacking fluency in English.³⁶ The language used in health care interactions can pose particular difficulties,³⁷ and there can be difficulty in ensuring confidentiality when interpreters are used.³³ As with Māori, provision of acceptable and accessible services must be a priority in this vulnerable population.

Asian peoples

About 7% of the New Zealand resident population is Asian, the largest ethnic groups being Chinese, Indian and Korean, of whom the vast majority are migrants.³⁸ This population group is very diverse in religion, culture, language, education and socioeconomic situation, and few generalisations can be made. However, as a group, Asian migrants share a range of risk factors for mental disorders, such as social isolation, language barriers, underemployment and unemployment.³⁸

There is little evidence on specific ways that social and cultural factors impact on the presentation of mental disorders in this population, but the literature notes that for many Asians there is a strong stigma associated with mental disorders which may delay presentation and treatment.³⁹ It has also been reported that somatisation (the physical manifestation of mental distress) is more common in this population than in Western societies.³⁹ Health surveys have identified that Asian patients want better access to more user-friendly services and have identified mental health as a priority.^{38,39} The Mental Health Commission report on Asian mental health highlighted, in particular, the high mental health needs of women and refugees within smaller migrant communities (eg, Vietnamese, Indonesian), and of older migrants and refugees suffering from pre-migration trauma, combined with the stress of adapting to a new culture.³⁹ Refugees often have specific needs associated with the effects of trauma and/or torture.³⁹⁻⁴¹ There is general recognition of the need for New Zealand practitioners to develop skills in interacting with Asian patients and to increase their awareness of how cultural factors influence the presentation and treatment of mental disorders in this population.³⁸

1.3 Epidemiology of common mental disorders

Prevalence in different populations

All adults

The New Zealand Mental Health Survey,³⁴ undertaken between 2003 and 2004, was a nationally representative face-to-face household survey of nearly 13,000 New Zealanders (aged 16 years and over). The survey provides prevalence data for four groups of major mental disorders: anxiety disorders, mood disorders, substance use disorders and eating disorders. Disorders were diagnosed using a fully-structured diagnostic interview which generated DSM-IV® diagnoses. The survey revealed that mental disorders are common in New Zealand, with 40% of respondents reporting that they had experienced a disorder at some time in their lives. A total of 21% had experienced a disorder in the 12 months preceding the survey, of which approximately 5% were classified as serious, 9% as moderate and 7% as mild.³⁴ Overall, anxiety

disorders were the most commonly encountered mental disorder (lifetime prevalence rates of 25%), followed by depression and other mood disorders ie, bipolar disorder and dysthymia (20%) and substance use disorders (12%) (see Table 1.1).³⁴

Data from the Dunedin Health and Development Study showed that most adults with a psychiatric disorder had a diagnosable disorder in childhood (any DSM-IV® disorder, identified either by structured interview or by self-report of treatment).⁴² Similarly, the New Zealand Mental Health Survey found that half of all people who developed a major mental disorder had experienced the disorder by age 18 years and three-quarters by the age of 34 years.³⁴ Median age of onset was 13 years for anxiety disorders, 32 years for mood disorders, 18 years for substance use disorders and 17 years for eating disorders. Generalised anxiety disorder and major depressive disorder had the highest median onset ages (32 years). However, a first episode of depression, one of the most common disorders, can occur at any time of life, with one quarter of first episodes reported in the New Zealand Mental Health Survey experienced at age 50 years or older.³⁴

Women have slightly higher overall lifetime prevalence rates of mental disorder (42%) than men (37%).³⁴ Women have higher rates of major depressive disorder (9% higher than men), specific phobia (7% higher), post-traumatic stress disorder (4% higher) and generalised anxiety disorder (3% higher). Men have higher rates of alcohol abuse (9% higher than women), alcohol dependence (3% higher), drug abuse (4% higher) and drug dependence (1% higher).³⁴

The Mental Health and General Practice Investigation (MaGPIe) survey of mental health in general practice¹ reported rates of common mental disorders in the preceding

Anxiety disorders		Mood disorders		Substance use disorders	
Specific phobia	11%	Major depressive disorder	16%	Alcohol abuse	11%
Social phobia	9%	Bipolar disorder	4%	Drug abuse	5%
Post-traumatic stress disorder	6%	Dysthymia	2%	Alcohol dependence	4%
Panic disorder	3%	Any mood disorder	20%*	Drug dependence	2%
Agoraphobia	1%			Any substance use disorder	12%*
Obsessive compulsive disorder	1%				
Any anxiety disorder	25%*				

* Includes those with more than one disorder

Source: Oakley Browne MA, et al. (eds). Te Rau Hinengaro: The New Zealand Mental Health Survey. Wellington: Ministry of Health; 2006.

12-month period amongst adults attending general practice. Substance use disorders were found to be more common in men than women (17% vs 8%). Depressive disorders (depression and dysthymia) and anxiety disorders were approximately twice as common in women compared with men (22% vs 12% and 26% vs 12%, respectively).¹

Māori

The New Zealand Mental Health Survey found that mental disorders were common among Māori with at least half (50.7%) of adults experiencing at least one disorder over their life before interview and 29.5% experiencing at least one disorder in the previous 12 months.²⁹ These findings are consistent with evidence from the MaGPIe study that showed a relatively high prevalence of common mental disorders among Māori primary care patients.⁴³ Many disorders experienced within the previous 12 months were considered serious (29.6%) or moderately serious (42.6%), and analyses of comorbidity found that multiple disorders were common, suggesting that such disorders have a considerable impact among Māori.²⁹

Anxiety disorders were the most common disorder (lifetime 31.3%; previous 12 months 19.4%), and mood and substance disorders were also common, especially major depressive disorder (lifetime 15.7%; previous 12 months 6.9%). Alcohol disorders were the most prevalent substance use disorder (lifetime 24.5%; previous 12 months 7.4%). Drug disorders were also common (lifetime 14.3%; previous 12 months 4.0%), particularly marijuana abuse and dependence.²⁹

Disorders were more prevalent among Māori women than men (previous 12 months 33.6% vs 24.8%), partly due to an increased rate of anxiety and mood disorders. Disorders were also more prevalent among young people, with a disorder occurring in the previous 12 months in about one-third of 15- to 44-year-olds. When the relationship between household income and mental disorder was examined, the prevalence rates for mental disorder were highest among Māori with the lowest income and supported the view that socioeconomic position contributes to mental disorders among Māori.²⁹

Pacific peoples

The New Zealand Mental Health Survey found high rates of mental disorders among Pacific adults, with an overall prevalence of 25% for the previous 12 months compared with 21% for the total New Zealand population.³⁴ There were also higher rates of suicidal ideation (4.5%) and attempts (1.2%) for the previous 12 months than among the general population. Only 25% of Pacific people who had experienced a serious mental disorder had visited any health service for mental health reasons, compared with 58% for the general population. The prevalence of mental disorders was lower among Pacific people born in the Pacific Islands than among those born in New Zealand.⁴⁴

Asians

There have been few studies of the prevalence of mental disorders among Asian ethnic groups in New Zealand. The limited evidence suggests that the prevalence of mental disorders among Asians does not differ significantly from that of the general population.³⁹ However, there are indications of high levels of depression among older Chinese immigrants and of a high prevalence of post-traumatic stress disorder among Cambodian refugees.³⁹

Young people

The most prevalent childhood and adolescent mental disorders among young people in New Zealand are anxiety disorders, mood disorders, conduct disorder and substance abuse.⁴⁵ The overall and gender-specific prevalence of various disorders changes over time (see Table 1.2), with an overall increase up to the age of 18 years. In childhood and early adolescence, males are at greater risk, with higher rates of conduct disorder, attention-deficit hyperactivity disorder, and depressive disorder (depression and dysthymia) in boys. In adolescence, the rates of depression/dysthymia and anxiety disorders increase dramatically in females. However, the rate of substance abuse is higher in males.⁴⁵

New Zealand rates of mental disorders for young people are commonly taken from two long-term South Island studies of a 1972 to 1973 birth cohort of 1037 children (Dunedin Health and Development Study⁴⁶) and a 1977 birth cohort of 1267 children (Christchurch Health and Development Study).^{45,47} The Dunedin study found that in 11-year-olds there was an 18% 1-year prevalence rate of mental disorders in their cohort, rising to 35% in 18-year-olds. Prevalence in 18-year-olds in the Christchurch study was similarly high at 42%. A limitation of these epidemiological data on the prevalence of mental disorders is that the extent of functional disability is not described. The disorders identified are likely to range from relatively mild and adolescent-limited conditions, to severe and chronic illness. The data from these studies should therefore be taken to represent an upper limit estimate of the number of young New Zealanders with significant psychiatric problems.⁴⁸ Overall, the studies showed that rates stabilised from the age of 18–21 years and new cases began to decline.⁴⁹

Childhood anxiety commonly precedes adolescent depression⁵¹ and studies comparing anxiety and depression have revealed a common genetic predisposition for these disorders.⁵³ In the presence of both anxiety and depression, there is an increased risk of developing a comorbid substance disorder and treatment responsiveness is reduced.⁵⁴ Forty percent of 18-year-olds met the criteria for more than one disorder.⁴⁵

Table 1.2 Prevalence of common mental disorders in children and adolescents

Disorder (in order of prevalence)	Estimated population prevalence (%) [*]		
	Total	Boys	Girls
Preschool			
Preschool behaviour problems (parent rated) [†]	16	17	14
Hyperactive behaviour disorder [‡]	2	2	2
Primary school age			
Attention-deficit hyperactivity disorder [§]	14	19	9
Anxiety disorder (esp. separation anxiety)	5	n/a	n/a
Conduct disorder [§]	3	5	2
Depression/dysthymia [§]	3	4	2
Pre-adolescence (11 years)			
Conduct/oppositional disorder [#]	9	12	5
Attention-deficit hyperactivity disorder [#]	7	11	2
Separation anxiety [#]	4	2	5
Overanxious disorder [#]	3	4	2
Depression/dysthymia [#]	2	3	<1
Any mental disorder ^{#††}	18	20	17
Mid adolescence (15 years)			
Anxiety disorder ^{**}	13	7	19
Conduct disorder ^{**}	5	7	3
Depression/dysthymia ^{**}	6	3	9
Any mental disorder ^{**††}	22	16	28
Late adolescence (18 years)			
Alcohol or substance abuse/dependence ^{**}	24	29	20
Depression/dysthymia ^{**}	18	10	27
Anxiety disorder ^{**}	17	12	22
Any mental disorder ^{**††}	42	39	45

* New Zealand data have been used where available

† New Zealand. 2.5- to 5-year-olds, current prevalence in Pavuluri MN, et al. *J Paediatr Child Health* 1996;32:132–7.⁵⁰

‡ New Zealand. 3-year-olds, current prevalence from Dunedin Health and Development Study in McGee R, et al. *Mental Health*. In: Silva PA, Stanton WR, editors. *From child to adult: the Dunedin Multidisciplinary Health and Development Study*. Auckland: Oxford University Press; 1996. p. 150–62.

§ Australian. 6- to 12-year-olds, 1-year prevalence from Sawyer MG, et al. *Mental health of young people in Australia: child and adolescent component of the National Survey of Mental Health and Wellbeing*. Canberra: Commonwealth Department of Health and Aged Care; 2000.

continued over...

Table 1.2 Prevalence of common mental disorders in children and adolescents continued...

	US Great Smoky Mountains Study. 9- to 10-year-olds, 3-month prevalence from Costello EJ, et al. <i>Arch Gen Psychiatry</i> 1996;53:1137-43. ⁵¹
#	Dunedin Health and Development study. 1-year-olds, prevalence from Anderson JC, et al. <i>Arch Gen Psychiatry</i> 1987;44:69-76. ⁵²
**	1-year prevalence, Christchurch Health and Development Study from Fergusson D, et al. <i>Aust N Z J Psychiatry</i> 2001;35(3):287-96. ⁴⁷
††	Any common DSM-III disorder (attention-deficit hyperactivity disorder, conduct disorder, oppositional disorder, depression, dysthymia, separation anxiety, overanxious disorder, avoidant disorder, phobia, panic disorder, obsessive-compulsive disorder, psychosis).
††	Any common DSM-III-IV disorder (anxiety disorder, conduct disorder, depression/dysthymia, alcohol/substance use disorder).

Late puberty is associated with widespread and common experimentation with drugs (usually alcohol and marijuana) and also with a three-fold increase in substance abuse.⁵⁵ Most 12- to 17-year-olds in New Zealand have access to alcohol and over 12% consume large amounts weekly (6 and 4 standard drinks for males and females, respectively).⁵⁶ About 38% of 15- to 17-year-olds have tried marijuana.⁵⁷ Multiple substance abuse is also common. Two-thirds of New Zealand adolescents with marijuana dependence are also alcohol dependent.⁵⁸ Clinicians tend to underestimate adolescent substance-related pathology and this is probably the most commonly missed diagnosis in this age group.⁵⁹

Mental disorders in young people lead to emotional distress, impaired functioning, physical ill-health and increased suicide risk.^{34,60,61} They also carry a high risk of a pattern of recovery and recurrence (more likely in females) or unremitting persistence (more likely in males) into adult life.^{42,62,63}

Follow-up data from the Dunedin Health and Development Study found that young men who were antisocial and aggressive in childhood and delinquent in adolescence were highly maladjusted at 26 years, with mental health problems, psychopathic personality traits and histories of drug-related and violent crime (including domestic violence). Problems among those with a history of adolescent-onset delinquency were less extreme but included mental health and financial problems, and property offences. A third group who were aggressive as children but not very delinquent as adolescents were anxious, depressed, and had financial and work problems. These findings reinforce the need for effective intervention with aggressive children and delinquent adolescents, in an effort to prevent very serious problems in adult life.⁶⁴

1.4 Etiology of common mental disorders

The etiology of common mental disorders is multifactorial and complex. It involves the interaction of differing susceptibilities, environmental exposures and stressful life events,^{65,66} and encompasses a range of genetic,⁶⁷ developmental,⁶⁸ biochemical,⁶⁹ endocrine,⁷⁰ nutritional⁷¹ and psychosocial⁷² factors. Moreover most risk factors, whether genetic or environmental, involve probabilistic rather than deterministic effects.⁶⁷ This complexity explains the heterogeneity of presentations and may account for differential responses to treatment. There is strong research interest in genetic^{53,67} and biochemical vulnerabilities⁷³⁻⁷⁶ and their influence on mental health, including the potential for biochemical prevention and/or treatment of depression.^{77,78}

There is widespread acceptance that mental disorders can be triggered by the interaction of individual risk factors with stressful situations.^{66,79} However, this sequence of events does not invariably apply; further, there are factors that appear to protect against depression following a stressful life event.⁶⁵ For a first episode of depression, the commonly encountered risk factors are detailed in Table 1.3, along with a short list of protective/resilience factors.

Table 1.3 Risk factors and resilience factors for depression

Common risk factors (which could lead to vulnerability)	Resilience factors (protective in the presence of risk factors)
Parental history of depression	Good parenting [§]
Difficult temperament as a child*	Easy temperament as a child [†]
Attachment difficulties/parental neglect	Good peer relationships
Family discord [‡]	Stability in love relationships
Previous depression/anxiety in adulthood	Has coped with past difficulties well
Ruminating over negative circumstances	

* Displays behaviour such as impulsiveness, shyness, difficulty in concentrating, easily upset, poor task persistence, irritability.

† Displays behaviour such as adaptability in novel situations, sociability; has a low intensity of reactions.

‡ Tension between parental figures, arguments or fighting (often preceded by financial problems).

§ Research indicates that good parenting includes emotional warmth and cognitive stimulation (Kim-Cohen 2004).⁸²

Sources:

Bruder-Costello B, et al. *Psychiatry Res* 2007;153(2):145–51.⁸⁰

Brown GW, et al. *J Affect Disord* 2007;103;(1-3):225–3.⁸¹

A history of depression in one or both parents puts offspring at a three-fold increased risk of depression.⁸⁰ Furthermore, a history of parental depression increases the risk that a child will have a difficult temperament, which is itself a risk factor for depression. A child with a difficult temperament is two to three times more likely to develop depression than a child with an easy temperament.⁸⁰

Parental maltreatment or experiencing family discord as a child provide a two- to four-fold increased risk of recurrent or chronic adult depression⁸³ and if the individual is maltreated while siblings are not, that risk increases to 12-fold.⁸⁴ Emotional neglect and abuse, including physical or sexual abuse during childhood, can also act as precursors to mental disorders, given a lack of protective factors (see Table 1.3), as can attachment problems.⁸⁵ However, there is nothing inevitable about the development of mental disorders, particularly in the presence of protective factors of resilience.⁸⁴

Low socioeconomic status in childhood does not appear to predict psychopathology⁸⁶ unless accompanied by family discord or lack of maternal responsiveness.⁸² However, socioeconomically disadvantaged adults appear to be less likely to receive effective treatment.⁸⁶

Vulnerability and resilience

Resilience can be viewed as a collection of personal qualities that enable one to thrive in the face of adversity, that is, possessing innate stress-coping abilities.⁸⁷ High resilience has biological validity given the correlations with specific genetic markers and sympathetic/parasympathetic balance.⁸⁸ Vulnerability has correlations not only to the presence of certain genetic markers but also to childhood adversity and attachment difficulties.⁸⁹ It has been reported that insecurely attached 15-month old babies can have problems with anxiety by 5- to 6-years of age if affected by stress, unlike securely attached babies.⁹⁰ A secure maternal attachment style is also associated with raised social maturity in girls.⁹¹

Differences in basic patterns of reaction towards unhappy and traumatic circumstances are found in all humans and are relatively stable characteristics. Resilience is related to having at least one caring parent, good peer relationships in adolescence, the quality of adult friendships and the stability of marital and other love partnerships.⁹² Knowing (or asking) whether a person is able to adapt easily to stress and has a tendency to 'bounce back' after illness or hardship gives an indication of the risk of mental health consequences when a person is exposed to new stressful life circumstances.⁸⁸

The concept of resilience, once regarded as a personal trait, is more recently viewed as a dynamic developmental process, and the focus in research has shifted towards resilience-based intervention and prevention programmes.⁹³

The 'stress-vulnerability model', also known as the 'diathesis-stress model'⁷⁹ takes into account both biological and psychological factors in explaining mental disorders. This theory predicts that an underlying vulnerability can be triggered or exacerbated by current stressful conditions.⁶⁶

The 'hopelessness theory'⁹⁴ concentrates on hopelessness as the core characteristic of depression, the presence of which signifies the need for further exploration of depressive symptoms. Stresses and vulnerabilities combine to exacerbate hopelessness, especially when the person attributes stress to global and stable causes (eg, 'It's always like that' or 'You can't do anything about it'), or catastrophises thoughts, or views her or himself as deficient or incapable.⁹⁵

These two theories and others coalesce under the umbrella of 'developmental psychopathology', which takes into account vulnerabilities, contexts and timing. In this theory, mental health is conceptualised as a consequence of intra-individual and extra-individual circumstances, which fits in with the stress-vulnerability model.⁹⁶

Obvious signs of stress in children are associated with later mental health problems.⁹⁷ Some personality types are particularly vulnerable to depressive tendencies. Depressive symptoms in 18-year-old boys are often associated with a pattern from early childhood of antisocial, aggressive and outwardly-directed behaviour.⁹⁸ Girls are more likely to have a history of overly-compliant, self-blaming and inwardly-directed behaviour.⁹⁸

Anxiety is a risk factor for developing substance dependence (1.3 – 3.9 times more likely) among young people in New Zealand. The association appears to be largely non-causal, reflecting adverse factors that increase individual susceptibility to both anxiety disorders and substance use, such as family adversity, parental psychopathology, child abuse, personality factors and behavioural adjustment in childhood.⁹⁹

1.5 Special issues

Depression in the antenatal and postnatal period

Depression in the antenatal and postnatal period is common, although estimates of prevalence vary.¹⁰⁰ A systematic review of prevalence and incidence suggests that about 13% of women have an episode of major or minor depression during pregnancy, of which up to 6% meet the diagnostic criteria for major depression.¹⁰⁰ Similarly, up to 19% of women have an episode of major or minor depression within 3 months of childbirth, of which approximately 7% are major depression.¹⁰⁰

The etiology of mental disorders in the antenatal and postnatal period is complex and reflects the profound social, psychological and biological changes occurring in this period. Genetic, biochemical, endocrine, and social factors may all play a part.¹⁰¹ Although the course and prognosis of depression in the antenatal and postnatal period is similar in many respects to depressive disorders experienced at other times, there may be distinct causative factors for postnatal depression occurring in women with no history of a mood disorder (ie, *de novo*), possibly associated with postnatal neuroendocrine changes.^{102,103} Women with *de novo* postnatal depression appear to recover more quickly than those with a history of a mood disorder.¹⁰² It has also

been suggested that such women may have specific vulnerability to the relationship demands of early motherhood¹⁰⁴ or may have predisposing physiological traits.⁷⁴ Women with *de novo* postnatal depression appear to be at increased risk of further episodes of postnatal depression, but not for non-post partum episodes.¹⁰²

The potential impact of a maternal mental disorder early in an infant's life favours urgent identification and intervention. Postnatal mental disorders have been associated with a wide range of negative outcomes affecting both mother and child, including obstetric and perinatal difficulties,¹⁰⁵ poor mother-child interaction,¹⁰⁶ long-term developmental and mental health problems in offspring,^{107,108} and mental disorders in male partners.¹⁰⁹

A systematic review of literature on risk factors for postnatal depression found that potentially important factors were the mother's level of social support, life events and psychiatric history.¹⁰¹ Depressed mood or anxiety during pregnancy were the strongest predictors of depression in the antenatal and postnatal period.¹⁰¹ However, it has been reported that many women presenting in primary care in New Zealand with depression in the postnatal period do not have identifiable risk factors, such as poor social support or partner relationship problems.¹⁰³

Depression in older adults

Overall, the 12-month prevalence of depressive disorders among community-dwelling older adults aged over 65 years in New Zealand primary care is about 2% for men and 5% for women.¹ Older adults in residential care are at much higher risk of depression, with a prevalence of about 18% in low-level care residential facilities.¹¹⁰

A study from the Netherlands¹¹¹ reported that the best predictors of depressive symptoms in the very old (75–85 years) were the fear that they were declining cognitively, difficulties in daily functioning, fear of falling, and being alone during part of the day, followed by the presence of chronic physical disease. Depression in older adults is often missed by practitioners, as older adults appear reluctant to report mental health problems and when reported, practitioners tend to attribute the problems to normal aspects of aging or disease.¹¹²

Chronic medical conditions

Mental and physical illness commonly coexist.¹¹³ The course of disease is altered, disability is increased, quality of life is reduced, treatment is more complex, and mortality risks higher when physical disease is comorbid with mental disorders.¹¹⁴ A chronic medical condition combined with a mental disorder can lead to a less than optimum medical response unless both conditions are treated. Identifying and treating the mental disorder can thus improve health outcomes and reduce health care utilisation.¹¹³

Sexuality

Data from the Christchurch Health and Development Study indicated that lesbian, gay and bisexual young people are at significantly increased risk of mental health problems. The risk of a disorder between 14- and 21-years-old is increased approximately four- to six-fold for major depression, suicidal ideation and suicide attempts, conduct disorder, nicotine dependence and multiple disorders.¹¹⁵ These adolescents are highly vulnerable to bullying and verbal assault at school, with negative effects on educational attainment and on satisfaction with a lesbian, gay or bisexual identity.¹¹⁶

There is also evidence of increased vulnerability to mental disorders, psychological distress and/or alcohol abuse among lesbian, gay and bisexual adults in comparison to heterosexuals.^{117,118} There is evidence that lesbian women who have identified with their sexual orientation for a long period of time are less likely to have mental disorders than those who have more recently identified as lesbian.¹¹⁸

Mental health issues related to sexuality will go unaddressed unless the health provider is aware of the patient's sexual identity, yet most health providers assume that patients are heterosexual and do not provide them with an opportunity to disclose otherwise.¹¹⁹

Suicide

Prevalence

Suicide and attempted suicide are important health problems in New Zealand.¹²⁰ Each year there are approximately 500 deaths by suicide and 10 times as many hospitalisation events for intentional self-harm (5400 events in 2006).¹²⁰ Suicide rates are high in young people aged 15–24, among whom New Zealand has one of the highest rates out of comparable OECD countries.¹²⁰

The prevalence of suicidal ideation (thinking about committing suicide), suicide plans and suicide attempts were reported in The New Zealand Mental Health Survey.¹²¹ Among the general population aged over 16 years the 12-month (lifetime) prevalences were 3.2% (15.7%) for suicidal ideation, 4.1% (5.5%) for making a suicide plan and 1.6% (4.5%) for attempted suicide.

Risk factors

Suicide rates are higher in the following sociodemographic groups:¹²⁰

- males (age-standardised rate: 20.3 per 100,000 versus 6.5 per 100,000 in females)
- Māoriⁱ (age-standardised rate 17.9 per 100,000 versus 12 per 100,000 for non-Māori)

ⁱ Most Māori who die by suicide are aged under 35 years (Ministry of Health, Suicide Facts: 2005–2006 Data. 2007).¹²⁰

- age 15–24 (rate 18.1 per 100,000 versus 13.1 per 100,000 overall)
- socioeconomically disadvantaged people (age-standardised rate 15.6 per 100,000 versus 9.1 per 100,000 in most deprived versus least deprived areas).

The same sociodemographic groups are at increased risk of attempted suicide, except that for this outcome rates are higher among females, with twice as many hospitalisations for intentional self-harm occurring among females as among males.¹²⁰

Although the determinants of suicide and suicide attempts include a wide range of influences, including biological, psychological, social and macro-social factors,¹²² the overwhelming majority of cases are associated with mental disorder.¹²³ In the New Zealand Mental Health Survey¹²¹ people with a mental disorder had increased risks of suicidal ideation (12-month prevalence: 11.8%), suicide plan (4.1%) and attempted suicide (1.6%) compared with those without mental disorder. Specific mental disorders associated with increased risk of suicidal behaviour (ideation, plan or attempt) were mood disorder (depression, dysthymia or bipolar disorder), substance use disorder and anxiety disorder. Major depression was the specific disorder most strongly associated with suicidal behaviour. Less than half of those who reported suicidal behaviours within the past 12 months had seen a health professional during that time.

The profile of individual risk factors for suicidal behaviour varies across the life span.¹²² Suicidal behaviour in young people is often associated with a disturbed or unhappy family background, educational or social disadvantage, mental health or behavioural problems, and/or experience of a recent stressful life event, such as relationship break-up, court appearance or family crisis.¹²⁴ In adults the contribution of current mental disorders becomes more prominent, and factors such as childhood adversity become relatively less important, with recent interpersonal or legal problems also adding to risk.²⁸ Among older people, current mental illness, particularly depression, remains the most important risk factor.¹²⁰ In all age groups, social isolation confers additional risk, and negative life events may act as immediate precipitants in those already at risk.¹²⁵

The association of socioeconomic factors with suicide is complex and may vary across time. For example, the ratio of inequality in suicide between the least deprived and most deprived areas of New Zealand rose from 1.68 in 1980–1982 to a high of 1.94 in 1990–1992, a period in which New Zealand experienced rapid social and economic change.¹²⁶

Prevention and postvention

The recently published New Zealand Suicide Prevention Action Plan¹²⁷ provides direction on suicide prevention initiatives. It emphasises the role of improved recognition and management of mental disorders, particularly depression, in the prevention of suicide.

Since those who are affected by suicidal behaviour in others are also at increased personal risk of suicidal behaviour, support services need to be available for family and friends after a suicide bereavement or suicide attempt. This applies particularly where there is a risk of suicide contagion, which can result in a cluster of suicides. A postvention support initiative is currently being developed by the Ministry of Health to guide programme development in this area, which may from time to time involve participation by primary health organisations.¹²⁸

2 Principles of intervention in the primary care setting

2.1 Rationale for intervention

The high prevalence and morbidity of common mental disorders such as depression and the potential for effective treatment provide a strong rationale for identification, active management and follow-up in primary care.^{65,101} Likely benefits include ease of access for patients, early intervention and a holistic and integrated approach.¹²⁹

2.2 Recognising potential mental disorders

A routine check of psychosocial health is the first step in recognising potential mental disorders and the most vital assessment tools are the communication and observational skills of the practitioner. A structured approach to assessment ensures that the relevant domains are addressed and enables the practitioner to identify risks, protective factors and any issues of cultural context and identity.

Functional disability should be considered carefully, as many patients with modest or subthreshold symptoms have significantly impaired occupational or social functioning.^{4,73,130} Substance use disorder can be difficult to recognise because it is relatively less disabling than some other disorders.¹³¹

Formal assessment tools may have a supplementary role in diagnosis, but can be time-consuming and are less versatile than global clinical assessment. Tools may also be useful to help assess severity and monitor response to treatment.

Although many people with mental disorders present with physical complaints, the majority will divulge psychological problems if asked directly.^{132,133} A nonjudgmental manner and assurance of confidentiality increase the likelihood of disclosure.¹³⁴ The involvement of family/whānau in the assessment process may also encourage disclosure.

Sometimes problems take several sessions to 'unravel' in the clinical setting and may involve an assessment process of 'trial and error'.¹³⁵ For all patients with mental distress it is therefore vital to negotiate active follow-up.

There may only be sufficient time to address urgent concerns within the course of a 15-minute primary care appointment. In the opinion of the Guideline Development Team (GDT), many patients would benefit from an extended consultation to allow time to explore their personal perspectives and promote self-management goals,¹³⁶ though it may be difficult to provide this within current resource constraints.

2.3 Managing depression: the stepped care model

Management options for depression in primary care sit on a continuum from simple advice and monitoring to intensive multidisciplinary intervention. Most individuals with depression present with relatively mild disorders, which are of recent onset and are amenable to treatment in a primary care setting. The minority with severe or chronic disorders require more intensive management, with secondary mental health care input.⁶⁵

A 'stepped care' approach to management entails choosing the least intrusive intervention required to achieve clinical change for an individual. It is often possible to 'do more with less', by starting with a low-intensity therapy, monitoring patient response and moving to more intensive treatments only if the problem persists. The stepped care model guides treatment using a combination of evidence-based principles and continuous clinical assessment. Progression through levels of care is determined on the basis of patient response.^{137,138} Support for self-care is a major feature of this approach.¹³⁹

The choice of initial therapy will inevitably depend not only on the individual's needs and preferences but also on service availability. Minimum intervention should not be used as a triaging device as this would risk delaying access to therapy to those with serious need, or loss to follow-up for some who fail to respond at the lower level of input. There also needs to be a clear plan on how to decide whether a treatment is effective and when to employ another approach.^{137,138}

2.4 Practitioner roles

The term 'practitioner' in this guideline is used to refer to any health care practitioner in the primary care or community setting. However, practitioners involved in targeted screening for common mental disorders in primary care will, in most cases, be health professionals working in a general practice setting (eg, GP, practice nurse, nurse practitioner), an educational setting (eg, school nurse or guidance counsellor), or a maternity setting (eg, midwife). Other health care practitioners working in first-point-of contact settings could also undertake this role, if supported to do so by local protocols (eg, public health nurses, occupational health nurses, iwi and Pacific providers, district nurses, Plunket nurses, counsellors, social workers and psychologists). Any practitioner administering screening for common mental disorders needs to have a high standard of communication skills, to be educated in the use and limitations of the screening questions, be aware of the appropriate management of individuals who screen positive, and to be able to action referral for further assessment and treatment.

Practitioners involved in the diagnosis and treatment of depression in primary care are likely to be members of the general practitioner/practice nurse team, or therapists

providing psychological therapies who are members of a recognised professional organisation with documented ethical guidelines, professional conduct procedures and requirements for supervision.

In New Zealand, general practitioners often focus on the diagnosis and treatment of illness, while the practice nurse role has evolved to include preventative activities, health maintenance and management of long-term disorders.¹⁴⁰ In the general practice setting, there is no good evidence that outcomes differ according to whether care is led by the general practitioner or the practice nurse.^{65,141} General practitioners and practice nurses working collegially and collaboratively could share the management of patients with depression and utilise their differing skills to the benefit of patients.^{140,142} The literature strongly advocates the use of interdisciplinary team-based models of care as a cost-effective way of improving primary care outcomes for patients with depression. The practice nurse and general practitioner working together could share the tasks involved in the management of patients with depression, such as screening, diagnosis, treatment intervention, patient education, self-management support, monitoring of progress and concordance with treatment, relapse-prevention planning and liaison with other team members. These activities can be undertaken by a mix of face-to-face and other means (eg, telephone, text or email).¹⁴²

Structural changes arising from the implementation of the Primary Health Care Strategy are increasing the potential for New Zealand practice nurses to undertake an expanded role. Despite ongoing challenges concerning funding and employment arrangements, a professional infrastructure is now developing and there are growing opportunities for professional development. These changes will increase the capacity for practice nurses to work effectively and collaboratively within a general practice team.¹⁴⁰

2.5 Managing depression: shared decision-making

Successful management of depression is far more likely if the patient is an active participant in the care process.¹⁴³ A collaborative partnership between the practitioner and the patient is a consistent predictor of outcome regardless of the therapy used.¹⁴⁴⁻¹⁴⁷ Integral to this partnership is an understanding between practitioner and patient on the significance of depression and the tasks and goals of treatment.^{136,145,148,149} The needs, resources and cultural preferences of family and whānau should also be integrated into the care plan, as they can provide the support networks that help facilitate patient lifestyle changes and meet treatment goals.^{150,151}

In the view of the GDT, treatment for depression is generally 'preference-sensitive': there is no one treatment that is clearly superior and so the best choice of treatment depends not only on the benefits and risks of treatment options, but also on the person's lifestyle, values and preferences. In this situation the practitioner's aim should be shared decision-making, with an emphasis on informed patient choice as opposed

to informed consent.¹⁵² There is accumulating evidence that shared decision-making increases the cost-effectiveness of treatment,¹⁴⁷ strengthens the therapeutic alliance and improves patient satisfaction.¹⁵²

2.6 Goals of treatment for depression

It is estimated that 30% of young people and 50% of adults who experience an episode of depression subsequently relapse (regardless of treatment) and a proportion experience chronic depression.^{65,66,153}

Psychosocial stressors, such as major stressful life events, appear to play a greater role in the first episode of depression than in subsequent episodes (which require decreasing triggering from external events).¹⁵⁴ This suggests that effective intervention in the first episode of depression may be crucial in halting the development of a vulnerable cognitive style associated with recurrence.¹⁵⁴ There is evidence that achieving full remission from an acute episode is a significant factor in preventing relapse or recurrence,¹⁵⁵ and that the risk of recurrence and/or chronicity increases if residual symptoms persist.¹⁵⁶ The ultimate goal of treatment for most patients should be full remission of symptoms, return to premorbid function and prevention of recurrence.⁹

However, there is an alternative paradigm that regards the goal of treatment as recovery, defined as the process of living well regardless of ongoing symptoms or difficulties.²⁸ Thus, for some primary care patients, the priority is to adapt to living with depression and to learn how to manage it. Such patients may perceive a cure as unachievable and will benefit from setting short-term goals to help them manage day-to-day.¹³⁶

2.7 Culturally competent care

Cross-cultural, practitioner-patient interactions are common. All practitioners need to be competent in dealing with patients whose cultures differ from their own, as there is evidence that when the practitioner and the patient come from different cultural or racial groups, the practitioner devotes less attention to building and maintaining the relationship.¹⁵

Cultural competence means that a practitioner has the attitude, skills and knowledge to work effectively and respectfully with people of other cultural backgrounds. The benefits include improved willingness to access services, improved communication, increased patient satisfaction and compliance with treatment, improved patient outcomes, and improved cost-effectiveness and efficiency in health service delivery.¹⁵⁷⁻¹⁵⁹

Cultural affiliations include ethnicity, gender, spiritual beliefs, sexual orientation, lifestyle, beliefs, age, social status or perceived economic worth.^{157,159} The practitioner's skill lies in determining which culture is likely to have the greatest significance in a specific context.¹⁵⁹

Key cultural issues that need to be addressed in the care of Māori patients include:

- acknowledgement of the role of the broader whānau and other environmental factors
- awareness of Māori belief systems and lifestyles
- a knowledge of existing support systems such as kaiatawhai (Māori health workers), whānau, kaumātua (tribal elders), consumer advisers and other specialist service providers.¹⁵¹

Kaumātua, both male (koroua) and female (kuia) have wide networks at all levels and diverse expertise not available to Western practitioners. This includes the assessment of patients with culturally specific syndromes such as mate Māori and whakamaa.¹⁶⁰ Use of their specialist knowledge should be appropriately acknowledged and remunerated.¹⁶¹

Similarly for Pacific peoples, reciprocity between the patient, the family and the service provider may be key to a satisfactory outcome, with treatment seen not solely as a clinical event, but as part of the experience of the whole family.¹⁴ Specialist input from cultural advisors, leaders, healers and/or ministers of religion may be needed to address distress related to cultural issues or breaches of protocol.^{162,163}

There is strong evidence of cultural barriers to the provision of effective mental health care among young people, who tend to avoid seeking professional help for fear of stigmatisation, loss of confidentiality and communication problems with health practitioners.^{164,165} There is also evidence that young people have a preference for youth-specific health clinics and that utilisation of services increases when these are available.¹⁶⁴ Youth-friendly service models are staffed by practitioners and support staff who are motivated to work with young people and treat them in a respectful, non-judgmental way.¹⁶⁶

Lesbian, gay and bisexual people are often marginalised by health providers, their sexuality remaining unacknowledged and thus important aspects of their identity and relationships ignored.¹⁶⁷ Assessment frameworks frequently fail to include options for non-heterosexual response¹⁶⁸ and opportunities to disclose sexual identity are often minimal.¹⁶⁷ A survey of 2269 lesbian, gay and bisexual New Zealanders found that about 66% of men and 73% of women had primary care health practitioners who usually or always presumed that they were heterosexual.¹¹⁹ If practitioners are comfortable working with lesbian, gay and bisexual patients and provide them with opportunities to disclose their sexual identity and behaviours, then they are more likely to proactively seek health care, to adhere to treatment regimes, and to be satisfied with the care they receive.¹⁶⁹

3 Recognition and assessment of common mental disorders in young people/rangatahi/tamariki

Young people/rangatahi/tamariki are defined in this context as individuals up to the age of 18 years and comprise both rangatahi (adolescents) and tamariki (young children). However, 18 years is a pragmatic cut-off point that reflects the cut-off age used in most research: it does not necessarily represent a developmental threshold.

This chapter focuses on the recognition and assessment of common mental disorders in young people/rangatahi/tamariki.

Recommendations

Recognition of common mental disorders in young people

A young person with serious suicidal intent, psychotic symptoms or severe self-neglect should be referred immediately to secondary care mental health services	C
Every interaction with a young person in primary care should be regarded as an opportunity to assess their psychosocial as well as physical wellbeing. Both strengths and difficulties should be taken into account	C
Psychosocial wellbeing in adolescents should routinely be assessed using a standardised format, such as the HEEADSSS acronym (H ome, E ducation/ E mployment, E ating, A ctivities, D rugs, S exuality, S uicide, S afety)	C
Adolescents presenting in primary care should routinely be offered individual time with a practitioner	C
Brief tools may be used as optional aids to the practitioner's clinical assessment. Valid brief tools include: <ul style="list-style-type: none"> • the Strengths and Difficulties Questionnaire (SDQ) • the Short Moods and Feelings Questionnaire (SMFQ) • Reynolds Adolescent Depression Scale (RADS) • the Substance Use and Choices Scale (SACS) • the CRAFFT acronym 	C

Grades indicate the strength of the supporting evidence, rather than the importance of the recommendations – refer to Appendix B for grading details

Good practice points

Recognition of common mental disorders in young people

Practitioners involved in the assessment of young people for mental disorders should endeavour to build a supportive and collaborative relationship with the young person and their family/whānau	✓
Practitioners should discuss the right to confidentiality and exceptions to confidentiality with the young person	✓
In young children, a standardised format such as the HEARTS acronym (H ome, E ducation, A ctivities, R elationships, T emper, S ize) should be used for routine assessment of psychosocial wellbeing	✓
Practitioners should be aware of the cultural identity and health care preferences of young people in their care	✓
Opinion of the Guideline Development Team, or feedback from consultation within New Zealand where no evidence is available	

3.1 Applying strengths-based and biomedical models

Recent models of health promotion take a positive youth development or ‘strengths-based’ approach, which focuses on enhancing resiliency and minimising obstacles to healthy development. This contrasts with the traditional biomedical model, which focuses on problem identification and risk management.¹⁷⁰⁻¹⁷² Research on resiliency suggests that there are factors that help to protect young people/rangatahi/tamariki from harm across categories of ethnicity, social class and gender, by acting as a buffer against adverse circumstances.¹⁷³

Social connectedness has been identified as a strong protective factor against mental disorder. Strengths/resilience-based models aim to help young people/rangatahi/tamariki build positive connections with the people and communities around them and learn new skills to increase their capacity to cope with both current and future situations.¹⁷⁰ The strengths-based approach aligns well with Māori philosophies of development and holistic models such as Te Wheke, which focus on affirmation rather than dysfunction.^{18,174} It is also congruent with emerging medical models that explain and treat disorders by addressing psychological, social and environmental issues as well as biological and genetic factors (eg, the biopsychosociocultural model).¹⁷⁵

Although the strengths-based approach is promising, there is as yet little hard evidence about applicability or efficacy. In practice, both strengths-based and biomedical models are useful and a dual strategy of promoting protective factors while reducing risk factors is suggested.¹⁷³

3.2 Screening young people/rangatahi/tamariki for common mental disorders

There is ongoing debate about the merits of screening for common mental disorders among young people/rangatahi/tamariki in primary health care or educational settings.

Evidence was sought on screening young people/rangatahi/tamariki in an educational or primary care setting. Screening in this context refers to routine use of a tool, over and above customary clinical assessment. Two systematic reviews were identified, but neither found any randomised controlled trials to determine whether screening for mental disorders improves either identification rates or outcomes for young people.^{66,176}

However, a further two systematic reviews evaluated the role of routine screening in educational settings for depressive disorders¹⁷⁷ and/or anxiety disorders,¹⁷⁸ or elevated symptoms of depression¹⁷⁷ and/or anxiety¹⁷⁸ with targeted psychological intervention in those testing positive on screening. One reported a clinically meaningful reduction in depression scores (mean effect size 0.55) and calculated that thirty-one students would need to be screened (and, if necessary, treated) in order to successfully treat one case of depression.¹⁷⁷ The other systematic review reported positive results from a number of school programmes targeting depression and anxiety.¹⁷⁸ There was very little evidence about long-term effectiveness and none about potential negative effects.

There was evidence that screening for mental disorders in a student population is feasible¹⁷⁹ and that asking about suicidal behaviour in an educational setting does not appear harmful.¹⁸⁰ There was insufficient good-quality evidence to evaluate the feasibility of screening in a primary health care setting.^{181,182}

Screening young people/rangatahi/tamariki: issues for evidence-based practice

Given the lack of evidence on the long-term and/or adverse effects of screening with early intervention for young people/rangatahi/tamariki with mental disorders, routine use of a screening tool is not recommended in any setting at present. However, there is sufficient evidence to support further research on the benefits and risks of routinely screening young people/rangatahi/tamariki in an educational setting for common mental disorders in conjunction with early psychological intervention in those screening positive.

3.3 Psychosocial assessment of young people/rangatahi/tamariki

Young people/rangatahi/tamariki are at high risk of mental disorders, and every interaction with a young person should be regarded as an opportunity to enquire after their psychosocial wellbeing, regardless of the presenting complaint.^{183,184}

The communication skills of the practitioner help determine the likelihood of a disorder being diagnosed.^{185,186} Young people/rangatahi/tamariki may not raise psychological concerns spontaneously and therefore they need to be asked. The most significant factor in promoting problem recognition is discussion of psychological issues during consultation.¹⁸⁷ This requires a positive, nonjudgmental approach and a willingness to discuss sensitive issues.¹⁸⁸ Good communication also requires a knowledge of cultural background, and every young person/rangatahi/tamariki (or their family/whānau) should be asked about their ethnic background. This also provides an opportunity to discuss their cultural preferences with respect to health care.¹⁵¹

The practitioner should endeavour to build a supportive and collaborative relationship with the young person and their family/whānau. This should help to clarify problems underlying the presenting symptoms and identify factors that may help or hinder treatment success.⁶⁶ Evidence of strengths (eg, solid relationships with adults, taking on responsibilities at home) and of risks avoided should be acknowledged and reinforced.¹⁸⁹ It is important to ask adolescents/rangatahi whom they can talk to if they have problems, especially if they have not identified a trusted adult in the family. They can be invited to regard the practitioner as an additional trustworthy adult who is genuinely interested in their wellbeing.¹⁸⁹

Structured clinical assessment

Structured clinical assessment is the key to identifying both problems and protective factors. Psychosocial wellbeing in adolescents should routinely be assessed using a standardised format, such as the HEEADSSS acronym (see Box 3.1). This should include an opportunity for the young person to acknowledge their sexual identity¹¹⁹ (see Box 3.2).

In young children, a standardised format such as the HEARTS acronym (see Box 3.3) should be used. A simple way of gauging emotional intensity in children is a 'moodmeter', such as a pictorial thermometer, whereby they indicate their current level of anxiety or fear on a scale. This method can also be used for monitoring progress.¹⁹⁰

Box 3.1 **HEEADSSS**

The HEADSS acronymⁱ updated in 2004ⁱⁱ to HEEADSSS or HE²ADS³ is a well-known prompt to structure a psychosocial assessment in adolescents. It has the advantage of progressing from routine questions to more probing ones, giving the practitioner a chance to establish rapport before approaching the most difficult areas. However, the order of the interview depends on the dictates of common sense and clinical instinct and the young person's presenting complaint should be addressed as a priority.ⁱⁱ

Home: relationships, communication, anyone new?

Education/**E**mployment: ask for actual marks, hours, responsibilities

Eating: body image, weight changes, dieting, exercise

Activities: with peers, with family

Drugs: tobacco, alcohol, other drugs – use by friends, family, self

Sexuality: sexual identity, relationships, coercion, contraception, pregnancy, sexually transmitted infections (STIs)

Suicide and depression: sadness, boredom, sleep patterns, anhedonia

Safety: injury, seatbelt use, violence, rape, bullying, weapons

Issues of ethnic identity may also be critical domains, particularly among adolescents/rangatahi from minority cultures.*ⁱⁱⁱ

* The earlier version, HEADSS, has been adapted for New Zealand.^{iv}

Sources:

ⁱ Goldenring JM, et al. *Contemp Pediatr*. 1988;5(75).¹⁹¹

ⁱⁱ Goldenring JM, et al. *Contemp Pediatr*. 2004;21(64):1–20.¹⁸⁹

ⁱⁱⁱ Ministry of Social Development. *Cultural identity: the social report*. Wellington: Ministry of Social Development; 2007.¹⁹²

^{iv} Ministry of Health. *Family violence intervention guidelines: child and partner abuse*. Wellington: Ministry of Health; 2002.¹⁹³

Family involvement

Family/whānau environments influence all aspects of the development and wellbeing of young people/rangatahi/tamariki.¹⁹⁵ Adequate assessment of a young person/rangatahi/tamariki requires a willingness to work with their parents or caregivers, and also consideration of the wellbeing of the wider family/whānau network.^{11,196}

There is emerging evidence that among parents who request help for child behaviour problems, positive parenting interventions supported by primary care can improve parental functioning and reduce child behaviour problems.¹⁹⁷ Such interventions may also reduce the risk of mental disorders at a later stage.¹⁹⁸

Box 3.2 **Asking about sexual identity**

In order to give a young person the opportunity to acknowledge their sexual identity, the practitioner could say:

- How do you feel about relationships in general/about your own sexuality?
- Some people are getting involved in sexual relationships. Have you had a sexual experience with a guy or girl or both?ⁱ

Ask for permission to pass relevant information to other health professionals involved in the young person's care. This may save them the stress of having to explain themselves anew.ⁱⁱ

ⁱ Access Seru. Improving young people's access to health care through general practice: a guide for general practitioners and divisions of general practice; 1999.¹⁹⁴

ⁱⁱ Neville S, Henrickson M. Perceptions of lesbian, gay and bisexual people of primary healthcare services. *J Adv Nurs* 2006;55(4):407–15.¹¹⁹

Box 3.3 **HEARTS**

Currently, there is no well-established acronym that can be used to structure a psychosocial interview with young children and their family/whānau. However, the HEARTS acronym is suggested by the GDT:

Home: conduct, general behaviour, 'manageability'

Education: any concerns about behaviour/progress

Activities: attention span, ability to finish tasks, friendships

Relationships with peers/parents: any big changes in the family, any bullying

Temper: mood

Size: weight gain, appetite

Children tend to provide different information from their parents, so it is helpful to gather information from both sources.

Māori and Pacific peoples have collective societies^{14,199} and whānau have a central role in providing a sense of identity, security and belonging for young people/rangatahi/tamariki.²⁰⁰ Although, in general, rangatahi and tamariki value the whānau environment highly¹⁹⁵ and it is a strong, positive influence,¹⁷⁴ the whānau potential to nurture is threatened by socioeconomic deprivation.¹⁷⁴ A large percentage of Māori rangatahi and tamariki are part of whānau who struggle to meet their daily financial needs and may be unable to function effectively in supporting them.²⁰¹ Many Māori families are no longer linked to hapū and iwi structures or engaged in kohanga reo or marae activities.²⁰² Similarly, Pacific families may be fragmented, with little family or church support.²⁰³

Whānau is a much wider concept than the nuclear family. It approximates what non-Māori would generally understand to be an extended family. For Māori, whānau provides care, nurturing, identity and a sense of belonging and purpose.²⁰⁴ The goal of health for Māori is whānau ora: 'Māori families supported to achieve their maximum health and wellbeing'.²⁰²

Practitioners assessing younger children/tamariki (up to about 12 years) are largely reliant on collaboration with parents or caregivers and should see families together unless there is obvious parent-child conflict, in which case a brief interview with the child/tamariki alone could be considered.²⁰⁵

A supportive and cooperative relationship with an adolescent/rangatahi requires an assurance of privacy and confidentiality.¹⁸⁸ Adolescents presenting in primary care should routinely be offered individual time with a practitioner.⁶⁶ It may be helpful to gain a parental perspective as well, particularly for younger adolescents/rangatahi (about 12–15 years). Adolescents/rangatahi have been noted to be fairly reliable informants with regard to describing their feelings, but may be less accurate in reporting externalising behaviour, such as aggression or mood swings.²⁰⁶

Confidentiality

The practitioner should discuss with a young person/rangatahi/tamariki their right not to have personal information disclosed without their permission, along with the limits to this right. The exceptions to absolute confidentiality are the 'Three Harms': if someone might harm the young person, or if they might harm themselves or harm someone else, it is necessary, justifiable and legally defensible to discuss the situation with other appropriate professionals.²⁰⁷ Box 3.4 contains an example of a statement that could be used to explain the limits of confidentiality in a clinical consultation. A careful discussion of confidentiality will help to build trust and will increase the likelihood that the young person/rangatahi will keep follow-up appointments.²⁰⁸

A study of Pacific health care practices notes that patient confidentiality can be contradictory to Pacific (and Māori) expectations of involving significant others. The authors of the study suggest that the practitioner should aim to engage parents positively in cultural and educational areas, without revealing details of the consultations/sessions.¹⁴

Box 3.4 Explaining the limits of confidentiality

'What you say is confidential to the service, unless I believe that you are at serious risk of harm to yourself, harm to others or harm from others. In such a case I will take the necessary steps to protect your safety, although wherever possible I will discuss this with you beforehand.'

Source: New Zealand Guidelines Group, Ministry of Health. The assessment and management of people at risk of suicide. Wellington: New Zealand Guidelines Group; 2003.¹⁶²

3.4 Further assessment where there is concern

Structured psychosocial assessment may alert the practitioner to a potential mental disorder, in which case problem areas should be explored more thoroughly. In particular, it is important to find out to what extent symptoms are affecting normal functioning for the young person/rangatahi/tamariki and to ask them directly about suicidal intent or attempts.²⁰⁹

Particular attention should be paid to the symptoms of hopelessness (nothing will change) and/or helplessness (I can't change).¹⁶² If a young person/rangatahi/tamariki expresses hopelessness the practitioner should check what they mean by this and how they view the future. Profound hopelessness is a strong risk factor for suicide in adults²¹⁰ and in young people it has been linked to increased suicidal ideation and intent, depression and overall psychopathology.²¹¹ Studies from mixed settings have found that adolescent-reported hopelessness correlates with high dropout rates and poor outcomes from treatment for depression.^{212,213}

Use of a brief assessment tool may be helpful as an aid to clinical judgment (see 3.5: Assessment Tools: Evidence Review), but does not reduce the necessity for thorough assessment in formulating a diagnosis.

Assessment of suicide risk

Assessment of suicide risk can be challenging as there is no evidence for absolute markers that predict the presence or intensity of suicide risk, and assessment only provides a snapshot of risk at a given time. Moreover, deliberate self-harm such as superficial cutting may be used as a means of tension reduction, without intention to die. The most immediately important factors to consider are contextual triggering factors and the young person's current mental state.¹⁶² The Guideline Development Team (GDT) notes that assessment of suicide risk needs to be an ongoing aspect of monitoring, as new triggers can supervene even if the young person's mental state is improving or staying the same.

Assessment of suicide risk represents an integration of the following factors:¹⁶²

- intent/definite plan
- lethality
- access to means
- presence of risk factors (eg, alcohol use, impulsiveness)
- hopelessness
- psychosocial triggers
- lack or presence of protective factors.

Questions to assist in assessing risk of suicide may be found in Appendix C: Assessment of Suicide Risk.

Somatic complaints

Children frequently display distress by means of physical symptoms and 2% to 10% experience functional aches and pains for which no organic cause is found.²¹⁴ Young children with mental disorders in primary care usually present with parental reports that they are in poor health, low in energy and physically ill when under stress.²¹⁵ Common symptoms are dizziness, back pain, abdominal pain, headaches, or sleeping and eating problems.²⁰⁵ Adolescents are more likely to present with emotional symptoms, but fatigue and other somatic symptoms are still common, especially in early adolescence.¹⁸⁸

Possible medical illness should be ruled out as a cause of symptoms.^{216,217} Also, the practitioner should be mindful of the possibility of culturally-specific syndromes and, if concerned, seek advice from cultural support workers^{151,162} or consider liaising with local iwi groups.

Family violence

If family violence or child abuse of any form is identified or suspected, some level of safety planning is needed. New Zealand guidelines on family violence¹⁹³ recommend consultation with an experienced colleague, social worker, specialist child protection team, paediatrician or family violence prevention advocate or with the duty social worker at Child, Youth and Family or Youth Health Service. It is advisable to develop referral relationships with local staff from agencies that provide support for actual or suspected victims of abuse.¹⁹³

Common mental disorders

The most common mental disorders in primary school-aged children are attention-deficit hyperactivity disorder (ADHD), anxiety (especially separation anxiety), conduct disorder, and depressive disorders (depression and dysthymia), in that order. The most common mental disorders in adolescents are anxiety, conduct disorder, depressive disorders and alcohol or substance abuse/dependence. Table 1.2 (see Chapter 1: Background) provides further detail on prevalence rates by age group. The clinical features of these disorders are outlined in this chapter in the section entitled: Clinical features of common mental disorders in young people/rangatahi/tamariki.

3.5 Assessment tools: evidence review

A brief assessment tool may help the practitioner to reach a provisional diagnosis, assess severity or evaluate response to treatment. A systematic review of the literature was undertaken to identify evidence on brief assessment tools for common mental disorders in young people/rangatahi/tamariki. 'Brief' was defined as taking 5 minutes or less to administer.

The relevant evidence comprised six systematic reviews^{66,176,182,218-220} and 32 primary studies (some of which were included in the systematic reviews), which evaluated a total of 12 different assessment tools. Tools for which evidence of effectiveness was found are discussed in the following section. The evidence relating to the effectiveness of these tools is also discussed in the following section. Further details of other studies and tools evaluated can be found in evidence tables (4a–c) on the NZGG website (<http://www.nzgg.org.nz>).

Overall mental health

There is evidence that both the Pediatric Symptom Checklist (PSC)²²¹⁻²²⁵ and the SDQ²²⁶⁻²³⁵ are valid and feasible for assessing child and adolescent mental health problems from 4 years of age. The PSC and the SDQ can be completed within 5 minutes by a young person or their parent and/or teacher. Among adolescents, the SDQ is reasonably reliable for detecting depressive disorders, conduct disorder, ADHD disorders, and some anxiety disorders (social phobia, post-traumatic stress disorder, obsessive compulsive disorder and generalised anxiety disorder).²²⁶ However, the SDQ has been shown to identify fewer than 50% of adolescents with specific phobias, separation anxiety, panic disorders and eating disorders.²²⁶ Parent and teacher responses on the SDQ were noted to be better predictors of disorder than self-reporting.^{226-231,233-235} There was some limited evidence that the SDQ is sensitive to change.²³² No evidence was found on sensitivity to change in mental health with respect to the PSC. Overall the SDQ appeared the most robust tool for assessing overall mental health and monitoring response to treatment in young people.

Depression

The SMFQ is valid as a screen for depression, though there is limited evidence on sensitivity to change.^{66,176,236-238} The RADS is designed to measure the severity of depressive symptoms. It has acceptable validity, feasibility and sensitivity to change, and has been tested in New Zealand populations.^{66,219,239} However, there is a fee for use of the RADS.

Anxiety

The systematic review of the literature found no brief anxiety screening tools that were well-validated for use in primary care. The brief Multidimensional Anxiety Scale for Children (MASC-10)²⁴⁰ is a short version of a longer empirically-derived tool but there is insufficient evidence to support use of the short version. There is a fee for use of this instrument.

Substance abuse

CRAFFT is an acronym for a set of questions that is valid for detecting alcohol and substance abuse, and dependence among adolescents in primary care (see Box 3.5).²⁴¹ Another option is the SACS, a self-report questionnaire that has been validated and found both feasible and sensitive to change in a New Zealand population.²⁴² SACS is designed for use with the SDQ. The frequency-of-use part of the tools awaits validation.²⁴²

Assessment tools: issues for evidence-based practice

There is evidence to support the use of the following brief tools to aid diagnosis, evaluate severity and/or monitor progress. However, these are not a substitute for clinical assessment.

- SDQ (for overall mental health)²²⁶⁻²³⁵
- SMFQ (for depression)^{66,176,219,236-238}
- RADS (for depression)^{66,219,239}
- CRAFFT acronym (for alcohol abuse)²⁴¹
- SACS (for alcohol or substance abuse or dependence).²⁴²

See Appendix D: Assessment Tools for Common Mental Disorders, for links to these tools.

The evidence review identified no brief well-validated assessment tool for assessing anxiety in young people/rangatahi/tamariki.

Box 3.5	CRAFFT
<p>The CRAFFT tool is designed specifically for adolescents for detecting alcohol and substance abuse, and dependence.</p> <ol style="list-style-type: none"> 1. Have you ever ridden in a Car driven by someone (including yourself) who was high or had been using alcohol or drugs? 2. Do you ever use alcohol or drugs to Relax, feel better about yourself, or fit in? 3. Do you ever use alcohol or drugs while you are by yourself, Alone? 4. Do you ever Forget things you did while using alcohol or drugs? 5. Do your Family or Friends ever tell you that you should cut down on your drinking or drug use? 6. Have you ever got into Trouble while you were using alcohol or drugs? <p>Scoring: 2 or more positive items indicate the need for further assessment.</p> <hr/> <p>Source: Knight JR, Sherritt L, Shrier LA, et al. Arch Pediatr Adolesc Med 2002;156(6):607–14.²⁴¹</p>	

3.6 Clinical features of common mental disorders in young people/rangatahi/tamariki

Depressive disorders

Depressive disorders, such as depression, dysthymia and bipolar disorder, are characterised by changes in mood, thinking and activity, sufficient to cause impairment in personal and/or social functioning.

The GDT notes that hopelessness is a critical symptom and is considered by many practitioners in this area to be the most important prognostic sign in adolescents/rangatahi in both genders and across all ethnic groups.

Depression

The DSM-IV® criteria for depression in children are as follows:²⁴³

- persistent sad or irritable mood
- loss of interest in activities once enjoyed
- substantial change in appetite or body weight, failure to make expected weight gain
- oversleeping or difficulty sleeping
- psychomotor agitation or retardation
- loss of energy
- feelings of worthlessness or inappropriate guilt
- difficulty concentrating
- recurrent thoughts of death or suicide.

Five or more of the DSM-IV® symptoms (including at least one of the first two) must persist for 2 or more weeks and must cause clinically significant distress or functional impairment before major depression can be diagnosed.²⁴³ However, the GDT notes that symptoms may be more unstable in young people/rangatahi/tamariki than in adults and that a day of normal mood within the 2 weeks does not negate the diagnosis. Somatic complaints are very common in both children/tamariki and adolescents/rangatahi who meet the diagnostic criteria for depression, particularly in the younger group.¹⁸⁸ Adolescent depression is more similar to the adult form, with a greater likelihood of mood symptoms at presentation, but these may still be masked by behavioural problems, substance misuse or somatic symptoms.

The GDT notes that irritability and frustration are very important symptoms of depression in children and adolescents, and may be more prominent than low mood. A New Zealand survey of 121 adolescents with depression reported that feeling 'grumpy and cross' was one of the symptoms most commonly reported by both genders.²⁴⁴ Irritability may become

more prominent with the increasing severity of the disorder.¹⁸⁸ Among other symptoms there are gender differences: girls report more internal symptoms, such as loneliness, unhappiness and 'hating themselves', while boys report more overt behaviours, such as reluctance to talk, and difficulty in sleeping, concentrating and making decisions.²⁴⁴

Dysthymia

Dysthymia is a chronic lowering of mood that does not fulfil the criteria for recurrent depressive disorder in terms of either severity or duration of individual episodes.⁶⁶ There are variable phases of minor depression and comparative normality. Despite tiredness, feeling down and experiencing little enjoyment (anhedonia), people with dysthymia are usually able to cope with everyday life. In diagnosing dysthymia, it is important to establish that the person does not fulfil criteria for current depression. If depression has preceded the onset of dysthymia then there must have been full remission of all depressive symptoms for at least 2 months before the development of dysthymia, to make the diagnosis. By contrast, episodes of depression can be superimposed on dysthymia, in which circumstances both diagnoses can be given.⁶⁶

An observational study of young people with dysthymia noted that in contrast to depression, dysthymia was distinguished by the virtual absence of anhedonia and social withdrawal.²⁴⁵ In addition, levels of guilt, morbid preoccupation and impaired concentration were lower than for those with depression. Children with dysthymia in this study did not exhibit reduced appetite and few had hyposomnia or fatigue.²⁴⁵

Bipolar disorder

Symptoms of depression with marked melancholic or manic/hypomanic features may signal bipolar depression, especially if there is a family history. Symptoms of mania include:

- elevated, expansive or irritable mood
- decreased need for sleep (eg, rested after 3 hours sleep)
- racing speech and pressure to keep talking
- grandiose delusions
- excessive involvement in pleasurable but risky activities
- increased physical and mental activity
- poor judgment
- in severe cases, hallucinations.

If bipolar disorder is suspected, urgent referral to secondary care mental health services is indicated. Urgent referral is defined by the GDT as referral by the primary care practitioner within 24 hours with the expectation that the person referred will be seen within 7–10 days, or sooner depending on secondary care service availability.

Anxiety disorders

The defining features of the most common anxiety disorders in young people are as follows:^{188,205}

- **separation anxiety:** developmentally inappropriate and excessive worry concerning separation from parent and home, refusal to go to school, reluctance to be home alone, nightmares and/or physical complaints, for at least 4 weeks.²⁰⁵ Refusing to go to school differs from truancy in that parents are often aware of the child's absence from school and the child is compliant in other respects²⁰⁵
- **generalised anxiety disorder:** excessive and uncontrolled worry, difficulty concentrating, restlessness, irritability, sleep problems, fatigue, and/or muscle tension, for at least 6 months¹⁸⁸
- **panic disorder:** spontaneous recurrent episodes of panic, with palpitations, sweating, trembling or dry mouth and other physiological and psychological symptoms.¹⁸⁸

Separation anxiety is more common in younger children, while generalised anxiety disorder and panic attacks are more often diagnosed in adolescents. Other types of anxiety disorder include phobias, obsessive compulsive disorder and post-traumatic stress disorder. Symptoms overlap and many young people will meet criteria for more than one type of anxiety disorder.²⁰⁵

Anxiety disorders often present with somatic symptoms and other conditions, such as hypoglycaemia, migraine, seizure and other neurological problems, must be excluded.¹⁸⁸

Attention-deficit hyperactivity disorder

The defining features of ADHD are as follows: ²⁰⁵

- difficulty sustaining attention, makes careless mistakes
- often does not listen when spoken to directly
- avoids difficult tasks
- easily distracted, disorganised and forgetful
- often fidgets, leaves seat in classroom or feels restless
- runs about or climbs in inappropriate situations (in young children)
- often interrupts.

Attention-deficit hyperactivity disorder, especially when associated with conduct disorder, increases the risk of behavioural problems and substance use disorders in adolescence.²⁰⁵ It is six times more common in boys than girls.¹⁸⁸ The diagnosis requires information from external sources, such as teachers, as well as the child's parents or caregiver, and usually involves specialist assessment.²⁰⁵

Conduct disorder

Conduct disorder consists of a repetitive and persistent pattern of behaviours in which the basic rights of others or major age-appropriate norms or rules of society are violated.²⁴³

The defining features are as follows:²⁰⁵

- often bullies
- initiates physical fights
- physically cruel to people or animals
- stealing
- forced sexual activity with others
- deliberate fire setting or destruction of property
- often lies
- runs away
- is truant.

The diagnosis requires at least 3 symptoms for 12 months and is more common in boys.

Most young people with conduct disorder have a history of disruptive behaviour and defiance from early childhood but problems can become more severe during adolescence.²⁰⁵ Sudden development of conduct disorder is unusual in adolescents and may be associated with depression, substance misuse or psychosocial problems.¹⁸⁸

Substance misuse

Substance use and misuse are strongly linked to puberty and are uncommon in young children, though the age of initiation is steadily dropping.²⁴⁶ Clinical impressions of alcohol and drug involvement frequently underestimate use, so young people who disclose in a routine HEEADSSS interview that they have used cigarettes, drunk alcohol or used other drugs should be further assessed through direct questioning to determine their level of use.^{59,247}

Comorbidity

A large number of studies have shown that young people who present with one disorder (eg, conduct disorder) are at increased risk of other disorders (eg, substance use or depressive disorders). In the Christchurch and Dunedin longitudinal studies, around 40% of New Zealand 18-year-olds who met the criteria for a mental disorder had more than one disorder.⁴⁵

Concurrent symptoms of anxiety and behavioural disturbances are present in almost all cases of depression, and between 50% and 80% of young people with depression will also meet criteria for another mental disorder. Conduct disorder and/or oppositional disorder occur in around 25% of young people with depression, with a similar proportion meeting criteria for separation anxiety disorder.⁶⁶

Conduct disorder rarely manifests for the first time in adolescence.¹⁸⁸ Sudden development of new behaviour problems in adolescence may be associated with depression, substance misuse or situational problems.¹⁸⁸ Ideally, the clinician should supplement self-report with teacher and parent accounts.²²⁶

In young people with mood disorders, comorbid psychiatric disorders are linked to poorer treatment outcomes, with a reduced likelihood of recovery, longer episodes and an increased rate of recurrence.²⁴⁸

3.7 Reaching a diagnosis

In practice, there is no clearly defined threshold between normal and pathological behaviour in young people/rangatahi/tamariki.²⁴⁹ Among adolescents/rangatahi, variability in mood, periods of despondency, and aberrant or experimental behaviour are common and it can be difficult to differentiate 'normal' turmoil from more serious mental disorder.^{188,250} Some problems can be ascribed to clearly delineated psychosocial issues and may be expected to resolve if these are addressed, provided the young person/rangatahi is sufficiently resilient. However, it is often unclear in a specific instance whether psychosocial pressures amount to a mental disorder.²⁵⁰

The GDT notes that the following criteria can be used to help distinguish normal variations in behaviour from more serious mental health problems:

- duration: problems last more than a few weeks¹⁸⁸
- intensity: symptoms are severe and fixed, with a loss of normal fluctuations in mood and behaviour¹⁸⁸
- impact: problems impact significantly on school work, interpersonal relations, home and leisure activities¹⁸⁸
- safety: there is a perceived risk
- hypomanic episodes: these may indicate bipolar disorder.

3.8 Determining severity and when to refer

Recommendations

Determining severity and when to refer

A young person with serious suicidal intent, psychotic symptoms or severe self-neglect should be referred immediately to secondary care mental health services	C
A young person with severe depression should be referred urgently to secondary care mental health services	C

Grades indicate the strength of the supporting evidence, rather than the importance of the recommendations – refer to Appendix B for grading details

Good practice points

Determining severity and when to refer

A young person with suspected bipolar disorder should be referred urgently to secondary care mental health services	✓
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Opinion of the Guideline Development Team, or feedback from consultation within New Zealand where no evidence is available

For the purposes of this guideline, the GDT define immediate referral as referral by the primary care practitioner that day, with the expectation of a same-day response to the referral. Urgent referral is defined by the GDT as referral by the primary care practitioner within 24 hours with the expectation that the person referred will be seen within 7–10 days, or sooner depending on secondary care service availability.

Defining the severity of depression in young people/rangatahi/tamariki helps to guide the initial treatment approach and to determine whether referral to secondary care mental health services is appropriate. There are a handful of symptoms that signal a risk to safety and the need for immediate referral to secondary care mental health services. In other respects, severity is assessed across a continuum of multiple factors including social context, history, symptoms and protective factors as illustrated in Figure 3.1.

Immediate referral to secondary care

The following symptoms indicate a need for immediate referral to secondary care mental health services, even if there are few other symptoms and/or they are relatively brief:⁶⁶

- serious suicidal intent
- psychotic symptoms (hallucinations and/or delusions)
- severe self-neglect.

In the opinion of the GDT, suspected bipolar disorder warrants urgent referral to secondary care mental health services.

Urgent referral to secondary care

Young people/rangatahi/tamariki with severe depression should be assessed by secondary care mental health services.⁶⁶ In the opinion of the GDT, the following factors are likely to indicate severe depression and the need for such referral:

- persistent symptoms⁶⁶
- profound hopelessness²¹¹⁻²¹³
- other serious mental or substance use disorders²⁵¹
- significant functional impairment (unable to do most daily activities).⁶⁶

It is good practice to be more proactive about consultation/referral to secondary care mental health services if the following factors apply:

- past episodes of depression⁶⁶
- family history of psychiatric disorder²⁵²
- lack of caring family relationships²⁵³
- lack of other support services.^{253,254}

3.9 From assessment to management

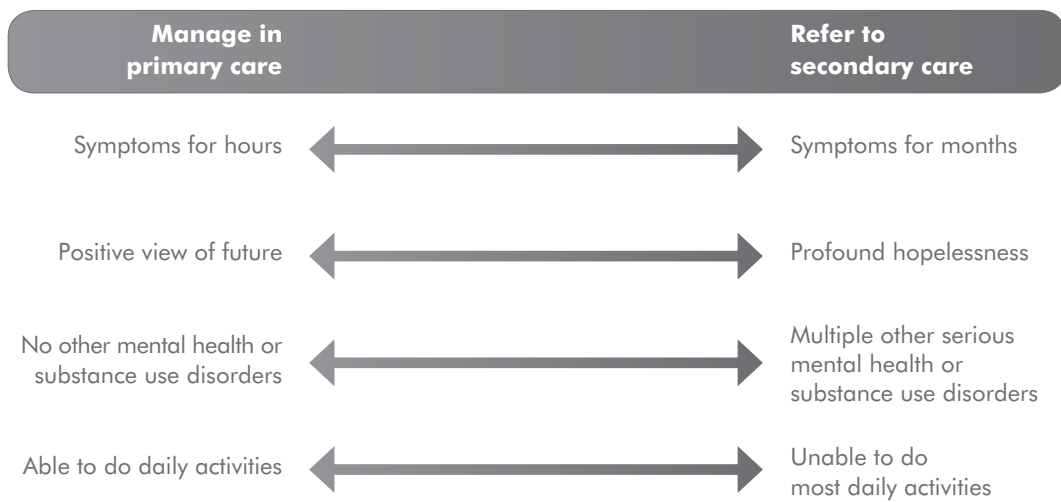
The following chapter of this guideline addresses how to manage depression in a young person/rangatahi/tamariki in the primary care setting. This guideline does not address in detail the management of other common mental disorders. For information resources on common mental disorders other than depression, see Appendix E: Management of Common Mental Disorders other than Depression in Young People.

Figure 3.1 When to refer a young person/rangatahi/tamariki to secondary care mental health services

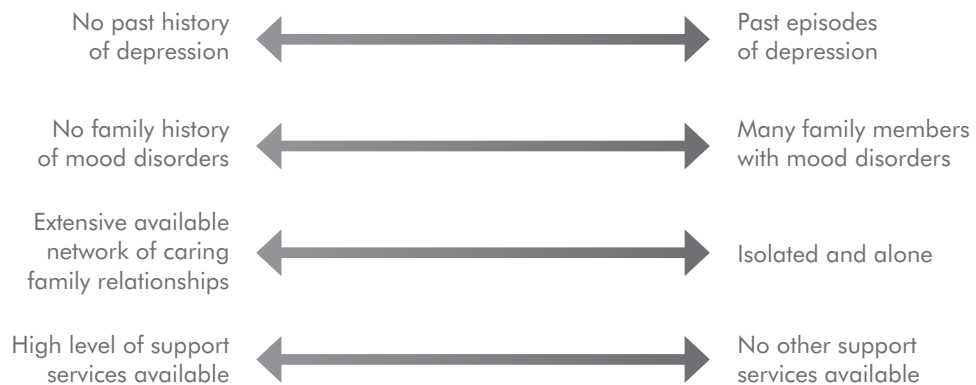
Red Flag symptoms
refer immediately to secondary care

- Suicidal ideation or intent
- Psychotic symptoms
- Severe self-neglect

Symptoms to evaluate when determining whether to refer to secondary care



Moderating factors to consider when determining whether to refer to secondary care



4 Management of depression in young people/rangatahi/tamariki

Young people/rangatahi/tamariki are defined in this context as individuals up to the age of 18 years and comprise both rangatahi (adolescents) and tamariki (young children). However, 18 years is a pragmatic cut-off point which reflects the cut-off age used in most research: it does not necessarily represent a developmental threshold.

This chapter focuses on the management of depression in young people/rangatahi/tamariki. For information on management of other common mental disorders in this population see Appendix E: Management of Common Mental Disorders other than Depression in Young People.

Recommendations

Management of depression in young people	
A young person with serious suicidal intent, psychotic symptoms or severe self-neglect should be referred immediately to secondary care mental health services	C
A young person with severe depression should be referred urgently to secondary care mental health services	C
Practitioners involved in the management of a young person with depression, should endeavour to build a supportive and collaborative relationship with the young person and their family/whānau	C
A young person with mild or moderate depression should typically be managed within primary care services	C
Practitioners should consider involving support services such as school guidance counsellors or family services in the management of a young person with depression	C
If a young person with depression does not report substantial improvement after 6–8 weeks of treatment, he/she should be referred to secondary care mental health services	C
Antidepressant treatment of a young person (<18 years) should not be initiated in primary care without consultation with a child and adolescent psychiatrist	C
Grades indicate the strength of the supporting evidence, rather than the importance of the recommendations – refer to Appendix B for grading details	

Good practice points

Management of depression in young people	
When planning management of a young person with depression, practitioners should consider symptom severity, symptom persistence, functional impairment, response to any previous intervention and also the wider psychosocial context, identifying factors that may impact positively or negatively on outcome	✓
Initial management in primary care of a young person with mild to moderate depression should include active listening, problem identification, advice about simple self-management strategies and systematic follow-up comprising 2-weekly monitoring (eg, by phone/text/email)	✓
A young person being treated for depression in primary care should be seen for reassessment at 2–4 weeks	✓
A young person who reports improvement with treatment in primary care should be proactively monitored (by phone, email, text, or face-to-face) 1–2 monthly until he/she has a satisfactory response to treatment (remission of symptoms/return to normal function). He/she should have an action plan to use if symptoms recur (ie, what to do and who to contact)	✓
If the young person reports no improvement at 2–4 weeks, he/she should receive an extended appointment for intensified support. A simple psychological intervention such as structured problem-solving therapy should be offered	✓
If the young person reports deterioration in symptoms at 2–4 weeks, either treatment should be intensified or he/she should be referred to secondary care mental health services, depending on the severity of symptoms	✓
Counselling for young people in primary care should use a recognised therapeutic approach which targets depression and related problems and which focuses on resilience and behavioural support	✓
If another health practitioner delivers psychotherapy to a young person with depression in primary care, there should be regular communication about the young person's progress	✓
Opinion of the Guideline Development Team, or feedback from consultation within New Zealand where no evidence is available	

4.1 Clinical management

Approach to intervention

The goal of treatment for depression is to achieve remission,²⁵⁵ with the intensity of intervention adjusted in accordance with the young person's response to treatment (the 'stepped care' approach).⁶⁵ The Guideline Development Team (GDT) advises using a combined risk-management and strengths-based approach. Comorbidities, such as substance abuse, should be addressed concurrently, as in practice they often improve with remission of depression.⁵⁴

It is feasible and appropriate for most young people/rangatahi/tamariki with depression to be managed within primary care.^{256,257} Interventions that can be provided in this setting comprise a spectrum of therapies from advice and monitoring to more intensive psychological therapies: in many cases a young person will respond to a relatively simple intervention.²⁵⁶

Evidence relating to specific interventions is presented in detail in later sections of this chapter. When planning management, practitioners should consider symptom severity, symptom persistence, functional impairment, response to any previous intervention and also the wider psychosocial context, identifying factors that may impact positively or negatively on outcome.

There is little evidence from randomised controlled trials (RCTs) of treatment of young people in primary care to guide practice. Therefore the recommendations reflect international and GDT consensus opinion.

Active support and monitoring

A collaborative relationship between the young person/rangatahi/tamariki and the practitioner is a key component of treatment and improves the likelihood of a good clinical outcome.^{185,186} The practitioner should signal clearly that the disorder is a significant issue requiring follow-up, and should provide information about depression, treatment options, and an explanation of how to recognise signs of deterioration and how to access help, if necessary.

Family/whānau and caregivers should be involved as much as possible, as this will improve outcomes.^{66,196} For young Māori, recovery includes a cultural dimension that is shaped around Māori values, knowledge and social systems within the concept of whānau ora (see Box 4.1). A secure cultural identity helps strengthen resilience to mental disorder even in the presence of adverse socioeconomic conditions.²⁵⁸

Box 4.1**Whānau Ora**

The concept of Whānau Ora guides Māori health care service delivery as the pinnacle of the He Korowai Oranga: Māori Health Strategy.ⁱ

It is defined as Māori families supported to achieve their maximum health and wellbeing and can also be likened to a welcoming embrace or korowai so that whānau can begin their journey to wellness and recovery.ⁱⁱ

Sources:

ⁱ Ministry of Health. He korowai oranga: Māori health strategy. Wellington: Ministry of Health; 2002.

ⁱⁱ Te Rau Matatini. Whakapakari ake te tipu: Māori child and adolescent mental health and addiction workforce strategy. Palmerston North: Te Rau Matatini; 2007.

The practitioner should consider the provision of telephone monitoring and support for young people being treated for depression, delivered by an appropriately trained member of the primary care team and informed by clear management protocols.²⁵⁶ In the opinion of the GDT, 2-weekly contact (by telephone or face-to-face) is generally appropriate to assess progress, identify any adverse effects and modify treatment, if necessary.

The GDT considers that monitoring should continue even if a young person/rangatahi/tamariki is referred for treatment to other agencies (eg, for counselling) or to secondary care mental health services, in order to maintain the therapeutic relationship and support treatment initiated elsewhere. If another health practitioner delivers psychotherapy to a young person with depression in primary care, there should also be regular communication between practitioners about the young person's progress.

Self-management advice

Simple self-management interventions for young people/rangatahi/tamariki with depression include exercise, sleep hygiene, activity scheduling, keeping a diary, stress management, and curtailing the use of alcohol and recreational drugs.⁶⁶ A government-sponsored youth-friendly website with extensive downloadable self-management advice is available at <http://www.thelowdown.co.nz>. This website also has free online support services. For additional resources, see Appendix F: Self-management Resources.

A young person/rangatahi/tamariki can be encouraged to be more physically active, by means of any sports or recreational activities that appeal to them (for example, cycling, aerobics, dancing, mau rākau (martial art), waka ama (canoeing)).²⁵⁹

There is currently no good evidence that dietary interventions are effective in treating depression; however, a balanced diet and plenty of fluids should be encouraged to promote general health.^{256,260}

Mild to moderate depression

A young person/rangatahi/tamariki with mild or moderate depression can generally be treated using a psychosocial approach. A simple psychotherapeutic intervention such as structured problem-solving therapy may also be beneficial.

The GDT recommends that initial management include active listening, identification of current problems, discussion of simple self-management strategies and active monitoring.

The practitioner should encourage factors that promote resilience and social competence, such as positive connections with a parent or other trusted adult, involvement in community activities, and 'required helpfulness' (eg, chores and responsibilities to the family or community).^{170,171,253}

Ideally, the young person/rangatahi/tamariki can be engaged in setting their own treatment goals, which can be revisited or revised during follow-up. A plan for follow-up should be agreed.

Two-weekly monitoring is recommended for most young people, but earlier or more frequent contact may be required for some. Referral to support services, such as school guidance counsellors or family services, should be considered.⁶⁶ Suicide risk should be reassessed regularly.¹⁶²

The young person/rangatahi/tamariki should be fully reassessed at a face-to-face visit at 2–4 weeks.⁶⁶ If there is no improvement in symptoms, the GDT recommends that the practitioner offer intensified support. This should comprise an extended consultation (eg, with the GP or practice nurse) to provide emotional support, active listening and a review of the situation (eg, self-management strategies tried, depressive symptoms, school/work attendance, suicidality and recent social activities). Although provision of extended consultations can be difficult due to time and funding constraints, there is growing evidence that longer consultations have the potential to improve mental health outcomes.²⁶¹ A psychological intervention should also be offered at this stage.

The most feasible psychological intervention in a primary care setting is structured problem-solving therapy. This can be delivered by a member of the primary care team (eg, GP or practice nurse) with appropriate training and skill in working with this age group: 4–6, 30-minute sessions over a 6–10-week period are suggested.^{256,260} Structured problem-solving therapy is based on the principles of cognitive behavioural therapy (CBT) and focuses on identifying and clarifying problems, setting realistic goals, generating and implementing solutions and monitoring progress. This approach is well supported by international expert opinion²⁵⁶ though the research evidence is scant.²⁶²

There is evidence to support the use of a course of formal CBT, interpersonal psychotherapy (IPT) or behavioural activation (usually at least 6–8 sessions) for young people with moderate depression,²⁶² but access to these therapies is very limited and there is a strong need for increased availability in primary care. If referral to community services, such as a school guidance counsellor or family services, has not already been actioned, the option should be reconsidered at this stage.⁶⁶

If the young person/rangatahi/tamariki reports deterioration in symptoms at 2–4 weeks, the GDT recommends that either treatment be intensified (as above) or they be referred to secondary care mental health services, depending on the severity of symptoms.

If the young person/rangatahi/tamariki is referred for formal counselling, in the opinion of the GDT, the counsellor should use a recognised therapeutic approach which targets depression and focuses on resilience and behavioural support (eg, CBT, IPT, behavioural activation) and should have training and expertise in working with the relevant age group. Counselling should also address any trauma that may have precipitated the depression.²⁶³ The young person/rangatahi/tamariki should continue to be monitored by a member of the primary care team, in order to maintain the therapeutic relationship.

If the young person/rangatahi/tamariki does not report substantial improvement after 6–8 weeks of treatment, they should be referred to secondary care mental health services.⁶⁶

Antidepressant treatment should not be initiated in a young person/rangatahi/tamariki in primary care except in consultation with a child and adolescent psychiatrist, in accordance with Medsafe advice.²⁶⁴ Specialist advice should also be sought before changing or stopping antidepressant therapy in this population.^{264,265} During the initial few months of antidepressants treatment or at times of dose increase or decrease, the family/whānau and caregivers of a young person/rangatahi/tamariki on antidepressants need to be aware of the importance of seeking help from a health care provider if they notice any symptoms of agitation, irritability or unusual changes in behaviour. Such symptoms are thought to be precursors of emerging suicidality.⁶⁶

The GDT notes that a young person who reports improvement with treatment in primary care should be proactively monitored 1–2 monthly until they have a satisfactory response to treatment, defined as remission of symptoms and return to normal function. Monitoring may consist of phone, email, text or face-to-face contact. The practitioner should ensure that a young person has an action plan to use if symptoms recur at any stage (ie, what to look out for, what to do and who to contact). See Appendix F: Self-management Resources for links to a self-management resiliency tool with a focus on relapse prevention strategies.

A young person/rangatahi/tamariki with serious suicidal intent, psychotic symptoms or severe self-neglect should be referred immediately to secondary care mental health services.⁶⁶ Steps should be taken to ensure the safety of the young person while the referral is actioned and there should be regular reassessment of risk. The family, whānau and others should be advised of the need for close observation, and to remove potential suicide means, such as obvious ligature points, firearms and toxic substances (including unnecessary medications) from the household.¹²⁷ Those supporting the young person/rangatahi/tamariki while awaiting entry to secondary services should be made aware of the fact that alcohol intoxication may increase suicide risk.²⁶⁶

Severe depression

A young person/rangatahi/tamariki with serious suicidal intent, psychotic symptoms or severe self-neglect should be referred immediately to secondary care mental health services.⁶⁶ An urgent referral to specialist mental health services for assessment is also indicated for a young person with severe depression.⁶⁶ In the opinion of the GDT, persistent symptoms, profound hopelessness, severe functional impairment, or other serious mental health or substance use disorders are factors that are likely to indicate severe depression and the need for referral. Further information on determining severity of depression and when to refer is included in Chapter 3: Recognition and Assessment of Common Mental Disorders in Young People/Rangatahi/Tamariki. The practitioner should be mindful also of culture-specific syndromes and, if concerned, consider liaison with local iwi groups.

The young person/rangatahi/tamariki should also be actively monitored within primary care, in order to maintain a therapeutic relationship and support treatment initiated in secondary care.

The GDT notes that a strengths-based approach may be less feasible with a young person/rangatahi/tamariki with severe depression, but once recovering they may benefit from this type of model.

4.2 Specific interventions: review of the evidence

A systematic review of the literature was undertaken to identify RCTs on therapies for depression for young people/rangatahi/tamariki in primary care. Given the dearth of primary care studies, studies from secondary care included in the National Institute for Health and Clinical Excellence (NICE) guideline (2005)⁶⁶ or highlighted by the GDT were also considered.

Therapies of interest included:

- guided self-help
- exercise
- psychological therapies
- pharmacological therapies
- complementary and alternative medicines (CAMs).

Guided self-help

Guided self-help is defined, in this context, as the provision of psychological therapies via written or IT-based materials. No evidence applicable to primary care was found.

Exercise

There was insufficient evidence to determine whether exercise is effective for the treatment of depression in young people.

Psychological therapies

Primary care studies: review of data

The NICE (2005)⁶⁶ guideline and a subsequent systematic review²⁶⁷ considered RCTs of psychological therapies for young people and included studies from a variety of educational, correctional, psychiatric, research and unreported settings. Only one small RCT was clearly applicable to primary care.²⁶⁸ This study found 12 sessions of IPT significantly more effective than treatment as usual at 16-week follow-up among 64 adolescents at a school-based mental health clinic in the US. The intervention focussed on problem solving and social functioning. Most adolescents in the treatment as usual arm received a form of supportive counselling and the additional use of antidepressants was an option in both arms. The largest treatment effects occurred in the older and/or more severely depressed adolescents.

Two more recently published primary care-based RCTs were identified: one from the US and one from Australia. The US RCT²⁶⁹ enrolled 152 moderately depressed adolescents, all receiving a newly-prescribed selective serotonin reuptake inhibitor (SSRI), and randomised one group to brief CBT treatment (5–9, 1-hour sessions). Greater improvement in depression scores was seen in the group receiving CBT, but the difference in scores between the two groups was not statistically significant. The Australian RCT²⁷⁰ was a three-way comparison between sertraline, CBT, and combined therapy in 73 adolescents. This trial found CBT superior to sertraline alone in the treatment of mild to moderate depression.²⁷⁰ However, 14% of the CBT group and 54% of the sertraline group had not achieved full or partial remission at post-treatment follow-up (12 weeks). The authors commented that the dosage of sertraline used (maximum of 100 mg daily) was relatively low compared to some studies. At 9-month follow-up, improvements from the baseline were maintained in all groups, with no significant difference between the groups. No significant advantage was found from combined therapy at either post-treatment or 9-month follow-up.

Studies conducted in secondary care or other settings: review of data

A well-known US RCT,²⁷¹ the Treatment for Adolescents with Depression Study (TADS), claims to be broadly applicable to general clinical practice. However, more than half the participants were volunteers and the mean level of severity of depression was moderate to severe.

The Treatment for Adolescents with Depression Study found that treatment with CBT alone was not significantly more effective than placebo. Combined therapy with

fluoxetine and CBT was more effective than either therapy alone, and fluoxetine alone was more effective than CBT alone for improving depression at 12-week follow-up. At 36 weeks, response rates were similar in all three groups (81–86%). This is in keeping with the small primary care study²⁶⁹ discussed previously, which found little benefit from combined therapy at 12 or 26 weeks. Similarly, a large (n=249) secondary care study published recently²⁷² found no evidence that the addition of CBT to SSRI treatment improved outcomes among adolescents with moderate to severe depression who had failed to respond to an initial brief (1–2 session) psychosocial intervention. At 28 week follow-up, 61% of the SSRI-only group and 53% of the SSRI-plus-CBT group reported that they were much or very much improved; 17% and 25% (respectively) reported that they were unchanged or worse.

With regard to specific psychological therapies, the evidence is difficult to interpret. NICE (2005)⁶⁶ found no conclusive evidence of the effectiveness of individual CBT compared to either no treatment or other treatments, though there was limited evidence of short-term benefit of CBT compared to relaxation, self-modelling and problem solving. However, there was evidence that group CBT was more effective, at least in the short term, in comparison to non-active treatment (eg, waiting list or general clinical management). There was limited evidence favouring IPT compared to non-active treatment, but in a direct comparison of IPT versus CBT the results were inconclusive.⁶⁶ The NICE guideline⁶⁶ included three studies of family therapy: one found some evidence to support the effectiveness of family therapy versus a waitlist condition,²⁷³ and one comparing family therapy with non-directive supportive therapy were inconclusive.²⁷⁴ The third, which is unpublished,²⁷⁵ compared long-term courses of IPT (30, 50-minute sessions) and family therapy (14, 90-minute sessions) in young people with moderate to severe depression, and found high remission rates in both arms, with maintenance of gains at follow-up.

An Australian cost-benefit analysis of CBT versus antidepressants²⁷⁶ found CBT the most cost-effective first-line intervention for depression in children and adolescents. The data for efficacy were derived from studies of volunteers and outpatients and the relevance of these findings to New Zealand primary care is unclear.

A 2007 high-quality systematic review²⁶² examined the effectiveness of structured psychotherapies in 6- to 18-year-olds with current depression (major or minor) or dysthymia, most of whom (54%) were recruited in schools. The review included 25 RCTs which compared psychotherapies versus no treatment, waiting-list controls, attention-placebos, or treatment as usual. Psychotherapeutic interventions included CBT (n=25 comparisons), cognitive therapy (n=2), behavioural therapy (n=3), IPT (n=2), problem-solving therapy (n=1) and supportive therapy (n=1). At post-treatment, 50% in the psychotherapy groups and 35% in the control groups had responded (RR 1.39, 95% CI 1.18 – 1.65), but by 6-month follow-up there was no difference between the groups. Pre-specified subgroup analysis showed that the effect was stronger in adolescents and among those with moderate to severe depression. Psychotherapy was more effective than attention placebo or waiting-list/no treatment at post-treatment and psychotherapy was more effective than a waiting-list control at 1–6 month follow-up. However, there was no significant difference between psychotherapy and treatment as usual plus psychotherapy

at any timepoint. Treatment as usual in these studies comprised any non-study mental health or other health service. None of the studies provided data on adverse effects or cost-effectiveness. The therapies with most evidence of effectiveness were CBT, BT and IPT. This review²⁶² identified strong evidence of publication bias. However, adjustment for this bias did not affect the significance of the results.

Psychological therapies: issues for evidence-based practice

The only psychological interventions supported by any controlled evidence from a primary care setting are IPT and CBT.^{268,270} For these interventions there is evidence of benefit, albeit from only one small study of each.

Pooling of studies from all settings supports these findings: psychological therapies are helpful for young people in the short term and appear to be more effective than naturalistic follow-up (ie, follow-up without active intervention) for up to 6 months. Those with most evidence of effectiveness are CBT, IPT and BT.²⁶² However, psychological therapies do not appear to be significantly more effective than treatment as usual, which in these studies included monitoring plus a variety of active treatments with psychosocial, psychotherapeutic and pharmacological components.²⁶² This supports the need to provide active intervention based on what evidence is available, accompanied by systematic follow-up and monitoring. Studies that have specifically compared monotherapies and combination treatments reported that at their final follow-up assessments (at 28–52 weeks), CBT groups had similar response rates to SSRI and combination groups.²⁶⁹⁻²⁷²

In the primary care setting, formal psychological therapies are rarely accessible. However, structured problem solving is a simplified psychological therapy drawn from cognitive behavioural principles that is well suited to general practice.²⁷⁷ Maladaptive responses to stress are significant risk factors for depression in this population²⁷⁸ and structured problem solving teaches methods of coping with the stresses of everyday life.²⁷⁷

Psychological interventions for mental disorders in young people typically focus on improving the skills of the individual in order to promote resilience to challenging life situations. These efforts also need to be accompanied by attempts to improve the high-risk unsupportive socioeconomic environments in which many young people/rangatahi/tamariki live.²⁷⁹

Pharmacological therapies

Primary care evidence

Three guidelines or systematic reviews evaluated the effectiveness and/or safety of antidepressants for young people with depression, but none included any trials set in primary care.^{66,280,281}

Evidence from other settings

Randomised controlled trials from secondary care settings^{66,272} support the effectiveness of fluoxetine for moderate to severe depression, in children and adolescents. However, the benefits are modest and must be balanced against an approximately doubled risk of suicidal ideation or attempt compared to placebo, from 1–2% to 2–4%. This estimate is based on data from 13 primary studies, which in most cases carefully screened out young people at risk and moreover collected data on adverse events retrospectively.²⁸¹ Antidepressants, including fluoxetine, are also significantly more likely to cause discontinuation due to adverse effects than placebo.⁶⁶ As discussed in the previous section on psychological therapies, it is unclear whether it is beneficial to add CBT to antidepressant therapy, as the evidence is inconsistent as to whether this improves efficacy or safety.

Pharmacological therapies: issues for evidence-based practice

There is good evidence from secondary care that fluoxetine is moderately effective for moderate to severe depression in young people/rangatahi/tamariki, but safety concerns preclude the initiation of antidepressant treatment in a young person in primary care without the support of a child and adolescent psychiatrist.

Complementary and alternative medicines

There was insufficient evidence to determine whether any complementary or alternative medicines are effective for the treatment of depression in young people/rangatahi/tamariki. A systematic review found very few RCTs and no evidence in favour of any therapy, apart from two small studies (total $n=33$) providing limited support for the use of light therapy for seasonal depression.²⁸²

No RCTs were found on the use of St John's Wort for depression in young people. However, there are safety concerns about the use of St John's Wort in adults.²⁸³ Young people using or considering using St John's Wort should be advised of possible drug interactions.

There is currently great interest in the role of omega-3 polyunsaturated fatty acids (omega-3) for the treatment of mental disorders. A recent systematic review included a single small placebo-controlled RCT ($n=28$) conducted among depressed children from 6- to 12-years of age presenting in secondary care with a first episode of depression.²⁸⁴ An over-the-counter preparation was used containing approximately 400 mg eicosapentanoic acid (EPA) and 200 mg docosahexaenoic acid (DHA), which was given as monotherapy. There was a statistically significant reduction in symptom scores in the group taking omega-3 compared to the placebo group at all follow-up times from week 8 to week 16 ($p \leq 0.041$). No clinically relevant side effects were reported, though studies of omega-3 for attention disorder in children have reported mild gastrointestinal effects.²⁸⁵ This small study supports the possibility that omega-3 supplementation may be an effective monotherapy for childhood depression and highlights the need for more randomised controlled trials in this area.

5 Recognition and assessment of common mental disorders in adults/pakeke

Recommendations

Recognition of common mental disorders in adults	
An adult with serious suicidal intent, psychotic symptoms or severe and persistent self-neglect should be referred immediately to secondary care mental health services	C
Targeted screening for common mental disorders is indicated for adults not well-known to the practitioner and for: <ul style="list-style-type: none"> • people with chronic illness, a history of mental disorder or suicide attempt, multiple symptoms or a recent significant loss • other high prevalence groups, such as Māori (especially Māori women) and older adults in residential care • women in the antenatal and postnatal period 	C
Targeted screening for depression and anxiety should include the use of verbal 2–3 question screening tools	B
Grades indicate the strength of the supporting evidence, rather than the importance of the recommendations – refer to Appendix B for grading details	

Good practice points

Recognition of common mental disorders in adults	
Every interaction with an adult in primary care should be regarded as an opportunity to assess their psychosocial as well as physical wellbeing. Both strengths and difficulties should be taken into account	✓
The practitioner should strive to establish and maintain a good therapeutic relationship with the patient, as this increases the likelihood that mental disorders will be identified	✓
Targeted screening for substance abuse should comprise a verbal 2–3 question screening tool	✓
Targeted screening should be conducted annually	✓

continued over...

Good practice points continued...

Recognition of common mental disorders in adults

Brief tools are optional aids for use by the primary care practitioner as an adjunct to clinical assessment. Examples of brief tools include:

- the Kessler 10 (K10)
- the Patient Health Questionnaire for Depression (PHQ-9)
- the Generalised Anxiety Disorder Scale (GAD-7)
- the Alcohol Disorder Use Identification Test (AUDIT)
- the Case-finding and Help Assessment Tool (CHAT)

✓

Practitioners should be aware of the cultural identity and health care preferences of people in their care

✓

Opinion of the Guideline Development Team, or feedback from consultation within New Zealand where no evidence is available

5.1 Psychosocial assessment of adults/pakeke

It is good practice to enquire after the psychosocial wellbeing of every patient whatever their reason for presentation. Every interaction with an adult in primary care should be regarded as an opportunity to assess psychological wellbeing, taking into account both strengths and difficulties. Establishing and maintaining a good therapeutic relationship between the practitioner and the patient is also important and increases the likelihood that mental disorders will be identified and addressed.^{186,286} Depression, anxiety and substance abuse are the most common mental disorders in New Zealand adults.³⁴

Good communication requires knowledge of the patient's cultural background, and it is standard good practice to ask every patient about their ethnicity. This also provides an opportunity to discuss their cultural preferences with respect to health care.¹⁵¹

Correct pronunciation of a person's name is fundamental, and learning how to pronounce Māori names correctly has been suggested as 'perhaps the single greatest way to show respect to your Māori patients'.¹⁵¹

Culturally appropriate forms of greeting may help build a sense of familiarity.²⁸⁷ For both Māori and Pacific patients it may be easier for practitioners of other ethnicities to establish a rapport if they allow initial introductions to proceed at a relatively formal and unhurried pace, and exchange some information about their background with the patient. Long-term, allowing enough time at this stage in the process will improve the patient-practitioner relationship, the information disclosed and the delivery of services.^{14,151,163} Family involvement at all stages is a priority for many Māori and Pacific patients: this may include biological or adopted family members, and nuclear or extended family.¹⁶³ Face-to-face (kanohi ki te kanohi) consultation is generally preferred, and often whānau members also attend the consultation for support.^{17,151}

As whānau/family involvement does not necessarily constitute support,²⁰³ all patients need the opportunity to advise who they would like to be present and how much information they want to be shared with others.¹⁵¹

5.2 Targeted screening of high-risk groups

Targeted screening: evidence review

Evidence was sought on screening for common mental disorders in primary care. Screening is defined as administering a tool to identify common mental disorders to a complete population of adults/pakeke presenting in primary care.

Thirteen randomised controlled trials (RCTs) evaluated screening for common mental disorders among adults in a primary care setting. Nine of the RCTs were included in a Cochrane systematic review (2005)²⁸⁸ and four had been published since.²⁸⁹⁻²⁹² The studies addressed depressive disorders with or without anxiety (n=11), alcohol problems (n=1),²⁹¹ and a range of mental disorders, including somatisation and alcohol abuse (n=1).²⁹⁰ These studies found no evidence of any benefit associated with routinely screening unselected adults in primary care, except as part of a more comprehensive programme aiming to improve care.^{288,290,291}

However, there was evidence that targeted screening of selected high-risk adults increased the identification rate of common mental disorders in adults in primary care²⁹⁰ and that it also increased the likelihood of general practitioner intervention.^{289,293,294} In the relevant literature, 'high-risk' adults were defined as those who had previously scored high on a mental health screening questionnaire. There was insufficient evidence to show that such identification led to significantly better clinical outcomes overall.

Targeted screening: issues for evidence-based practice

The evidence supports targeted screening of high-risk patients in primary care (see Box 5.1: Screening for Common Mental Disorders in Primary Care). High prevalence groups include people with long-term disabling conditions, multiple disorders or a past history of mental disorder.^{34,295} Prevalence is also high in Māori, particularly Māori women.² Screening is also indicated in new patients and those infrequently seen, as mental disorders are less likely to be identified in patients with whom the practitioner is not familiar.²

Evidence is lacking on the optimum frequency of screening. A UK report²⁹⁶ supports screening people with coronary heart disease or diabetes for depression as part of their routine annual check. The Guideline Development Team (GDT) notes that the

New Zealand 'Get Checked' programme provides a suitable opportunity for an annual mental health assessment of people with diabetes, which could be usefully applied to other chronic disease management programmes. Annual screening is considered good practice by the GDT.²⁹⁷

Targeted screening for depression and anxiety should include the use of verbal 2–3 question screening tools. These tools have been validated to screen for anxiety²⁹⁸ and depression.²⁹⁹ There is also promising evidence to support the use of two questions to screen for substance abuse^{300,301} (see 5.4, Assessment Tools: Evidence Review) and

Box 5.1	Screening for common mental disorders in primary care
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Consider screening with verbal 2–3 question screening tools:*

- people with chronic illness eg, long-term physical or mental conditions causing disability,ⁱ such as coronary heart disease, diabetes, respiratory disease, hypertension, chronic pain or dementia[†]
- people with multiple symptoms^{† ii}
- people with physical or intellectual disability^{† iii}
- Māori, particularly Māori women^{† i,iv}
- people with a history of mental disorder or suicide attempt^{† v,vi}
- people with recent significant loss, bereavement or major negative life event^{† ii}
- older adults/koroua/kuia in residential care^{† vii}
- people not seen for a year or more^{‡ iv}
- new patients^{‡ iv}
- women in the antenatal or postnatal period.^{viii}

* See Box 5.2 for verbal 2–3 question screens for common mental disorders.

† There is a high prevalence of mental disorders in these groups.

‡ A disorder is more likely to be missed in these groups.

The potential impact of a missed disorder is particularly serious in this group.

Sources:

ⁱ Oakley Browne MA, Wells JE, Scott KM. (eds). Te Rau Hinengaro: the New Zealand Mental Health Survey. Wellington: Ministry of Health; 2006.³⁴

ⁱⁱ Institute for Clinical Systems Improvement. Major depression in adults in primary care. Bloomington (MN): Institute for Clinical Systems Improvement; 2006.²⁵⁵

ⁱⁱⁱ Cooper S, Smiley E, Morrison J, et al. Br J Psychiatry 2007;190:27-35.³⁰³

^{iv} Bushnell J, MaGPIe Research Group. Br J Gen Pract 2004;54(508):838-42.²

^v National Institute for Health and Clinical Excellence. Depression: management of depression in primary and secondary care. National Clinical Practice Guideline Number 23. London; 2004.⁶⁵

^{vi} Beautrais AL, Wells JE, Mcgee MA, et al. Aust N Z J Psychiatry 2006;40 (10):896-904.¹²¹

^{vii} Kuruvilla G, Davidson T, McCabe MP, et al. Aust N Z J Psychiatry 2006;40(Supplement 1):A50.¹¹⁰

^{viii} National Institute for Health and Clinical Excellence. Antenatal and postnatal mental health. London; 2007.¹⁰¹

the GDT encourages the use of this screening tool for the targeted screening of alcohol and drug use. If the initial screening questions return a positive response, a third question inquiring whether help is needed ('Is this something with which you would like help?') is likely to improve the predictive value of the tools.³⁰² Box 5.2 Verbal 2–3 Question Screening Tools for Common Mental Disorders details the relevant questions for the depression, anxiety and substance abuse screening tools, as well as suggested further action if they elicit a positive response.

5.3 Further assessment where there is concern

Practitioners should consider using verbal 2–3 question screening tools to assess for depression, anxiety or alcohol or drug problems in any adult if concerned about their psychosocial wellbeing, whether or not they belong to a high-risk group (see Box 5.2). If a person responds positively to screening questions or there are other factors that arouse concern about psychosocial issues, it is good practice to explore problem areas thoroughly.

For Māori and Pacific patients, in particular, roles and responsibilities within the family/whānau and wider community may take precedence over individual wellbeing, and the practitioner should consider this when taking a history.^{17,19}

Use of a formal assessment tool could be considered, though such tools should not be viewed as a substitute for thorough clinical assessment. A large number of tools have been validated (see 5.4, Assessment Tools: Evidence Review). It is suggested that a practitioner wishing to use such tools becomes familiar with a limited repertoire. Selected tools for assessing common mental disorders are listed in Box 5.3.

The GDT notes that the ICD-10 or DSM-IV[®] criteria for depression, anxiety and substance abuse may be useful to frame a dialogue about specific symptoms.^{243,306} The practitioner should review any medications or medical conditions that might cause depression or account for the symptoms and perform laboratory tests as indicated (eg, for thyroid hormone levels).⁹

Discussion of the following factors will help to put current problems into context:¹⁶²

- duration of symptoms and what interventions (if any) have been tried
- functional impairment
- family and personal history of similar episodes and how they were managed
- any precipitating factors such as psychosocial stressors (eg, domestic violence, sexual abuse)
- any perpetuating factors (eg, cognitions that they are 'useless')
- protective resources, both internal (such as self-insight) and external (such as helpful social supports)
- any experience of manic episodes
- any suicidal ideation or attempts.

Box 5.2**Verbal 2–3 question screening tools for common mental disorders****Screening questions for depression^{i,ii}**

- During the past month, have you often been bothered by feeling down, depressed or hopeless?
- During the past month, have you often been bothered by little interest or pleasure in doing things?

If Yes to either question, ask Help question (below)

Screening question for anxietyⁱⁱⁱ

During the past month have you been worrying a lot about everyday problems?

If Yes, ask Help question (below)

Screening questions for alcohol and drug problems^{iv}

- Have you used drugs or drunk more than you meant to in the last year?
- Have you felt that you wanted to cut down on your drinking or drug use in the past year?

If Yes to either question, ask Help question (below)

Help question^v

Is this something with which you would like help?

Options: no / yes, but not now / yes

Further action

A positive response to one of the screening questions detects most cases of the relevant disorder.

If a person responds positively to a screening question and identifies that they want help to address the issue, the GDT recommends that the practitioner proceeds with further clinical assessment, reschedules a further consultation or refers the person to their general practitioner/practice nurse team, as appropriate.

Sources:

ⁱ Arroll B, et al. *BMJ* 2003;327(7424):1144–6.²⁹⁹

ⁱⁱ Kroenke K, et al. *Med Care* 2003;41(11):1284–92.³⁰⁴

ⁱⁱⁱ Goodyear-Smith F, et al. *Br J Gen Pract* 2008;58(546):26–31.³⁰⁵

^{iv} Brown RL, et al. *J Am Board Fam Pract* 2001;14(2):95–106.³⁰⁰

^v Arroll B, et al. *BMJ* 2005;331(7521):884.³⁰²

Box 5.3**Selected tools for assessing common mental disorders**

These are self-report measures:

- Patient Health Questionnaire for Depression (PHQ-9)*ⁱ
- Kessler Psychological Distress Scale (K10)[†]ⁱⁱ
- Generalised Anxiety Disorder Assessment Tool (GAD-7)*^{iii, iv}
- Alcohol Use Disorders Identification Test (AUDIT)*^{‡ v}
- The Case Finding and Help Assessment Tool (CHAT)^{# vi}

Note: See Appendix D: Assessment Tools for Common Mental Disorders for links to the above tools.

* Validated for use in primary care.

† The K10 focuses on anxiety and depression. It has been validated for use in population surveys rather than primary care.

‡ Adapt for other substance misuse.

Validated using a pragmatic composite gold standard to check for tobacco use, alcohol and other drug misuse, problem gambling, and anger problems. Less reliable for exercise and eating disorders.

Sources:

ⁱ Spitzer RL, et al. JAMA 1999;282(18):1737–44.³⁰⁷

ⁱⁱ Brooks RT, et al. Psychol Assess 2006;18(1):62–70.³⁰⁸

ⁱⁱⁱ Kroenke K, et al. Ann Intern Med 2007;146(5):317–25.²⁹⁸

^{iv} Spitzer RL, et al. Arch Intern Med 2006;166(10):1092–7.³²⁴

^v Seale JP, et al. J Stud Alcohol 2006;67(5):778–84.³⁰⁹

^{vi} Goodyear-Smith F, et al. Br J Gen Pract 2008;58(546):26–31.³⁰⁵

5.4 Assessment tools: evidence review

A systematic review of the evidence on brief assessment tools for common mental disorders in adults/pakeke was undertaken. ‘Brief’ was defined as taking 5 minutes or less to administer.

The relevant evidence comprised 4 systematic reviews^{65,176,310,311} and 27 primary studies (some of which were included in the systematic reviews), which evaluated a total of 18 different assessment tools. Tools for which evidence of effectiveness was found are discussed below. For several tools there was insufficient evidence of validity in a primary care setting: details of other studies and tools evaluated can be found in evidence table 4d on the New Zealand Guidelines Group (NZGG) website (<http://www.nzgg.org.nz> – enter ‘evidence tables’ into search box, then select publication by title).

Overall mental health

A number of tools have been validated for assessment of common mental disorders, but the PHQ-9 appears to be the most robust: it is well-validated, acceptable to patients and quick for practitioners to review.³⁰⁷ Other acceptable tools are the General Health Questionnaire (GHQ-12)^{312,313} and the Common Mental Disorder Questionnaire (CMDQ).³¹⁴ A New Zealand tool, CHAT, appears to have good sensitivity and specificity for a range of lifestyle and mental health risk factors (depression, anxiety, alcohol and other drug misuse, problem gambling, stress, abuse, anger problems, and tobacco use).³⁰⁵ It is less accurate as a check for inactivity and eating disorders. It should be noted that validation of the CHAT tool utilised a composite gold standard comprising other validated screening tools and diagnostic tests, rather than diagnostic interviews for all conditions.³⁰⁵ The CHAT tool has been found acceptable in a large multi-ethnic New Zealand population.^{301,315}

Depression and anxiety

The verbal 2–3 question screening tool for depression (see Box 5.2) is as accurate as longer tools and is acceptable and feasible for use in New Zealand populations.²⁹⁹ The Help question (see Box 5.2) has been validated in a written form.³⁰²

The PHQ-9 is reliable and valid for identifying depression and also for severity assessment,³¹⁶⁻³²⁰ and it is sensitive to changes for both major depression and dysthymia.³²¹ Other brief tools, such as the Center for Epidemiological Studies Depression scale (CES-D),³²² the World Health Organization Wellbeing Index (WHO-5),³¹⁹ and Duke-Anxiety-Depression scale (Duke-AD)³²³ are less accurate for routine use in primary care.

Both the GAD-7 and the 2-question version of the same instrument (GAD-2) are valid for detecting anxiety disorders.^{298,324}

The K10 questionnaire measures psychological distress, focusing on anxiety and depression, and has been widely used in population surveys and secondary care clinical settings.^{34,308} It has not been validated for test-retest reliability or for sensitivity to change³²⁵ and no evidence was found on its validity in primary care. The recommended cut-off points are based on data from community samples.³²⁵

No valid case-finding tools for dysthymia were identified.

Alcohol and/or substance abuse

The AUDIT questionnaire was found to be the most accurate tool for identifying risky, harmful and hazardous drinking,³¹⁰ while CAGE (a 4-question acronym) is the most accurate for identifying lifetime alcohol abuse or dependence.³¹¹ A US study³⁰⁰ identified two questions adapted from CAGE which detected 80% of current drug

and alcohol problems and which they suggested could be used as a verbal screen, though the questions have not been fully validated as standalone verbal questions. These questions are specified in Box 5.2: Verbal 2–3 Question Screening Tools for Common Mental Disorders.

Assessment of suicide risk

Assessment of suicide risk can be challenging as there is no evidence for absolute markers that predict the presence or intensity of suicide risk, and assessment only provides a snapshot of risk at a given time. Moreover, deliberate self-harm such as superficial cutting may be used as a means of tension reduction, without intention to die. The most immediately important factors to consider are contextual triggering factors and current mental state.¹⁶² Mental and physical illness are major risk factors, while the role of social triggers is less prominent in older people.^{162,326} The GDT notes that assessment of suicide risk needs to be an ongoing aspect of monitoring, as new triggers can supervene even if a person's mental state is improving or staying the same.

Assessment of suicide risk represents an integration of the following factors:¹⁶²

- intent/definite plan
- lethality of likely means
- access to means
- presence of risk factors (eg, mental or physical illness, chronic pain, alcohol use)
- hopelessness
- psychosocial triggers
- lack or presence of protective factors.

Questions to assist in assessing risk of suicide may be found in Appendix C: Assessment of Suicide Risk.

5.5 Reaching a diagnosis

A person with mental distress may or may not meet the criteria for a DSM-IV® diagnosis, as significant disability is often associated with mental disorders below the diagnostic threshold, particularly in the mood and anxiety symptom domains.⁴

The GDT recommends that in adults/pakeke the following criteria signify a need for follow-up and possible intervention:

- safety: there is a perceived risk
- duration: problems last more than a few weeks
- intensity: symptoms are severe and fixed, with a loss of normal fluctuations in mood and behaviour

- impact: problems impact significantly on work, interpersonal relations, home and leisure activities
- hypomanic episodes: these may indicate bipolar disorder.

5.6 Determining severity and when to refer

Recommendations

Assessing severity of depression and when to refer

An adult with serious suicidal intent, psychotic symptoms or severe and persistent self-neglect should be referred immediately to secondary care mental health services	C
Practitioners should consider the use of a tool such as the Patient Health Questionnaire for Depression (PHQ-9) for assessment of the severity of depression	B

Grades indicate the strength of the supporting evidence, rather than the importance of the recommendations – refer to Appendix B for grading details

Good practice points

Assessing severity of depression and when to refer

An adult with suspected new-onset bipolar disorder should be referred urgently to secondary care mental health services	✓
When assessing the severity of depression in an adult and planning management, practitioners should consider symptom severity, symptom persistence, functional impairment, response to any previous intervention and also the wider psychosocial context, identifying factors that may impact positively or negatively on outcome	✓

For the purposes of this guideline, the GDT define immediate referral as referral by the primary care practitioner that day, with the expectation of a same-day response to the referral. Urgent referral is defined by the GDT as referral by the primary care practitioner within 24 hours with the expectation that the person referred will be seen within 7–10 days, or sooner depending on secondary care service availability.

The severity of depression at presentation largely guides the options for first-line management. When assessing the severity of depression in adults and planning management, practitioners should consider symptom severity, symptom persistence, functional impairment, response to any previous intervention and also the wider psychosocial context, identifying factors that may impact positively or negatively on outcome.

Identification of any of the following factors should trigger immediate referral to secondary care mental health services:⁶⁵

- serious suicidal intent
- psychotic symptoms
- severe and persistent self-neglect (eg, not eating).

A person with a new episode of bipolar disorder may be managed in primary care if a management plan can be put in place that has been successful on previous occasions. However, if new-onset bipolar disorder is suspected, urgent referral to secondary mental health care is generally recommended. The urgency of a referral in an individual case is dependent upon the acuity of symptoms. The patient needs active support during the waiting phase for secondary care mental health services treatment.^{9,65}

The GDT notes that factors signalling the need to refer urgently to secondary care mental health services include:^{9,65}

- perceived significant but not immediate risk of harm to self or others
- treatment resistant depression
- new-onset bipolar disorder.

Further factors, including the following, indicate that referral should be considered:

- recurrent depression if not responsive to past treatments
- atypical depression resistant to initial treatment
- a comorbid medical condition that impacts on antidepressant use
- diagnostic uncertainty.

An adult with mild depression is generally disturbed but able to carry out normal activities. An adult with moderate depression may have significant difficulty continuing with normal activities, while an adult with severe depression will have very marked functional impairment and often has strong feelings of worthlessness and guilt and/or suicidal thoughts.³²⁷ Accurate assessment of acuity and severity is important for appropriate management and referral. In addition, using their clinical judgment, the practitioner should consider the use of a severity-assessment tool. The severity of symptoms and functional disability can be measured using the PHQ-9.³²⁰ The GDT notes that the K10 may also be useful for monitoring severity.³²⁵ Details of the thresholds used to determine severity with the PHQ-9 and K10 are included in Box 5.4: Thresholds to Determine Severity. Responses to the functionality questions on these tools may be helpful in triggering discussion of patient priorities and goals for treatment.

Box 5.4	Thresholds to determine severity
Patient Health Questionnaire for Major Depression (PHQ-9)ⁱ	
PHQ-9 score	Provisional diagnosis
10–14	Mild depression
15–19	Moderate depression
≥20	Severe depression
Kessler Psychological Distress Scale (K10)ⁱⁱ	
K10 score	
16–29	Medium risk of anxiety or depressive disorder
30–50	High risk of anxiety or depressive disorder
Sources:	
ⁱ The MacArthur Initiative on Depression and Primary Care. Patient health questionnaire: using PHQ-9 diagnosis and score for initial treatment selection. ³²⁸	
ⁱⁱ Clinical Research Unit for Anxiety and Depression. K10 symptom scale. 2000. ³²⁹	

5.7 From assessment to management

Chapter 6 of this guideline addresses how to manage depression in an adult/pakeke in the primary care setting. This guideline does not address in detail the management of other common mental disorders. For information resources on mental disorders other than depression, see Appendix G: Management of Common Mental Disorders other than Depression in Adults/Pakeke.

6 Management of depression in adults/pakeke

This chapter focuses on the management of depression in adults/pakeke. For information on management of other common mental disorders in adults/pakeke see Appendix G: Management of Common Mental Disorders Other than Depression in Adults/Pakeke.

Recommendations	
Management of depression in adults	
An adult with serious suicidal intent, psychotic symptoms or severe and persistent self-neglect should be referred immediately to secondary care mental health services	C
First-line treatment for an adult with mild depression is active support, advice on exercise and self-management, and referral to psychosocial helping agencies as required (eg, relationship counselling)	C
First-line treatment for an adult with moderate depression is either a selective serotonin reuptake inhibitor (SSRI) or a psychological therapy (eg, 6–8 sessions of problem-solving therapy or cognitive behavioural therapy [CBT] over 10–12 weeks)	B
For an adult presenting initially with severe depression, the practitioner should consider a combination of antidepressant medication with a structured psychological intervention (eg, CBT or interpersonal psychotherapy [IPT], 16–20 sessions)	B
An adult starting antidepressant treatment who is considered at increased risk of suicide or is younger than 30 years should be followed up at 1 week and monitored 1–2 weekly, preferably face-to-face, until the risk is no longer considered significant, then at least 2 weekly until there is clear improvement	C
An adult starting antidepressant treatment who is not considered at increased risk of suicide should be reviewed by the health practitioner within 1–2 weeks and monitored at least 2 weekly until there is clear improvement	C
If an adult on antidepressant medication has had only a partial response after 3–4 weeks, consider increasing the dose	C

continued over...

Recommendations continued...

Management of depression in adults	
If an adult on antidepressant medication has not responded to treatment by 4–6 weeks, review the treatment plan and consider either increasing the dose, changing the antidepressant, or changing or adding a psychological therapy	C
An adult being treated for depression should be actively monitored and supported (eg, by phone, text, email or face-to-face) by an appropriately trained member of the primary care team, informed by clear treatment protocols	B
Practitioners should consider the use of a tool such as the Patient Health Questionnaire for Depression (PHQ-9) to assist in the monitoring of treatment response in an adult with depression	B
If another health practitioner delivers psychotherapy to an adult with depression, the primary care team should be in regular communication about the individual's progress	C
An adult with depression who is treatment resistant should be referred urgently to secondary care mental health services while continuing treatment. Treatment resistance is defined as an unsatisfactory response after adequate trial of two antidepressants (with or without psychological therapy)	C
An adult with depression who is responding to antidepressant treatment should normally continue to take the antidepressant for at least 6 months after remission of an episode of depression in order to reduce the risk of relapse	B
Grades indicate the strength of the supporting evidence, rather than the importance of the recommendations – refer to Appendix B for grading details	

Good practice points

Management of depression in adults	
When planning the management of an adult with depression, the practitioner should consider: symptom severity and symptom persistence; functional impairment; response to any previous intervention; and the individual's wider psychosocial context, identifying factors that may impact positively or negatively on outcomes	✓
The practitioner should endeavour to build a supportive and collaborative relationship with an adult with depression and their family/whānau	✓

continued over...

Good practice points continued...	
Management of depression in adults	
A practitioner managing an adult with severe depression in primary care needs to have easy access to consultation with a psychiatrist	✓
First-line treatment for an adult with melancholic depression is a tricyclic antidepressant	✓
If an adult on antidepressant medication has had no or minimal response after 3–4 weeks, or if side effects are unacceptable, review the treatment plan and consider changing to a different antidepressant, or changing to or adding a psychological therapy	✓
If an adult with mild depression does not respond to supportive treatment (psychosocial support and self-management strategies) within 2–4 weeks (ie, $\geq 50\%$ reduction in symptoms) the patient and practitioner should review the treatment plan and consider intensifying, changing or augmenting measures taken to date	✓
The primary care team should include members skilled in conducting brief psychological interventions for depression	✓
Psychological therapies offered should use a recognised therapeutic approach which targets depression and related problems and which focuses on resilience and behavioural support	✓
Opinion of the Guideline Development Team, or feedback from consultation within New Zealand where no evidence is available	

6.1 Clinical management

Approach to intervention

Most adults/pakeke with depression can be treated within primary care.⁶⁵ The goal of treatment is to achieve remission of symptoms²⁵⁵ and prevent relapse or recurrence.¹⁴³ The intensity of intervention should be determined by the severity of depression and adjusted in accordance with patient response (the 'stepped care' approach).⁶⁵ Comorbidities should be addressed concurrently: in practice they may improve with remission of depression.³³⁰

Interventions for depression in adults comprise a spectrum of therapies, from exercise and self-management to psychological therapies (of varying length and intensity) and/or antidepressants.⁶⁵ The evidence relating to specific interventions is presented in detail in later sections of this chapter.

Overall, the evidence suggests that psychological therapies and antidepressants are of comparable efficacy.^{65,331-333} Psychological therapies are better tolerated,⁶⁵ and may have a more sustained effect,^{334,335} though the GDT notes that access to these therapies can be difficult due to barriers of cost and accessibility. Secondary care evidence suggests that combined therapy appears to enhance the effectiveness and tolerability of treatment for people with more severe depression,⁶⁵ or with residual symptoms,⁶⁵ though it is not indicated in the initial stages of mild or moderate depression.^{9,65}

Studies favouring exercise and guided self-help strategies have been conducted almost exclusively in volunteer populations but their findings may reasonably be applied to adults in primary care, particularly those with milder forms of depression.⁶⁵ Similarly, a number of self-management interventions, such as sleep hygiene and activity scheduling, have not been the subject of controlled research trials, but are supported by international expert opinion and appear to be reasonable strategies for adults with depression⁶⁵ (see Appendix F: Self-management Resources).

Some patients, particularly Māori and Pacific peoples, may choose other approaches including prayer (*karakia*) or traditional healing practices (eg, *rongoā*) and other providers, such as *tohunga* or spiritual leaders.^{22,151} The role of the primary care practitioner is to be aware of any alternative therapies the patient is using, work with their beliefs and seek a compromise if necessary. Both traditional and Western medicine can be usefully employed in patient treatment.¹⁵¹

There is emerging evidence that depression is biologically heterogeneous and that different treatments differ in the likelihood of achieving remission in different patients.³³⁶

When planning the management of an adult with depression, the practitioner should consider: symptom severity and symptom persistence, functional impairment; response to any previous intervention, and the individual's wider psychosocial context, identifying factors that may impact positively or negatively on outcomes.

Providing active support

Successful management of depression depends largely on enabling the patient to be an active participant in the care process.¹⁴³ A collaborative partnership between the practitioner and patient is a consistent predictor of therapy outcome for both psychological^{144,145} and pharmacological treatments.^{146,147} Integral to this partnership is agreement between practitioner and patient on the tasks and goals of treatment.^{136,145,148,149} The practitioner should endeavour to build a supportive and collaborative relationship with an adult with depression and their family/*whānau*. The needs and resources of family and *whānau* should also be integrated into the care plan, as they can provide the intimate support networks that help facilitate patient self-management changes and meet treatment goals.¹⁵⁰

The practitioner should signal clearly to the patient and supporting family/*whānau* that the disorder is a significant issue that requires follow-up. Provision of accurate

information at this stage should help to facilitate active engagement and encourage adherence to treatment in the future.²⁷⁷ Information on depression and treatment options should include an explanation of how to recognise signs of deterioration and how to access help if necessary.²⁵⁵

The patient should be involved as fully as possible in planning treatment, though it may require considerable practitioner skill and sensitivity to elicit and articulate the perspective of a patient with depression, gain their trust and find common ground with respect to treatment goals.¹⁵⁰ It is important to maintain a non-directive approach. Goals should be recorded and revisited/revisted during follow-up.^{9,255}

In preference to voicing dissent or questioning treatment plans, many people (especially Māori and Pacific-born) may remain silent or defer to the authority of the practitioner. The practitioner should actively solicit feedback, rather than assuming patient agreement.^{151,337}

Monitoring

All patients should be actively monitored within primary care, even if referred elsewhere, by means of proactive contact with a member of the primary care team (eg, by phone, email, text or face-to-face).²⁵⁵ The GDT suggests that approximately five face-to-face consultations within a 6-month episode of care are appropriate: this approximates to US quality-of-care standards that recommend at least 3 visits within the first 12 weeks after the initial identification of depression.³³⁸

Studies of quality-improvement interventions in primary care have shown that telephone monitoring from a care manager (usually a practice nurse) improves outcomes for patients with depression.³³⁹ Telephone, text and/or email monitoring can be used to check severity (eg, using the PHQ-9) and progress towards treatment goals, address treatment side effects, encourage treatment adherence and initiate remedial action if an adequate response is not being achieved.^{338,340,341} Each contact provides an opportunity to ask about any cognitive and behavioural changes previously identified as part of the treatment plan.³³⁸ Monitoring is particularly important in the first few weeks for adults starting antidepressant treatment (see Moderate and Severe Depression, later in this section).

The GDT suggests that monitoring protocols should include a system to repeat the call if contact is not made, and that a reminder service for appointments may also be helpful.

If another health practitioner delivers psychotherapy to an adult with depression, the primary care team should be in regular communication about the individual's progress.⁹ In the opinion of the GDT, if a person is referred for treatment to other agencies (eg, for counselling), the primary care practitioner should maintain regular contact with the patient, in order to maintain the therapeutic alliance.⁹ Suicide risk should be reassessed regularly.¹⁶²

Patient report and clinical assessment can be used to monitor response to treatment. Practitioners should also consider the use of a tool, such as the PHQ-9 to assist in the monitoring of treatment response.³²¹ In the opinion of the GDT, the Kessler Psychological Distress Scale (K10) may also be useful for monitoring response to treatment. A PHQ-9 score of <5³²⁸ or a K10 score of <15³⁴² indicate likely resolution of symptoms.

Referral to other agencies

If the disorder is associated with specific life events, referral to appropriate psychosocial helping agencies (eg, relationship counselling services, grief counselling services) can be considered. To facilitate this, practitioners are encouraged by the GDT to be familiar with relevant local providers. Any counselling provided should target either depression or specific issues that have been identified as precipitating and/or perpetuating the depression, with a focus on resilience and behavioural support.^{9,65}

Self-management

Health practitioners can educate patients in self-management skills and strategies. These include engaging in activities that promote health, self-monitoring of warning signs and symptoms, addressing the effects of depression on personal relationships and following a treatment plan.³⁴³ The GDT notes that brief formal training in self-management support is available for health practitioners (eg, practice nurses).

Self-management strategies should be encouraged and promoted, by providing relevant information and directions to available resources.¹⁴³ Useful resources could include information about physical activity, diet, sleep hygiene, activity scheduling, stress management, and avoiding the use of alcohol and recreational drugs.^{9,65} A leaflet with relevant advice³⁴⁴ is available from <http://www.nzgg.org.nz>. The patient can also be directed to useful websites, such as MoodGym (see Appendix F: Self-management Resources).

A patient can be encouraged to incorporate more physical activity into their everyday life, using any form of exercise that they enjoy. An approach that encourages the patient to identify and cultivate their own interests and build on their own strengths fits well into a strengths-based paradigm in which the person is an active participant in their own recovery.³⁴⁵

There is currently no good evidence that dietary interventions are effective in treating depression; however, the GDT suggests that a balanced diet and plenty of fluids should be encouraged to promote general health.

Patients can be encouraged to keep a daily diary, to aid in self-monitoring and reviewing the effects of any lifestyle changes.²⁷⁷

Mild depression

Provided there are no high-risk features, appropriate first-line management for mild depression is active support and advice on exercise and self-management, with consideration of referral to other psychosocial helping agencies as applicable (eg, family services, employment counselling).³⁴⁶

In the opinion of the GDT, the practitioner should review the patient at 2–4 weeks and if symptoms have resolved it is appropriate to resume routine management within primary care without any additional mental health follow-up, provided the patient agrees with this approach and understands the need to report any recurrence of symptoms.

If the patient does not report substantial improvement ($\geq 50\%$ reduction in symptoms) within 2–4 weeks, treatment should be intensified, in accordance with the principles of 'stepped care'.⁶⁵ Intensified treatment comprises an extended consultation with a member of the primary care team, with a review and extension of self-management and other measures taken to date. Although provision of extended consultations can be difficult due to time and funding constraints, there is growing evidence that longer consultations have the potential to improve mental health outcomes.²⁶¹ A structured problem-solving intervention should be considered,⁶⁵ preferably delivered by a member of the primary care team. Further information on structured problem-solving therapy is provided in the following section on management of moderate and severe depression.

If the patient does not report substantial improvement within 6 weeks, or if he/she deteriorates, the GDT advises that the patient should be treated as for moderate depression.

Moderate and severe depression

Most adults/pakeke with uncomplicated depression can be treated in primary care regardless of severity. A patient with moderate depression may have significant difficulty continuing with normal activities, while a patient with severe depression will have significant functional disability, which in extreme cases can result in total incapacity. Strong feelings of worthlessness and guilt and the presence of suicidal thoughts are common.³²⁷ All patients with moderate or severe depression should be followed up by the practitioner within 1–2 weeks. An immediate referral to secondary care mental health services is required if a patient develops any of the following high-risk features, at any stage:⁶⁵

- serious suicidal intent
- psychotic symptoms
- severe and persistent self-neglect (eg, not eating).

Also see 5.6, Determining Severity and When to Refer for guidance on when to refer or consider referral to secondary care mental health services.

When patients are awaiting consultation with secondary care services, the GDT advises that antidepressant therapy should normally be initiated by the primary care practitioner. The patient needs active support and regular reassessment during the waiting phase for secondary treatment, and the patient and family need to know how to access help at all times of day. If the patient is at risk of suicide, family/whānau and others should be advised of the need for close observation and to remove potential suicide means, such as obvious ligature points, firearms and toxic substances (including unnecessary medications) from the household.¹²⁷

All patients with moderate to severe depression should be offered active support and advice on self-management as appropriate, and the choice of an antidepressant or a psychological intervention.^{9,65,255} Their choice of treatment will depend on personal preference, past experience and the availability and cost of psychological therapies.³⁴⁷ The practitioner should also offer the patient the option of referral to other psychosocial support agencies and action the appropriate referrals (eg, social workers, Community Alcohol and Drug Services).

For patients who choose it, a brief psychological intervention is suitable as a first-line treatment for moderate depression (eg, CBT or structured problem-solving therapy [PST], 6–8 sessions over 10–12 weeks).⁶⁵ Structured PST is likely to be the most accessible form of psychotherapy for primary care practitioners. PST aims to teach the person to re-engage with practical approaches to perceived problems and to generate preferred solutions.²⁷⁷ It can be a useful means of securing the involvement of other key people in the family/whānau, who should be encouraged to suggest additional options or assist with implementation. Practitioners must not simply offer their own advice or solutions. PST can be readily learnt by a member of the primary care team and can be delivered in short sessions within a manageable time frame.²⁷⁷ The National Institute for Health and Clinical Excellence (NICE) guideline suggests 6 to 8 sessions over 10–12 weeks.⁶⁵ This should be followed by a review in primary care: some patients will need further sessions or more intensive treatment. Improvement with psychotherapy may be slower than with antidepressant medication. If there is no marked clinical improvement after 6 sessions of treatment it is reasonable to consider changing or augmenting treatment (eg, by adding an antidepressant).^{9,255,347}

For a patient with more severe depression, a longer structured psychological intervention is an appropriate first-line treatment (eg, 16–20 sessions CBT or IPT),⁶⁵ if this is available. The GDT notes the need for more widespread access to these treatments in primary care. Psychological therapies offered should use a recognised therapeutic approach that targets depression and related problems, and that focuses on behavioural support. Fully trained and accredited therapists should be used.^{9,65}

For a patient presenting initially with severe depression, a combination of antidepressants and a structured psychological intervention (eg, 16–20 sessions CBT or IPT) should be considered, as the combination is more effective than either treatment on its own.⁶⁵

The clinical effectiveness of antidepressants is controversial, with disagreement arising partly from differing interpretations of clinical effectiveness (ie, what magnitude of effect is deemed clinically significant).³⁴⁸ This debate is discussed in the evidence review (see 6.3, Specific Interventions: Evidence Review, Pharmacological Therapies). Meta-analyses of published studies in the NICE (2004) guideline⁶⁵ found evidence that antidepressants are effective for both moderate and severe depression and that the effect increases with the severity of the disorder. The GDT supports the use of antidepressants as a treatment option for moderate and severe depression.

Unless there are specific reasons for choosing another type of antidepressant, the most suitable antidepressant for first-line treatment of moderate or severe depression is a SSRI, starting at 20 mg.⁶⁵ Most patients can tolerate a therapeutic dose of an SSRI from the outset of treatment, although there may be a temporary increase in anxiety during the first weeks of treatment (see Box 6.1). The relative safety of SSRIs in overdose makes them safer than tricyclic antidepressants (TCAs) and they have less potential for cardiovascular side effects than TCAs (see Box 6.2).^{65,347}

Box 6.1 Selective serotonin reuptake inhibitors

Selective serotonin reuptake inhibitors are overall fairly well-tolerated, apart from mild nausea, occasional diarrhoea and sometimes headache.ⁱ Gastrointestinal effects usually settle within 2 weeks.ⁱ In the meantime, taking the drug with meals may help, as may antacids. For headache, a temporary dose reduction and/or paracetamol may be helpful.ⁱ

Sexual problems, such as decreased libido and difficulty achieving orgasm, occur in around 40% of people taking SSRIs, and in around 30% of cases the problem is likely to be drug-related, though estimates vary widely.ⁱⁱ A temporary dose reduction or a trial of medication (eg, for men, sildenafil) could be considered.ⁱ Some people gain weight and there is also an increased risk of bleeding.ⁱⁱⁱ

Fluoxetine has a long half-life, which may cause problems with washout periods when switching to other antidepressant drugs, but has the advantage of causing less withdrawal symptoms.^{iv}

Increases in anxiety, restlessness or agitation may occur in the first few weeks of SSRI treatment.ⁱ This may be very distressing and can be associated with increased suicidality. Consider a change of medication.^{iv}

Sources:

ⁱ The MacArthur Initiative on Depression and Primary Care. Depression tool kit.³⁴⁹

ⁱⁱ Clayton A, et al. *J Clin Psychiatry* 2002;63(4):357–66.³⁵⁰

ⁱⁱⁱ Gelenberg AJ, et al. *Am J Med* 2007;120(2):105–8.³⁴⁷

^{iv} National Institute for Health and Clinical Excellence. Depression: management of depression in primary and secondary care. National Clinical Practice Guideline Number 23. London: National Institute for Health and Clinical Excellence; 2004.⁶⁵

The GDT recommends TCAs as a first-line treatment for a person with melancholic depression and note that they may also be considered for those who have responded to a TCA in the past. Tricyclic antidepressants are also appropriate as a second-line treatment for a person who fails to respond to an SSRI.⁶⁵

The patient and their family/whānau should be given simple information about antidepressants to encourage adherence (see Box 6.3).

Box 6.2	Tricyclic antidepressants
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All TCAs⁶⁵ cause anticholinergic side effects (such as dry mouth, blurred vision, constipation, urinary retention and sweating), sedation and postural hypotension. Usual recommendations are to start with a low dose and titrate up to the therapeutic serum level as quickly as the patient can tolerate this. TCAs can cause ventricular arrhythmias in the absence of adequate oxygenation of heart muscle (eg, with ischaemic heart disease) and in overdose. Overdose can also cause seizures.

Source:

National Institute for Health and Clinical Excellence. Depression: management of depression in primary and secondary care. National Clinical Practice Guideline Number 23. London: National Institute for Health and Clinical Excellence; 2004.⁶⁵

Box 6.3	Information for patients on antidepressants and their family/whānau
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- Antidepressants are not addictive^{i,ii}
- They should be taken daily as prescribed even if the person is feeling better^{i,ii}
- Early improvement may be seen within 2–4 weeks; however, full response usually takes longer to occur^{i,ii}
- Discontinuation symptoms may occur if the drugs are suddenly stopped, doses are missed or (occasionally) the dose is reducedⁱⁱ
- Mild side effects are common, but are usually temporaryⁱ
- Patients are strongly advised to talk to their primary care practitioner if they have any concerns, and before stopping an antidepressantⁱ

Sources:

ⁱ Ministry of Health British Columbia. Depression (MDD) – diagnosis and management. Victoria: Guidelines and Protocols Advisory Committee; 2004.

ⁱⁱ National Institute for Health and Clinical Excellence. Depression: management of depression in primary and secondary care. National Clinical Practice Guideline Number 23. London: National Institute for Health and Clinical Excellence; 2004.

Between 50% and 60% of patients are likely to respond within 12–14 weeks to initial treatment with an SSRI; around 35% to 45% are likely to achieve full remission within this timeframe.^{336,351} For definitions of different levels of treatment effectiveness, see Box 6.4.

Some improvement is usually evident within 2 weeks of treatment with antidepressant medication at a therapeutic dose: a family member may notice improvement before the patient does.³⁴⁷ In the opinion of the GDT, if at 3–4 weeks the patient reports no improvement at all or only a minimal response, the practitioner should re-evaluate the treatment plan with the patient and consider changing to a different antidepressant, changing to a psychological therapy or adding a psychological therapy. This also applies if the side effects of medication are unacceptable.

If after 3–4 weeks of treatment with antidepressant medication the patient reports a partial response, the practitioner and patient should consider increasing the dose.²⁵⁵

If the patient does not respond to treatment (ie, report a significant level of improvement) by 4–6 weeks, the practitioner should review the treatment plan with the patient and consider either increasing the dose, changing the antidepressant, changing to a psychological therapy or adding a psychological therapy.^{65,255}

If the patient opts to change to a different antidepressant medication, either a second SSRI or a TCA (eg, nortriptyline) is suitable as a second-line treatment.^{65,352} As recent evidence suggests that up to one third of patients have a relatively slow response to antidepressants, continuation of the same medication (and even the same dose) is also a reasonable option to discuss with patients who show a partial response at 6 weeks.³⁵³

An adult/pakeke starting antidepressant medication who is not considered at increased risk of suicide should be reviewed by a health practitioner within 1–2 weeks and monitored at least 2 weekly until there is clear improvement. Adults considered at higher risk of suicide should be reassessed at 1 week, as should younger patients (<30 years), as they may be at higher risk of suicidal ideation.⁶⁵ Weekly follow-up

Box 6.4	Response to treatment
<p>Partial response: a reduction in symptom severity of at least 25% on a scale such as the PHQ-9.</p> <p>Response: a significant level of improvement; or clinically relevant reduction in symptom severity of more than 50% on a scale, such as the PHQ-9.</p> <p>Remission: a condition where only minimal signs of illness remain, or a PHQ-9 score of 4 or less.</p> <hr/> <p>Source: Institute for Clinical Systems Improvement. Major depression in adults in primary care. Bloomington (MN): Institute for Clinical Systems Improvement; 2006.²⁵⁵</p>	

should continue in this group for the first few weeks, until they are considered to be no longer at significant risk, then at least 2 weekly until there is clear improvement.⁶⁵ Face-to-face assessment is preferable.

In the initial stages of treatment the practitioner should continue to enquire about suicidal ideation and about any increase in symptoms. In the first few weeks of treatment with an SSRI, an increase in anxiety, restlessness or agitation may occur. This can be very distressing and may be associated with increased suicidality. Patients should be advised to contact the practitioner if this happens. A change of medication could be discussed in these circumstances if the cause appears to be related to medication rather than other stressors.⁶⁵

Treatment resistance

Treatment resistance is defined as lack of a satisfactory response after trial of two antidepressants given sequentially at an adequate dose for an adequate time (with or without psychological therapy). Patients who respond to treatment but do not subsequently continue improving to the point of remission could be considered in this category. If a patient is treatment resistant, the practitioner should refer urgently to secondary care mental health services while continuing to treat the patient.⁹ The GDT advises that augmentation with lithium may be considered. Other strategies include changing to a TCA (eg, nortriptyline) or venlafaxine.⁹

If a patient is transferred into the care of secondary care mental health services, primary care monitoring should continue in order to support treatment and aid the eventual transition back to primary care for longer-term management.³⁴⁶

Subtypes of depression

Melancholic depression

A person with melancholic depression typically presents with marked physical slowness or marked agitation, a range of somatic symptoms and a loss of pleasure in almost all activities.²⁴³ The practitioner should assess the patient to exclude bipolar disorder. In the opinion of the GDT, a TCA (eg, nortriptyline) is appropriate as a first-line antidepressant for melancholic depression. Secondary care consultation or referral could also be considered.⁹

The GDT notes that a positive attempt to discriminate between melancholic and non-melancholic forms of depression is at least as important as distinguishing between moderate and severe depression, as treatment decisions and the need for referral can be highly influenced by this distinction.

Atypical depression

Atypical depression generally presents with symptoms such as over-eating and over-sleeping. The patient may report that their mood improves in response to positive events, and the mood disorder may be preceded by a longstanding sensitivity to rejection.²⁴³ Compared to other patients with depression, those with atypical depression are more commonly female, with younger age of onset and a more severe degree of psychomotor retardation, which can be described as 'leaden paralysis'.⁶⁵ Treatment with an SSRI is appropriate. If the patient does not respond to an SSRI and has significant functional impairment, they should be referred urgently to secondary care mental health services for consideration of other strategies.⁶⁵

6.2 Prevention of relapse or recurrence

Ongoing strategies are needed to reduce the risk of relapse or recurrence of depression. Many patients do not receive adequate follow-up after treatment and do not persist with ongoing preventive measures,³³⁸ partly because primary care models tend to emphasise acute care and rely on patient-initiated follow-up.

Chronic disease management models have shown the effectiveness of relatively simple interventions, such as ensuring regular follow-up during treatment, proactive ongoing telephone follow-up of patients at risk, support for self-management, and relapse-prevention planning after recovery from an acute episode.¹⁴²

Adults/pakeke taking antidepressants should normally continue to take them for at least 6 months after remission of a first episode of depression as this greatly reduces the risk of relapse.³⁵⁴ After a second or subsequent episode, antidepressants should be continued for at least 2 years.⁹ Maintenance therapy needs to address not only the issue of how long the person should continue taking antidepressants but also what other nonpharmacological strategies are necessary for this individual.²⁷⁷ Various psychological therapies (such as CBT, behavioural therapy [BT], interpersonal psychotherapy [IPT] and mindfulness-based cognitive therapy) either alone or in combination with antidepressants, have been shown to reduce the long-term risk of relapse.^{334,335,355-357} The relevant studies delivered therapy in a variety of formats, ranging from 8 sessions weekly,^{335,355} to 16 sessions over 20 weeks plus ongoing booster sessions.³⁵⁷

Once the patient has recovered from an acute episode and before he/she is discharged, the practitioner should discuss with the patient the need to be vigilant for early indications of relapse.³⁵⁸ The patient should be strongly encouraged to continue with preventive measures, such as maintaining lifestyle changes and complying with maintenance therapies. Early warning signs and triggers of possible recurrence should be discussed and the patient should have planned in advance what steps to take, if necessary.¹⁴² Appendix F: Self-management Resources includes a web address for

a self-management resiliency tool available from the Mental Health Foundation of New Zealand, which has a focus on relapse prevention strategies.

The GDT notes that it is good practice to see patients face-to-face to review progress when renewing 3-monthly scripts for antidepressant medication. The practitioner could also consider regular ongoing contact with patients considered at high risk of relapse after treatment has been completed.^{9,142}

Withdrawing antidepressants

Antidepressants should normally be withdrawn over a 4-week period.⁶⁵ Patients should be warned that they may experience withdrawal symptoms, which are usually mild and self-limiting. Common withdrawal symptoms for SSRIs are flu-like symptoms, 'shock-like' sensations, dizziness, excessive dreaming, insomnia and tearfulness.⁶⁵ Withdrawal of TCAs can cause flu-like symptoms and insomnia.⁶⁵ If symptoms are severe, the patient may need to resume taking the antidepressant and reduce it more slowly.⁶⁵

6.3 Specific interventions: evidence review

A systematic review of randomised controlled trials (RCTs) of therapies for depression in adults in primary care was undertaken. In some areas the primary care evidence was scanty and inconsistent, and evidence from other settings was taken into consideration. Where primary care evidence was lacking, evidence from community settings and/or secondary care was included. Studies that were included in the NICE (2004) guideline⁶⁵ or highlighted by the GDT were also considered.

Therapies of interest included:

- guided self-help
- exercise
- psychological therapies
- pharmacological therapies
- complementary and alternative medicines (CAMs).

Guided self-help

Guided self-help refers to the provision of psychological therapies via written or IT-based materials (either computerised or web-based) which are usually based on the strategies of CBT. The process may involve a limited amount of health-practitioner guidance and feedback. Most of the studies in this area have been conducted among volunteers rather than primary care populations.³⁵⁹⁻³⁶⁴

A systematic review³⁶⁵ of eight RCTs conducted in primary care evaluated the effectiveness of written interventions based on behavioural principles for treating anxiety and depression or depressive symptoms. The primary studies were generally of poor quality and the review found no conclusive evidence of lasting clinical benefit in the guided self-help group.

Three relevant RCTs have been published since this systematic review, with mixed results. Two evaluated the use of CBT booklets with practice nurse or assistant psychologist support. One found no benefit at 3 months in the intervention group compared to waiting list controls,³⁶⁶ while the other reported cost-effective clinical benefits to the intervention group compared with usual GP care.³⁶⁷ The third RCT found improved knowledge in the intervention group compared to the group having GP care alone, but there was no difference in depression outcomes.³⁶⁸

A health technology assessment included three RCTs evaluating the use of computerised CBT (CCBT) for depression and/or anxiety. Computerised CBT comprises interactive computer sessions, typically completed weekly for 6–8 weeks at the GP practice, plus homework projects. Progress reports are delivered to the practitioner at the end of each session. Only one of the RCTs in this review was clearly conducted in a primary health care setting: this study found CCBT more effective than treatment as usual for patients with depression and/or anxiety, but only 60% of patients were included in post-treatment analysis.³⁶⁹ The other two RCTs found CCBT equally as effective as therapist-delivered CBT.³⁷⁰

A systematic review of RCTs of web-based interventions for mental disorders³⁷¹ found three trials of interventions designed to reduce depressive symptoms. Two of these studies were conducted among volunteers with depressive symptoms in the community^{372,373} and one among patients in a managed care organisation.³⁷⁴ One of these studies reported positive results, reporting that both MoodGym (which is CBT based) and Blue Pages (a depression literacy site) significantly reduced symptoms; MoodGym also improved dysfunctional thoughts.³⁷²

Guided self-help: issues for evidence-based practice

There is insufficient evidence of the efficacy of book-based guided self-help in primary care populations. However, there is evidence suggesting that computerised CBT may be effective for the treatment of mild and moderate depression. The GDT notes that the applicability of CCBT may be limited by the need for patient computer literacy.

There are promising indications that web-based self-management interventions may be useful for treating depressive symptoms in primary care patients.³⁷² Since patients are likely to consult websites of their own accord, practitioners may choose to provide them with guidance on sites supported by some evidence of efficacy (eg, MoodGym).

Also promising is a web-based patient education programme which allows general practitioners to remotely monitor symptom and well-being indicators. It is available at <http://www.climategp.tv> and is currently the subject of a RCT and a study of utilisation.³⁷⁵

Exercise

Primary care evidence

We found only two RCTs conducted in primary care settings.^{364,376} The participants in these studies were older adults and this evidence is reported in Chapter 8: Special Issues for Older Adults/Koroua/Kuia.

Evidence from mixed and other settings

The NICE (2004)⁶⁵ guideline included nine studies of exercise but none were primary care based; all recruited participants through volunteer databases, media advertising or secondary care. In these populations, structured and supervised exercise had a clinically significant impact on mild or moderate depressive symptoms. There was no good evidence to support one form of exercise over another, nor was there any relevant evidence on relapse prevention or on the provision of 'maintenance' exercise programmes. This evidence from volunteer populations may be of limited relevance to a primary care population.

A large informal survey was conducted on the Australian Black Dog website asking people with depression to rate the effectiveness of different interventions. People with depression (from the general population) rated exercise very highly as a self-management strategy: of 2692 adult Australian respondents who had been depressed for at least 2 weeks, 80% had tried exercise and 56% found it at least moderately effective.³⁷⁷ It was the most highly-rated self-management strategy in this survey. Again, this evidence is from a volunteer population and so it may have limited relevance for a general primary care population.

Exercise: issues for evidence-based practice

These studies of exercise for depressive symptoms among younger adults were undertaken among highly-motivated populations, and it would seem unlikely that many primary care patients with depression would be able to undertake such intensive activity. However, the evidence suggests physical activity may be helpful and exercise is rated highly as an intervention strategy among people who have experienced depression.³⁷⁷

Psychological therapies

Primary care evidence

Very few RCTs of psychological therapies for depression have been conducted among patients recruited from primary care and moreover the comparator in such studies is often 'treatment as usual', which varies significantly between different practices. Most of the evidence on psychological therapies derives from studies of patients referred to specialist services or volunteers recruited from the community.

The NICE (2004) guideline⁶⁵ included 11 RCTs of psychological therapies recruited in primary care, three involving CBT,³⁷⁸⁻³⁸⁰ two involving IPT,^{380,381} three involving PST^{141,382,383} and three involving 'counselling', defined as counselling that did not use a single approach (non-specific counselling).^{141,384,385} In most cases the comparator was usual GP care, including antidepressants.

There was insufficient evidence to determine the effectiveness of CBT versus usual GP care.³⁷⁸⁻³⁸⁰ Both PST and IPT were more effective than usual GP care,^{380,381} though the evidence for PST was restricted to people with mild depression only. There was no evidence that the outcome differed if PST was delivered by a general practitioner or by a nurse.

The three studies of non-specific counselling³⁸⁴⁻³⁸⁶ used widely-differing methods and one included patients with a range of primary diagnoses other than depression.^{65,386} They concluded that non-specific counselling was effective for patients with mild to moderate depression of recent onset.

Two studies in the NICE guideline,^{334,335} compared mindfulness-based cognitive therapy (MBCT) with usual care for the prevention of relapse over 60 weeks in people with a history of depression. In people who had had more than two previous episodes of depression, there was strong evidence favouring MBCT in reducing the risk of relapse. Mindfulness-based cognitive therapy was also associated with fewer residual symptoms and enabled substantial reductions in the use of antidepressants.

A RCT³⁸⁷ published since the NICE (2004) guideline⁶⁵ randomised 247 primary care patients with depression, anxiety or distress to a problem-solving intervention or generic support, both provided by a specialist community mental health nurse, or to usual GP care. Community mental health nurse support demonstrated no overall clinical or economic advantage over usual GP care. All three groups were much improved at 3 months, with no significant difference apart from greater satisfaction in the groups with community mental health nurse support.

A recent unpublished primary care-based study³⁵⁵ with 1-year follow-up compared MBCT with continuation of antidepressants for the prevention of relapse in people with at least three previous episodes of depression. Participants in the intervention group were 'tapered off' their antidepressants. MBCT was comparable to antidepressant treatment in preventing relapse, was associated with fewer residual symptoms and enabled substantial reductions in the use of antidepressants.

Evidence from mixed and other settings

NICE (2004)⁶⁵ pooled the findings of nine RCTs that utilised short-term psychological therapies (counselling, PST or CBT, in most cases 6–8 sessions over 10–12 weeks) and recruited participants either in primary care (six studies) or among volunteers (three studies). The primary care studies are among those discussed in the previous section.^{141,383-386} Short-term psychological therapies were more effective and more acceptable to patients than either placebo or waiting-list control. Short-term

psychological therapies were of equivalent efficacy to other treatments (in most cases antidepressants and GP care), but were better tolerated.

A recent New Zealand study³⁸⁸ compared CBT and IPT in 177 outpatients with depression and found CBT and IPT equally effective for mild and moderate depression, with about 55% of patients experiencing at least a 60% reduction in symptom scores over 16 weeks. Cognitive behavioural therapy was more effective than IPT in severe depression. Melancholia did not predict poor response to either therapy. Other evidence from mixed settings suggests that CBT, IPT and BT are as effective as antidepressants^{65,331-333} and that CBT and BT may have a longer-lasting effect.^{65,389} Both IPT and CBT may be useful as a maintenance treatment.⁶⁵ Combined therapy with CBT and antidepressants may enhance the effectiveness and tolerability of treatment, particularly for people with more severe depression⁶⁵ and may also reduce relapse rates in patients with residual symptoms.⁶⁵

A 2006 meta-regression of studies from a variety of settings found that the mode of delivery of CBT did not impact on its effectiveness, although the evidence for telephone and computerised CBT was limited.³⁹⁰ It was unclear to what extent the professional background of the therapist affected efficacy: it was clear that trained psychologists delivered effective therapy, but there was insufficient evidence to determine the effect of delivery by other health care practitioners.³⁹⁰

Psychological therapies: issues for evidence-based practice

The evidence on psychological therapies applies to 'textbook' approaches which target depression and have a behavioural element, such as CBT, BT, IPT, MBCT and PST. The GDT notes that in practice most therapists use a less structured approach than the methods used in research and it is unclear whether this influences clinical outcomes.

Given the resource problems with formal therapy, it may be useful for members of primary care teams to develop the skills to teach simple cognitive strategies such as PST, activity scheduling and goal-directed therapy. Ideally, these therapies will be provided within primary care,³⁵² but some skills may need to be introduced from elsewhere. Any psychological therapy offered in the treatment of depression should use a recognised therapeutic approach (eg, CBT, IPT or PST) which focuses on depression, resilience and behavioural support, or includes components targeted to the individual's specific problem.^{9,65}

Other features likely to affect outcomes but which have not been subject to controlled comparison are a good therapeutic relationship and (on the part of the patient) motivation, positive expectations and receptiveness to the therapeutic model.³⁹¹

The NICE (2004) findings on non-specific counselling derive from three studies of widely differing and eclectic approaches and need to be viewed with caution. In the opinion of the GDT, psychological therapies that encourage rumination may not be helpful for people with depression and may potentially cause harm. Currently, there is a trend towards the use of specific interventions such as behavioural activation, a type of behavioural therapy that is a component of CBT. In the opinion of the GDT,

this approach is promising, though as yet there is no relevant evidence from a primary care setting.

Secondary care evidence supports the use of combined psychological and antidepressant therapy, particularly for people with more severe depression.⁶⁵

Pharmacological therapies

Primary care evidence

A systematic review³⁹² of 10 RCTs evaluated the efficacy and tolerability of SSRIs and TCAs among patients with depressive disorders or subthreshold depression in primary care. Both SSRIs and TCAs were more effective than placebo, with pooled estimates showing a relative benefit of 1.24 (95% CI 1.11 – 1.38) for improvement with TCAs and 1.30 (95% CI 1.15 – 1.46) for SSRIs. The review calculated the overall number of patients who would need to be treated in order to benefit (or harm) one patient. The number needed to treat for TCAs ranged from 7 to 16, and for SSRIs it was 7 to 9. The numbers needed to harm (for withdrawal due to side effects) ranged from 4 to 30 for TCAs and 20 to 90 for SSRIs (Arroll, B 2007 pers. comm.). Medium dose (75–100 mg), as well as high-dose TCAs were effective; 56% to 60% of patients responded to active treatment compared with 42% to 47% for placebo (Arroll, B 2007 pers. comm.). Most of the studies were small, of limited quality and industry-funded, and the review authors note the possibility of publication bias, whereby studies showing positive results for the intervention are more likely to be published than studies with inconclusive or negative results.

The NICE (2004)⁶⁵ guideline included 13 studies of antidepressants set in primary care³⁹³⁻⁴⁰⁴ all of which compared the efficacy of different antidepressants. Three studies also included a placebo arm.^{396,401,403} SSRIs were relatively well-tolerated and of equivalent efficacy to alternatives, such as the TCA amitriptyline, and also venlafaxine, that are generally less well-tolerated.⁶⁵

A recent health technology assessment by the Agency for Healthcare Research and Quality (AHRQ) evaluated the comparative effectiveness of second-generation antidepressants (see Box 6.5).³⁵¹ This review drew a distinction between trials of efficacy and of effectiveness. Efficacy trials were defined as those conducted in carefully-selected populations under carefully-controlled conditions, while effectiveness trials were those designed to have greater generalisability to typical practice. Only seven trials (of 187 considered) met the AHRQ criteria for effectiveness and were considered to have good applicability to primary care populations.^{336,405-411} A further 180 studies were also included in the AHRQ (2007) review,³⁵¹ of which 139 were RCTs. For treatment of major depression, there were no substantial differences in effectiveness among second-generation antidepressants. This conclusion was based on direct evidence from three effectiveness studies,⁴⁰⁵⁻⁴⁰⁷ as well as indirect evidence from efficacy trials.

The AHRQ (2007) health technology assessment³⁵¹ concluded that there was insufficient evidence to determine the role of antidepressants for dysthymia. They noted that one fair-quality effectiveness study^{408,409} found no difference between the SSRI paroxetine and placebo, except for people aged 60 years and over, who showed greater improvement on paroxetine.³⁵¹

For managing treatment-resistant depression (in this context, depression not responding to initial antidepressant treatment), results from two effectiveness studies^{336,411} were conflicting. One of these two studies³³⁶ was rated as good quality by the authors of the AHRQ review,³⁵¹ while the other⁴¹¹ was rated as fair quality only. The study rated as good quality³³⁶ found no significant differences in effectiveness between different antidepressants. No placebo-controlled evidence was found.³⁵¹

No effectiveness studies in AHRQ (2007) provided evidence on the role of second-generation antidepressants in maintaining response, preventing relapse, treating recurrent depression or treating depression with specific symptom clusters.³⁵¹

Evidence from mixed and other settings

Evidence from other settings generally supports the findings of the primary care and effectiveness studies described in the previous section.

NICE (2004)⁶⁵ found strong evidence that antidepressants have greater efficacy than placebo in achieving a 50% reduction in depression scores in severe and very severe depression, with some evidence for a similar effect in moderate depression. The reviewers note that these results should be treated with caution because of publication bias, as studies with positive findings are more likely to be published.

For patients with atypical depression, NICE (2004)⁶⁵ found evidence suggesting no clinically significant difference in efficacy between the SSRI fluoxetine and phenelzine (a non-selective MAOI); there was insufficient evidence on other outcome measures. A recent meta-review of systematic reviews⁴¹² reported similar findings, but noted the scarcity of randomised evidence in this area.

Tricyclic antidepressants may be more effective than SSRIs in patients with melancholic depression,⁴¹³ but the relevant evidence is inconsistent and there are very few randomised studies.⁴¹³⁻⁴¹⁵

Indirect evidence from efficacy trials supported the AHRQ (2007)³⁵¹ findings from effectiveness trials and did not reflect any substantial differences between second-

Box 6.5	First-generation and second-generation antidepressants
First-generation antidepressants include TCAs and non-selective monoamine oxidase inhibitors (MAOIs). More recently developed second-generation antidepressants include SSRIs, serotonin and noradrenaline reuptake inhibitors (SNRIs) and moclobemide.	

generation antidepressants in comparative effectiveness in adults. These trials did not support the selection of one second-generation antidepressant over another for specific symptoms such as anxiety, melancholia, psychomotor change, pain, somatisation, fatigue or loss of energy. For these symptoms evidence was either inconclusive, insufficient or absent.

The AHRQ review found that remission rates were low: over 50% of patients treated with second-generation antidepressants as first-line treatment did not achieve remission, the goal of depression treatment, and almost 40% percent failed to respond. There was insufficient evidence to determine patient factors that could reliably predict response or non-response to an individual drug.³⁵¹ Although limited evidence indicated that second-generation antidepressants were similar in efficacy for treating patients who had failed to respond to a first-line agent, a substantial proportion of these patients did not achieve response or remission with second-line treatment. The reviewers suggested that combined pharmacological and psychological treatment is indicated for patients who do not respond to first- or second-line treatment.³⁵¹

There is strong evidence of publication bias among trials of antidepressants, and meta-analyses that included unpublished data^{416,417} have shown a smaller benefit for antidepressants relative to placebo. The most recent publication was a meta-analysis of 35 studies of efficacy trials of fluoxetine, venlafaxine, nefazodone and paroxetine by Kirsch and colleagues.⁴¹⁷ The authors utilised data that had been submitted to the US Food and Drug Administration by drug companies when applying for permission to market the drugs; the companies are required to submit all relevant data. The mean standardised difference in effect size between antidepressant and placebo was 0.32, which falls below the NICE criteria for clinical significance (0.50).⁴¹⁷ However, antidepressants did exceed this criterion among patients with very severe depression.

A systematic review of the long-term treatment of depression with antidepressants found some evidence to support the effectiveness of augmenting SSRIs (ie, adding a second antidepressant) in patients who had little or no response to acute phase therapy.³⁵⁴ However, there was little empirical support for other strategies, such as dosage increase or switching to a different class of antidepressants, though evidence was limited. Continuation of the same antidepressant at the same dose induced remission in a substantial minority of patients even if they did not show remission at the end of the acute-phase treatment. The same review found strong evidence that such long-term antidepressant treatment reduced the risk of relapse in patients who achieved remission on acute-phase therapy. Over 1–3 year follow-up periods, the average rate of relapse on placebo was 41%, compared with 18% on active treatment. The benefit of ongoing antidepressant treatment (in reducing the risk of relapse) did not diminish regardless of the length of follow-up in the studies included, up to 36 months.³⁵⁴

Pharmacological therapies: issues for evidence-based practice

Antidepressants are not recommended for the treatment of mild non-melancholic depression; secondary care evidence suggests that the benefits are unlikely to outweigh the side effects.^{418,419} However, antidepressants are effective in primary care and are recommended as a good option for moderate or severe depression.

Kirsch and colleagues (2008)⁴¹⁷ have challenged the efficacy of antidepressants for all but the most severe cases of depression. Although their data suggest that antidepressant efficacy may be less than generally accepted, there was a superior effect in the antidepressant group compared with placebo, albeit below the somewhat arbitrary NICE criterion for clinical significance.³⁴⁸ The studies pooled by Kirsch et al.⁴¹⁷ may have been too short to show an effect: their mean duration was around 6 weeks, whereas one third of responders and one half of those who achieved remission in the Sequenced Treatment Alternatives to Relieve Depression (STAR*D) trial took longer than 6 weeks to respond.³⁵³ Furthermore, the GDT notes that many of the trials included in the meta-analyses included volunteers rather than patients representative of a primary care population. However, the meta-analysis does confirm the trend for antidepressant effectiveness to increase with the severity of depression, if only because the placebo effect is less pronounced in this group.⁴¹⁷

There appears to be no substantial difference in effectiveness between different types of antidepressant, either in the acute stage of treatment or in maintaining remission, nor is there evidence to support the selection of one second-generation antidepressant over another for specific symptoms such as anxiety or melancholia. SSRIs are generally better tolerated than other types of antidepressant and are therefore appropriate as a first-line choice of antidepressant.⁶⁵

The GDT notes that while it is reasonable to expect some improvement within 2 weeks, response (50% or greater decrease in symptom severity) may take up to 4–6 weeks and remission usually takes longer. Therefore it is important to ensure an adequate dose and duration of treatment.⁶⁵ A substantial number of patients who do not achieve remission within 6 weeks will do so if they continue taking the same drug,³⁵³ even if the dosage is not increased.³⁵⁴

There is very strong evidence, largely from secondary care, that maintenance treatment with an antidepressant for up to 36 months after remission reduces the risk of relapse. The desirable length of therapy for an individual patient will depend on their risk of relapse and on how tolerable they find the antidepressant.³⁵⁴

There are risks associated with the use of antidepressants in pregnancy (see Chapter 7: Special Issues: Women with Mental Disorders in the Antenatal and Postnatal Period). As pregnancy may not be confirmed until it is relatively well-advanced, it is important that women with depression who are of child-bearing age are aware of these risks (and of the risks of untreated depression). Women with depression should be encouraged to discuss pregnancy plans with their practitioner.¹⁰¹

Complementary and alternative medicines

Four Cochrane reviews evaluated CAMs for treating depressive disorders or reducing depressive symptoms. The interventions included St John's Wort,²⁸³ acupuncture,⁴²⁰ inositol⁴²¹ and folate.⁴²² Subsequent systematic reviews investigated the role of acupuncture⁴²³ and omega-3 oils.²⁸⁵ The RCTs in these reviews were recruited in a variety of community, inpatient and outpatient settings of doubtful applicability to primary care. There was evidence from mixed settings that St John's Wort (*Hypericum*) may be beneficial in patients with mild to moderate depression.²⁸³ However, St John's Wort is known to have clinically significant interactions with a number of frequently used drugs, such as the contraceptive pill.²⁸³ Commercially available preparations standardise only one active constituent, so different batches may not be therapeutically equivalent.⁴²⁴

The review of omega-3 oils²⁸⁵ reported a statistically significant reduction in depressive symptoms in the intervention group in three out of five studies of adults with unipolar depression. The patients in these three small studies were taking antidepressants and had moderate to severe depression. The intervention was well-tolerated, apart from mild gastrointestinal effects reported in some studies.

There was insufficient good-quality evidence to evaluate the effectiveness of acupuncture, inositol, folate or other alternative therapies for depression.

Complementary and alternative medicines: issues for evidence-based practice

There are safety concerns about the use of St John's Wort. Patients using or considering using St John's Wort should be advised of possible drug interactions. There is insufficient evidence to support the use of any other CAMs.

Although the evidence for omega-3 oils is not conclusive, it is promising, especially as there is biological plausibility that omega-3 oils may have an antidepressant effect. It is unclear which omega-3 fatty acid (or combination of acids) is most effective and whether it depends on a previous deficiency or has primary effects.^{425,426}

7 Special issues: women with mental disorders in the antenatal and postnatal period

This chapter focuses on special issues in the recognition and assessment of common mental disorders and the management of depression in women in the antenatal and postnatal period.

Recommendations	
Women in the antenatal and postnatal period	
As part of routine antenatal care, the practitioner should enquire whether a woman has any history of mental disorder or any family history of mental illness in the antenatal or postnatal period	C
At a pregnant woman's first contact with primary care, her 'booking' visit and 6-week postnatal check, the practitioner should consider the use of the verbal 2–3 question screening tool for depression as part of routine assessment	C
A woman with depression in the antenatal or postnatal period requires full discussion of the risks and benefits of treatment options and the risks of untreated depression. The uncertain state of the evidence should be acknowledged	C
There should be close collaboration and sharing of information between the midwife, general practitioner and other practitioners involved in the care of a woman with antenatal or postnatal depression. All relevant information should be available to the Lead Maternity Carer	C
Nonpharmacological interventions such as enhanced social support and/or a psychological intervention should be considered before prescribing medication for antenatal or postnatal depression, especially for a woman with mild symptoms or in very early pregnancy	C
If a woman's response to a verbal 2–3 question screening tool arouses concern about a possible mental disorder (or if other issues do so) she should normally be referred promptly for further clinical assessment by her general practitioner/practice nurse team. This should include a check for suicidal ideation or intent	C

continued over...

Recommendations continued...

Women in the antenatal and postnatal period	
If a possible mental disorder or a history of significant mental disorder is identified in a woman in the antenatal or postnatal period, her general practitioner/practice nurse team should be made aware, even if no referral is made (eg, referral is declined), provided the woman consents	C
A brief psychological intervention (eg, 6–8 sessions of non-directive counselling, interpersonal psychotherapy [IPT] or cognitive behavioural therapy [CBT]) should be considered as a first-line intervention in the management of a woman with mild to moderate depression in the antenatal or postnatal period	C
For a woman with depression in the antenatal or postnatal period who does not respond to initial treatment, a structured psychological therapy (eg, CBT or IPT) could be considered, in consultation with maternal mental health services	C
An antidepressant may be considered as first-line treatment for a woman with moderate to severe depression in the antenatal or postnatal period, after thorough discussion of the likely benefits and possible risks of treatment	C
A woman with severe depression in the antenatal or postnatal period should be managed in consultation with maternal mental health services or other appropriate psychiatric services	C
If a woman who is pregnant or planning pregnancy is being treated with an antidepressant, her treatment preference, previous history and risk should be reviewed. If appropriate, attempts should be made to withdraw the antidepressant and substitute an alternative treatment and/or ensure that the antidepressant with the lowest risk profile is used	C
Grades indicate the strength of the supporting evidence, rather than the importance of the recommendations – refer to Appendix B for grading details	

Good practice points

Women in the antenatal and postnatal period	
At a pregnant woman's first contact with primary care, at her 'booking' visit and 6-week postnatal check, the practitioner should consider the use of verbal 2–3 question screening tools for anxiety and substance abuse as part of routine assessment	✓
A practitioner should regularly review his/her practice in relation to antidepressant prescribing during the antenatal or postnatal period and consider seeking specialist advice when initiating antidepressant treatment in a woman who is pregnant or breastfeeding	✓

continued over...

Good practice points continued...**Women in the antenatal and postnatal period**

A practitioner should support breastfeeding in a woman with depression in the postnatal period who opts to take antidepressants, provided she is well-informed about known risks and benefits	✓
A woman with depression in the postnatal period should be encouraged to attend a mother and baby support group	✓
Opinion of the Guideline Development Team, or feedback from consultation within New Zealand where no evidence is available	

Much of the evidence on the assessment of common mental disorders and the management of depression in the general adult population applies equally to women in the antenatal and postnatal period. However, there are specific issues that differ in this population¹⁰¹ and these are outlined in this chapter.

7.1 Mental disorders in the antenatal and postnatal period

Pregnancy and childbirth are critical times of psychological adjustment for women and are often accompanied by sleep disturbance, tiredness, loss of libido and anxious thoughts about the infant.¹⁰¹ In this context some changes in mental state and functioning can be regarded as a normal part of the process.¹⁰¹ However, these significant and stressful life events may increase the risk of a new mental disorder or precipitate relapse of a pre-existing disorder, particularly in women with other known risk factors.¹⁰¹ There is increasing evidence of the risks of untreated mental disorders in the antenatal and postnatal period, including potentially enduring harm to the infant.⁴²⁷⁻⁴²⁹ The potential negative impact of a maternal mental disorder favours more urgent identification and intervention than might otherwise be the case.¹⁰¹

The characteristics of most mental disorders are similar in pregnancy and the postnatal period to those experienced at other times. However, psychotic disorders may develop more rapidly and be more severe in this population¹⁰¹ and childbirth can trigger a severe bipolar episode, as either a first presentation or a relapse.^{430,431} Although suicide following childbirth is rare, a UK study found it to be the leading cause of maternal death.⁴³² In most cases it was associated with postnatal recurrence of a severe pre-existing mental disorder.

At 6-months post partum about 12% of women report significant distress related to birth trauma, and during the first year post partum about 2% of these women meet the diagnostic criteria for post-traumatic stress disorder (PTSD).⁴³³

Depression is common in the antenatal and postnatal period: the best estimates suggest that up to 13% of women have an episode of major or minor depression

during pregnancy, of which up to 6% meet diagnostic criteria for major depression. Up to 19% have an episode of major or minor depression within 3 months of childbirth, of which about 7% are major depression.¹⁰⁰

Depression is associated with a wide range of negative outcomes potentially affecting the mother, newborn and wider family. These include obstetric and perinatal difficulties,¹⁰⁵ poor mother-child interaction,¹⁰⁶ mental disorders in male partners¹⁰⁹ and long-term developmental problems in offspring.^{107,108,434-436} In severe cases there is a risk of child/fetal neglect or abuse and maternal self-harm.¹⁰¹

A systematic review of literature on risk factors for postnatal depression found that potentially important factors were the mother's level of social support, life events and psychiatric history.¹⁰¹ Depressed mood or anxiety during pregnancy were the strongest predictors of postnatal depression.¹⁰¹ However, it has been reported that many women presenting with postnatal depression in primary care in New Zealand do not have identifiable risk factors, such as poor social support or partner relationship problems.¹⁰³

For most women with an identified or suspected mental disorder during the antenatal or postnatal period, assessment and treatment will take place in primary care, coordinated by the general practitioner.¹⁰¹

7.2 Screening of women in the antenatal and postnatal period

Women with a previous history of a serious mental disorder face a substantial risk of recurrence following delivery.¹⁰¹ The practitioner should ask a pregnant woman about any history of mental disorder or any family history of mental illness in the antenatal or postnatal period, as part of routine antenatal care during her pregnancy.¹⁰¹ An appropriate management plan can then be set up for those at risk.⁴³² It is inadvisable to use the term postnatal depression as a generic term for all types of postnatal psychiatric disorder, as it may give false reassurance regarding the nature of previous episodes of illness.⁴³⁷

There has been debate in the literature about targeted screening for common mental disorders in the antenatal and postnatal period in primary care, and which tool(s) should be used.^{101,438,439} Targeted screening is defined as administration of a tool designed to identify common mental disorders, administered to a selected patient population (in this case, women in the antenatal and postnatal period) presenting in primary care.

7.3 Screening and assessment tools: evidence review

Screening

No randomised controlled trials (RCTs) were found that evaluated routine screening (versus not screening) for common mental disorders in the antenatal or postnatal period.

Assessment tools

Primary care evidence

Studies of the validity and utility of screening, case-finding and monitoring tools for common mental disorders in the antenatal and postnatal period were sought. Three guidelines were found.^{440,441} The most recent of these¹⁰¹ evaluated studies of a range of diagnostic tools, but only two of the primary studies were conducted in primary care, one in Australia⁴⁴² and one in the UK.⁴⁴¹

The Australian RCT reported that the positive predictive value of the Edinburgh Postnatal Depression Scale (EPDS) in primary care was 49% to 84% but that its sensitivity and specificity in this setting remain unknown. Its use has integrated well into routine care at an Australian Maternal and Child Health Centre.⁴⁴³ The UK study, which evaluated screening using the EPDS, reported that routine screening by health visitors in a UK community-health setting might not be feasible in deprived areas without extra resources: overall screening rates at 8 months were only 55%.⁴⁴¹ It is unclear whether the findings of these studies are generalisable to a New Zealand context.

National Institute for Health and Clinical Excellence (NICE) 2007¹⁰¹ also reported the findings of a review commissioned by the UK National Screening Committee⁴⁴⁰ which questioned the acceptability of the EPDS in primary care. However, a recent survey conducted in Australia, demonstrated the acceptability of the EPDS in a community sample of 407 women receiving antenatal care from midwives.⁴³⁹

The EPDS has been extensively used to screen for postnatal depression in research and clinical practice in New Zealand.⁴⁴⁴⁻⁴⁴⁷ A large screening programme⁴⁴⁷ (14,127 screens) used the EPDS to screen for postnatal depression in New Zealand general practice at child immunisation visits. Twelve percent of women exceeded a cut-off of ≥ 13 on the EPDS, and were offered a free GP consultation for assessment and treatment options. High-needs patients screening positive had access to free psychological services. The screening programme demonstrated good utility in reaching different ethnic and socioeconomic groups and only 5% of women declined further consultation/treatment.⁴⁴⁷

Secondary care evidence

Based on evidence from secondary care, a US health technology assessment⁴⁴⁸ concluded that the accuracy of assessment tools for depression used in women with postnatal depression was fairly consistent with results reported for their use in general primary care settings. However, the authors noted that the lack of precision in the results, particularly with respect to diagnostic sensitivity, precluded the recommendation of any particular screening instrument or any particular cut off. Based on similar evidence, the Scottish Intercollegiate Guidelines Network (SIGN) 2002 guideline⁴⁴⁹ recommends the routine use of the EPDS for screening for postnatal depression but notes that the EPDS is not a diagnostic tool and that the diagnosis of postnatal depression requires clinical evaluation.

Screening and assessment: issues for evidence-based practice

There is evidence that postnatal depression is inadequately recognised and treated in New Zealand.⁴⁴⁶ In view of the potentially very serious consequences of failure to identify a mental disorder in women in the antenatal or postnatal period, a policy of targeted screening for mental disorders in all women in the antenatal or postnatal period is recommended. At a pregnant woman's first contact with primary care, at her maternity care 'booking' visit and 6-week postnatal check, practitioners should consider asking questions that screen for depression as part of routine assessment.¹⁰¹ In the opinion of the GDT, the practitioner should also consider using questions to screen for anxiety and substance use (see Box 5.2).

For around 22% of women with postnatal depression, onset may occur later than 6 weeks after childbirth.⁴⁵⁰ The infant's 3-month or 5-month immunisation visit presents a further opportunity for maternal screening.⁴⁴⁷ The GDT notes that maternal screening may in future become part of Ministry of Health recommendations for Well Child packages.

Although the verbal 2–3 question screening tools have not been evaluated specifically for use in the antenatal or postnatal period, they have been validated for identifying common mental disorders in adults in primary care (see 5.4 Assessment Tools: Evidence Review). Moreover, there is evidence that targeted screening of selected high-risk adults is feasible, that it increases the identification rate of common mental disorders in adults in primary care and also increases the likelihood of general practitioner intervention (see 5.2: Targeted Screening of High-risk Groups, Targeted Screening: Evidence Review). Women in the antenatal and postnatal period are regarded as a high-risk group because mental disorders occurring during pregnancy and the postnatal period may have greater adverse consequences for all concerned than they do at other times.¹⁰¹ The GDT notes that, in this population as in others, routine screening needs to be accompanied by easy access to effective and acceptable treatment where required, and that research is needed to determine whether screening for common mental health disorders results in improved long-term outcomes.

With regard to tools for further assessment, there is no conclusive evidence about the psychometric accuracy, particularly the sensitivity, of assessment tools for antenatal and postnatal depression.⁴⁴⁸ Tools found to be useful and readily available in clinical practice include the EPDS, the Patient Health Questionnaire for Depression (PHQ-9), and the Hospital Anxiety Depression Scale (HADS).^{101,451} The GDT notes that the EPDS and HADS both identify anxiety symptoms, which are prominent in postnatal depression.

7.4 Further assessment where there is concern

If a woman's response to any of the verbal 2–3 question screening tools arouses concern (or if other issues do so), a full clinical assessment is indicated. If the screen has been administered by a practitioner outside of the general practice setting (eg, a midwife), the woman should normally be referred promptly to her general practitioner/practice nurse team.

If a practitioner outside of the general practice setting detects a possible mental disorder or a history of significant mental disorder in a women in the antenatal or postnatal period, the general practice team should be advised even if no referral is made (eg, referral is declined), provided the woman consents. This will foster continuity of ongoing care.¹⁰¹

Assessment and monitoring tools may be used as an optional aid to assessment by the general practice team, though they are not diagnostic instruments and do not reduce the necessity for thorough clinical evaluation.¹⁰¹ Assessment should include a check for suicidal ideation or intent.

The practitioner could consider using one of the following tools:

- EPDS
- PHQ-9
- HADS.

A web link to the PHQ-9 and the EPDS can be found in Appendix D: Assessment Tools for Common Mental Disorders.

The symptoms of PTSD overlap with some of those of postnatal depression (and women with PTSD score highly on the EPDS). Therefore it is advisable for the practitioner to ask a woman about her experience of the birth and be alert to symptoms such as flashbacks and nightmares, in order that post-traumatic stress as a result of childbirth is not overlooked in assessment of potential postnatal depression.⁴³³

Advice for women

It may be helpful to advise women that the 'postpartum blues' are a different entity from depression. The 'blues', with characteristic tearfulness, anxiety and low mood, are relatively common but are transient, peaking at 3–5 days after birth and resolving by 10–14 days.⁴⁵²

7.5 Management of antenatal and postnatal depression

Approach to intervention

The evidence relating to specific interventions for depression in women in the antenatal and postnatal period is presented in detail in later sections of this chapter (see 7.6: Specific Interventions: Evidence review). However, the relevant evidence is very limited in this population, and practice must be guided largely by patient preference and by the practitioner's clinical experience.⁴⁵³

At the primary care level, there should be close collaboration and sharing of information between the midwife, general practitioner and other practitioners involved in the care of a woman with depression in the antenatal or postnatal period. All relevant information should be available to the Lead Maternity Carer (with the woman's consent). Every effort should be made to foster mutual trust and respect between the woman and all practitioners involved in her care, and to maintain a high level of support for other children/family/whānau members involved. The therapeutic relationship may be even more important than the specific treatments offered.¹⁰¹

The GDT notes that a woman with depression in the antenatal or postnatal period is likely to experience increased distress arising from concern about her ability to care for the child. There is no evidence to suggest that a good response to treatment is less likely than at other life stages, and it may be helpful to provide this reassurance to the woman.

A woman will require thorough discussion of the likely benefits and possible risks of treatment and also the potential risks of untreated depression. Advising in this area can be very challenging and time-consuming. It is important to avoid an instructive prescriptive approach and to fully acknowledge the uncertainty of the evidence.¹⁰¹ The woman's partner and/or other family/whānau should be involved in the discussion if possible.⁴⁵³ Partners in particular can be a key source of practical and emotional support and may be able to mediate between the mother and any family members who find it difficult to understand the nature of postnatal depression.⁴⁵⁴ Treatment

planning should involve a discussion of how to recognise signs of deterioration and how to access help if necessary.^{101,455}

The GDT notes that careful history taking, close monitoring and good psychosocial care will be sufficient for some women. Monitoring is particularly important because a pregnant woman with depression is at increased risk of poor antenatal and postnatal care.⁴⁵⁵ Her appetite may be reduced, with consequent poor weight gain during pregnancy, and she may be at increased risk of smoking and substance abuse.⁴⁵⁵ Her risk of suicide or self-harm should be assessed regularly.⁴⁵³ Contraception needs must be addressed, to avoid a woman proceeding from an inadequately-treated episode of mental illness directly into a subsequent pregnancy.¹⁰³

First-line interventions

Nonpharmacological interventions, such as enhanced social support and/or a psychological intervention, should be considered before prescribing medication for depression in the antenatal or postnatal period, especially if the woman has mild symptoms or is in very early pregnancy.⁴⁵⁵

Brief psychological therapy is an appropriate first-line intervention for a woman with mild to moderate symptoms (eg, 6–8 sessions of non-directive counselling [CBT or IPT]). Ideally, this will be provided within primary care.¹⁰¹ For a woman who has severe depression in the antenatal or postnatal period, or does not respond to initial treatment, a structured psychological therapy that targets depression such as CBT or IPT could be considered, in consultation with maternal mental health services as appropriate.

An antidepressant may be considered as a first-line treatment for a woman with moderate to severe depression in the antenatal or postnatal period, provided she expresses a preference for this treatment after full discussion of the potential risks, the potential benefits and the uncertain state of the evidence.⁴⁵⁶ Antidepressants need to be used with great care in this population and the GDT recommends that practitioners consider consulting maternal mental health services before initiating antidepressant treatment in women who are pregnant (see 7.5: Management of Antenatal and Postnatal Depression, Special Issues: Antidepressant Use).

Mobilisation of support/resources for the mother, infant and wider family/whānau are a valuable component of management,⁴⁵⁴ as lack of social support is strongly associated with postnatal depression.⁴⁵⁷⁻⁴⁵⁹ The practitioner could check that referral has been made to the Plunket Nurse, who can assist the family in accessing support, and could offer referral to other health professionals (eg, social worker) or for services that will provide 'time out' (eg, short-term childcare or home-help).¹⁰¹ Transport problems, domestic responsibilities and childcare needs are potential barriers to treatment, and interventions that can be provided at the woman's home or via the phone or internet may be more effective.^{101,458}

Social networks appear to be an influential protective factor against postnatal depression,⁴⁶⁰ and there is also emerging evidence that peer support is effective in reducing depressive symptoms in new mothers.⁴⁵⁸ Women can be encouraged to make use of natural support systems available from trusted family members and friends and/or consider joining a community support group, such as a new mother and baby group. The GDT notes that the establishment of voluntary peer support groups and facilitated support groups for new mothers should be encouraged. There is some evidence for the effectiveness of group exercise (eg, 'pram walking') for women with depression in the postnatal period.⁴⁶¹

A woman with depression in the antenatal or postnatal period that does not respond to initial treatment should be managed in consultation with maternal health services or other appropriate psychiatric services.

Special issues: antidepressant use

There is a dearth of good evidence on the use of antidepressants in women who are pregnant or breastfeeding. As this is an area in which new evidence is emerging, recommendations on the safety of antidepressants during pregnancy may change during the currency of these guidelines. Practitioners are encouraged to regularly review practice in relation to prescribing antidepressant in this population, and to consider seeking specialist advice when initiating antidepressant treatment for a woman who is pregnant or breastfeeding.

Clinical management with antidepressants involves balancing competing risks between mother and offspring.⁴⁵⁵ Potential problems associated with withholding antidepressants include the well-documented risks of untreated maternal depression, which may seriously affect the mother, child and other family members.¹⁰¹

Potential risks to the foetus/child associated with prescribing antidepressants include congenital abnormality, spontaneous abortion, growth retardation, neonatal toxicity or withdrawal effects and longer-term neurodevelopmental effects.¹⁰¹ Risks to the mother include overdose, medication side effects, and premature labour.¹⁰¹

Antidepressants in pregnancy

The risks associated with antidepressants in the antenatal period vary according to the stage of pregnancy. Any teratogenic effects are most likely to occur in the first trimester, while exposure in the second and third trimesters is more likely to be associated with toxic effects or effects on growth and functional development.⁴⁵⁵

When antidepressants are the treatment of choice, selective serotonin reuptake inhibitors (SSRIs), except paroxetine, are recommended as an appropriate first-line therapy for most women.⁴⁵³ Paroxetine should be avoided in pregnancy due to teratogenic risk, in accordance with Medsafe advice.⁴⁶² Some practitioners may recommend shorter-acting SSRIs such as citalopram or sertraline, but the longer half-

life of fluoxetine means that any neonatal withdrawal effects are likely to be more gradual.⁴⁵³ For women at risk of preterm birth, the practitioner may wish to consider the use of a TCA in preference to an SSRI, as there is some evidence that SSRIs may increase the risk of premature labour.⁴⁶³

Women should be informed of a possible link between SSRIs in early pregnancy and the occurrence of birth defects.^{464,465} They should be advised to bear in mind that in the general population, there is an underlying risk of 2% to 4% of a major or minor congenital malformation (ie, a structural abnormality with surgical, medical or cosmetic importance),^{466,467} and that the absolute risk increase associated with most SSRIs appears to be low.⁴⁶⁴ The possibility of delaying medication until the second trimester may be considered.⁴⁵⁵

Late in pregnancy, concerns over neonatal toxicity or drug withdrawal associated with third trimester exposure to SSRIs (eg, irritability, respiratory difficulties and feeding problems)⁴⁵³ may prompt some women to lower the dose of SSRIs until after delivery. The same concerns also apply to venlafaxine.⁴⁶⁸

Anecdotally, many women can manage dose reduction well, given appropriate psychosocial support.⁴⁵³ For others, the risk of not receiving adequate antidepressant treatment in the third trimester outweighs the risks of adverse events in the infant⁴⁶⁹ and they will choose to continue on current doses with support and appropriate management of the neonate.⁴⁵³ If considering a dose reduction, the practitioner should be aware that women taking paroxetine and venlafaxine could experience withdrawal or discontinuation side effects when reducing the dose, due to the short half-life of these drugs. The GDT notes that because one cannot accurately determine when a woman is likely to go into labour, it is challenging to get the timing right. Reducing the dose too early places the woman at greater risk of experiencing a recurrence of her symptoms and possibly even relapse.

There have been few documented problems arising from the use of TCAs in pregnancy, though data are limited, but they are generally avoided nowadays due to their adverse effects and risk of fatal overdose.⁴⁵³ The GDT notes that when TCAs are used, particularly in the higher dose range, one might consider reducing the dose in the last week or so of pregnancy, so as to minimise the potential adverse effects on the baby in the immediate neonatal period. During pregnancy, use of a TCA with less anticholinergic-type side effects (such as nortriptyline) may be preferable, in the opinion of the GDT.

Antidepressants while breastfeeding

There have been no RCTs of antidepressant use during breastfeeding and there is little evidence on the long-term impact of drug exposure through breast milk, but case-studies indicate that SSRIs, TCAs (apart from doxepin) and venlafaxine are compatible with breastfeeding.⁴⁷⁰ Infant drug exposure is generally lower in breastfeeding than in utero, though babies with risk factors such as prematurity, neonatal disease or inherited metabolic disturbances may be more vulnerable to such exposure.⁴⁷⁰ Early cessation of

breastfeeding, or not breastfeeding, may be associated with an increased risk of maternal postpartum depression.⁴⁷¹

In the opinion of the GDT, a practitioner should support breastfeeding in a woman with postnatal depression who opts to take antidepressants, provided she is well-informed about known risks and benefits.

Principles of prescribing in this population

When prescribing an antidepressant for a woman with depression who is planning a pregnancy, is pregnant or breastfeeding, the NICE guideline¹⁰¹ recommends that prescribers should:

- choose an antidepressant with the lowest possible risk profile
- start at the lowest possible dose and increase it slowly
- aim to use only one drug
- consider the possibility of neonatal complications.

The GDT notes that smoking, alcohol and recreational drugs are likely to have an additive effect on the risk associated with antidepressants, and the practitioner should discuss this when exploring treatment options.

Decisions about antidepressant use should take account of the stage of pregnancy in which medication is being prescribed, as this determines the risk/benefit profile.¹⁰¹

Preconception planning for women taking antidepressants or mood stabilising drugs

A woman who is taking lithium or other mood stabilising drugs should be periodically reminded of the need for preconception counselling about medication if she plans a pregnancy. An increased incidence of congenital abnormalities has been noted in infants of women given mood stabilising drugs (eg, lithium,⁴⁷² carbamazepine,⁴⁷³ lamotrigine⁴⁷⁴) in pregnancy.

If a woman on antidepressants is planning conception, she may wish to attempt slow withdrawal from her medication before conception, provided the depression has receded. She should be monitored carefully so that any relapse is detected early.⁴⁵³

Conception while taking antidepressants

Unplanned conception for a woman on antidepressants may prompt her to abruptly stop taking the medication, incurring high risk of recurrence of depression before delivery.⁴⁷⁵ Careful reassessment of risks will help women to decide whether continuation of antidepressants is appropriate.⁴⁵³

If a woman who is pregnant or planning pregnancy is being treated with an antidepressant, her treatment preference, previous history and risk should be reviewed.¹⁰¹ If appropriate, attempts should be made to withdraw the antidepressant

and substitute an alternative treatment and/or ensure that the antidepressant with the lowest risk profile is used.¹⁰¹

If a pregnant woman decides to keep taking antidepressants, she should be advised that the pharmacokinetics of many drugs (including SSRIs)⁴⁵³ change during pregnancy, especially in the third trimester, due to increased fluid volumes. In the event of a relapse, a dose increase may be required to maintain clinical improvement.⁴⁵³ A woman may be less able to tolerate side effects during pregnancy or the postnatal period (eg, nausea as a side effect when starting an SSRI in pregnancy, postural hypotension or constipation when taking a TCA during pregnancy).¹⁰¹

7.6 Specific interventions: evidence review

A systematic review of the literature was undertaken of RCTs on therapies for women with antenatal or postnatal depression in the primary care setting.

Therapies of interest included:

- guided self-help
- exercise
- psychological therapies
- pharmacological therapies
- complementary and alternative medicines.

Guided self-help

No evidence was found specific to this population.

Exercise

A search was conducted for RCTs of structured exercise programmes for women reporting depressive symptoms in the antenatal or postnatal period. One systematic review⁴⁷⁶ was found which included two small RCTs both by the same research group.^{461,477} The participants in these studies had been recruited from both primary and secondary care.

The limited evidence supports a significant relationship between participation in exercise, such as group 'pram-walking', and a reduction in symptoms of postnatal depression.

Psychological therapies

Randomised controlled trials of psychological interventions for depression in the antenatal and postnatal period were reviewed.

This evidence comprised two recent Cochrane reviews of depression^{454,458} and mental health¹⁰¹ in the antenatal and/or postnatal periods.

These three publications included a total of 13 relevant RCTs,^{442,478-489} and a cost-effectiveness modelling study conducted for the guideline.¹⁰¹ A high proportion of the participants in the primary studies were initially recruited from secondary care rather than primary care. The relevant RCTs looked at treatment courses of 30–90 minutes weekly for 6–16 weeks, including CBT,^{479,481,484,486-488} IPT,⁴⁸² psychodynamic therapy (PT),⁴⁸⁴ non-directive counselling (listening visits)^{481,483-485,488,489} and peer support.⁴⁷⁸ The structured psychological therapies (CBT, IPT, PT) were delivered by trained therapists and the non-directive counselling by health visitors or child health nurses with brief extra training.

In the antenatal setting, the only relevant RCT⁴⁸⁰ was a small study with a high attrition rate (38/50 included in analysis), which was included in the Cochrane review.⁴⁵⁴ It compared IPT to a parenting education course in Hispanic women. Depression scores post intervention significantly favoured IPT.⁴⁵⁴

In the postnatal setting, the Cochrane review found that any psychosocial or psychological intervention was associated with a reduction in depressive symptoms at 1 year, compared with usual care (9 RCTs; RR 0.44, 95% CI 0.24 – 0.80). Psychosocial interventions comprised non-directive counselling or peer support. Study quality was limited and ‘usual care’ varied widely but there was low heterogeneity in the meta-analysis. A comparison of non-directive counselling versus structured psychological therapies (CBT) found no statistically significant difference, though numbers were relatively small (2 RCTs, n = 358). One small pilot RCT⁴⁷⁸ (n = 42) of telephone-based peer support showed statistically significant benefit in the intervention group at 4 weeks post treatment. Support was provided by a woman who had previously experienced depression in the postnatal period and had received a 4-hour training session.

Similarly, the NICE guideline found that in women with a formal diagnosis of depression in the postnatal period, targeted psychological treatments (CBT, IPT, PT and non-directive counselling) reduced symptoms of depression more than standard care.¹⁰¹ There was very little evidence comparing psychological therapies. The economic analysis (based on data from these studies) calculated that non-directive counselling (home listening visits) were likely to be the most cost-effective option for treatment of women with mild to moderate depression in the postnatal period, but noted considerable uncertainty around this finding.¹⁰¹

In summary, both structured psychological therapies (eg, CBT, IPT, PT) and psychosocial interventions, such as including peer support and non-directive counselling (listening visits) appear to be effective, at least in the short term, for reducing symptoms in women with depression in the antenatal or postnatal period. However, most of these interventions are time and labour intensive, with challenging resource implications.⁴⁵⁸

Pharmacological therapies

A search was conducted for RCTs of antidepressant use in women with depression in the antenatal or postnatal period. The evidence comprised one guideline¹⁰¹ with three relevant studies conducted in mixed primary and secondary care populations.^{479,486,490}

Given the dearth of evidence from controlled studies on the safety of antidepressants in this population, recent reviews of relevant observational evidence were also retrieved. Three narrative reviews^{453,456,470} were identified and studies from their lists of references were accessed. Advice on relevant studies was also sought from a maternal mental health specialist.

Efficacy

There was some evidence (from a single RCT)⁴⁸⁶ of the efficacy of the SSRI fluoxetine with a single session of CBT in the postnatal period. However, fluoxetine with six sessions of CBT was only as effective as 6 sessions of CBT alone. This finding was supported by low-quality evidence from uncontrolled trials.⁶⁵

Safety and adverse effects on the infant/foetus

Selective serotonin reuptake inhibitors in pregnancy

Small prospective cohort studies in the 1990s found no association between maternal SSRI use and birth defects.⁴⁵³ However, more recently large case-control studies^{464,491} and a population-based cohort study⁴⁹² found a significant association between maternal SSRI use in early pregnancy and major birth defects. In two studies,^{464,491} the increase associated with SSRIs applied only to specific rare defects (eg, omphalocele), with no increase in the overall rate, but in the third⁴⁹² there was a moderate increase in overall risk of birth defects (RR 1.34, 95% CI 1.00 – 1.79). There has been concern about a possible increase in the risk of cardiovascular malformations associated with the use of paroxetine during the first trimester.^{465,493} A Canadian study linking databases of medications and hospital discharges involving International Classification of Diseases, Ninth Revision (ICD9) codes for malformations, also showed an association between major cardiac malformations and exposure to paroxetine, though only at daily doses of greater than 25 mg (adjusted odds ratio 3.07; 95% CI 1.00 – 9.42).⁴⁹⁴ However, a recent study identified outcomes in over 3000 infants exposed to paroxetine during the first trimester and found that the rate of malformations was well within incidence in the general population, at around 1%.⁴⁹⁵ Current Medsafe advice recommends avoiding the use of paroxetine in pregnancy.⁴⁶²

A systematic review of more than 20 small observational studies reported a neonatal syndrome with symptoms of increased muscle tone, tremulousness, and difficulty with respiration, feeding, and sleep in infants who had third-trimester exposure to SSRIs.⁴⁹⁶ A large study using British Columbian population health data over a 3-year period found that prenatal exposure to SSRIs was associated with an increased risk of neonatal respiratory distress, even after accounting for maternal illness severity.^{496,497}

There is also some evidence that the use of SSRIs increases the risk of preterm birth. An observational study reported a preterm birth rate of 14% among 49 women with depression taking antidepressants (in most cases SSRIs), while among women with depression not taking antidepressants (n=22) there were no preterm births (p = 0.004).⁴⁶³ A dose-response relationship was also noted in this study between antidepressant dose and gestational age at birth.⁴⁶³

Selective serotonin reuptake inhibitors and breastfeeding

Pharmacokinetic studies have found that the excretion of SSRIs into breast milk is generally low, though it appears to be slightly higher for fluoxetine and citalopram than for other SSRIs. Data on potential adverse effects are scarce. There have been a few case reports of adverse effects (such as increased crying, decreased sleep, irritability, gastrointestinal distress and reduced weight gain) in infants of mothers who breastfed while receiving fluoxetine or citalopram.⁴⁷⁰ Observational studies have reported no adverse effects in infants exposed to paroxetine (n=70 infants), sertraline (n=102) and fluvoxamine (n=10).⁴⁷⁰

Tricyclic antidepressants in pregnancy

Animal studies and observational case series have reported that TCAs appear to be relatively safe in pregnancy, and long-term studies of children exposed to TCAs have shown no association with developmental problems.⁴⁹⁸⁻⁵⁰⁰ However, some case studies have reported neonatal toxicity, including urinary retention, bowel obstruction and transient withdrawal symptoms such as irritability and tremor.⁴⁵⁵

Tricyclic antidepressants while breastfeeding

The excretion of TCAs into breast milk appears to be generally low. Doxepin is contraindicated in lactation, due to case reports of drowsiness and hypotonia in the breastfed infants of mothers taking this drug.⁵⁰¹ Otherwise most case reports have observed no immediate adverse effects in infants exposed to TCAs through breast milk and no adverse long-term effects have been reported.^{470,502,503} However, there is limited data.

Venlafaxine in pregnancy

There has been one multicentre case-control study evaluating pregnancy outcome following exposure to venlafaxine.⁵⁰⁴ It found no evidence that venlafaxine increased the risk of major fetal malformations. The doses used were relatively low (≤ 20 mg daily for most women).⁵⁰⁴ Evidence on neonatal symptoms following exposure to venlafaxine is very limited but it is likely that infants will experience similar effects to those exposed to SSRI's.⁴⁶⁸

Venlafaxine while breastfeeding

The few studies available suggest venlafaxine is safe in breastfeeding. The dose received by the infant is higher than for SSRIs and may approach notional safe limits in some infants. No adverse effects have been noted in infants exposed to venlafaxine via the breast milk.⁵⁰⁵⁻⁵⁰⁷

Complementary and alternative medicines

There is speculation that omega-3 oils may be a safe and effective treatment option for depression in women in the antenatal or postnatal period, with the advantage that they appear to be beneficial for the foetus, provided their source is mercury-free. However, no controlled trials have yet been conducted in this population⁴²⁵ and no evidence was found for other specific complementary and alternative interventions in this population.

8 Special issues: older adults/ koroua/kuia

This chapter focuses on special issues in the recognition and assessment of common mental disorders and the management of depression in older adults/koroua/kuia.

Recommendations	
Older adults	
Targeted screening for common mental disorders is indicated for older adults in groups with high prevalence rates including: <ul style="list-style-type: none"> • older adults in residential care • older adults with a history of mental disorder or suicide attempt • older adults with multiple symptoms • older adults with a recent significant loss 	C
An older adult presenting with possible cognitive impairment should be assessed for both dementia and depression	C
Where there is a rapid change in cognitive status in an older adult, medical assessment should exclude delirium	C
An older adult with depression should be offered the same range of psychological therapies as other adults: chronological age should not be a bar to specific therapies	C
Selective serotonin reuptake inhibitors (SSRIs) are suitable as a first-line antidepressant for an older adult: for a patient also taking other medications, choose one with a low risk of drug interactions	C
An older adult prescribed antidepressants should be carefully monitored for adverse effects	C
Where antidepressants are the treatment of choice, treatment for an older adult with depression and dementia should be as for other older adults with depression	C
Grades indicate the strength of the supporting evidence, rather than the importance of the recommendations – refer to Appendix B for grading details	

Good practice points

Older adults

Among older adults living in residential care, older adults with other risk factors or where there is clinical concern, routine psychosocial assessment should include questions that screen for depression, anxiety and substance abuse. This assessment should be conducted annually	✓
Brief tools are optional aids for use by the primary care practitioner as an adjunct to clinical assessment. Examples of brief tools for detecting depression among older adults include: <ul style="list-style-type: none"> • the Geriatric Depression Scale (GDS) • the Patient Health Questionnaire for Depression (PHQ-9) 	✓
Clinical assessment of an older adult for dementia and depression should include the use of tools to assess cognitive function, such as the Mini Mental State Examination (MMSE) and/or clock drawing test, in addition to a tool to assess for depression (such as the GDS or the PHQ-9)	✓
Assessment of an older adult with depressive symptoms should include a physical examination, complete blood count and thyroid function tests. The practitioner should also consider checking creatinine and B12 and folate levels	✓
An older adult with depression should be offered advice on simple behavioural measures to increase social, physical and/or intellectual activity	✓
In an older adult starting treatment with a selective serotonin reuptake inhibitor (SSRI) consider checking serum sodium after 1 week and after each dose adjustment, especially if the patient is at risk of hyponatraemia (eg, frail, on diuretics, has renal impairment)	✓
In a frail older adult prescribed antidepressants, treatment should be initiated at a low dose and increased slowly to optimisation or until a response is achieved	✓
Opinion of the Guideline Development Team, or feedback from consultation within New Zealand where no evidence is available	

There are more similarities than differences between older adults and the general adult population with regard to the presentation and appropriate management of common mental disorders, and much of the evidence on adults applies also to those aged over 60–65 years (older adults/koroua/kuia).²⁵⁵

Notable differences include the higher prevalence of comorbid chronic disease and dementia in older adult populations.²⁵⁵ Among older adults there is also a high prevalence of risk factors for mental disorders, such as physical comorbidity,

bereavement and social isolation.⁵⁰⁸ Elder abuse and/or neglect can be associated with low self-esteem and depression.⁵⁰⁹

Overall, the 12-month prevalence of depressive disorders among community-dwelling older adults aged 65 years and over in New Zealand primary care is about 2% for men and 5% for women.¹ Older adults in residential care are at much higher risk of depression, with a prevalence of about 18% in low-level care residential facilities.¹¹⁰

8.1 Psychosocial assessment of older adults/koroua/kuia

The psychosocial wellbeing of older adults can be assessed using the same approach as for other adults. Targeted screening for common mental disorders is indicated for older adults in groups with high prevalence rates, such as:

- older people in residential care
- those with multiple symptoms
- a history of mental disorder or suicide attempt
- a recent significant loss.⁵¹⁰

Among older adults living in residential care, older adults with other risk factors or where there is clinical concern, routine psychosocial assessment should include questions that screen for depression, anxiety and substance abuse. This assessment should be conducted annually.

A low threshold for intervention is required where there is evidence of suicidal ideation or intent in older people, as there is a high rate of completed suicide in this group, particularly in men aged 75 years and over.⁵¹¹

The Guideline Development Team (GDT) noted that older Māori living away from their birthplace sometimes describe feelings of *moke moke*, a sense of loneliness or physical and mental displacement that may resolve when they return to their home environment.

8.2 Assessment tools for older adults: evidence review

As for other adults, a brief assessment tool may be useful as an adjunct to clinical assessment of older adults. A systematic review of the evidence on brief assessment tools for common mental disorders in older people was undertaken. 'Brief' was defined as taking 5 minutes or less to administer.

Common mental disorders

Few studies have addressed the identification of common mental disorders other than depression among older people in primary care. Two studies evaluated the use of assessment tools for a range of mental disorders in a primary care population restricted to older adults. Neither the Primary Care Evaluation of Mental Disorders (PRIME-MD) nor the Pain Disability Index (PDI-29) accurately identified mental disorders among frail older people receiving home care nursing services,⁵¹² and neither the General Health Questionnaire (GHQ-28) nor the MMSE performed well among older patients at a GP practice.^{513,514}

Depression and dysthymia

There was evidence that the GDS⁵¹⁴⁻⁵¹⁷ is valid for detecting depression among older people. A shortened version of this instrument, the Geriatric Depression Scale, Short Form (GDS-15) appears to be of comparable accuracy to the longer version for detecting depression.^{514,516,517} The Patient Health Questionnaire for depression is also widely used as a case-finding tool for depression in this population. It has been well-validated in a general adult population for case-finding, and in an older adult population for measuring response to treatment for depression and dysthymia.³²¹ Several studies have also found the Centre for Epidemiological Studies Depression Scale (CES-D) valid for detecting depression among older people,^{514,516,518-520} though its accuracy for routine use in primary care populations has been questioned⁵²¹ and it was found poor at detecting dysthymia.⁵¹⁸ The Hospital Anxiety and Depression Scale (HADS) was not found to be valid for use in older people.⁵¹³

8.3 Assessing an older adult with cognitive impairment

The patient or an informant may report cognitive symptoms, such as poor concentration, confusion or memory complaints. These can be the presenting features of depression, but the practitioner should also be alert for the possibility of early dementia. The relationship between dementia and depression is complex: they are often comorbid, and late-onset depression is a risk factor for dementia.⁵²²

A recent US Preventive Services Task Force (USPTF) systematic review⁵²³ noted that several instruments are valid for identifying cognitive impairment in primary care and nursing home populations, but that no single instrument is suitable for all situations. The MMSE is appropriate for assessing moderate cognitive impairment, but has limited sensitivity in highly functioning individuals, takes 7–10 minutes and has copyright restrictions.⁵²³ The USPTF review proposes a number of options (see Appendix H: Assessing for Cognitive Impairment in Older Adults): a clock drawing test or the

Memory Impairment Screen are useful if time is restricted, with the proviso that these tools have limited sensitivity, especially for mild forms of impairment.⁵²³

A study in a residential care setting found the GDS valid for identifying depression in residents with an MMSE score of 15 or more,⁵²⁴ but it may not be practicable if cognitive impairment is marked.⁵²⁵

An older adult presenting with possible cognitive impairment should be assessed for both dementia and depression using tools to assess cognitive function,⁵²² such as the MMSE and/or clock drawing test, as well as tools for depression such as the GDS or PHQ-9.⁵²³

It is also considered by the GDT to be good practice to undertake a relevant physical examination, consider adverse drug effects, and undertake complete blood count and thyroid function tests when older adults present with depressive symptoms. Further, the practitioner should also consider checking creatinine and B12 and folate levels.

Where there is a rapid change in cognitive status in an older person, delirium should be excluded by clinical examination.⁵²⁶ This applies particularly in residential care, where delirium is relatively common.⁵²⁷ Delirium is characterised by a disturbance of consciousness, usually fluctuating, and a change in cognition developing over a short period of time.²⁴³ Australian guidelines on the assessment and treatment of delirium (Australian Health Ministers' Advisory Council) can be found at <http://www.health.vic.gov.au/acute-agedcare/>

Where the practitioner suspects depression but some doubt remains, in the opinion of the GDT, it is reasonable to initiate antidepressant treatment and monitor the person's response by clinical assessment and optional use of a monitoring tool, such as the PHQ-9.³²⁰ However, antidepressant medication should not be continued in a confused older person unless there is clear clinical evidence of benefit.

8.4 Management of depression

Approach to intervention

In most respects, older adults/koroua/kuia with depression should be managed in a similar way to other adults/pakeke, and chronological age should not be a bar to specific therapies.⁶⁵

The evidence relating to specific interventions is presented in detail in later sections of this chapter. The available evidence supports offering older people/koroua/kuia the same range of psychological therapies as younger people.⁶⁵ Similarly, in terms of pharmacological therapy a SSRI is suitable as first-line antidepressant therapy in older people/koroua/kuia, as for other adults/pakeke.⁶⁵

Special issues: medication use

Medication use needs to be monitored with extra care in older people. The high prevalence of multiple prescribing in this population increases the risk of drug interactions and may reduce adherence. There is also a high prevalence of comorbid disorders and the possibility of variation in drug metabolism.⁶⁵ Older adults prescribed antidepressants should therefore be carefully monitored for adverse effects.⁶⁵ In frail older adults prescribed antidepressants, treatment should be initiated at a low dose and increased slowly to optimisation or until a response is achieved.³⁵¹

SSRIs are suitable as the first-line antidepressant in this age group.⁶⁵ In an older adult taking multiple medications, an antidepressant with a low risk of drug interactions should be chosen (eg, citalopram, sertraline).⁵¹⁰ International guidelines recommend that an SSRI should be commenced at half of the initial dose recommended for younger adults and increased over about 4 weeks until therapeutic effects are achieved.⁵¹⁰ In the opinion of the GDT, this advice is suitable for frail older adults but normal adult dosage may be appropriate for older adults who are fit and well. The GDT also recommends that practitioners consider checking serum sodium within the first week of initiation of SSRI treatment and after each dose adjustment, especially in older adults at increased risk of hyponatraemia (eg, those who are frail, on diuretics or have renal impairment).

The cardiovascular and anticholinergic effects of TCAs can be particularly problematic in older people, with an increased risk of falls, urinary retention, constipation and drug-induced delirium.⁵¹⁰ However, if a SSRI is ineffective, it is appropriate to use a TCA with less anticholinergic properties, such as nortriptyline, as a second-line therapy.⁶⁵ The GDT advises increasing the dose slowly as required, from a starting dose of 10–25 mg to 75–100 mg if tolerated over at least 2 weeks. Slower titration is advised in frail older adults/koroua/kuia.

Active support and liaison with other agencies

Psychoeducation, active listening and regular follow-up are particularly important in older people/koroua/kuia with depression, who are more vulnerable to social isolation and physical disability.^{65,510} Simple behavioural measures to increase social, physical and/or intellectual activity can be encouraged.⁵²⁸ Older people/koroua/kuia should be offered advice on taking such measures and can be encouraged to increase any physical, domestic or leisure activities that they enjoy⁵²⁹ (eg, housework, bowls, brisk walking, mau rākau [martial art], dancing, gardening or waka ama [canoeing]). Similarly, social and intellectual activities can be encouraged⁵²⁹ (eg, reading, listening to music, waiata [song], raranga [weaving], going to the beach or seeing friends). Psychosocial support agencies (such as Age Concern) may have relevant services to offer.

8.5 Interventions for depression in older adults/koroua/kuia: evidence review

A systematic review of the literature for randomised controlled trials (RCTs) on therapies for depression for older adults/koroua/kuia in primary care was undertaken. Evidence was found specific to this population on the following therapies:

- exercise
- psychological therapies
- pharmacological therapies.

Exercise

The evidence comprised a systematic review⁵³⁰ of the effects of physical exercise on depression or depressive symptoms in older adults and two more recently published RCTs.^{364,376}

The systematic review found evidence of short-term benefit from exercise, but the 26 included studies were conducted among community volunteers, rather than in a primary care setting.⁵³⁰

A study conducted among older people in primary care in Australia³⁷⁶ found high-intensity supervised progressive resistance training significantly more effective than low-intensity exercise or usual GP care in reducing depressive symptoms, with a 50% reduction in depression score achieved after 8 weeks in the high-intensity group. A feasibility study showed that older people with depressive symptoms could successfully be recruited to a community-based progressive resistance training programme delivered by existing community facilities.³⁶⁴

Exercise: issues for evidence-based practice

Participation rates were low in these studies and it seems unlikely that many primary care patients with depression would be able to undertake such intensive activity. However, any physical activity may be helpful and exercise is rated highly as an intervention by adults who have experienced depression.³⁷⁷

Psychological therapies

The evidence comprised a meta-analysis of 25 RCTs conducted among older people with major or minor depression or dysthymia⁵³¹ and 2 RCTs published more recently.^{532,533}

The meta-analysis found psychological therapies moderately effective in the short term compared to placebo and not significantly different from antidepressants.⁵³¹ The psychological interventions included cognitive behavioural therapy (CBT),

behaviour therapies (BT), reminiscence and life-review therapies, interpersonal psychotherapy (IPT) and problem-solving therapy (PST). No statistically significant difference in efficacy was found between different psychological therapies. There was insufficient evidence to determine whether psychological treatment combined with antidepressants was superior to either treatment alone.⁵³¹ Many of the included studies were of dubious quality and most were recruited from community rather than clinical settings. One subsequent primary care study supported the efficacy of IPT for moderate to severe depression in older people,⁵³³ but another found psychotherapy ineffective in preventing recurrence.⁵³²

Psychological therapies: issues for evidence-based practice

This evidence suggests that psychological treatments are effective in older people, though it is unclear which specific therapies work best and whether they are best combined with antidepressants.

Pharmacological therapies

A National Institute for Health and Clinical Excellence (NICE) guideline²⁴³ and a recent Agency for Healthcare Research and Quality (AHRQ) review³⁵¹ addressed this topic. Neither of these found sufficient evidence to determine whether there is any difference between older people and other adults in the efficacy of antidepressants, either in a primary care or a secondary care setting. The AHRQ review also noted that there is insufficient evidence to determine whether older adults experience different side effects from young adults when taking second-generation antidepressants. However, some non-primary care studies and observational evidence suggest older patients may be at increased risk of rare but potentially serious adverse events associated with SSRIs, such as hyponatraemia and weight loss.³⁵¹ Moreover, a large observational study published recently reports a doubling of fracture risk in people aged 50 years and over taking SSRIs.⁵³⁴ The GDT notes that the risk of fractures secondary to postural hypotension with many of the TCAs should also be considered.

8.6 Depression with dementia

Dementia is a chronically progressive disease that impairs intellect and behaviour to the point where customary activities of daily living are compromised.⁵³⁵ Depression may be comorbid with dementia and may or may not respond to intervention.⁵²³ Among older adults/koroua/kuia with comorbid depression and dementia, there is some evidence, albeit scanty, to support the use of psychosocial interventions. Pharmacological interventions can also be used in this population, based on international expert opinion.⁶⁵ Clinicians need to monitor response to treatment carefully and reconsider the diagnosis if there is no improvement.

Specific interventions: evidence review

A review of the literature for randomised studies of pharmacological and psychosocial interventions for depression with comorbid dementia was conducted. The evidence was limited.

Pharmacological therapies

There is little evidence on the use of antidepressants for depression in older people with dementia. A single small RCT from a Cochrane systematic review with a search to 2005⁵³⁶ found SSRIs effective. A further paper on this RCT⁵³⁷ reported that response to antidepressants was not associated with any baseline demographic, mood, neuropsychiatric, neurophysical or caregiver variable. Other studies in the Cochrane review were small, inconclusive and generally poorly designed.⁵³⁶ A subsequent small RCT of venlafaxine versus placebo was also inconclusive.⁵³⁸

The Cochrane review also noted that the likelihood of side effects is significantly increased by antidepressants compared to placebo in people with depression and dementia.⁵³⁶

The Scottish Intercollegiate Guidelines Network (SIGN) guideline on dementia⁵²² notes that evidence is weak to support the use of antidepressants to treat depression in older people with dementia but suggests that they can be used providing their use is evaluated carefully for each patient.

Psychosocial interventions

There is very limited evidence from a systematic review⁵³⁹ which includes two relevant RCTs^{540,541} that psychosocial interventions are effective in treating depressive symptoms in older adults with dementia. One of the studies⁵⁴¹ involved therapeutic biking, whereby residents with dementia and depressive symptoms at a long-term care facility were taken on one-to-one outings on a wheelchair bicycle. In the other study,⁵⁴⁰ caregivers of older adults with dementia and depression in the community were taught behavioural strategies such as environmental modification, distraction, communication and increasing pleasant events. In both RCTs, depression scores decreased significantly in the intervention group compared to controls, with evidence of continued benefits at up to 6-month follow-up.

Depression with dementia: issues for evidence-based practice

The potential to improve depressive symptoms and functional ability in an older person/koroua/kuia with dementia warrants active intervention if depression is suspected. Either a psychosocial and/or pharmacological approach may be useful in this population, though evidence is overall very scanty. Pharmacological treatment for depression in an older adult with dementia should be managed in the same way as for other older adults.⁶⁵

Management of dementia in primary care

It is beyond the scope of this guideline to address the management of dementia. A Royal Australian College of General Practitioners guideline on this topic can be found at <http://www.racgp.org.au/guidelines/dementia>.⁵⁴²

9 Models of care

9.1 Introduction

Various models of service delivery have been proposed for the delivery of mental health services in primary care and for the configuration of primary care and secondary care mental health services. A narrative review was conducted of the relevant evidence, with a focus on New Zealand literature and special issues for Māori and Pacific peoples.

This review does not constitute guidance, but aims to provide an informative summary of issues and points to consider.

9.2 Generic models: evidence review

A recent high-quality New Zealand Health Technology Assessment systematic review³³⁹ reviewed nine systematic reviews and 35 randomised controlled trials (RCTs) on the structure and workforce configuration of effective models of mental health service provision and quality improvement in primary care, focusing on services for those with mild to moderate mental disorders.

The following models were identified:

- **staff training:** education of primary care staff (eg, on prescribing habits, skills in psychological therapies, dissemination of guidelines and information, intensive practice-based education seminars)
- **consultation-liaison:** mental health specialist involvement in an ongoing educational relationship with primary care clinicians to enable them to care for individual patients. Referral to specialist care required in a small proportion of cases
- **collaborative care:** includes new quasi-specialist staff (sometimes called case or care managers) who work with patients and liaise with both primary care clinicians and secondary care specialists in order to improve quality of care. This model may also involve screening, education of patients, changes in practice routines and developments in information technology
- **replacement/referral:** primary responsibility for the management of the patient's presenting problem is passed to a mental health specialist for the duration of treatment (eg, often associated with psychological therapy).

The models are not mutually exclusive and a combined approach to service provision was the norm. Variants of the collaborative care model (including stepped care) were the most widely researched. There was a trend towards multidisciplinary collaborative care showing short-term, modest benefits for people with depression, compared with usual care. The collaborative models incorporated a care management approach using the services of a care manager or primary mental health care worker. This approach was most effective for individuals with persistent or recurrent disorders, and for older adults with depression. The approach was less effective for those with milder or subthreshold disorders.

Telephone care management interventions were effective for people with mild to moderate mental disorders, especially in combination with other interventions such as cognitive behavioural therapy (CBT).

There were two studies favouring a consultation-liaison approach, but overall, evidence was lacking on the effectiveness of approaches other than collaborative care and there was insufficient evidence to determine the effectiveness of individual models or to compare models. Moreover, most of the relevant studies were conducted in the US and may not be applicable in other health care systems.³³⁹ Relevant New Zealand initiatives are underway, due to report back in 2008.⁵⁴³

Barriers to the adoption of collaborative care models could include financial or time costs to anyone involved, including patients and their families, and the need for substantial changes to clinical practice (eg, protocols for follow-up or referral between services). Incentives for engagement may increase uptake by providers. Collaboration between primary and secondary services can be helped by processes such as mapping pathways to care, and linking of stepped care models to treatment guidelines.⁵⁴⁴

An Australian study⁵⁴⁵ describes a modelling exercise that found that with the number of people needing treatment held constant, evidence-based care using a stepped care approach was no more expensive and was more effective than the traditional model (ie, allocating resources top-down, according to the needs and demands of stakeholder groups). Increased coverage was also possible because the additional cases tended to be of disorders that were easier and less expensive to treat. The model assumed a sequence of stepped care from the less intensive, lower-cost interventions (ie, GP advice plus patient self-management), through to more intensive higher-cost interventions (ie, active GP treatment, involvement of allied mental health staff and on to psychiatric and inpatient care).

A retrospective service audit of the provision of stepped care for common mental health disorders in the UK found this model clinically effective, with a high rate of patient satisfaction.⁵⁴⁶ There was a high use of psychological interventions (eg, brief psychological/behavioural interventions in primary care). These were rated by patients as the most helpful intervention. Psychological interventions were complemented by a range of other approaches, including computerised CBT (CCBT), social support (eg, with housing), exercise and other activities, information and support with training, educational and job opportunities. Waiting times for specialist psychological therapies

were reduced due to lower referral rates from primary care, with a higher volume of patients being managed in the primary care setting.⁵⁴⁶

Recent efforts to improve the management of specific long-term conditions in primary care have moved towards a 'chronic care model'.^{547,548} This model entails organisational change to identify and meet the needs of practice populations with long-term conditions, evidence-based decision support, multidisciplinary approaches, links to community resources and support for patient self-management.^{150,343} In New Zealand, an adapted model has been utilised that includes cultural competency and an increased emphasis on the patient (plus their family and community).⁵⁴⁹ Patient self-management includes strategies such as reasonable problem-solving, realistic goal setting, symptom control, relapse prevention and shared decision-making.¹⁵⁰

A recent systematic review suggests how the management of patients with depression in primary care could benefit from a 'chronic care' approach, utilising the following measures:¹⁴²

- registry of patients with a current or prior diagnosis of depression
- use of a guideline-based treatment algorithm in patient notes
- routine screening
- care manager (eg, practice nurse) monitoring of care
- interdisciplinary team care
- telephone monitoring
- general practitioner/practice nurse liaison with secondary care mental health services
- individually developed care plan (Wellness Plan) for each patient
- increased support for patient self-management
- relapse prevention planning
- prepared visits with resources available in advance
- adequate preparation and ongoing education for all primary care staff.

9.3 Service delivery: special issues for young people

A World Health Organization (WHO) review¹⁶⁵ discusses the increasing recognition of barriers faced by young people in accessing health care for mental disorders. These barriers include:

- reluctance to seek professional help
- inaccessibility of services (due to location, cost, hours, or lack of publicity/visibility)
- fear of stigma or lack of confidentiality
- 'unhappy encounters' with health professionals.

New Zealand evidence supports these findings.⁵⁷ A WHO framework for development of youth-friendly health services has been drawn up¹⁶⁶ and various models of youth-friendly service provision have been initiated, but as yet there is little evidence on health outcomes.^{164,165} Accessible health services for young people is a national goal in New Zealand,⁵⁵⁰ and a network of services is being set up, though provision remains patchy.^{551,552} The provision of innovative and well-assessed youth-friendly services should be a priority for the future.¹⁶⁵

Issues for evidence-based practice

There is evidence that multifaceted collaborative care has benefits for the treatment of depression in the primary care setting. Potential elements of a cost-effective model include a stepped care approach, use of telephone care management and the employment of care managers (eg, practice nurses) to work with patients and liaise across levels of care.

9.4 Service delivery: special issues for Māori

Kaupapa Māori services

For Māori, cultural identity is an essential component of good health and effective services must reflect all dimensions of wellness.⁵⁵³ It is a cornerstone of government health policy that Māori should be actively involved in defining and prioritising their health needs and directly aided to deliver services to their own communities.⁵⁵³ Services that are delivered by Māori for Māori have been termed 'Kaupapa Māori'.²⁰⁰ Materoa Mar⁵⁵⁴ suggests that Kaupapa Māori services include the following:

- kuia and koroua influencing, guiding and advising in all aspects of the service, both delivery and development
- development of identity for both staff and clients encompassing te reo (Māori language), tikanga (values and beliefs) and Māori models of practice
- recruitment and retention of skilled Māori staff
- workforce development opportunities for Māori
- provision of training/education/information about kaupapa Māori approaches
- ability for kaimahi (community health workers), tangata whaiora and whānau to participate at all levels
- research that supports further development for Māori
- clear accountability both internally and externally
- advocacy

- networking by all kaimahi internally and intersectorally
- a physical environment conducive to Māori beliefs
- autonomy and control in development of Māori mental health services
- striving to work with whānau, thus contributing to overall Māori development
- access to information that assists informed development
- building and maintaining relationships at all levels with consumers, whānau groups and individuals on a national, local and international level
- acknowledgement of Māori processes, both at a managerial level and within service provision.

Workforce issues

Current efforts to increase Māori health workforce recruitment and retention are having a positive effect. A recent report⁵⁵⁵ has described key success factors as follows:

- Māori led, focussed and targeted interventions
- consistent investment over a prolonged period
- emphasis on the development of dual cultural and clinical competencies
- integration of student support programmes within a university environment
- provision of comprehensive support to tertiary students, including financial assistance, access to Māori mentors and peer support, and inclusion in communities of learning
- congruence with industry needs
- supported transitions into and between study and work
- attention to the broader determinants of Māori health workforce participation
- action across workforce development areas (including secondary schools).

Primary-care based mental health services

Māori working in mental health have consistently described the interdependence of Māori as the individual's responsibility to a collective that is linked by whānau, whānaungatanga and whakapapa.²⁰⁰ Whakapakari Ake Te Tipu, the Māori Child and Adolescent Mental Health and Addiction Workforce Strategy²⁰⁰ advocates a cross-sector, all age approach to reflect a holistic view of health. The primary care sector has been identified as the logical place for the delivery of mental health care to Māori, as it offers better prospects of early intervention and the management of comorbidities, and is more closely linked to community agencies such as schools, maraes and recreational centres.²⁰⁰ This will require developing the workforce and upskilling primary care workers so that interventions can be delivered in primary care settings.²⁰⁰

Whakapakari Ake Te Tipu provides examples of primary-based mental health services that deliver early intervention programmes for young Māori and reduce the divide

between primary and secondary mental health care. Programmes such as the Rau ō Te Huia Trust and the Pumau Ki Te Ora service ‘walk the talk’ of whānau ora by providing culturally appropriate prevention and recovery services.²⁰⁰

They note that Māori providers working in partnership with mainstream Primary Health Organisations (PHOs) are vulnerable to historically prevailing power relationships, even where the intentions of the mainstream PHOs are appropriate. Small Māori PHOs working independently do not benefit from economies of scale that partnerships may provide, but they may be able to achieve more positive outcomes for Māori by remaining independent.⁵⁵⁶

Abel and colleagues⁵⁵⁶ illustrate the implementation of the New Zealand Primary Health Care Strategy by a Māori health provider, using Ngāti Porou Hauora (NPH) as a case study. They conclude that despite a number of ongoing challenges, the NPH system of governance, with strong community participation and a holistic approach to health care delivery, is well suited to delivery of the strategy. Further, Abel et al. suggest that frameworks used by Māori health providers are appropriate models for the delivery of primary care, not only for Māori but also for the rest of the sector. They note that these approaches have already succeeded in increasing access to services. However, it is too early to say whether these approaches will reduce hitherto intractable disparities in health outcomes.⁵⁵⁶

9.5 Service delivery: special issues for pacific peoples

A review undertaken to identify Pacific models of mental health care service delivery⁵⁵⁷ found no such models per se, though the authors described several Pacific models of health care that inform service delivery, including the Samoan Fonofale⁵⁵⁸ and Faafaletui⁵⁵⁹ models, the Tongan Kakala⁵⁶⁰ model and the Cook Islands Tivaevae model.⁵⁶⁰ A ‘for Pacific by Pacific’ approach is a feature of many of these models. These support the view that having access to a service run by Pacific staff and using Pacific principles of health and wellbeing is fundamental to achieving good outcomes. However, it was identified as a weakness of these models of care that they may favour a Pacific Island-born perspective over and above New Zealand-born Pacific youth perspectives.⁵⁵⁷ Pacific approaches to service delivery are distinguished by Pacific beliefs and value systems with spirituality (including both Christian and Pacific pre-Christian elements) as a key component.

A study conducted among Pacific alcohol and drug and mental health services reported that the Fonofale model was the most commonly used approach.⁵⁵⁷ This model utilises the metaphor of a fale (house) to symbolise the wholeness of a Pacific person, with the physical, spiritual, mental and ‘other’ parts of the person forming the four pillars, and culture and family comprising the roof and base.⁵⁵⁷ The differences between a Pacific-specific mental health Non-Governmental Organisation (NGO)

service as opposed to a District Health Board (DHB)-based Pacific mental health service were reported to be minimal, according to participants at the fonos (meetings) held as part of this study. While Pacific-specific NGOs had been developed to provide more 'culturally appropriate' services (compared to services offered by mainstream organisations), they were now regarded as one of a number of Pacific-specific service options available to Pacific consumers and families.⁵⁵⁷

Workforce issues

There is a shortage of Pacific people working in all areas of mental health. Workforce development is needed, with an emphasis on the development of both cultural and clinical competencies.³³

Primary-care based mental health services

The literature proposes increased intervention for Pacific peoples at a community and primary care level.³³ However, it appears that there are currently no developed Pacific models of mental health service delivery.⁵⁵⁷ Further research is needed to develop appropriate models of care and service delivery, with attention to organisational infrastructure, governance and workforce capability.¹⁴

A discussion paper on a study of mental health care service use in New Zealand commented that Pacific people need seamless mental health services that reflect their cultural values and acknowledge the nurturing role of the family to support recovery.³³ It suggests that culturally-specific models of care will be the most effective way to improve outcomes for Pacific mental health consumers. The paper noted that Pacific people use primary care services and that general practitioners are well-placed to provide information and raise awareness about mental health issues. Pacific people may need encouragement to ensure that family members are assessed early to avoid the need for more invasive treatment.³³

The growing population of Pacific young people will have a strong impact on Pacific demographic characteristics in the future, and design and delivery of mental health services for the future must be responsive to their needs.³³ The ideal model should focus on families rather than individuals, acknowledge the spiritual dimension to healing, employ ethnic-specific workers and integrate knowledge from both Palangi and Pacific approaches.¹⁴

10 Implementation

10.1 Introduction

Effective implementation of this guideline should encourage development of the models of care discussed in Chapter 9. The New Zealand Guidelines Group (NZGG) has identified four principles which should characterise implementation. These are:

1. strong visibility of the guideline, given the opportunity that evidence-based care represents to improve the lives of people living with depression
2. the use of multifaceted approaches to engage practitioners and patients
3. recognition that all implementation is ultimately 'local'; this means an emphasis on providing useful tools and processes for practitioners, with central agencies as facilitators of change
4. a commitment to supporting the sector to measure its performance in following the guideline's recommendations.

The following sections discuss potential implementation activities which align with one or more of the principles.

10.2 Potential implementation activities

Improved access to and uptake of patient self-management tools

Chapter 6 of this guideline notes encouraging early evidence of the efficacy of web-based self-management interventions in adults with depression. For this reason, increasing access to self-management interventions should be an important implementation goal. Appendix F contains a list of web-based self-management resources. The existence of these should be published widely to practitioners, who should be encouraged to make patients aware of these tools, where patients have access to the internet.

The developing national network of mental health coordinators (see 10.2 Potential Implementation Activities, Workforce Development) within Primary Care Organisations (PHOs) should be encouraged to develop a place for these tools within local clinical pathways for people with depression.

Quality improvement collaboratives

Aligning clinical practice with evidence-based practice has been achieved using multidisciplinary collaboratives⁵⁶¹⁻⁵⁶³ Following publication of its guideline, 'Assessment and Management of People at Risk of Suicide' (2003),¹⁶² NZGG developed a collaborative methodology for systems improvement in the management of self-harm. It is based on the 'Breakthrough' approaches developed at the US-based Institute of Healthcare Improvement (IHI)⁵⁶⁴, and the Australian National Institute for Clinical Studies' (NICS) 'Community of Practice' work.⁵⁶³ The methodology has been applied to improve uptake of the guideline's recommendations in emergency departments throughout New Zealand.⁵⁶⁵ Across the 11 District Health Boards (DHBs) which participated in the New Zealand collaborative in 2007, the median percentage of self-harm or suicidality cases seen within 1 hour (as recommended in the guideline) increased from 47% to 72% during the project.⁵⁶⁶ Half of the DHBs showed increases in the proportion of guideline-recommended mental health assessments completed within 72 hours of presentation, ranging from substantial increase (0–73%) to more modest improvements(13–36%).⁵⁶⁶

Since mid-2005, a 'Mental Health Initiatives' programme has resulted in the creation of a network of new 'primary mental health coordinators'.⁵⁴³ These positions have been created to strengthen PHOs' capacity and capability to deliver primary mental health services. A recent evaluation of the programme found several challenges in the 'process of care', including communication difficulties between general practitioners and nurses, difficulties targeting the most at-risk populations, more acute cases using up resources, and far fewer Māori and Pacific people using the services than had been hoped.⁵⁴³

Such issues are to be expected in these early stages of capacity development within primary care; but the existence of this new mental health-dedicated infrastructure represents an important opportunity to employ collaborative quality improvement methods. Resources should be identified to involve primary mental health coordinators and other stakeholders from primary, community and secondary mental health care to change practices and pathways to better reflect recommendations in this guideline, and improve the experiences of care for patients.

Workforce development

Chapter 9 discusses workforce as it relates to care models for Māori and Pacific populations. In addition to these particular challenges, there is a need to build further workforce capacity to strengthen the capability of PHOs to better meet the mental health needs of enrolled populations. Priorities here are:

- increasing capacity to deliver psychological therapies in the primary care setting
- increasing capacity to provide ongoing case management and monitoring of patients with depression in the primary care setting
- increasing the use of protocol-driven assessment and management processes (see Appendix D: Assessment Tools for Common Mental Disorders), as well as structured interviewing to assess suicide risk (see Appendix C: Assessment of Suicide Risk).

The 'Mental Health Initiatives' programme and the coordinator positions it creates are an important steps toward meeting these priorities, especially the first two.

A 2005 review of post entry clinical training (PECT) recommended that the Clinical Training Agency (CTA) should better consult 'the broader mental health sector', and that programmes should better reflect the needs of primary care.⁵⁶⁷ Responsibility for funding PECT programmes passed from the Clinical Training Agency (CTA) to Mental Health Programmes Ltd (trading as Te Pou) in late 2007, and Te Pou is developing a new strategic direction for PECT. This should be considered an opportunity to strengthen programme offerings for the management of mental health in primary care, especially around psychological therapies.

Electronic evidence resources

Levels of computerisation in primary care have increased rapidly in recent years, and New Zealand has been top-ranked in an international survey of the use of electronic tools to assist routine clinical processes and communication.⁵⁶⁸

Uptake of this guideline's recommendations will be assisted by easy electronic access in a range of formats. Consideration should be given to establishing coordinated content management processes nationally, which would enable well-documented tailoring of electronic resources centring on this guideline to local service settings, consistent with the guideline recommendations.

Potentially, the development of electronic decision support tools to aid effective clinical decision making at the point of care could also increase the uptake of the recommendations in this guideline. New Zealand has significant experience in the application of electronic decision support in primary care.⁵⁶⁹⁻⁵⁷¹

A complex set of technical and commercial issues surrounds deployment of such systems. Currently, there are no standards or nationally agreed processes to assure quality in sources of evidence used to develop decision support tools. Nor are there standards for assuring the fidelity of electronic representations to their source clinical knowledge (even where tools are ostensibly evidence-based). Ensuring equitable access to high-quality electronic decision support (including for disadvantaged populations) will require a well-developed national approach to both technical and commercial issues.

Broad guideline dissemination

NZGG's experience is that a guideline's key messages should be disseminated as widely as possible, as part of the initial awareness-raising of a new guideline and to support implementation activities. In this case, key audiences are primary health practitioners, consumers and support services throughout New Zealand, via publication in multiple formats.

NZGG has been funded to develop summary statements of the most important recommendations for general practitioners. This should be followed up by the production of materials for use in primary care clinical training. Publicity of this guideline should also be sought in the academic, clinical professional and public media, and consideration should be given to production of materials for other audiences, including consumers, their family/whānau and carers, professional associations, health care and social service agencies, and the voluntary sector.

Evaluation and performance indicator development

In regional feedback workshops and formal submissions on the Ministry of Health's 'Key Directions Policy for the Information Environment' document, a key theme relating to 'Improving performance and evidence-based decisions' was identified in responses. Of these responses, 53% related to the need to develop measures of performance in evidence-based care.⁵⁷²

Options for clinical audit and performance indicator development should be scoped as soon as possible within the context of the PHO Performance Management Framework managed by District Health Boards New Zealand (DHBNZ). Scoping should include consideration of methods and measures in use overseas. For example, the NICE recommends the use of measures around the proportion of patients at high risk who are screened for depression. As at 2008, NZGG and DHBNZ have agreed in principle that there is an opportunity to inform performance indicator development with evaluation and measure development work conducted as part of this Framework.

Appendices

A: Guideline development process

B: Evidence and recommendation grading system

C: Assessment of suicide risk

D: Assessment tools for common mental disorders

E: Management of common mental disorders other than depression in young people

F: Self-management resources

G: Management of common mental disorders other than depression in adults

H: Assessing for cognitive impairment in older adults

Appendix A:

Guideline development process

Clinical questions

The Guideline Development Team (GDT) developed the following clinical questions:

1. What risk factors are associated with depression in children/adolescents/adults?
2. How do children/adolescents/adults with common mental disorders present in primary care?
3. Does routine screening for depression/common mental disorders/postnatal depression in children/adolescents/adults in primary care lead to improved outcomes?
4. What is the validity and utility of case-finding tools for assessment of depression, anxiety and dysthymia (either alone or with other common mental disorders) in children/adolescents/adults in primary care?
5. In children/adolescents/adults managed in primary care for depression do the following interventions improve outcomes:
 - a healthy lifestyle (eg, complementary and alternative medicines, exercise, etc)
 - guided self-help
 - psychological therapies
 - pharmacological therapies?
6. In children/adolescents/adults managed in primary care for depression, which models of liaison/teamwork/service delivery have the best outcomes (in general, and specifically for Māori and Pacific peoples)?

Evidence collation and appraisal

To address the clinical questions, New Zealand Guidelines Group (NZGG) used the AGREE instrument⁵⁷³ to appraise the following international guidelines for the quality of their methodologies: Agency for Healthcare Research and Quality (AHRQ) 2002,¹⁷⁶ National Institute for Health and Clinical Excellence (NICE) 2004,⁶⁵ NICE 2005,⁶⁶ NICE 2007.¹⁰¹ They were assessed as being well-developed and suitable for updating where they addressed one or more of the clinical questions.

The GDT determined that questions 3 to 5 required an updated search and systematic review, while questions 1, 2 and 6 could be answered with reference to the above-mentioned international guidelines, supplemented by a narrative review of New Zealand literature and literature published since the guidelines.

The research team determined inclusion criteria for studies pertaining to questions 3 to 6 and designed literature searches. The full searches and inclusion criteria for studies are available on the NZGG website (<http://www.nzgg.org.nz>).

Searches of electronic databases were undertaken and studies were retrieved and appraised using Scottish Intercollegiate Guidelines Network (SIGN) tools (see Appendix B: Evidence and Recommendation Grading System). The characteristics and results of studies selected for inclusion were summarised in evidence tables, which are available on the NZGG website (<http://www.nzgg.org.nz>). A considered judgment form⁵⁷⁴ was then prepared, taking into account the quality, volume, consistency, applicability and clinical impact of the evidence available.

The review of the evidence confirmed that more research is needed in many areas relating to common mental disorders. Primary care based evidence is particularly sparse. Studies conducted in primary care were prioritised, but where evidence from this setting was lacking, relevant evidence from other settings was taken into consideration in the considered judgment process.

Recommendation development

The GDT developed consensus recommendations following a review and discussion of the evidence as expressed in the evidence tables and considered judgment forms. Recommendations are graded based on the level to which they are supported by the evidence (see Appendix B: Evidence and Recommendation Grading System).

Two expert subgroups were convened to consider the evidence and draft recommendations for the specific populations of youth (children and adolescents) and older adults. The subgroups comprised both GDT members and external experts. Their recommendations were discussed and finalised by the full GDT.

Validation and finalisation

NZGG drafted the guideline with support from GDT members, expert contributors and Māori perspectives from the NZGG Board of Directors. The guideline was circulated nationally for feedback. Following consideration of the feedback, the guideline was redrafted. Significant changes were made to Chapter 7, following advice from a maternal mental health specialist, the New Zealand College of Midwives, the Royal New Zealand Plunket Society and general practitioners with an interest in this area.

Appendix B: Evidence and recommendation grading system

Details of the grading system

The evidence was assessed and graded, and recommendations were developed using the three-step process described in the New Zealand Guidelines Group (NZGG) Handbook for the Preparation of Explicit Evidence-Based Clinical Practice Guidelines.⁵⁷⁴

Step 1: Study appraisal

Studies that met the inclusion criteria for each clinical question were appraised and graded for quality, using relevant checklists developed by the Scottish Intercollegiate Guidelines Network (SIGN).⁵⁷⁵ These were modified to incorporate summary levels of evidence for the validity, magnitude/precision of effect and applicability of each study. An overall summary level of evidence was assigned to each study, as follows:

- + assigned when all or most of validity criteria met
- ~ assigned when some of criteria met and where unmet criteria are not likely to affect the validity, magnitude/precision or applicability of the results markedly
- x assigned when few or none of the criteria met.

Intermediate grades (+/~, ~/x) were assigned when overall study quality fell between these categories. Studies that met few or none of the quality criteria were excluded.

For every study included in our evidence review, the level of evidence assigned is listed alongside the citation in the reference list at the end of the guideline.

Step 2: Weighing the evidence

Evidence tables were prepared for each clinical question and were summarised on considered judgment forms.⁵⁷⁴ The Guideline Development Team (GDT) considered the body of evidence and made recommendations, based on the validity, quantity, consistency and clinical impact of the whole body of evidence.

Step 3: Developing recommendations

Grading of the recommendations was based on the quality of the evidence, which does not equate to the importance of the recommendation. When there was no evidence to answer a specific question, recommendations were based on the consensus of the GDT and were classified as 'Good Practice Points'. The NZGG Grading System is outlined below (see Grading of Recommendations).

Grading of recommendations

Recommendations	
The recommendation is supported by good evidence (based on a number of studies that are valid, consistent, applicable and clinically relevant)	A
The recommendation is supported by fair evidence (based on studies that are valid, but there are some concerns about the volume, consistency, applicability and clinical relevance of the evidence that may cause some uncertainty but are not likely to be overturned by other evidence)	B
The recommendation is supported by international expert opinion	C
Grades indicate the strength of the supporting evidence rather than the importance of the evidence	

Good practice points	
Where no evidence is available, best practice recommendations are made based on the experience of the Guideline Development Team, or feedback from consultation within New Zealand	✓

Appendix C:

Assessment of suicide risk

Suicide assessment

Have you had thoughts that life isn't worth living? Yes No

Have you thought of harming yourself? Yes No

Are you thinking of suicide? Yes No

Have you tried to harm yourself in the past? Yes No

If yes, how many times?

When was the most recent time?

in last day in last week last month longer ago (specify)

How often are you having these thoughts?

Have you thought about how you would act on these (is there a plan)?

(Does this plan seem feasible? Are the methods available? Is it likely to be lethal?)

Have you thought about when you might act on this plan?

Are there any things/reasons that stop you from acting on these thoughts?

Do you know anyone who has recently tried to harm themselves?

If any answer is 'yes' prompt with:

'Tell me more about that' as discussion will help to convey the extent of risk.

If a suicide attempt has been made

What did you hope would happen as a result of your attempt?

(Did they want to die, or end their pain?)

Do you still have access to the method used? Yes No

Did you use alcohol or drugs before the attempt?

What did you use?

Do you have easy access to a weapon? Yes No

Commentary

Consider whether the person is safe to be alone

Risk factors include:

- definite plan
- hopelessness
- severe depression
- psychotic symptoms
- recent discharge from a psychiatric unit
- use of alcohol, street drugs, particularly recent escalation
- recent suicide attempt
- single men: young, older people
- homelessness
- medical illness
- history of childhood abuse
- recent suicide attempt by a whānau/family member or a friend.

Adapted with permission from:

RAPID assessment of patients in distress. In Centre for Mental Health. Mental Health for emergency departments: a reference guide. NSW Department of Health; 2001.

A guideline on the 'Assessment and Management of People at Risk of Suicide'¹⁶² can be found at <http://www.nzgg.org.nz> – enter the guideline title into the search box, then select the publication.

Appendix D: Assessment tools for common mental disorders

Assessment tools recommended in this guideline are listed below. Copies of all tools (together with scoring instructions) can be accessed through the following New Zealand Guidelines Group (NZGG) weblink: <http://www.nzgg.org.nz/CMD-assessmenttools>

- Alcohol Use Disorders Identification Test (AUDIT)
- Clock drawing test
- CRAFFT acronym for alcohol and drugs
- Edinburgh Postnatal Depression Scale (EPDS)
- Generalised Anxiety Disorder Assessment Tool (GAD-2, GAD-7)
- Geriatric Depression Scale (GDS)
- Kessler Psychological Distress Scale (K10)
- Mini Mental State Examination (MMSE)
- Patient Health Questionnaire for Depression (PHQ-9)
- Reynolds Adolescent Depression Scale (RADS) (NB there is a fee for use of this tool)
- Substance Use and Choices Scale (SACS)
- Strengths and Difficulties Questionnaire (SDQ) ages 4–10yrs/11–17yrs/parent version
- Short Moods and Feelings Questionnaire (SMFQ) young people/parent version

Appendix E:

Management of common mental disorders other than depression in young people

The scope of this guideline does not extend to a full evidence review on the management of common mental disorders other than depression, but the following resources may be helpful for practitioners who identify or suspect that young people have common mental disorders other than depression.

Attention-deficit hyperactivity disorder

Young people with suspected attention-deficit hyperactivity disorder (ADHD) should be referred to a specialist for assessment and, if necessary, pharmacological treatment. Primary care practitioners may be comfortable to undertake ongoing prescribing and physical monitoring in liaison with the specialist and to coordinate the numerous other practitioners who may be involved in management.²⁰⁵

Parents and teachers can be advised that the following strategies may be useful:¹⁸⁸

At home (parents)

- Use simple commands
- Set defined limits and expectations
- Praise and reinforce desired behaviours (rewards)
- Establish a formal structure for time schedules
- Use lists and calendars to help prevent forgetfulness
- Break long tasks into shorter ones

At school (teachers)

- Ensure that the young person sits close to the teacher's desk (away from distractions)
- Give only one task at a time (with assignments as short as possible)
- Use written not just oral instructions for homework (in notebook to be taken home)
- Do a daily or weekly report
- Allow more time for examinations (including untimed tests)
- Ensure the young person can rely on a neighbouring student
- Ask for the help of a trained specialist tutor

A guideline for managing ADHD can be accessed online: 'New Zealand Guidelines for the Assessment and Treatment of Attention-Deficit Hyperactivity Disorder'⁵⁷⁶ at: <http://www.moh.govt.nz/publication>, search by title.

Anxiety

Anxiety is often comorbid with depression and will generally resolve along with the depression if managed in the same way.⁶⁵ Treatments for anxiety disorders include simple educational strategies, behavioural interventions, cognitive behaviour therapy, family therapy and (rarely) the use of anxiolytics.¹⁸⁸ Currently, there appears to be no relevant guideline on this topic.

Conduct disorder

The origins of conduct disorder appear to involve an interaction of genetic/constitutional, familial and social factors.⁵⁷⁷ It is often associated with parental psychosocial or mental problems and problems with parenting style. Practitioners should stress the need for significant intervention. Suggested⁵⁷⁷ management is as follows:

- assess severity and refer for treatment with a subspecialist as needed
- treat comorbid substance abuse first
- describe the likely long-term prognosis without intervention to caregiver
- structure children's activities and implement consistent behaviour guidelines
- emphasise parental monitoring of children's activities (where they are, who they are with)
- encourage the enforcement of curfews
- encourage children's involvement in structured and supervised peer activities (eg, organised sports, scouting)
- discuss and demonstrate clear and specific parental communication techniques
- help caregivers establish appropriate rewards for desirable behaviour
- help establish realistic, clearly communicated consequences for non-compliance
- help establish daily routine of child-directed play activity with parent(s)
- consider pharmacotherapy for children who are highly aggressive or impulsive, or both, or those with mood disorder.

A guideline on parent-training/education programmes in the management of children with conduct disorder is online at: <http://www.nice.org.uk/guidance/index.jsp?action=download&o=33427>

Dysthymia

The National Institute for Health and Clinical Excellence (NICE) guideline for children and young people⁶⁶ suggests that in the absence of a published evidence base for the treatment of dysthymia, the treatment of dysthymia, if clinically necessary, should follow that for mild depression.

Eating disorders

A NICE (2004) guideline for eating disorders makes recommendations on the identification, treatment and management of anorexia nervosa, bulimia nervosa and atypical eating disorders (including binge eating disorder) in primary, secondary and tertiary care for adults, adolescents and children aged 8 years and older can be accessed at the weblink below:

Eating disorders: core interventions in the treatment and management of anorexia nervosa, bulimia nervosa and related eating disorders is available at:

<http://www.nice.org.uk/cg009niceguideline>

Substance misuse/abuse

Young people with substance misuse or abuse should receive an intervention based on their level of use/misuse/abuse. Referral to school counselling services, family services and/or mental health services should be considered.

For high-risk users, counselling is the mainstay of treatment, which may be in an individual, family or group format.²⁴⁷ Brief behavioural therapies and family-directed therapies have been shown to effectively reduce drug use in adolescents.²⁴⁷ Group therapy (based on the twelve steps of Alcoholics Anonymous) is effective for adults, but has not been widely studied in adolescents.^{101,247}

The management plan should include review arrangements.⁵⁷⁸

A NICE guideline for managing substance misuse in young people can be accessed at: <http://guidance.nice.org.uk/PH14>

Appendix F: Self-management resources

These self-management resources are all available free of charge.

Fact sheets to learn self-management skills

Reducing stress

http://www.beyondblue.org.au/index.aspx?link_id=89.586&tmp=FileDownload&fid=326

Sleeping well

http://www.beyondblue.org.au/index.aspx?link_id=89.586&tmp=FileDownload&fid=327

Keeping active

http://www.beyondblue.org.au/index.aspx?link_id=89.586&tmp=FileDownload&fid=328

Reducing alcohol and drugs

http://www.beyondblue.org.au/index.aspx?link_id=89.586&tmp=FileDownload&fid=329

Changing your thinking

http://www.beyondblue.org.au/index.aspx?link_id=7.246&tmp=FileDownload&fid=799

Self-management CBT-based booklets

Resources from the Centre for Applied Research in Mental Health and Addiction (CARMHA), Canada:

Antidepressant skills for teenagers

<http://www.carmha.ca/publications/index.cfm?fuseaction=publications.showOnePublication&contentID=2>

Self-management CBT workbook for adults

<http://www.carmha.ca/publications/index.cfm?fuseaction=publications.showOnePublication&contentID=1>

Dealing with mood problems in the workplace

<http://www.carmha.ca/antidepressant-skills/work/>

Self-management resiliency tool

Resources from the Mental Health Foundation of New Zealand:

Wellness and Resilience Action Planning (WRAP)

<http://www.mentalhealth.org.nz/page.php?p=181&keyword=WrAP&b=1>

Interactive web CBT programmes

MoodGYM <http://moodgym.anu.edu.au>

Reachout <http://www.reachoutcentral.com.au>

Information about depression

For adults

<http://www.mentalhealth.org.nz/conditions.php?ID=14&p=&fp=>

For young people

<http://www.mentalhealth.org.nz/conditions.php?ID=13&p=&fp=>

For women in the postnatal period

<http://www.mentalhealth.org.nz/page.php?97>

For older adults

<http://www.mentalhealth.org.nz/page.php?97>

For men

<http://www.mentalhealth.org.nz/page.php?97>

For friends and family

<http://www.mentalhealth.org.nz/page.php?97>

General

<http://www.depression.org.nz>

<http://www.outoftheblue.org.nz>

<http://www.thelowdown.co.nz>

<http://www.beyondblue.org.au>

<http://www.bluepages.anu.edu.au>

Information about mental disorders in Chinese

Information sheets in Chinese are available from the Mental Health Foundation.

For young people

There are four titles in the series: Feeling Sad, Feeling Stressed, Feeling Lonely, and Feeling Angry:

<http://www.mentalhealth.org.nz/news.php?p=44&fp=22&ID=195&keyword=asian&b=1>

For all ages

Reducing stigma and discrimination associated with mental illness:

<http://www.mentalhealth.org.nz/page.php?97>

Further resources

New Zealand Guidelines Group

- Depression – there is a way through it: information for you, and for family, whānau, friends and support networks
- Having suicidal thoughts? Information for you, and for family, whānau, friends and support networks

These resources are available at: <http://www.nzgg.org.nz> – click on ‘Consumer Resources’ then ‘Mental Health’

Crisis phone services

Youthline

<http://www.youthline.co.nz> – Freephone 0800 37 66 33

Lifeline

<http://www.lifeline.org.nz> – Freephone 0800 543 354

Mental Health Services Crisis Response Team

Your local team is listed under ‘Hospitals and other Health Service Providers’ in the green section of your local phone book.

Appendix G: Management of common mental disorders other than depression in adults

The scope of this guideline does not extend to the full evidence review on the management of common mental disorders other than depression, but the following resources may be helpful for practitioners who identify or suspect that patients have common mental disorders other than depression.

Guidelines or topic reviews for managing anxiety and substance abuse in adults in primary care can be accessed at the weblinks below.

Anxiety

Management of anxiety (panic disorder, with or without agoraphobia, and generalised anxiety disorder) in adults, in primary, secondary and community care, National Institute for Health and Clinical Excellence (NICE) April 2007, at: <http://guidance.nice.org.uk/CG22/guidance/pdf/English>

Substance abuse

Drugs other than alcohol

Drug misuse and dependence: UK guidelines on clinical management (UK Department of Health, 2007), at: http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_4009665

Alcohol

The identification and management of hazardous and harmful drinking, with or without alcohol dependence, alcohol detoxification in primary care, and the maintenance of abstinence following detoxification: topic review (National Health Service 2007: based on the Review of the Effectiveness of treatment for alcohol problems by the National Treatment Agency for Substance Misuse (2006) and Guideline on the management of harmful drinking and alcohol dependence in primary care by the Scottish Intercollegiate Guidelines Network (2003), at: http://www.cks.library.nhs.uk/alcohol_problem_drinking

Dysthymia

Dysthymia is a chronic lowering of mood that does not fulfil the criteria for recurrent depressive disorder in terms of either severity or duration of individual episodes. There are variable phases of minor depression and comparative normality. Despite tiredness, feeling down and not enjoying very much, people with dysthymia are usually able to cope with everyday life.⁶⁵ DSM criteria for dysthymia in adults require a duration of at least 2 years.²⁵⁵

The management of dysthymia is discussed briefly in the Royal Australian and New Zealand College of Psychiatrists' clinical practice guidelines for depression, at: <http://www.ranzcp.org/pdffiles/cpgs/Depression%20Clinican%20Full.pdf>

Further information given below is derived from the relevant sections of two guidelines and a Cochrane systematic review.

No guidelines were found specifically on the management of dysthymia. The information below derives from the relevant sections of two guidelines and a Cochrane systematic review.

beyondblue Guideline

Treat dysthymia as for moderate depression with an antidepressant or one of the brief psychological therapies. Monitor for side effects (at least twice a week by telephone) and encourage compliance with the selected treatment. If after 6–8 weeks symptoms still persist, consider changing to a second- or third-line treatment option.⁵²⁹

National Guidelines for Seniors' Mental Health, Canada – applies to older adults

People with dysthymic disorder should be treated with pharmacological therapy, with or without psychotherapy, with periodic reassessment to measure response. [B]⁵¹⁰

In specific clinical situations, for example where patients do not wish to take antidepressants, psychotherapy may be used alone with periodic reassessment to measure response.⁵¹⁰

Lima 2005

A Cochrane review of pharmacotherapy for dysthymia⁵⁷⁹ found that antidepressants are effective in the treatment of dysthymia with no differences between and within drug classes. Tricyclic antidepressants are more likely to cause adverse events and dropouts. There is little information on quality of life and medium- or long-term outcome.

Appendix H: Assessing for cognitive impairment in older adults

Practical screening instruments by clinical issue and appropriate test

Want to find cognitive impairment of at least moderate severity

- Mini-Mental State Examination

Suspicion of mild impairment or highly educated patient

- Hopkins Verbal Learning Test, or
- Word List Acquisition Test

Very little time available

- Memory Impairment Screen, or
- Clock Drawing Test

Plenty of time available

- Cambridge Cognitive Examination
- Modified Mini-Mental State Examination
- Community Screening Interview for Dementia, or
- Montreal Cognitive Assessment⁵²³

Glossary, abbreviations and acronyms

Adult	Aged 18 years or over
Anhedonia	Inability to feel pleasure or happiness from things that are normally pleasurable
Anticholinergic side effects	Side effects such as dry mouth, blurred vision, constipation, urinary retention and sweating, which may occur with a number of drugs including tricyclic antidepressants
Attachment difficulty	Difficulty in establishing a close relationship between child and primary caregivers in early childhood. Attachment is a two-way process in which both the primary caregiver(s) and the infant are active participants
Atypical depression	A sub-type of major depressive disorder in which people have reactive mood and at least two of the following four symptoms: hyperphagia, hypersomnia, leaden paralysis or a lifetime history of interpersonal sensitivity to rejection, resulting in functional impairment
Augment	Increase the effectiveness or speed of response of one treatment by adding another
Behaviour therapy (BT)	A structured psychological intervention, in which the therapist and patient work collaboratively to identify the effects of behaviours on current symptoms, feelings states and/or problem areas. They seek to reduce symptoms and problematic behaviours through behavioural tasks related to reducing avoidance, graded exposure, activity scheduling, behavioural activation and increasing positive behaviours
Cognitive behavioural therapies (CBT)	Structured psychological interventions in which the patient works collaboratively with a therapist to identify the types and effects of thoughts, beliefs and interpretations on current problem areas; develops skills to identify, monitor and then counteract problematic thoughts, beliefs and interpretations related to the target symptoms/problems; and learns a repertoire of appropriate coping skills
Comorbidity	Two or more diseases or conditions occurring simultaneously

Delirium	A disturbance of consciousness, usually fluctuating, and a change in cognition developing over a short period of time
Delusion	A firm belief or perception held in the face of evidence to the contrary, not accounted for by cultural or religious background
Dementia	Multiple cognitive deficits that include memory impairment and at least one of the following cognitive disturbances: agnosia, aphasia, apraxia or a disturbance in executive functioning
Depression	<p>In this guideline, the term depression is used as shorthand for a disorder meeting DSM or ICD diagnostic criteria for major depression/major depressive episode.</p> <p>These criteria refer to a cluster of depressive symptoms (see below) that is present on most days, for most of the time, for at least 2 weeks and which is out of the ordinary for that individual. See relevant manual/website for details^{243,306}</p>
Depressive disorder	Is used to refer to a condition meeting DSM or ICD diagnostic criteria for a depressive disorder (eg, major depression, dysthymia, postnatal depression)
Depressive symptoms	<p>ICD-10 and DSM-IV include the following as depressive symptoms:^{243,306}</p> <ul style="list-style-type: none"> • depressed mood • loss of interest or pleasure in normal or previously enjoyable activities • decreased energy and increased fatigue • sleep disturbance • inappropriate or excessive feelings of worthlessness or guilt • diminished ability to think or concentrate • appetite change with corresponding weight change • psychomotor agitation or retardation • suicidal ideation or recurrent thoughts of death. <p>The ICD-10 lists loss of confidence or self esteem as an additional symptom³⁰⁶</p>
DSM	Commonly known as DSM, the Diagnostic and Statistical Manual of Mental Disorders lists different categories of mental disorders and the criteria for diagnosing them

Dysthymia	A chronic lowering of mood that does not fulfil the criteria for recurrent depressive disorder, in terms of either severity or duration of individual episodes
GDT	Guideline Development Team
GP	General practitioner
Grandiose delusions	A delusion in which one believes oneself possessed of great wealth, intellect, importance and/or power
Hallucinations	A sensory perception in the absence of an external stimulus, which occurs while conscious and awake
Hypomania	See mania
Hyposomnia	Insufficient sleep
ICD	Most commonly known by the abbreviation ICD, the International Statistical Classification of Diseases and Related Health Problems provides codes to classify diseases and a wide variety of signs, symptoms, abnormal findings, complaints, social circumstances and external causes of injury or disease
Interpersonal psychotherapy (IPT)	A structured psychological intervention that focuses on interpersonal issues and where therapist and patient work collaboratively to identify the effects of key problematic areas related to interpersonal conflicts, role transitions, grief and loss, and social skills, and their effects on current problems. They seek to reduce symptoms by learning to cope with or resolve these problem areas
Maintenance treatment	Treatment after remission of depressive symptoms in order to prevent relapse or recurrence
Mania	Symptoms of mania (impacting on daily functioning to a marked degree) or hypomania (clearly observable changes to others that are uncharacteristic but not impacting on life to a marked degree) are: <ul style="list-style-type: none"> • inflated self-esteem or grandiosity • decreased need for sleep (eg, feels rested after only 3 hours of sleep) • more talkative than usual or pressure to keep talking • flight of ideas or subjective experience that thoughts are racing • distractibility (ie, attention too easily drawn to unimportant or irrelevant external stimuli)

continued over...

Mania continued...	<ul style="list-style-type: none"> • increase in goal-directed activity (either socially, at work or school, or sexually) • psychomotor agitation, or excessive involvement in pleasurable activities that have a high potential for painful consequences (eg, engaging in unrestrained buying sprees, sexual indiscretions, or foolish business investments)
Mate Māori	Ill health or uncharacteristic behaviour among Māori which is related to spiritual causes and may take several forms, with both physical and mental presentations. It requires expert cultural assistance ¹⁶⁰
Melancholic depression	Depression distinguished by characteristic somatic symptoms and psychomotor change, with the loss of pleasure in all, or almost all, activities or a lack of response to usual pleasurable stimuli
Mindfulness-based cognitive therapy (MBCT)	A form of cognitive therapy that develops a person's ability to be attentive and aware of their negative thoughts but not react to them. The idea is to change the person's relationship with their negative thoughts, rather than the content of their thoughts
Minor depression	A mood disorder with depressive signs and symptoms that are just below the threshold for diagnosis of major depression
Mood stabilising drug	A drug used to prevent moods from cycling and shifting, used for disorders characterised by intense and sustained mood shifts such as bipolar disorder. Most mood stabilisers are anticonvulsants, with the important exception of lithium
Older adult	Aged 60–65 years or over
Omphalocele	A birth defect of the abdominal wall in which the infant's intestines or other abdominal organs protrude outside the abdominal wall in a sac
Oppositional defiant disorder	An ongoing pattern of hostile and defiant behaviour towards authority figures, which goes beyond the bounds of normal age-appropriate behaviour. It is strongly associated with progression to the more serious Conduct Disorder.
Overanxious disorder	Term for Generalised Anxiety Disorder (GAD) occurring in children

Pharmacokinetics	The study of the movement of drugs into, within and out of the body ie, what the body does to the drug
Placebo	A physically inactive substance given as part of a clinical research trial. It has no specific pharmacological activity against illness
Problem-solving therapy	A structured psychological intervention that focuses on learning to cope with specific problem areas and where the therapist and patient work collaboratively to identify and prioritise key problem areas, break problems down into specific manageable tasks, solve problems, and develop appropriate coping behaviours
Psychodynamic psychotherapy	A psychological intervention in which the therapist and patient explore conflicts and how these are represented in current situations and relationships, and patients are given an opportunity to explore feelings and conflicts, originating in the past. Therapy is non-directive and patients are not taught specific skills such as thought monitoring or problem-solving
Psychomotor agitation and retardation	Psychomotor activities are the physical movements related to mental processes. Agitation is displayed by unintentional and purposeless motions (eg, incoherent conversation, expansive gesturing, pacing and hair twirling) and retardation by a slowing of thought processes, speech and physical movements
Psychotic symptoms	Hallucinations and/or delusions
Rangatahi	Adolescent
Screening	A test performed on a large number of people to identify those who have a disorder, used routinely over and above customary clinical assessment
Self-management	Engagement in activities that protect and promote health, monitoring and management of the symptoms and signs of illness, management of the impact of illness on functioning, emotions and interpersonal relationships and adherence to treatment regimes
Sleep hygiene	Behavioural practices that promote effective sleep
Somatic/somatisation	Related to the body rather than the mind: somatisation refers to the expression of a mental event via physical symptoms or a physical disorder

Statistical significance	An effect size that is statistically significant is one where the probability of achieving the result by chance is less than 5%
Stepped care model	A sequence of treatment options to offer simpler interventions first and more complex interventions if the patient has not benefited
STI	Sexually transmitted infection
Sub-threshold depression	Depressive symptoms that fail to meet criteria for major depressive disorder
Tamariki	Young child/children
Therapeutic relationship	A collaborative relationship between practitioner and patient which has an emotional dimension
Whakamaa	A mental and behavioural response among Māori, associated with a sense of disadvantage or a loss of standing. It can manifest as a marked slowness of movement and a lack of responsiveness to questioning, as well as avoidance of any engagement with the questioner ⁵⁸⁰
Young person	Aged under 18 years

References

1. The MaGPIe Research Group. The nature and prevalence of psychological problems in New Zealand primary healthcare: a report on Mental Health and General Practice Investigation (MaGPIe). *N Z Med J* 2003;116(1171):1–15.
2. Bushnell J, MaGPIe Research Group. Frequency of consultations and general practitioner recognition of psychological symptoms. *Br J Gen Pract* 2004;54(508):838–42.
3. Klinkman MS, Schwenk TL, Coyne JC. Depression in primary care – more like asthma than appendicitis: the Michigan Depression Project. *Can J Psychiatry* 1997;42(9):966–73.
4. Collings S, Group TMR. Disability and the detection of mental disorder in primary care. *Soc Psychiatry Psychiatr Epidemiol* 2005;40:994–1002.
5. Katerndahl DA, Larme AC, Palmer RF, et al. Reflections on DSM classification and its utility in primary care: case studies in mental disorders. *Prim Care Companion J Clin Psychiatry*. 2005;7(3):91–9.
6. Hickie I. Is depression overdiagnosed? No. *BMJ* 2007;335(7615):329.
7. Parker G. Is depression overdiagnosed? Yes. *BMJ* 2007;335(7615):328.
8. Woivalin T, Krantz G, Mantyranta T, et al. Medically unexplained symptoms: perceptions of physicians in primary health care. *Fam Pract* 2004;21(2):199–203.
9. Ministry of Health British Columbia. Depression (MDD) – diagnosis and management. Victoria: Guidelines and Protocols Advisory Committee; 2004.
10. Trauer T, Eagar K, Mellsoop G. Ethnicity, deprivation and mental health outcomes. *Aust Health Rev* 2006;30(3):310–21.
11. Cram F, Smith L, Johnstone W. Mapping the themes of Maori talk about health. *N Z Med J* 2003;116(1170):357–63.
12. Bridgman G. Mental illness and people from the island nations of the Pacific. Auckland: Mental Health Foundation of Aotearoa New Zealand; 1996.
13. Durie M. *Te mana, te kawanatanga: the politics of Māori self-determination*. Auckland: Oxford University Press; 1998.
14. Robinson G, Warren H, Samu K, et al. Pacific healthcare workers and their treatment interventions for Pacific clients with alcohol and drug issues in New Zealand. *N Z Med J* 2006;119(1228):119–28.
15. Jansen P, Smith K. Maori experiences of primary health care: breaking down the barriers. *N Z Fam Physician* 2006;33(5):298–300.
16. Durie M. Counsellors “on the wrong track” with Maori patients. *New Zealand Herald* 2007 November 2nd.
17. Bush A, Collings S, Tamasese K, et al. Samoan and psychiatrists’ perspectives on the self: qualitative comparison. *Aust N Z J Psychiatry* 2005;39:621–6.
18. Pere RT. *Te Wheke: a celebration of infinite wisdom*. Gisborne: Ao Ako Global Learning New Zealand Limited; 1991.

19. Durie M. Whaiora: Maori health development. Auckland: Oxford University Press; 1998.
20. Love C. Extensions on Te Wheke. The Open Polytechnic of New Zealand Working Papers 2004.
21. Ministry of Health. He tatai i te are: guidelines for developing Maori health education resources. Wellington: Ministry of Health; 1997.
22. Ministry of Health. Te orau ora: Pacific mental health profile. Wellington: Ministry of Health; 2005.
23. Tapsell R, Mellsop GI. The contributions of culture and ethnicity to New Zealand mental health research findings. *Int J Soc Psychiatry* 2007;53(4):317–24.
24. Marsden M. The woven universe: selected writings of Rev Maori Marsden: Te-Wananga-o-Raukawa; 2003.
25. Mental Health Commission. Te Hononga 2015: connecting for greater well-being. Wellington; 2007.
26. Hirini P. Counselling Maori clients: He whakawhiti nga whakaaro i te tangata whaiora Maori. *NZ J Psychol* 1997;26(2):13–8.
27. Crawley L, Pulotu-Endemann FK, Stanley-Findlay RTU. Strategic directions for the mental health services of Pacific Islands People. Wellington: Ministry of Health; 1995.
28. Ministry of Health. Te Kōkiri: The Mental Health and Addiction Action Plan 2006–2015. Wellington: Ministry of Health; 2006.
29. Baxter J, Kingi TK, Tapsell R, et al. Prevalence of mental disorders among Maori in Te Rau Hinengaro: The New Zealand Mental Health Survey. *Aust N Z J Psychiatry* 2006;40(10):914–23.
30. Harris R, Tobias M, Jeffreys M, et al. Effects of self-reported racial discrimination and deprivation on Maori health and inequalities in New Zealand: cross-sectional study. *Lancet* 2006;367(9527):2005–9.
31. Ministry of Health. Reducing inequalities in health. Wellington: Ministry of Health; 2002.
32. Howden-Chapman P, Tobias M. Social inequalities in health: New Zealand 1999. Wellington: Ministry of Health; 2000.
33. Polotu-Endemann FK, Annandale M, Instone A. A Pacific perspective on the NZ Mental Health Classification and Outcomes Study (CAOS): a discussion paper. Wellington: Mental Health Commission; 2004.
34. Oakley Browne MA, Wells JE, Scott KM. (eds). Te Rau Hinengaro: The New Zealand Mental Health Survey. Wellington: Ministry of Health; 2006.
35. Huakau G, Bray A. Talking Disabilities from a Pacific Perspective. Dunedin: Donald Beasley Institute; 2000.
36. Davis P, Suaalii-Sauni T, Lay-Yee R, et al. Pacific patterns in primary health care: a comparison of Pacific and all patient visits to doctors: the National Primary Medical Care Survey (NatMedCa): 2001/02. Report 7. Wellington: Ministry of Health; 2005.
37. Toafa VM, Moata'ane LM, Guthrie BE. Belief and trust: health caring for migrant Tongan healers and patients in New Zealand. *Pacific Health Dialogue* 1999;6(2):160–7.

38. Tse S, Tong K, Hong C, et al. Asian people in New Zealand. In: George IS, editor. *Cole's Medical Practice in New Zealand*. Wellington: Medical Council of New Zealand; 2007. p. 83–9.
39. Ho E, Au S, Bedford C, et al. *Mental health issues for Asians in New Zealand: a literature review*. Wellington: Mental Health Commission; 2003.
40. Ministry of Health. Section 5: Mental health issues. In: *Refugee health care: a handbook for health professionals*. Wellington: Ministry of Health; 2001.
41. Ministry of Health. Section 3: The consultation – communicating effectively with refugee clients. In: *Refugee health care: a handbook for health professionals*. Wellington: Ministry of Health; 2001.
42. Kim-Cohen J, Caspi A, Moffitt TE, et al. Prior juvenile diagnoses in adults with mental disorder: developmental follow-back of a prospective-longitudinal cohort. *Arch Gen Psychiatry* 2003;60(7):709–17.
43. The MaGPIe Research Group. Mental disorders among Maori attending their general practitioner. *Aust N Z J Psychiatry* 2005;39:401–6.
44. Foliaki SA, Kokaua J, Schaaf D, et al. Twelve-month and lifetime prevalences of mental disorders and treatment contact among Pacific people in Te Rau Hinengaro: the New Zealand Mental Health Survey. *Aust N Z J Psychiatry* 2006;40(10):924–34.
45. Fergusson D, Horwood J, Lynskey M. Children and adolescents. In: Ellis PM, Collings CD, editors. *Mental health in New Zealand from a public health perspective*. Wellington: Ministry of Health; 1997. p. 136–63.
46. McGee R, Feehan M, Williams S. Mental health. In: Silva PA, Stanton WR, editors. *From child to adult: the Dunedin Multidisciplinary Health and Development Study*. Auckland: Oxford University Press; 1996. p. 150–62.
47. Fergusson D, Horwood L. The Christchurch Health and Development Study: review of findings on child and adolescent mental health. *Aust N Z J Psychiatry* 2001;35(3):287–96.
48. Fergusson DM, Lynskey MT, Horwood LJ. Attentional difficulties in middle childhood and psychosocial outcomes in young adulthood. *Journal of Child Psychology and Psychiatry* 1997;38:633–44.
49. Hankin BL, Abramson LY, Moffitt TE, et al. Development of depression from preadolescence to young adulthood: emerging gender differences in a 10-year longitudinal study. *J Abnorm Psychol* 1998;107(1):128–40.
50. Pavuluri MN, Luk S-L. Pattern of preschool behaviour problems in New Zealand, using the Behaviour Check List. *J Paediatr Child Health* 1996;32:132–7.
51. Costello EJ, Angold A, Burns B, et al. The Great Smoky Mountains Study of Youth: goals, design, methods and the prevalence of DSM-III-R disorders. *Arch Gen Psychiatry* 1996;53(12):1129–36.
52. Anderson JC, Williams S, McGee R, et al. DSM-III disorders in preadolescent children. *Arch Gen Psychiatry* 1987;44:69–76.
53. Mineka S, Watson D, Clark LA. Comorbidity of anxiety and unipolar mood disorders. *Annu Rev Psychol* 1998;49:377–412.
54. Zeitlin H. Psychiatric comorbidity with substance misuse in children and teenagers. *Drug Alcohol Depend* 1999;55:225–34.

55. Patton R, Crawford M, Touquet R. Hazardous drinkers in the accident and emergency department – who accepts advice? *Emerg Med J* 2004;21(4):491–2.
56. Ministry of Health. Alcohol use in New Zealand: analysis of the 2004 Health Behaviours Survey. Wellington: Ministry of Health; 2007.
57. Adolescent Health Research Group. A health profile of New Zealand youth who attend secondary school. *Journal of New Zealand Medical Association* 2003;116(1171):1–8.
58. Feehan M, McGee R, Raja SN, et al. DSM-III-R disorders in New Zealand 18-year-olds. *Aust N Z J Psychiatry* 1994;28(1):87–99.
59. Wilson CR, Sherritt L, Gates E, et al. Are clinical impressions of adolescent substance use accurate? *Pediatrics* 2004;114(5):e536–40.
60. Haavisto A, Sourander A, Multimaki P, et al. Factors associated with depressive symptoms among 18-year-old boys: a prospective 10-year follow-up study. *J Affect Disord* 2004;83(2–3):143–54.
61. Weissman M, Wolk S, Goldstein RB, et al. Depressed adolescents grown up. *JAMA* 1999;281(18):1707–13.
62. Dunn V, Goodyer IM. Longitudinal investigation into childhood and adolescence-onset depression: psychiatric outcome in early adulthood. *Br J Psychiatry* 2006;188:216–22.
63. Gregory AM, Caspi A, Moffitt TE, et al. Juvenile mental health histories of adults with anxiety disorders. *Am J Psychiatry* 2007;164:301–8.
64. Moffitt TE, Caspi A, Harrington H, et al. Males on the life-course-persistent and adolescence-limited antisocial pathways: follow-up at age 26 years. *Development & Psychopathology* 2002;14(1):179–207.
65. National Institute for Health and Clinical Excellence. Depression: Management of depression in primary and secondary care. National Clinical Practice Guideline Number 23. London: National Institute for Health and Clinical Excellence; 2004. [+]
66. National Institute for Health and Clinical Excellence. Depression in children and young people: identification and management in primary, community and secondary care. London: National Institute for Health and Clinical Excellence; 2005. [+]
67. Rutter M, Moffitt TE, Caspi A. Gene–environment interplay and psychopathology: multiple varieties but real effects. *Journal of Child Psychology and Psychiatry* 2006;47(3/4):226–61.
68. Kendler K, Gardner C, Prescott C. Toward a comprehensive developmental model for major depression in men. *Am J Psychiatry* 2006;163(1):115–24.
69. Bottiglieri T, Laundry M, Crellin R, et al. Homocysteine, folate, methylation, and monoamine metabolism in depression. *J Neurol Neurosurg Psychiatry* 2000;69(4):228–32.
70. Goodyer I, Herbert J, Tamplin A, et al. First-episode major depression in adolescents. Affective, cognitive and endocrine characteristics of risk status and predictors of onset. *Br J Psychiatry* 2000;Feb 176:142–9.
71. Alpert J, Fava M. Nutrition and depression: the role of folate. *Nutr Rev* 1997;55(5):145–9.

72. Kendler K, Kuhn J, Prescott C. The interrelationship of neuroticism, sex, and stressful life events in the prediction of episodes of major depression. *Am J Psychiatry* 2004;161(4):631–6.
73. Angold A, Costello EJ, Farmer EMZ, et al. Impaired but undiagnosed. *J Am Acad Child Adolesc Psychiatry* 1999;38(2):129–37.
74. Crayton JW, Walsh WJ. Elevated serum copper levels in women with a history of postpartum depression. *J Trace Elem Med Biol* 2007;21(1):17–21.
75. Gilbody S, Lightfoot T, Sheldon TA. Is low folate a risk factor for depression? A meta analysis and exploration of heterogeneity. *J Epidemiol Community Health* 2007;61:631–7.
76. Shores MM, Sloan KL, Matsumoto A. Increased incidence of diagnosed illness in hypogonadal older men. *Arch Gen Psychiatry* 2004;61(2):162–7.
77. Lin PY, Su KP. A meta-analytic review of double-blind, placebo-controlled trials of antidepressant efficacy of omega-3 fatty acids. *J Clin Psychiatry* 2007;68:1056–61.
78. Abou-Saleh MT, Coppen A. Folic acid and the treatment of depression. *J Psychosom Res* 2006;61(3).
79. Nuechterlein K, Dawson ME. A heuristic vulnerability/stress model of schizophrenia. *Schizophr Bull* 1984;10(2):300–12.
80. Bruder-Costello B, Warner V, Talati A, et al. Temperament among offspring at high and low risk for depression. *Psychiatry Res* 2007;153(2):145–51.
81. Brown GW, Craig TK, Harris TO, et al. Development of a retrospective interview measure of parental maltreatment using the Childhood Experience of Care and Abuse (CECA) instrument – a life-course study of adult chronic depression – 1. *J Affect Disord* 2007;103(1–3):205–15.
82. Kim-Cohen J, Moffitt TE, Caspi A, et al. Genetic and environmental processes in young children’s resilience and vulnerability to socioeconomic deprivation. *Child Dev* 2004;75(3):651–68.
83. Brown GW, Craig TK, Harris TO, et al. Child-specific and family-wide risk factors using the retrospective Childhood Experience of Care & Abuse (CECA) instrument: a life-course study of adult chronic depression – 3. *J Affect Disord* 2007;103(1–3):225–36.
84. Anda RF, Brown DW, Felitti VJ, et al. Adverse childhood experiences and prescribed psychotropic medications in adults. *Am J Prev Med* 2007;32(5):389–94.
85. Bottonari KA, Roberts JE, Kelly MA, et al. A prospective investigation of the impact of attachment style on stress generation among clinically depressed individuals. *Behaviour Research & Therapy*. 2007;45(4):179–88.
86. Wadsworth ME, Achenbach TM. Explaining the link between low socioeconomic status and psychopathology: testing two mechanisms of the social causation hypothesis. *J Consult Clin Psychol* 2005;73(6):1146–53.
87. Connor KM, Davidson JR. Development of a new resilience scale: the Connor-Davidson Resilience Scale (CD-RISC). *Depression & Anxiety*. 2003;18(2):76–82.
88. Vaishnavi S, Connor K, Davidson JR. An abbreviated version of the Connor-Davidson Resilience Scale (CD-RISC), the CD-RISC2: psychometric properties and applications in psychopharmacological trials. *Psychiatry Res* 2007;152(2–3):293–7.

89. Caspi A, Moffitt TE, Newman DL, et al. Behavioral observations at age 3 years predict adult psychiatric disorders. Longitudinal evidence from a birth cohort. *Arch Gen Psychiatry* 1996;53(11):1033–9.
90. Dallaire DH, Weinraub M. Infant–mother attachment security and children’s anxiety and aggression at first grade *J Appl Dev Psychol* 2007;28 (5–6):477–92.
91. Murray L, Halligan SL, Adams G, et al. Socioemotional development in adolescents at risk for depression: the role of maternal depression and attachment style. *Development & Psychopathology*. 2006;18(2):489–516.
92. Collishaw S, Pickles A, Messer J, et al. Resilience to adult psychopathology following childhood maltreatment: evidence from a community sample. *Child Abuse & Neglect*. 2007;31(3):211–29.
93. Earvolino-Ramirez M. Resilience: a concept analysis. *Nurs Forum (Auckl)* 2007;42(2).
94. Abramson L, Metalsky G, Alloy L. Hopelessness depression: a theory-based subtype of depression. *Psychol Rev* 1989;96(2):358–72.
95. Abela JR, McGirr A, Skitch SA. Depressogenic inferential styles, negative events, and depressive symptoms in youth: an attempt to reconcile past inconsistent findings. *Behaviour Research & Therapy* 2007;45(10):2397–406.
96. Kim-Cohen J. Resilience and developmental psychopathology. *Child Adolescent Clinics of North America* 2007;7:271–83.
97. Achenbach TM, Howell CT, McConaughy SH, et al. Six-year predictors of problems in a national sample of children and youth: II. signs of disturbance. *J Am Acad Child Adolesc Psychiatry* 1995 34(4):488–98.
98. Block JH, Gjerde PF, Block JH. Personality antecedents of depressive tendencies in 18-year-olds: a prospective study. *J Pers Soc Psychology*. 1991 60(5):726–38.
99. Goodwin RD, Fergusson DM, Horwood LJ. Association between anxiety disorders and substance use disorders among young persons: results of a 21-year longitudinal study. *J Psychiatric Res*. 2004;38(3):295–304
100. Gavin NI, Gaynes BN, Lohr KN, et al. Perinatal depression: a systematic review of prevalence and incidence. *Obstet Gynecol Annu* 2005;106(5 Pt 1):1071–83.
101. National Institute for Health and Clinical Excellence. Antenatal and Postnatal Mental Health. London: National Institute for Health and Clinical Excellence; 2007. [+]
102. Cooper PJ, Murray L. Course and recurrence of postnatal depression. Evidence for the specificity of the diagnostic concept. *Br J Psychiatry* 1995;166(2):191–5.
103. Ferguson W. How to treat postnatal depression. *New Zealand Doctor* 2007;September 2007:25–7.
104. Trevarthen C. Communication and cooperation in early infancy: a description of primary intersubjectivity. In: Bullowa M, editor. *Before speech: the beginning of interpersonal communication*. Cambridge: Cambridge University Press; 1979. p. 321–47.
105. Bonari L, Pinto N, Ahn E, et al. Perinatal risks of untreated depression during pregnancy. *Can J Psychiatry* 2004;49:726–35.
106. Stein A, Gath DH, Bucher J, et al. The relationship between post-natal depression and mother-child interaction. *Br J Psychiatry* 1991;158(Jan.):46–52.

107. Halligan SL, Murray L, Martins C, et al. Maternal depression and psychiatric outcomes in adolescent offspring: a 13-year longitudinal study. *J Affect Disord* 2007;97(1–3):145–54.
108. Murray L, Cooper P. Effects of postnatal depression on infant development. *Arch Dis Child* 1997;77(2):99–101.
109. Lovestone S, Kumar R. Postnatal psychiatric illness: the impact on partners. *Br J Psychiatry* 1993;163:210–6.
110. Kuruvilla G, Davidson T, McCabe MP, et al. Treatment of depression in low-level care residential facilities for the elderly. *Aust N Z J Psychiatry* 2006;40(Supplement 1):A50.
111. van't Veer-Tazelaar PJ, Harm WJ, van Marwijk APD, et al. Depression in old age (75+), the PIKO study. *J Affect Disord* 2008;106(3):295–9.
112. Karlin BE, Fuller JD. Meeting the mental health needs of older adults. *Geriatrics* 2007;62(1):26–35.
113. Scott KM, Bruffaerts R, Tsang A, et al. Depression–anxiety relationships with chronic physical conditions: results from the World Mental Health surveys. *J Affect Disord* 2007;103(1–3):113–20.
114. Evans DL, Charney DS, Lewis L, et al. Mood disorders in the medically ill: scientific review and recommendations. *Biol Psychiatry* 2005;58(3):175–89.
115. Fergusson DM, Horwood LJ, Beautrais AL. Is sexual orientation related to mental health problems and suicidality in young people? *Arch Gen Psychiatry* 1999;56(10):876–80.
116. Henrickson M, Neville S. “You have to be strong to be gay”: bullying and educational attainment in LGB New Zealanders. *The Journal of Gay and Lesbian Social Services* 2007;19(3/4):67–85.
117. King M, Nazareth I. The health of people classified as lesbian, gay and bisexual attending family practitioners in London: a controlled study. *BMC Public Health* 2006;8(6):127.
118. Welch S, Collings SC, Howden-Chapman P. Lesbians in New Zealand: their mental health and satisfaction with mental health services. *Aust N Z J Psychiatry* 2000;34(2):256–63.
119. Neville S, Henrickson M. Perceptions of lesbian, gay and bisexual people of primary healthcare services. *J Adv Nurs* 2006;55(4):407–15.
120. Ministry of Health. Suicide facts: 2005–2006 data. Wellington: Ministry of Health; 2007.
121. Beautrais AL, Wells JE, Mcgee MA, et al. Suicidal behaviour in Te Rau Hinengaro: the New Zealand Mental Health Survey. *Aust N Z J Psychiatry* 2006;40 (10):896–904.
122. Collings S, Beautrais AL. Suicide prevention in New Zealand: a contemporary perspective. Wellington: Ministry of Health; 2005.
123. Beautrais AL, Collings S, Ehrhardt P, et al. Suicide preventions: a review of evidence of risk and protective factors and points of effective intervention. Wellington: Ministry of Health; 2005.
124. Beautrais AL. Risk factors for suicide and attempted suicide among young people. *Aust N Z J Psychiatry* 2000;34(3):420–36.
125. Beautrais AL. Suicide in New Zealand II: a review of risk factors and prevention. *N Z Med J* 2003;116(1175):U46.

126. Pearce J, Barnett R, Collings S, et al. Did geographical inequalities in suicide among men aged 15–44 in New Zealand increase during the period 1980–2001? *Aust N Z J Psychiatry* 2007;41(4):359–65.
127. Ministry of Health. New Zealand suicide prevention action plan 2008–2012: the evidence for action. Wellington: Ministry of Health; 2008.
128. Ministry of Health. Postvention support after a suicide or suicide attempt. Wellington: Ministry of Health. [cited 24 June 2008]. Available from: <http://www.moh.govt.nz/moh.nsf/indexmh/suicideprevention-support>.
129. Ministry of Health. Te Tahuhu: improving mental health 2005–15: the second New Zealand mental health and addiction plan. Wellington; 2005.
130. Costello EJ, Angold A, Burns BJ, et al. The Great Smoky Mountains Study of Youth: functional impairment and serious emotional disturbance. *Arch Gen Psychiatry* 1996;53:1137–43.
131. Sanderson K, Andrews G. Prevalence and severity of mental health–related disability and relationship to diagnosis. *Psychiatr Serv* 2002;53(1):80–6.
132. Barkow K, Heun R, Ustun TB, et al. Identification of somatic and anxiety symptoms which contribute to the detection of depression in primary health care. *European Psychiatry: the Journal of the Association of European Psychiatrists* 2004;19(5):250–7.
133. Simon GE, VonKorff M, Piccinelli M, et al. An international study of the relation between somatic symptoms and depression. *N Engl J Med*. 1999;341(18):1329–35.
134. Ford CA, Millstein SG, Halpern-Felsher B, et al. Confidentiality and adolescents' disclosure of sensitive information. *J Adolesc Health*. 1996;18(2):111.
135. Gunn J. Towards a practical solution for depression in general practice. *New Zealand Journal of Family Practice* 2006;33(4):239–42.
136. Johnston O, Kumar S, Kendall K, et al. Qualitative study of depression management in primary care: GP and patient goals and the value of listening. *Br J Gen Pract*. 2007;57:872–9.
137. Davison GC. Stepped care: doing more with less? *J Consult Clin Psychol*. 2000;68(4):580–5.
138. Roth A, Fonagy P. *What works for whom?* 2 ed. New York: The Guilford Press; 2005.
139. Chapple A, Rogers A. 'Self-care' and its relevance to developing demand management strategies: a review of qualitative research. *Health & Social Care in the Community* 1999;7(6):445–54.
140. McKinlay EM. New Zealand practice nursing in the third millenium: key issues in 2006. *New Zealand Family Physician* 2006;33(4):162–8.
141. Mynors-Wallis LM, Gath DH, Day A, et al. Randomized controlled trial of problem solving treatment, antidepressant medication, and combined treatment for major depression in primary care. *BMJ* 2000;320(7226):26–30. [+]
142. Kates N, Mach M. Chronic disease management for depression in primary care: a summary of the current literature and implications for practice. *Can J Psychiatry* 2007;52(2).

143. Dejesus RS, Vickers KS, Melin GJ, et al. A system-based approach to depression management in primary care using the Patient Health Questionnaire-9. *Mayo Clin Proc* 2007;82(11):1395–402.
144. Horvath AO, Symonds BD. Relation between working alliance and outcome in psychotherapy: a meta-analysis. *J Couns Psychol*. 1991;38(2):139–49.
145. Martin DJ, Garske JP, Davis MK. The therapeutic alliance with outcome and other variables. *J Consult Clin Psychol* 2000;68(3):438–50.
146. Krupnick JL, Sotsky SM, Simmens S, et al. The role of the therapeutic alliance in psychotherapy and pharmacotherapy outcome: findings in the National Institute of Mental Health Treatment of Depression Collaborative Research Program. *J Consult Clin Psychol* 1996;64(3):532–9.
147. Pyne JM, Rost KM, Farahati F, et al. One size fits some: the impact of patient treatment attitudes on the cost-effectiveness of a depression primary-care intervention. *Psychol Med* 2005;35(6):839–54.
148. Iacovello BM, McCarthy KS, Barrett MS, et al. Treatment preferences affect the therapeutic alliance: implications for randomized controlled trials. *Journal of Counseling and Clinical Psychology* 2007;75(1):194–8.
149. Kennard BD, Ginsburg GS, Feeny NC, et al. Implementation challenges to TADS cognitive-behavioral therapy. *Cogn Behav Pract*. 2005;12(2):230–9.
150. Bachman J, Swenson S, Reardon ME, et al. Patient self-management in the primary care treatment of depression. *Administration and Policy in Mental Health and Mental Health Services Research* 2006;33(1).
151. Medical Council of New Zealand. Best health outcomes for Maori: practice implications. Wellington: Mauri Ora Associates; 2006.
152. O'Connor AM, Wennberg JE, Legare F, et al. Toward the “tipping point”: decision aids and informed patient choice. *Health Aff (Millwood)* 2007;26(3):716–25.
153. Angst J. Clinical course of affective disorders. In: Helgason T, Daly RJ, editors. *Depression illness: predication of course and outcome*. Berlin: Springer-Verlag; 1988. p. 1–47.
154. Allen NB, Hetrick SE, Simmons JG, et al. Early intervention for depressive disorders in young people: the opportunity and the (lack of) evidence. *Med J Aust* 2007;187(7):S15–S7.
155. Lam RW, Kennedy SH. Evidence-based strategies for achieving and sustaining full remission in depression: focus on metaanalyses. *Can J Psychiatry* 2004;49(3 Suppl 1):17S–26S.
156. Katon W, Rutter C, Ludman EJ, et al. A randomized trial of relapse prevention of depression in primary care. *Arch Gen Psychiatry* 2001;58(3):241–7.
157. Medical Council of New Zealand. Statement on cultural competence. Wellington; 2006.
158. Laveist TA, Nuru-Jeter A. Is doctor–patient race concordance associated with greater satisfaction with care? *J Health Soc Behav* 2002;43(3):296–306.
159. Durie M. Cultural competence and medical practice in New Zealand. In: *Australian and New Zealand Boards and Council Conference*. Wellington; 2001.
160. Durie M. *Mauri ora: the dynamics of Maori health*. Auckland: Oxford University Press; 2001.

161. Kawana D, Wharemate R, Ihimaera L. Whiria te oranga; kaumatua national strategic mental health and addiction workforce development strategy. Consultation report. Wellington: Te Rau Matatini; 2007.
162. New Zealand Guidelines Group, Ministry of Health. The assessment and management of people at risk of suicide. Best practice evidence-based guideline. Wellington: New Zealand Guidelines Group; 2003.
163. Puluotu-Endemann KF, Suaali'i-Sauni T, Lui D, et al. Seitapu Pacific mental health and addiction cultural and clinical competencies framework. Auckland: The National Centre of Mental Health Research and Workforce Development 2007.
164. Matthias K. Youth specific primary health care – access, utilisation and health outcomes: a critical appraisal of the literature. NZHTA Report 2002;5(1).
165. Tylee A, Haller DM, Graham T, et al. Youth-friendly primary-care services: how are we doing and what more needs to be done? *The Lancet* 2007;369(1565–73).
166. World Health Organization. Adolescent friendly health services, an agenda for change. Geneva: World Health Organization; 2002.
167. Semp D. A public silence: discursive practices surrounding homosexuality. 2006. [cited 4 April 2008]. Available from: <http://hdl.handle.net/2292/2766>.
168. Dean L, Meyer I, Robinson K, et al. Lesbian, gay, bisexual, and transgender health: findings and concerns. *Gay Lesbian Med Assoc.* 2000;4:102–51.
169. Taylor B. 'Coming out' as a life transition: homosexual identity formation and its implications for health care practice. *J Adv Nurs* 1999;30(2):520–5.
170. Blum C. Healthy youth development as a model for youth health promotion. *J Adolesc Health* 1998;22:368–75.
171. McCreanor T, Watson PD, Denny SJ. "Just accept us how we are more": experiences of young pakeha with their families in Aotearoa New Zealand. *Social Policy Journal of New Zealand* 2006;27:156–70.
172. Ministry of Health. Building on strengths: a mental health promotion strategy. Wellington: Ministry of Health; 2002.
173. Resnick MD. Resilience and protective factors in the lives of adolescents. *J Adolesc Health* 2000;27:1–2.
174. Adolescent Health Research Group. Te Ara Whakapipi Taitamariki: Maori specific findings of youth 2000 – a national secondary school youth health survey. Auckland: University of Auckland; 2004.
175. Astin JA, Astin AW. An integral approach to medicine. *Altern Ther Health Med* 2002;8(2):70–6.
176. Agency for Healthcare Research and Quality, Pignone MP, Gaynes BN, et al. Screening for depression in adults: a summary of the evidence for the U.S. Preventive Services Task Force. *Ann Intern Med* 2002;136(10):765–76. [+]
177. Cuijpers P, Van Straten A, Smits N, et al. Screening and early psychological intervention for depression in schools: Systematic review and meta-analysis. *Eur Child Adolesc Psychiatry* 2006;15(5):300–7. [+]
178. Neil AL, Christensen H. Australian school-based prevention and early intervention programs for anxiety and depression: a systematic review. *Med J Aust* 2007;186:305–8. [+]

179. Shaffer D, Scott M, Wilcox H, et al. The Columbia Suicide Screen: validity and reliability of a screen for youth suicide and depression. *J Am Acad Child Adolesc Psychiatry* 2004;43(1):71–9. **[observational study]**
180. Gould MS, Marrocco FA, Kleinman M, et al. Evaluating iatrogenic risk of youth suicide screening programs: a randomized controlled trial. *JAMA* 2005;293(13):1635–43. [~/x]
181. McMenamin JP. Using computers to screen adolescent substance use. *New Zealand Journal of Family Physician* 2000;27(1). [~/x]
182. Zuckerbrot RA, Maxon L, Pagar D, et al. Adolescent depression screening in primary care: feasibility and acceptability. *Pediatrics* 2007;119:101–8. **[observational study]**
183. Royal Australian and New Zealand College of Psychiatrists. Routine adolescent psychosocial health assessment (draft). Melbourne: Royal Australian and New Zealand College of Psychiatrists; 2007.
184. Bennett DL, Bauman A. Adolescent mental health and risky sexual behaviour. Young people need health care that covers psychological, sexual, and social areas. *BMJ* 2000;321(7256):251–2.
185. Marks JN, Goldberg DP, Hillier VF. Determinants of the ability of general practitioners to detect psychiatric illness. *Psychol Med* 1979;9(2):337–53.
186. Millar T, Goldberg DP, Millar T, et al. Link between the ability to detect and manage emotional disorders: a study of general practitioner trainees. *Br J Gen Pract* 1991;41(350):357–9.
187. Martinez R, Reynolds S, Howe A. Factors that influence the detection of psychological problems in adolescents attending general practices. *Br J Gen Pract*. 2006;56(529):594–9.
188. Michaud PA, Fombonne E, Michaud P-A, et al. Common mental health problems. *BMJ* 2005;330(7495):835–8.
189. Goldenring JM, Rosen D. Getting into adolescent heads: an essential update. *Contemp Pediatr*. 2004;21(64):1–20.
190. Velting ON, Setzer NJ, Albano AM. Update on and advances in assessment and cognitive-behavioral treatment of anxiety disorders in children and adolescents. *Professional Psychology: Research and Practice* 2004;35(1):42–54.
191. Goldenring JM, Cohen E. Getting into adolescent heads. *Contemp Pediatr*. 1988;5(75).
192. Ministry of Social Development. Cultural identity: the social report. Wellington: Ministry of Social Development; 2007.
193. Ministry of Health. Family violence intervention guidelines: child and partner abuse. Wellington: Ministry of Health.; 2002.
194. Access Seru. Improving young people’s access to health care through general practice: a guide for general practitioners and divisions of general practice; 1999.
195. Edwards S, McCreanor T, Moewaka-Barnes H. Maori family culture: a context of youth development in Counties/Manukau. *Kotuitui: New Zealand Journal of Social Sciences Online* 2007;2:1–15.
196. Ministry of Health. Involving families: guidance notes for involving families and whanau of mental health consumers/tangata whai ora in care, assessment and treatment processes. Wellington: Ministry of Health; 2002.

197. Turner KMT, Sanders MR. Help when it's needed first: a controlled evaluation of brief, preventive behavioral family intervention in a primary care setting. *Behav Ther* 2006;37:131–42.
198. Sanders MR. Triple P – Positive Parenting Programme: A population approach to promoting competent parenting. *Australian e-Journal for the Advancement of Mental Health (AeJAMH)* 2003;2(3).
199. Ihimaera LV. Whakakaha te tuapapa: leadership training and development for tangata whenua. Wellington: Te Rau Matatini; 2007.
200. Te Rau Matatini. Whakapakari ake te tipu: Maori child and adolescent mental health and addiction workforce strategy. Palmerston North: Te Rau Matatini; 2007.
201. Cram F. Intervening in disparities. In: Health Research Council Conference: a decade of change – consequences to health. Wellington; 1999.
202. Ministry of Health. He korowai oranga: Maori health strategy. Wellington: Ministry of Health; 2002.
203. Tule CMT. (Unpublished). Maori and Pacific first-time parents: health service provision in the Palmerston North region. Auckland: Health Research Council.
204. Ministry of Social Development. New Zealand families today: a briefing for the Families Commission. Wellington: Ministry of Social Development; 2004.
205. Ciechomski L, Blashki G, Tonge B. Common psychological disorders in childhood. *Aust Fam Physician* 2004;33(12):997–1003.
206. Cantwell DP, Lewinsohn PM, Rohde P, et al. Correspondence between adolescent report and parent report of psychiatric diagnostic data. *J Am Acad Child Adolesc Psychiatry* 1997;36(5):610–9.
207. Privacy Commissioner. Health information privacy code. New Zealand; 1994.
208. Ford CA, Millstein SG, Halpern-Felsher BL, et al. Influence of physician confidentiality assurances on adolescent's willingness to disclose information and seek future health care. A randomized controlled trial. *JAMA* 1997;278(12):1029.
209. Singh N. The evolving role of the primary care practitioner in adolescent depression screening and treatment. *Minn Med* 2002;85(8):33–5.
210. Beck AT, Brown GK, Steer RA, et al. Suicide ideation at its worst point: a predictor of eventual suicide in psychiatric outpatients. *Suicide & Life-Threatening Behavior* 1999;29(1):1–9.
211. Kashani JH, Reid JC, Rosenberg TK. Levels of hopelessness in children and adolescents: a developmental perspective. *J Consult Clin Psychol.* 1989;57(4):496–9.
212. Brent DA, Kolko DJ, Birmaher B, et al. Predictors of treatment efficacy in a clinical trial of three psychosocial treatments for adolescent depression. *J Am Acad Child Adolesc Psychiatry* 1998;37(9):906–14. **[observational study]**
213. Curry J, Rohde P, Simons A, et al. Predictors and moderators of acute outcome in the Treatment for Adolescents with Depression Study (TADS). *J Am Acad Child Adolesc Psychiatry* 2006;45(12):1427–39. **[~]**
214. Goodman JE, McGrath PJ. The epidemiology of pain in children and adolescents: a review. *Pain* 1991;46:247–64.

215. Garralda ME, Bowman FM, Mandalia S. Children with psychiatric disorders who are frequent attenders to primary care. *Eur Child Adolesc Psychiatry* 1999;8:34–44.
216. Schloredt K, Varley CK. Current perspectives on the diagnosis and treatment of adolescent depression in the primary care setting. *J Clin Outcomes Manag.* 2005;12(5):260–74.
217. Spratt EG, DeMaso DR. Somatoform disorder: somatization. *eMedicine.* 2006. [cited 23 June 2008]. Available from: <http://www.emedicine.com/ped/topic3015.htm>.
218. Brooks S, Kutcher S. Diagnosis and measurement of anxiety disorder in adolescents: a review of commonly used instruments. *J Child Adolesc Psychopharmacol* 2003;13(3).
219. Brooks SJ, Kutcher S. Diagnosis and measurement of adolescent depression: a review of commonly utilized instruments. *J Child Adolesc Psychopharmacol* 2001;11(4):341–76. [~]
220. Fothergill A, Satherley P, Webber I. A systematic review on the effectiveness of school nurse implemented mental health. Screening available for adolescents in schools. *J Psychiatr Ment Health Nurs* 2003;10:625–6. [~]
221. Jellinek MS, Murphy JM, Burns BJ. Brief psychosocial screening in outpatient pediatric practice. *J Pediatr* 1986;109(2):371–8. [~]
222. Jellinek MS, Murphy JM. Screening for psychosocial disorders in pediatric practice. *Am J Dis Child* 1988;142(11):1153–7. [~]
223. Jellinek M, Little M, Murphy JM, et al. The Pediatric Symptom Checklist. Support for a role in a managed care environment. *Arch Pediatr Adolesc Med* 1995;149(7):740–6. [~]
224. Jellinek MS, Murphy JM, Little M, et al. Use of the Pediatric Symptom Checklist to screen for psychosocial problems in pediatric primary care: a national feasibility study. *Arch Pediatr Adolesc Med* 1999;153(3):254–60. [~]
225. Reijneveld SA, Vogels AGC, Hoekstra F, et al. Use of the Pediatric Symptom Checklist for the detection of psychosocial problems in preventive child healthcare. *BMC Public Health* 2006;6:197. [+/~]
226. Goodman R, Ford T, Simmons H, et al. Using the Strengths and Difficulties Questionnaire (SDQ) to screen for child psychiatric disorders in a community sample. *Br J Psychiatry* 2000;177:534–9. [~]
227. Bourdon KH, Goodman R, Rae DS, et al. The Strengths and Difficulties Questionnaire: US normative data and psychometric properties. *J Am Acad Child Adolesc Psychiatry* 2005;44(6):557–64. [~/x]
228. Goodman R, Scott R. Comparing the Strengths and Difficulties Questionnaire and the Child Behavior Checklist: is small beautiful? *J Abnorm Child Psychol.* 1999;27(1):17–24. [~/x]
229. Goodman R. Psychometric properties of the Strengths and Difficulties Questionnaire. *J Am Acad Child Adolesc Psychiatry* 2001;40(11):1137–45. [~]
230. Hawes DJ, Dadds MR. Australian data and psychometric properties of the Strengths and Difficulties Questionnaire. *Aust N Z J Psychiatry* 2004;38(8):644–51. [+]
231. Koskelainen M, Sourander A, Kaljonen A. The Strengths and Difficulties Questionnaire among Finnish school-aged children and adolescents. *Eur Child Adolesc Psychiatry* 2000;9(4):277–84. [~]

232. Mathai J, Anderson P, Bourne A. Use of the Strengths and Difficulties Questionnaire as an outcome measure in a child and adolescent mental health service. *Australas Psychiatry* 2003;11:334–7. [~]
233. Truman J, Robinson K, Evans AL, et al. The Strengths and Difficulties Questionnaire: a pilot study of a new computer version of the self-report scale. *Eur Child Adolesc Psychiatry* 2003;12:9–14. [~]
234. Muris P, Meesters C, Eijkelenboom A, et al. The self-report version of the Strengths and Difficulties Questionnaire: its psychometric properties in 8- to 13-year-old non-clinical children. *Br J Clin Psychol* 2004;43(Pt 4):437–48. [~/x]
235. Ronning JA, Handegaard BH, Sourander A, et al. The Strengths and Difficulties Self-Report Questionnaire as a screening instrument in Norwegian community samples. *Eur Child Adolesc Psychiatry* 2004;13(2):73–82. [~]
236. Bursleson Daviss W, Birmaher B, Melhem NA, et al. Criterion validity of the Mood and Feelings Questionnaire for depressive episodes in clinic and non-clinic subjects. *J Child Psychol Psychiatry* 2006;47(9):927–34. [~/x]
237. Sund AM, Larsson B, Wichstrom L. Depressive symptoms among young Norwegian adolescents as measured by the Mood and Feelings Questionnaire (MFQ). *Eur Child Adolesc Psychiatry* 2001;10(4):222–9. [~]
238. Thapar A, McGuffin P. Validity of the shortened Mood and Feelings Questionnaire in a community sample of children and adolescents: a preliminary research note. *Psychiatry Res* 1998;81(2):259–68. [~]
239. Walker L, Merry S, Watson PD, et al. The Reynolds Adolescent Depression Scale in New Zealand adolescents. *Aust N Z J Psychiatry* 2005;39(3):136–40. [~]
240. Olason DT, Sighvatsson MB, Smari J. Psychometric properties of the Multidimensional Anxiety Scale for Children (MASC) among Icelandic schoolchildren. *Scand J Psychol* 2004;45:429–36. [~]
241. Knight JR, Sherritt L, Shrier LA, et al. Validity of the CRAFFT substance abuse screening tool among adolescent clinic patients. *Arch Pediatr Adolesc Med* 2002;156(6):607–14. [+]
242. Christie G, Marsh R, Sheridan J, et al. The Substances and Choices Scale (SACS) – The development and testing of a new alcohol and other drug screening and outcome measurement instrument for young people. *Addiction* 2007;102(9):1390–8. [~]
243. American Psychiatric Association. *Diagnostic and statistical manual of mental disorders*. 4th ed. Washington: American Psychiatric Association; 2000.
244. Crowe M, Ward N, Dunnachie B, et al. Characteristics of adolescent depression. *Int J Ment Health Nurs*. 2006;15(1):10–8.
245. Kovacs M, Akiskal HS, Gatsonis C, et al. Childhood-onset dysthymic disorder: clinical features and prospective naturalistic outcome. *Arch Gen Psychiatry* 1994;51:365–74.
246. Patton GC, Viner R, Patton GC, et al. Pubertal transitions in health. *Lancet* 2007;369(9567):1130–9.
247. Fournier ME, Levy S. Recent trends in adolescent substance use, primary care screening, and updates in treatment options. *Curr Opin Pediatr*. 2006;18(4):352–8.
248. Emslie GJ, Mayes TL, Lipton RS, et al. Predictors of response to treatment in children and adolescents with mood disorders. *Psychiatr Clin North Am* 2003;26(2):435–56.

249. Zwaanswijk M, Verhaak PF, van der Ende J, et al. Consultation for and identification of child and adolescent psychological problems in Dutch general practice. *Fam Pract* 2005;22(5):498–506.
250. Jacobson L, Churchill R, Donovan C, et al. Tackling teenage turmoil: primary care recognition and management of mental ill health during adolescence. *Fam Pract* 2002;19(4):401–9.
251. Oakley Browne MA, Wells JE, Scott KM, et al. Lifetime prevalence and projected lifetime risk of DSM-IV disorders in Te Rau Hinengaro: the New Zealand Mental Health Survey. *Aust N Z J Psychiatry* 2006;40(10):865–74.
252. Duggan C, Sham P, Minne C, et al. Family history as a predictor of poor long-term outcome in depression. *Br J Psychiatry* 1998;173:527–30.
253. Youngblade LM, Theokas C, Schulenberg J, et al. Risk and protective factors in families, schools and communities: a contextual model of positive youth development in adolescence. *Pediatrics* 2007;119:S47–53.
254. Lara ME, Leader J, Klein DN. The association between social support and course of depression: is it confounded with personality? *J Abnorml Psychol*. 1997;106(3):478–82.
255. Institute for Clinical Systems Improvement. Major depression in adults in primary care. Health Care Guideline. Bloomington (MN): Institute for Clinical Systems Improvement; 2006.
256. Cheung AM, Zuckerbrot RA, Jensen PS, et al. Guidelines for adolescent depression in primary care: II. treatment and ongoing management. *Pediatrics* 2007;120:e1313–e26.
257. Stein R, Zitner L, Jensen P. Interventions for adolescent depression in primary care. *Pediatrics* 2006;118(2):669–82.
258. Durie MH. Identity, conflict and the search for nationhood. *Australasian Psychiatry* 1996;4:189–93.
259. Ministry of Health. Physical activity: Joint policy statement by the Minister of Sport, Fitness and Leisure and the Minister of Health. Wellington: Ministry of Health; 1998.
260. Jensen P, Cheung A, Levitt A, et al. Guidelines for Adolescent Depression in Primary Care GLAD-PC Tool Kit Version 1. 2007. [cited 23 June 2008]. Available from: <http://www.glad-pc.org/>.
261. The MaGPIe Research Group. General practitioners' perceptions of barriers to their provision of mental healthcare: a report on Mental Health and General Practice Investigation (MaGPIe). *The New Zealand Medical Journal* 2005;118(1222).
262. Watanabe N, Hunot V, Omori JM, et al. Psychotherapy for depression among children and adolescents: a systematic review. *Acta Psychiatr Scand* 2007;116:84–95. [+]
263. Brookman RR, Sood AA. Disorders of mood and anxiety in adolescents. *Adolesc Med Clin* 2006;17(1):79–95.
264. Jessamine S. SSRI antidepressants: Medsafe's response to Professor Werry's letter. *The New Zealand Medical Journal* 2008;121(1270):97–9.
265. Medicines Adverse Reactions Committee. MARC 130th Meeting Minutes. 14 June 2007. Wellington. [cited 23 June 2008]. Available from: <http://www.medsafe.govt.nz/profs/adverse/Minutes130.htm>.
266. Sher J. Alcohol consumption and suicide. *QJM* 2006;99(1):57–61.

267. Weisz JR, Jensen-Doss A, Hawley KM. Evidence-based youth psychotherapies versus usual clinical care. *Am Psychol*. 2006;61(7):671–89. [~]
268. Mufson L, Dorta KP, Wickramaratne P, et al. A randomized effectiveness trial of interpersonal psychotherapy for depressed adolescents. *Arch Gen Psychiatry* 2004;61(6):577–84. [~]
269. Clarke G, Debar L, Lynch F, et al. A randomized effectiveness trial of brief cognitive-behavioral therapy for depressed adolescents receiving antidepressant medication. *J Am Acad Child Adolesc Psychiatry* 2005;44(9):888–98. [~]
270. Melvin GA, Tonge BJ, King NJ, et al. A comparison of cognitive-behavioral therapy, sertraline, and their combination for adolescent depression. *J Am Acad Child Adolesc Psychiatry* 2006;45(10):1151–61. [~]
271. March J, Silva S, Petrycki S, et al. Fluoxetine, cognitive-behavioral therapy, and their combination for adolescents with depression: treatment for Adolescents With Depression Study (TADS) randomized controlled trial. *JAMA* 2004;292(7):807–20. [~]
272. Goodyer I, Dubicka B, Wilkinson P, et al. Selective serotonin reuptake inhibitors (SSRIs) and routine specialist care with and without cognitive behaviour therapy in adolescents with major depression: randomised controlled trial. *BMJ* 2007;335(7611):142. [~]
273. Diamond GS, Reis BF, Diamond GM, et al. Attachment-based family therapy for depressed adolescents: a treatment development study. *J Am Acad Child Adolesc Psychiatry* 2002;41(10):1190–6. [~/x]
274. Brent DA, Holder D, Kolko D, et al. A clinical psychotherapy trial for adolescent depression comparing cognitive, family, and supportive therapy. *Arch Gen Psychiatry* 1997;54(9):877–85. [~]
275. Trowell J. (Unpublished). Cited in National Institute for Health and Clinical Excellence. Depression in children and young people: identification and management in primary, community and secondary care. London: National Institute for Health and Clinical Excellence; 2005.
276. Haby MM, Tonge B, Littlefield L, et al. Cost-effectiveness of cognitive behavioural therapy and selective serotonin reuptake inhibitors for major depression in children and adolescents. *Aust N Z J Psychiatry* 2004;38(8):579–91. [~]
277. Hlickie IB. An approach to managing depression in general practice. *Med J Aust* 2000;173:106–10.
278. Garber J. Depression in children and adolescents: linking risk research and prevention. *Am J Prev Med* 2005;31(6S1):S104–S25.
279. Merry S, Spence SH. Attempting to prevent depression in youth: a systematic review of the evidence. *Early Intervention in Psychiatry*. (in press). [+/~]
280. Hammad TA, Laughren T, Racoosin J. Suicidality in pediatric patients treated with antidepressant drugs. *Arch Gen Psychiatry* 2006;63(3):332–9. [+]
281. Bridges JA, Iyengar S, Salary CB, et al. Clinical response and risk for reported suicidal ideation and suicide attempts in pediatric antidepressant treatment. *JAMA*. 2007 2007;297:1683–96. [+]
282. Jorm AF, Allen NB, O'Donnell CP, et al. Effectiveness of complementary and self-help treatments for depression in children and adolescents. *Med J Aust* 2006;185(7):368–72. [+]

283. Linde K, Berner M, Egger M, et al. St John's wort for depression: meta-analysis of randomised controlled trials. *Br J Psychiatry* 2005;186:99–107. [+/~]
284. Nemets H, Nemets B, Apter A, et al. Omega-3 treatment of childhood depression: a controlled, double-blind pilot study. *Am J Psychiatry* 2006;163:1098–100. [~]
285. Ross BM, Seguin J, Siesweda LE. Omega-3 fatty acids as treatments for mental illness: which disorder and which fatty acid? *Lipids Health Dis* 2007;6(21).
286. Gabbay M, Shiels C, Bower P, et al. Patient-practitioner agreement: does it matter? *Psychol Med* 2003;33(2):241–51.
287. Kingi TK. Maori health and cultural responsiveness. Wellington: Hauora Taranaki Primary Health Organisation; 2005.
288. Gilbody S, House AO, Sheldon TA. Screening and case finding instruments for depression. *Cochrane Database of Syst Rev.* 2005(4):CD002792. [+]
289. Bergus GR, Hartz AJ, Noyes R, et al. The limited effect of screening for depressive symptoms with the PHQ-9 in rural family practices. *Mental Health* 2005;21(4):303–9. [~]
290. Christensen KS, Toff T, Frostholm L, et al. The FIP Study: A randomised, controlled trial of screening and recognition of psychiatric disorders. *Br J Gen Pract.* 2003;53(495):758–63. [+]
291. Saitz R, Horton NJ, Sullivan LM, et al. Addressing alcohol problems in primary care: a cluster randomized, controlled trial of a systems intervention. The screening and intervention in primary care (SIP) study. *Ann Intern Med* 2003;138(5):372–82. [~/x]
292. Thomas HV, Lewis G, Watson M, et al. Computerised patient-specific guidelines for management of common mental disorders in primary care: a randomised controlled trial. *Br J Gen Pract* 2004;54(508):832–7. [~]
293. Callahan CM, Hendrie HC, Dittus RS, et al. Improving treatment of late life depression in primary care: a randomized clinical trial. *J Am Geriatr Soc* 1994;42(8):839–46. [~/x]
294. Magruder-Habib K, Zung WW, Feussner JR. Improving physicians' recognition and treatment of depression in general medical care: results from a randomized clinical trial. *Med Care* 1990;28(3):239–50. [~]
295. Kessing LV, Andersen PK. Predictive effects of previous episodes on the risk of recurrence in depressive and bipolar disorders. *Curr Psychiatry Rep.* 2005;7(6):413–20.
296. Lyons C, Nixon D, Coren A. Long-term conditions and depression. Leeds: National Institute for Mental Health in England, Department of Health; 2006.
297. Diabetes New Zealand. Annual Check-up: Get Checked Programme. [cited 26 June 2008]. Available from: http://www.diabetes.org.nz/living_with_diabetes/annual_diabetes_checkup.
298. Kroenke K, Spitzer RL, Williams JB, et al. Anxiety disorders in primary care: prevalence, impairment, comorbidity, and detection. *Ann Intern Med* 2007;146(5):317–25. [+/~]
299. Arroll B, Khin N, Kerse N. Screening for depression in primary care with two verbally asked questions: cross sectional study. *BMJ* 2003;327(7424):1144–6. [+]
300. Brown RL, Leonard T, Saunders LA, et al. A two-item conjoint screen for alcohol and other drug problems. *J Am Board Fam Pract* 2001;14(2):95–106. [~/x]

301. Goodyear-Smith F, Arroll B, Sullivan S, et al. Lifestyle screening: development of an acceptable multi-item general practice tool. 2004. **[observational study]**
302. Arroll B, Goodyear-Smith F, Kerse N, et al. Effect of the addition of a "help" question to two screening questions on specificity for diagnosis of depression in general practice: diagnostic validity study. *BMJ* 2005;331(7521):884. **[+]**
303. Cooper S, Smiley E, Morrison J, et al. Mental ill-health in adults with intellectual disabilities: prevalence and associated factors. *Br J Psychiatry* 2007;190:27–35.
304. Kroenke K, Spitzer RL, Williams JB. The Patient Health Questionnaire-2: validity of a two-item depression screener. *Med Care* 2003;41(11):1284–92. **[+]**
305. Goodyear-Smith F, Coupe NM, Arroll B, et al. Case finding of lifestyle and mental health disorders in primary care: validation of the 'CHAT' tool. *Br J Gen Pract* 2008;58(546):26–31. **[+]**
306. World Health Organization. International statistical classification of diseases and related health problems, 10th revision 2007. [cited 10 June 2008]. Available from: <http://www.who.int/classifications/apps/icd/icd10online/>.
307. Spitzer RL, Kroenke K, Williams JB. Validation and utility of a self-report version of PRIME-MD: the PHQ primary care study. Primary care evaluation of mental disorders. Patient health questionnaire. *JAMA* 1999;282(18):1737–44. **[~]**
308. Brooks RT, Beard J, Steel Z. Factor structure and interpretation of the K10. *Psychol Assess* 2006;18(1):62–70. **[+]**
309. Seale JP, Boltri JM, Shellenberger S, et al. Primary care validation of a single screening question for drinkers. *J Stud Alcohol* 2006;67(5):778–84. **[~]**
310. Fiellin DA, Reid MC, O'Connor PG. Screening for alcohol problems in primary care: a systematic review. *Arch Intern Med* 2000;160(13):1977–89. **[~]**
311. Aertgeerts B, Buntinx F, Kester A. The value of the CAGE in screening for alcohol abuse and alcohol dependence in general clinical populations: a diagnostic meta-analysis. *J Clin Epidemiol* 2004;57(1):30–9. **[+]**
312. Von Korff M, Shapiro S, Burke JD, et al. Anxiety and depression in a primary care clinic. Comparison of Diagnostic Interview Schedule, General Health Questionnaire, and practitioner assessments. *Arch Gen Psychiatry* 1987;44(2):152–6. **[~/x]**
313. Schmitz N, Kruse J, Heckrath C, et al. Diagnosing mental disorders in primary care: The General Health Questionnaire (GHQ) and the Symptom Check List (SCL-90-R) as screening instruments. *Soc Psychiatry & Psychiatr Epidemiol* 1999;34(7):360–6. **[+/~]**
314. Christensen KS, Fink P, Toft T, et al. A brief case-finding questionnaire for common mental disorders: The CMDQ. *Fam Pract* 2005;22(4):448–57. **[+/~]**
315. Goodyear-Smith F, Arroll B, Coupe N, et al. Ethnic differences in mental health and lifestyle issues: results from multi-item general practice screening. *N Z Med J* 2005;118(1212):U1374. **[observational study]**
316. Gilbody S, Richards D, Brealey S, et al. Screening for depression in medical settings with the Patient Health Questionnaire (PHQ): a diagnostic meta-analysis. *J Gen Intern Med* 2007;22(11):1506–602. **[+]**
317. Henkel V, Mergl R, Coyne JC, et al. Screening for depression in primary care: will one or two items suffice? *Eur Arch Psychiatry Clin Neurosci* 2004;254(4):215–23. **[~]**

318. Henkel V, Mergl R, Kohnen R, et al. Use of brief depression screening tools in primary care: consideration of heterogeneity in performance in different patient groups. *Gen Hosp Psychiatry* 2004;26(3):190–8. [~]
319. Henkel V, Mergl R, Kohnen R, et al. Identifying depression in primary care: a comparison of different methods in a prospective cohort study. *BMJ* 2003;326(7382):200–1. [~]
320. Kroenke K, Spitzer RL, Williams JB. The PHQ-9: validity of a brief depression severity measure. *J Gen Intern Med* 2001;16(9):606–13. [~]
321. Löwe B, Unützer J, Callahan CM, et al. Monitoring depression treatment outcomes with the Patient Health Questionnaire-9. *Med Care* 2004;42(12):1194–201. [~]
322. Fechner-Bates S, Coyne JC, Schwenk TL. The relationship of self-reported distress to depressive disorders and other psychopathology. *J Consult Clin Psychol*. 1994;62(3):550–9. [~/x]
323. Parkerson GRJ, Broadhead WE. Screening for anxiety and depression in primary care with the Duke Anxiety-Depression Scale. *Fam Med* 1997;29(3):177–81.
324. Spitzer RL, Kroenke K, Williams JBW, et al. A brief measure for assessing generalized anxiety disorder: the GAD-7. *Arch Intern Med* 2006;166(10):1092–7. [+]
325. Andrews G, Slade T. Interpreting scores on the Kessler Psychological Distress Scale (K10). *Aust N Z J Public Health* 2001;25:494–7. [observational study]
326. Heikkinen M, Isometsa E, Aro H. Age-related variation in recent life events preceding suicide. *J Nerv Ment Dis* 1995;183(5):325–31.
327. Clinical Knowledge Summary. Depression. National Health Service; 2005. [cited 24 June 2008]. Available from: http://www.cks.library.nhs.uk/depression/view_whole_guidance.
328. The MacArthur Initiative on Depression and Primary Care. Patient health questionnaire: using PHQ-9 diagnosis and score for initial treatment selection. [cited 30 June 2008]. Available from: http://www.depression-primarycare.org/clinicians/toolkits/materials/forms/phq9/score_table/.
329. Clinical Research Unit for Anxiety and Depression. K10 Symptom Scale. 2000. [cited 24 June 2008]. Available from: www.crufad.unsw.edu.au/k10/k10info.htm.
330. Bair MJ, Robinson RL, Katon W, et al. Depression and pain comorbidity: a literature review. *Arch Intern Med* 2003;163(20):2433–45.
331. De Rubeis RJ, Hollon SD, Amsterdam JD, et al. Cognitive therapy vs medications in the treatment of moderate to severe depression. *Arch Gen Psychiatry* 2005;62(4):409–16. [~]
332. de Mello MF, de Jesus Mari J, Bacaltchuk J, et al. A systematic review of research findings on the efficacy of interpersonal therapy for depressive disorders. *Eur Arch Psychiatry Clin Neurosci* 2005;255(2):75–82. [~]
333. Dimidjian S, Hollon SD, Dobson KS, et al. Randomized trial of behavioral activation, cognitive therapy, and antidepressant medication in the acute treatment of adults with major depression. *J Consult Clin Psychol*. 2006;74(4):658–70. [~/x]
334. Ma SH, Teasdale JD. Mindfulness-based cognitive therapy for depression: replication and exploration of differential relapse prevention effects. *J Consult Clin Psychol* 2003;72(1). [+/~]

335. Teasdale JD, Segal ZV, Williams J, et al. Prevention of relapse/recurrence in major depression by mindfulness-based cognitive therapy. *J Consult Clin Psychol* 2000;68(4):615–23. [+]
336. Rush AJ, Trivedi MH, Wisniewski SR, et al. Bupropion-SR, sertraline, or venlafaxine-XR after failure of SSRIs for depression. *N Engl J Med* 2006;354(12):1231–42. [+/~]
337. Malo V. Pacific people talk about their experiences with mental illness. *Mental Health Commission Recovery Series 3*. Wellington: Mental Health Commission 2000.
338. Solberg LI, Trangle MA, Arthur P, Wineman AP. Follow-up and follow-through of depressed patients in primary care: the critical missing components of quality care. *J Am Board Fam Pract* 2005;18(6):520–7.
339. Doughty C. Effective models of mental health service provision and workforce configuration in the primary care setting. *NZHTA Technical Brief* 2006;5(1).
340. Gensichen J. IMPACT collaborative care improves depression in elderly patients in primary care in the longer term. *Evid Based Ment Health* 2006;9(3):76.
341. Rost K, Nutting P, Smith J, et al. Improving depression outcomes in community primary care practice. *J Gen Intern Med* 2001;16:143–9.
342. Population Research and Outcome Studies. The Kessler Psychological Distress Scale (K10). Brief Report 2002–14. Adelaide: Department of Health, Government of South Australia; 2002.
343. Flinders. Self-management. Adelaide: 2008. [cited 30 April 2008]. Available from: http://som.flinders.edu.au/FUSA/CCTU/self_management.htm.
344. New Zealand Guidelines Group. Depression: information for you, and for family, whanau, friends and support networks. Wellington: New Zealand Guidelines Group; 2006.
345. Davidson L, Shahar G, Lawless MS, et al. Play, pleasure and other positive life events: “non-specific” factors in recovery from mental illness? *Psychiatry* 2006;69(2).
346. Ellis P, Smith DAR. Treating depression: the beyondblue guidelines for treating depression in primary care. *Med J Aust* 2002;176:S77–83.
347. Gelenberg AJ, Hopkins HS. Assessing and treating depression in primary care medicine. *Am J Med* 2007;120(2):105–8.
348. Turner EH, Rosenthal R. Efficacy of antidepressants. *Br Med J (Clin Res Ed)* 2008;336:516–7.
349. The MacArthur Initiative on Depression and Primary Care. Depression tool kit. [cited 2 April 2007]. Available from: <http://www.depression-primarycare.org/clinicians/toolkits/>.
350. Clayton A, Pradko JF, Croft HA, et al. Prevalence of sexual dysfunction among newer antidepressants. *J Clin Psychiatry* 2002;63(4):357–66.
351. Gartlehner G, Hansen R, Thieda P, et al. Comparative effectiveness of second-generation antidepressants in the pharmacologic treatment of adult depression. Comparative Effectiveness Review No. 7. (Prepared by RTI International – University of North Carolina Evidence-based Practice Center under Contract No. 290-02-0016.). Rockville, MD: Agency for Healthcare Research and Quality; 2007. [+]
352. Irish College of General Practitioners. Guidelines for the management of depression and anxiety disorders in primary care. Dublin: Irish College of General Practitioners; 2006.

353. Rush AJ. STAR*D: what have we learned? *Am J Psychiatry* 2007;164(2):201–3.
354. Furukawa TA, Cipriani A, Barbui C, et al. Long term treatment of depression with antidepressants: a systematic narrative review. *Can J Psychiatry* 2007;52:545–52. [+]
355. Kuyken W. (Unpublished). Trial platform: preventing depression relapse in the National Health Service practice using mindfulness-based cognitive therapy. Exeter: University of Exeter. Results reported via personal communication, 2007.
356. Fava G, Grandi S, Zielezny M, et al. Cognitive behavioral treatment of residual symptoms in primary major depressive disorder. *Am J Psychiatry*. 1994;151(9):1295–9. [~]
357. Paykel E, Scott J, Teasdale JD, Johnson AL, Garland A, Moore R, Jenaway A, Cornwall PL, Hayhurst H, Abbott R, Pope M. Prevention of relapse in residual depression by cognitive therapy. A controlled trial. *Arch Gen Psychiatry*. 1999;56(9):829–35. [~]
358. Fava GA, Ruini C, Sonino N. Management of recurrent depression in primary care. *Psychother Psychosom* 2003;72(1):3–9.
359. Anderson L, Lewis G, Araya R, et al. Self-help books for depression: how can practitioners and patients make the right choice? *Br J Gen Pract* 2005;55(514):387–92. [+/~]
360. den Boer P, Wiersma D, Van Den Bosch R. Why is self-help neglected in the treatment of emotional disorders? A meta-analysis. *Psychol Med* 2004;34(6):959–71. [~]
361. Cuijpers P. Bibliotherapy in unipolar depression: a meta-analysis. *J Behav Ther Exp Psychiatry* 1997;28:139–47. [~]
362. Marrs R. A meta-analysis of bibliotherapy studies. *Am J Community Psychol*. 1995(23):843–70. [~]
363. Spek V, Cuijpers P, Nyklicek I, et al. Internet-based cognitive behaviour therapy for symptoms of depression and anxiety: A meta-analysis. *Psychol Med* 2007;37(3):319–28. [~]
364. Sims J, Hill K, Davidson S, et al. Exploring the feasibility of a community-based strength training program for older people with depressive symptoms and its impact on depressive symptoms. *BMC Geriatr* 2006;6:18. [~]
365. Bower P, Richards D, Lovell K. The clinical and cost-effectiveness of self-help treatments for anxiety and depressive disorders in primary care: a systematic review. *Br J of Gen Pract*. 2001;51(471):838–45. [~]
366. Mead N, MacDonald W, Bower P, et al. The clinical effectiveness of guided self-help versus waiting-list control in the management of anxiety and depression: a randomized controlled trial. *Psychol Med* 2005;35(11):1633–43. [~]
367. Richards A, Barkham M, Cahill J, et al. PHASE: a randomised, controlled trial of supervised self-help cognitive behavioural therapy in primary care. *Br J Gen Pract*. 2003;53(495):764–70. [~]
368. Salkovskis P, Rimes K, Stephenson D, et al. A randomized controlled trial of the use of self-help materials in addition to standard general practice treatment of depression compared to standard treatment alone. *Psychol Med* 2006;36(3):325–33. [~]
369. Proudfoot J, Goldberg DP, Mann A, et al. Computerised, interactive, multimedia cognitive-behavioural programme for anxiety and depression in general practice. *Psychol Med* 2003;33(2):217–27. [~/x]

370. Kaltenthaler E, Brazier J, De Nigris E, et al. Computerised cognitive behaviour therapy for depression and anxiety update: a systematic review and economic evaluation. *Health Technol Assess* 2006;10(33):iii, xi–xiv, 1–168. [~]
371. Griffiths KA, Christensen H. Review of randomised controlled trials of internet interventions for mental disorders and related conditions. *Clinical Psychologist* 2006;10(1):16–29. [+/~]
372. Christensen H, Griffiths KM, Jorm AF. Delivering interventions for depression by using the internet: randomised controlled trial. *BMJ* 2004;328(7434):265. [~]
373. Patten SB. Prevention of depressive symptoms through the use of distance technologies. *Psychiatr Serv* 2003;54(3):396–8. [~]
374. Clarke G, Reid E, Eubanks D, et al. Overcoming depression on the internet (ODIN): A randomized controlled trial of an internet depression skills intervention program. *J Med Internet Res* 2002;43(3). [~]
375. Andrews G. ClimateGP: web-based patient education. *Aust Fam Physician* 2007;36(6):371–2.
376. Singh NA, Stavrinou TM, Scarbek Y, et al. A randomized controlled trial of high versus low intensity weight training versus general practitioner care for clinical depression in older adults. *J Gerontol A Biol Sci Med Sci*. 2005;60(6):768–76. [+]
377. Parker G, Crawford J. Judged effectiveness of differing antidepressant strategies by those with clinical depression. *Aust N Z J Psychiatry* 2007;41:32–7. **[observational study]**
378. Scott C, Tacchi MJ, Jones R, et al. Acute and one-year outcome of a randomised controlled trial of brief cognitive therapy for major depressive disorder in primary care. *Br J Psychiatry* 1997;171 (Aug 1997):131–4. [~]
379. Scott AI, Freeman CP. Edinburgh primary care depression study: treatment outcome, patient satisfaction, and cost after 16 weeks. *BMJ* 1992;304(6831):883–7. [~]
380. Freeman CPL. (Unpublished). Cited in National Institute for Health and Clinical Excellence. Depression: Management of depression in primary and secondary care. National Clinical Practice Guideline Number 23. London: National Institute for Health and Clinical Excellence; 2004.
381. Schulberg HC, Block MR, Madonia MJ, et al. Treating major depression in primary care practice. Eight-month clinical outcomes. *Arch Gen Psychiatry* 1996;53(10):913–9. [~]
382. Dowrick C, Dunn G, Ayuso-Mateos JL, et al. Problem solving treatment and group psychoeducation for depression: multicentre randomised controlled trial. *BMJ* 2000;321(7274):1450–4. [~]
383. Mynors-Wallis LM, Gath DH, Lloyd-Thomas AR, et al. Randomised controlled trial comparing problem solving treatment with amitriptyline and placebo for major depression in primary care. *BMJ* 1995;310(6977):441–5. [+]
384. Bedi N, Chilvers C, Churchill R, et al. Assessing effectiveness of treatment of depression in primary care: partially randomised preference trial. *Br J Psychiatry* 2000;177:312–8. [~]
385. Simpson S, Corney R, Fitzgerald P, et al. A randomized controlled trial to evaluate the effectiveness and cost-effectiveness of psychodynamic counselling for general practice patients with chronic depression. *Psychol Med* 2003;33(2):229–39. [+]

386. Ward E, King M, Lloyd M, et al. Randomised controlled trial of non-directive counselling, cognitive-behaviour therapy, and usual general practitioner care for patients with depression. I: clinical effectiveness. *BMJ* 2000;321(7273):1383–8. [~]
387. Kendrick T, Simons L, Mynors-Wallis L, et al. A trial of problem-solving by community mental health nurses for anxiety, depression and life difficulties among general practice patients. The CPN-GP study. *Health Technol Assess* 2005;9(37):iii, ix–x, 1–87. [+]
388. Luty SE, Carter JD, McKenzie JM, et al. Randomised controlled trial of interpersonal psychotherapy and cognitive-behavioural therapy for depression. *Br J Psychiatry* 2007;190:496–502. [~]
389. Cuijpers P, van Straten A, Warmerdam L. Behavioral activation treatments of depression: a meta-analysis. *Clin Psychol Rev*. 2007;27(3):318–26. [+/~]
390. Haby MM, Donnelly M, Corry J, et al. Cognitive behavioural therapy for depression, panic disorder and generalized anxiety disorder: a meta-regression of factors that may predict outcome. *Aust N Z J Psychiatry* 2006;40(1):9–19. [~]
391. Ellis P, Hickie I, Bushnell J, et al. Australian and New Zealand clinical practice guidelines for the treatment of depression. *Aust N Z J Psychiatry* 2004;38(6):389–407.
392. Arroll B, Macgillivray S, Ogston S, et al. Efficacy and tolerability of tricyclic antidepressants and SSRIs compared with placebo for treatment of depression in primary care. *Ann Fam Med*. 2005;3:449–56. [+]
393. Blacker R, Shanks NJ, Chapman N, et al. The drug treatment of depression in general practice: a comparison of nocte administration of trazodone with mianserin, dothiepin and amitriptyline. *Psychopharmacology (Berl)* 1988;95:s18–s24. [~]
394. Beaumont G. A randomized, double-blind, multi-centre, parallel-group study comparing the tolerability and efficacy of moclobemide and dothiepin hydrochloride in depressed patients in general practice. *Int Clin Psychopharmacol*. 1993;7(3–4):159–65. [~/x]
395. Hutchinson DR, Tong S, Moon CA, et al. Paroxetine in the treatment of elderly depressed patients in general practice: a double-blind comparison with amitriptyline. *Int Clin Psychopharmacol*. 1992;6 Suppl 4:43–51. [~]
396. Montgomery SA, Loft H, Sanchez C, et al. Escitalopram (S-enantiomer of citalopram): clinical efficacy and onset of action predicted from a rat model. *Pharmacol Toxicol* 2001;88(5):282–6. [~/x]
397. Montgomery SA, Huusom AKT, Bothmer J. Escitalopram is a new and highly efficacious SSRI in the treatment of major depressive disorder. *Eur Neuropsychopharmacol*. 2002;12(Supplement 3):S254–S5. [~]
398. Moon CA, Vince M. Treatment of major depression in general practice: a double-blind comparison of paroxetine and lofepramine. *Br J Clin Pract*. 1996;50(5):240–4. [~]
399. Moon CAL, Jesinger DK. The effects of psychomotor performance of fluvoxamine versus mianserin in depressed patients in general practice. *Br J Clin Pract*. 1991;45(4):259–62. [~]
400. Kragh-Sorensen P. Moclobemide vs clomipramine in depressed patients in general practice. A randomized, double-blind, parallel, multicenter study. *J Clin Psychopharmacol* 1995;15(4s2):24S–30S. [~]
401. Lecrubier Y, Boyer P, Turjanski S, et al. Amisulpride versus imipramine and placebo in dysthymia and major depression. Amisulpride Study Group. *J Affect Disord* 1997;43(2):95–103. [~]

402. McPartlin GM, Reynolds A, Anderson C, et al. A comparison of once-daily venlafaxine XR and paroxetine in depressed outpatients treated in general practice. *Primary Care Psychiatry* 1998;4(3):127–32. [+/~]
403. Wade A, Lemming O, Hedegaard KB. Escitalopram 10 mg/day is effective and well tolerated in a placebo-controlled study in depression in primary care. *Int Clin Psychopharmacol.* 2002;17(3):95–102. [~]
404. Wade A, Crawford GM, Angus M, et al. A randomized, double-blind, 24-week study comparing the efficacy and tolerability of mirtazapine paroxetine in depressed patients in primary care. *Int Clin Psychopharmacol.* 2003;18(3):133–41. [+/~]
405. Sechter D, Troy S, Paternetti S, et al. A double-blind comparison of sertraline and fluoxetine in the treatment of major depressive episode in outpatients. *Eur Psychiatry* 1999;14(1):41–8. [~]
406. Kroenke K, West SL, Swindle R, et al. Similar effectiveness of paroxetine, fluoxetine, and sertraline in primary care: a randomized trial. *JAMA* 2001;286(23):2947–55. [~]
407. Ekselius L, von Knorring L, Eberhard G. A double-blind multicenter trial comparing sertraline and citalopram in patients with major depression treated in general practice. *Int Clin Psychopharmacol* 1997;12(6):323–31. [+]
408. Williams JW, Jr., Barrett J, Oxman T, et al. Treatment of dysthymia and minor depression in primary care: a randomized controlled trial in older adults. *JAMA* 2000;284(12):1519–26. [~]
409. Barrett JE, Williams JW, Jr., Oxman TE, et al. Treatment of dysthymia and minor depression in primary care: a randomized trial in patients aged 18 to 59 years. *J Fam Pract* 2001;50(5):405–12. [~]
410. Trivedi MH, Rush AJ, Wisniewski SR, et al. Evaluation of outcomes with citalopram for depression using measurement-based care in STAR*D: implications for clinical practice. *Am J Psychiatry* 2006;163(1):28–40. [~]
411. Baldomero EB, Ubago JG, Cercos CL, et al. Venlafaxine extended release versus conventional antidepressants in the remission of depressive disorders after previous antidepressant failure: ARGOS study. *Depress Anxiety* 2005;22(2):68–76. [~]
412. Cipriani A, Geddes JR, Furukawa TA, et al. Metareview on short term effectiveness and safety of antidepressants for depression: an evidence based approach to inform clinical practice. *Can J Psychiatry* 2007;52(9):553–62. [+/~]
413. Parker G. 'New' and 'old' antidepressants: all equal in the eyes of the lore? *Br J Psychiatry* 2001;179:95–6. **[narrative review]**
414. Joyce PR, Mulder RT, Luty SE, et al. A differential response to nortriptyline and fluoxetine in melancholic depression: the importance of age and gender. *Acta Psychiatr Scand* 2003;108(1):20–3. [+/~]
415. Hildebrandt MG, Steyerberg EW, Stage KB, et al. Are gender differences important for the clinical effects of antidepressants? *Am J Psychiatry* 2003;160(9):1643–50. [~]
416. Kirsch I, Moore TJ, Scoboria A, et al. The emperor's new drugs: an analysis of antidepressant medication data submitted to the US Food and Drug Administration. *Prev Treat* 5 2002;5(23). [+]

417. Kirsch I, Deacon BJ, Huedo-Medina TB, et al. Initial severity and antidepressant benefits: a meta-analysis of data submitted to the Food and Drug Administration. *Public Library of Science Medicine* 2008;5. [+]
418. Schatzberg AF. Safety and tolerability of antidepressants: weighing the impact on treatment decisions. *J Clin Psychiatry* 2007;68 Suppl 8:26–34. [observational study]
419. Khan A, Leventhal RM, Khan SR, et al. Severity of depression and response to antidepressants and placebo: an analysis of the food and drug administration database. *J Clin Psychopharmacol.* 2002;22:40–5. [observational study]
420. Smith CA, Hay PPJ. Acupuncture for depression. *Cochrane Database Syst Rev* 2005(2):CD004046. [+]
421. Taylor MJ, Wilder H, Bhagwagar Z, et al. Inositol for depressive disorders. *Cochrane Database Syst Rev* 2004;(2):CD004049. [+]
422. Taylor MJ, Carney SM, Goodwin GM, et al. Folate for depressive disorders: systematic review and meta-analysis of randomized controlled trials. *J Psychopharmacol.* 2004;18(2):251–6. [+]
423. Mukaino Y, Park J, White A, et al. The effectiveness of acupuncture for depression: a systematic review of randomised controlled trials. *Acupunct Med* 2005;23(2):70–6. [~]
424. Rasmussen B, Cloarec O, Tang H, et al. Multivariate analysis of integrated and full-resolution 1H-NMR spectral data from complex pharmaceutical preparations: St. John's wort. *Planta Med* 2006;72(6):556–63.
425. Owen C, Rees AM, Parker G. The role of fatty acids in the development and treatment of mood disorders. *Current Opinion in Psychiatry* 2008;21:19–24.
426. Parker G, Gibson NA, Brotchie H, et al. Omega-3 fatty acids and mood disorders. *Am J Psychiatry* 2006;163:969–78.
427. Weinberg MK, Tronick EZ. The impact of maternal psychiatric illness on infant development. *J Clin Psychiatry* 1998;59 Suppl 2:53–61.
428. Gao W, Paterson J, Abbott M, et al. Maternal mental health and child behaviour problems at 2 years: findings from the Pacific Islands Families Study. *Aust N Z J Psychiatry* 2007;41(11):885–95.
429. Van den Bergh BRH, Mennes M, Oosterlaan J, et al. High antenatal maternal anxiety is related to impulsivity during performance on cognitive tasks in 14- and 15-year-olds. *Neuroscience & Biobehavioral Reviews* 2005;29(2):259–69.
430. Brockington I, Cernick K, Schofield E, et al. Puerperal psychosis. *Arch Gen Psychiatry* 1981;38:829–33.
431. Kendell RE, Chalmers JC, Platz C. Epidemiology of puerperal psychoses. *Br J Psychiatry* 1987;150:662–73.
432. Oates M. Perinatal psychiatric disorders: a leading cause of maternal morbidity and mortality. *Br Med Bull* 2003(67):219–29.
433. White T, Matthey S, Boyd K, et al. Postnatal depression and post-traumatic stress after childbirth: prevalence, course and co-occurrence. *Journal of Reproductive and Infant Psychology* 2006;24(2):107–20.

434. Moore GA, Cohn JF, Campbell SB. Infant affective responses to mother's still face at 6 months differentially predict externalizing and internalizing behaviors at 18 months. *Dev Psychol* 2001;37(5):706–14.
435. Sinclair D, Murray L. Effects of postnatal depression on children's adjustment to school. Teacher's reports. *Br J Psychiatry* 1998;172:58–63.
436. Sohr-Preston SL, Scaramella LV. Implications of timing of maternal depressive symptoms for early cognitive and language development. *Clin Child Fam Psychol Rev* 2006;9(1):65–83.
437. Cantwell R, Cox JL. Psychiatric disorders in pregnancy and the puerperium. *Curr Obstet Gynaecol* 2006;16(1):14–20.
438. Shakespeare J, Blake F, Garcia J. A qualitative study of the acceptability of routine screening of postnatal women using the Edinburgh Postnatal Depression Scale. *Br J Gen Pract* 2003;53(493):614–9.
439. Leigh B, Milgrom J. Acceptability of antenatal screening for depression in routine antenatal care. *Aust J Adv Nurs* 2007;24(3):14–8.
440. Shakespeare J. Evaluation of screening for postnatal depression against the NSC handbook criteria. UK: National Screening Committee; 2001. **[observational study]**
441. Shakespeare J. Health visitor screening for PND using the EPDS: a process study. *Community Pract* 2002;75(10):381–4. **[observational study]**
442. Milgrom J, Negri LM, Gemmill AW, et al. A randomized controlled trial of psychological interventions for postnatal depression. *Br J Clin Psychol.* 2005;44:529–42. [~/x]
443. Milgrom J, Ericksen J, Negri L, et al. Screening for postnatal depression in routine primary care: properties of the Edinburgh Postnatal Depression Scale in an Australian sample. *Aust N Z J Psychiatry* 2005;39(9):833–9. [~]
444. Holt WJ. The detection of postnatal depression in general practice using the Edinburgh postnatal depression scale. *N Z Med J* 1995;108(994):57–9. **[observational study]**
445. McGill H, Burrows VL, Holland LA, et al. Postnatal depression: a Christchurch study. *N Z Med J* 1995;108(999):162–5. **[observational study]**
446. Thio IM, Oakley Browne MA, Covrda JH, et al. Postnatal depressive symptoms go largely untreated: a probability study in urban New Zealand. *Soc Psychiatry Psychiatr Epidemiol* 2006;41:814–8. **[observational study]**
447. Codyre D. ProCare post-natal depression screening programme – supporting General Practice to better identify and manage PND. In: 2007 Annual Conference of the New Zealand Branch of the Royal Australian and New Zealand College of Psychiatrists: The Vintner's Art – Clinical Practice Improvement. Napier; 2007. **[observational study]**
448. Agency for Healthcare Research and Quality. Perinatal depression: prevalence, screening accuracy, and screening outcomes. Evidence report/technology assessment no. 119. Rockville, MD: Agency for Healthcare Research and Technology; 2005. **[+]**
449. Scottish Intercollegiate Guidelines Network. Postnatal depression and puerperal psychosis. National clinical guideline no. 60. Edinburgh: Scottish Intercollegiate Guidelines Network; 2002. **[+]**
450. Stowe Z, Hostetter A, Newport D. The onset of postpartum depression: implications for clinical screening in obstetrical and primary care. *Am J Obstet Gynecol* 2005;192(2):522–6.

451. Zigmond AS, Snaith RP. The hospital anxiety and depression scale. *Acta Psychiatr Scand* 1983;67(361–70).
452. Demott K, Bick D, Norman R, et al. Clinical guidelines and evidence review for post natal care: Routine post natal care of recently delivered women and their babies. London: National Collaborating Centre for Primary Care and Royal College of General Practitioners; 2006.
453. Williams AS. Antidepressants in pregnancy and breastfeeding. *Australian Prescriber* 2007;30(5):125–6.
454. Dennis C-L, Ross L, Grigoriadis S. Psychosocial and psychological interventions for treating antenatal depression. *Cochrane Database Syst Rev* 2007(3):CD006309. [+]
455. Menon SJ. Psychotropic medication during pregnancy and lactation. *Arch Gynecol Obstet* 2008;277(1):1–13.
456. Misri S, Kendrick K. Treatment of perinatal mood and anxiety disorders: a review. *Can J Psychiatry* 2007;52(8):489–98.
457. Robertson E, Grace S, Wallington T, et al. Antenatal risk factors for postpartum depression: a synthesis of recent literature. *Gen Hosp Psychiatry* 2004;26(4):289–95.
458. Dennis C-L, Hodnett E. Psychosocial and psychological interventions for treating postpartum depression. *Cochrane Database Syst Rev* 2007(4):CD006116. [+]
459. Adewuya AO, Ologun YA, Ibigbami OS. Post-traumatic stress disorder after childbirth in Nigerian women: prevalence and risk factors. *BJOG* 2006;113(3):284–8.
460. Surkan PJ, Peterson KE, Hughes MD, et al. The role of social networks and support in postpartum women's depression: a multiethnic urban sample. *Matern Child Health J* 2006;10:375–83.
461. Armstrong K, Edwards H. The effectiveness of a pram-walking exercise programme in reducing depressive symptomatology for postnatal women. *Int J Nurs Pract* 2004;10(4):177–94. [~/x]
462. Medsafe. Data Sheet: Paroxetine. 2006. [cited 24 April 2008]. Available from: <http://www.medsafe.govt.nz/Profs/Datasheet/p/Paroxetinemesylatetab.htm>.
463. Suri R, Altshuler L, Helleman G, et al. Effects of antenatal depression and antidepressant treatment on gestational age at birth and risk of preterm birth. *Am J Psychiatry* 2007;164(8):1206–13.
464. Alwan S, Reefhuis J, Rasmussen SA, et al. Use of selective serotonin-reuptake inhibitors in pregnancy and the risk of birth defects. *N Engl J Med* 2007;356(26):2684–92.
465. GlaxoSmithKline. 2008. [cited 18.3.08]. Available from: <http://ctr.gsk.co.uk/Summary/paroxetine/studylist.asp>.
466. Brent RL, Beckman DA. Environmental teratogens. *Bulletin of the New York Journal of Medicine: Journal of Urban Health* 1990;66:123–63.
467. Nelson K, Holmes LB. Malformations due to presumed spontaneous mutations in newborn infants. *N Engl J Med* 1989;320(1):19–23.
468. Ferreira E, Carceller A, Agogue C, et al. Effects of selective serotonin reuptake inhibitors and venlafaxine during pregnancy in term and preterm neonates. *Pediatrics* 2007;119(1):52–9.

469. Nordeng H, Spigset O. Treatment with selective serotonin reuptake inhibitors in the third trimester of pregnancy: effects on the infant. *Drug Saf* 2005;28(7):565–81.
470. Eberhard-Gran M, Eskild A, Opjordsmoen S. Use of psychotropic medications in treating mood disorders during lactation: practical recommendations. *CNS Drugs* 2006;20(3):187–98.
471. Ip S, Chung M, Raman G, et al. Breastfeeding and maternal and infant health outcomes in developed countries. *Evid Rep Technol Assess (Full Rep)*. 2007(153):1–186.
472. Medsafe. Data Sheet: Lithium. 2004. [cited 29 April 2008]. Available from: <http://www.medsafe.govt.nz/profs/Datasheet/l/Lithiumcarbonatecap.htm>
473. Medsafe. Data Sheet: Carbamazepine. 2004. [cited 29 April 2008]. Available from: <http://www.medsafe.govt.nz/profs/datasheet/t/Tegretoltabsyrup.htm>.
474. Medsafe. Data Sheet: Lamotrigine. 2008. [cited 29 April 2008]. Available from: <http://www.medsafe.govt.nz/profs/datasheet/a/Arrow-Lamotriginetab.htm>.
475. Austin M-P. To treat or not to treat: maternal depression, SSRI use in pregnancy and adverse neonatal effects. *Psychol Med* 2006;36(12):1663–70.
476. Daley AJ, Macarthur C, Winter H. The role of exercise in treating postpartum depression: a review of the literature. *J Midwifery Womens Health* 2007;52(1):56–62. [+]
477. Armstrong K, Edwards H. The effects of exercise and social support on mothers reporting depressive symptoms: a pilot randomized controlled trial. *Int J Ment Health Nurs* 2003;12(2):130–8. [~/x]
478. Dennis C. The effect of peer support on postpartum depression: a pilot randomized controlled trial. *Can J Psychiatry* 2003;48(2):115–24. [~/+]
479. Misri S, Reebye P, Corral M, et al. The use of paroxetine and cognitive-behavioral therapy in postpartum depression and anxiety: a randomized controlled trial. *J Clin Psychiatry* 2004;65:1236–41. [~]
480. Spinelli MG, Endicott JC. Controlled clinical trial of interpersonal psychotherapy versus parenting education program for depressed pregnant women. *Am J Psychiatry* 2003;160(3):555–62. [~]
481. Morrell JP. (Unpublished data) Psychological interventions for postnatal depression – randomised controlled trial and economic evaluation. The PoNDER Trial. Email communication. 2006. [~]
482. O’Hara MW, Stuart S, Gorman LL, et al. Efficacy of interpersonal psychotherapy for postpartum depression. *Arch Gen Psychiatry* 2000;57(11):1039–45. [+/~]
483. Armstrong KL, Fraser JA, Dadds MR, et al. A randomized, controlled trial of nurse home visiting to vulnerable families with newborns. *J Paediatr Child Health* 1999;35(3):237–44. [~/x]
484. Cooper PJ, Murray L, Wilson A, et al. Controlled trial of the short and long-term effect of psychological treatment of post-partum depression. I. impact on maternal mood. *Br J Psychiatry* 2003;182(4):412–9. [~/x]
485. Holden JM, Sagovsky R, Cox JL. Counselling in a general practice setting: controlled study of health visitor intervention in treatment of postnatal depression. *Br Med J* 1989;298:223–6. [~/x]

486. Appleby L, Warner R, Whitton A, et al. A controlled study of fluoxetine and cognitive-behavioural counselling in the treatment of postnatal depression. *Br Med J* 1997;314:932–6. [~/x]
487. Honey KL, Bennett P, Morgan M. A brief psycho-educational group intervention for postnatal depression. *Br J Clin Psychol.* 2002;41:405–9. [~]
488. Prendergast J, Austin MP. Early childhood nurse-delivered cognitive behavioural counselling for post-natal depression. *Australas Psychiatry* 2001;9:255–9. [~/x]
489. Wickberg, Hwang CP. Counselling of postnatal depression: a controlled study on a population based Swedish sample. *J Affect Disord* 1996;39:209–16. [~/x]
490. Wisner KL, Hanusa BH, Perel JM, et al. Postpartum depression: a randomised trial of sertraline versus nortryptiline. *J Clin Psychopharmacol.* 2006;26(4):353–60. [~/x]
491. Louik C, Lin AE, Werler MM, et al. First-trimester use of selective serotonin-reuptake inhibitors and the risk of birth defects. *N Engl J Med* 2007;356(26):2675–83.
492. Wogelius P, Norgaard M, Gislum M, et al. Maternal use of selective serotonin reuptake inhibitors and risk of congenital malformations. *Epidemiology* 2006;17(6):701–4.
493. US Food and Drug Administration. FDA news. Advising of risk of birth defects with paxil Ottawa. [cited 24 June 2008]. Available from: <http://www.fda.gov/bbs/topics/NEWS/2005/NEW01270.html>.
494. Bérard A, Ramos E, Rey E, et al. First trimester exposure to paroxetine and risk of cardiac malformations in infants: the importance of dosage. *Birth Defects Research Part B: Developmental and Reproductive Toxicology* 2007;80:1827.
495. Einarson A, Pistelli A, DeSantis M, et al. Evaluation of the risk of congenital cardiovascular defects associated with use of paroxetine during pregnancy. *Am J Psychiatry* 2008;165(6):749–52.
496. Moses-Kolko EL, Bogen D, Perel J, et al. Neonatal signs after late in utero exposure to serotonin reuptake inhibitors. *JAMA* 2005;293:2372–83.
497. Oberlander TF, Warburton W, Misri S, et al. Neonatal outcomes after prenatal exposure to selective serotonin reuptake inhibitor antidepressants and maternal depression using population-based linked health data. *Arch Gen Psychiatry* 2006;63:898–906.
498. Nulman I, Rovet J, Stewart DE, et al. Neurodevelopment of children exposed in utero to antidepressant drugs. *N Engl J Med* 1997;336(4):258–62.
499. Nulman I, Rovet J, Stewart DE, et al. Child development following exposure to tricyclic antidepressants or fluoxetine throughout fetal life: a prospective, controlled study. *Am J Psychiatry* 2002;159(11):1889–95.
500. McElhatton P, Garbis HM, Elefant E, et al. The outcome of pregnancy in 689 women exposed to therapeutic doses of antidepressants. A collaborative study of the European Network of Teratology Information services. *Reprod Toxicol* 1996;10:285–94.
501. Medsafe. Data Sheet: Doxepin. 2004. [cited 24 April 2008]. Available from: <http://www.medsafe.govt.nz/profs/datasheet/a/antencap.htm>.
502. Buist A, Janson H. Effect of exposure to dothiepin and northiaden in breastmilk on child development. *Br J Psychiatry* 1995;167:370–3.

503. Yoshida K, Smith B, Craggs M, et al. Investigation of pharmacokinetics and of possible adverse effects in infants exposed to tricyclic antidepressants in breast milk. *J Affect Disord* 1996;43:225–37.
504. Einarson A, Fayote B, M. S, et al. Pregnancy outcome following gestational exposure to Venlafaxine: a multicenter prospective controlled study. *Am J Psychiatry* 2001;158:1728–30.
505. Islett KF, Hackett LP, Dusci LJ, et al. Distribution and excretion of venlafaxine and o-desmethylvenlafaxine in human milk. *Br J Clin Pharmacol* 1998;45:459–62.
506. Islett KF, Kristensen JH, Hackett LP, et al. Distribution of venlafaxine and its o-desmethyl metabolite in human milk and their effects in breast fed infants. *Br J Clin Pharmacol* 2002;53:17–22.
507. Hendrik V, Altshuler L, Wertheimer A, et al. Venlafaxine and breast feeding. *Am J Psychiatry* 2001;158(12):2089–90.
508. Schoevers RA, Beekman AT, Deeg DJ, et al. Risk factors for depression in later life; results of a prospective community based study (AMSTEL). *J Affect Disord* 2000;59(2):127–37.
509. Fallon P. Elder abuse and/or neglect: literature review. Wellington: Ministry of Social Development; 2006.
510. Canadian Coalition for Seniors' Mental Health. The assessment and treatment of depression. Toronto: Canadian Coalition for Seniors' Mental Health; 2006.
511. Cattell H. Suicide in the elderly. *Advances in Psychiatric Treatment* 2000;6:102–8.
512. Preville M, Cote G, Boyer R, et al. Detection of depression and anxiety disorders by home care nurses. *Aging & Mental Health* 2004;8(5):400–9. [~]
513. Watts SC, Bhutani GE, Stout IH, et al. Mental health in older adult recipients of primary care services: is depression the key issue? Identification, treatment and the general practitioner. *Int J Geriatr Psychiatry* 2002;17(5):427–37.
514. Blank K, Gruman C, Robison JT. Case-finding for depression in elderly people: balancing ease of administration with validity in varied treatment settings. *J Gerontol A Biol Sci Med Sci* 2004;59(4):378–84. [+/~]
515. Arthur A, Jagger C, Lindesay J, et al. Using an annual over-75 health check to screen for depression: validation of the short Geriatric Depression Scale (GDS15) within general practice. *Int J Geriatr Psychiatry* 1999;14(6):431–9. [~]
516. Lyness JM, Noel TK, Cox C, et al. Screening for depression in elderly primary care patients. A comparison of the Center for Epidemiologic Studies-Depression Scale and the Geriatric Depression Scale. *Arch Intern Med* 1997;157(4):449–54. [~/x]
517. van Marwijk HW, Wallace P, de Bock GH, et al. Evaluation of the feasibility, reliability and diagnostic value of shortened versions of the geriatric depression scale. *Br J Gen Pract* 1995;45(393):195–9. [~/x]
518. Beekman AT, Deeg DJ, Braam AW, et al. Consequences of major and minor depression in later life: a study of disability, well-being and service utilization. *Psychol Med* 1997;27(6):1397–409. [~/x]
519. Hendrie HC, Callaban CM, Levitt EE, et al. Prevalence rates of major depressive disorders: The effects of varying the diagnostic criteria in an older primary care population. *Am J Geriatr Psychiatry* 1995;3(2):119–31. [~/x]

520. Irwin M, Artin KH, Oxman MN. Screening for depression in the older adult: criterion validity of the 10-item Center for Epidemiological Studies Depression Scale (CES-D). *Arch Intern Med* 1999;159:1701–4. [~/x]
521. Klinkman MS, Coyne JC, Gallo S, et al. Can case-finding instruments be used to improve physician detection of depression in primary care? *Arch Fam Med* 1997;6(6):567–73.
522. Scottish Intercollegiate Guidelines Network. Management of patients with dementia. Edinburgh: Scottish Intercollegiate Guidelines Network; 2006.
523. Holsinger T, Deveau J, Boustani M, et al. Does this patient have dementia? *JAMA* 2007;297(21):2391–404. [+]
524. McGivney SA, Mulvihill M, Taylor B. Validating the GDS depression screen in the nursing home. *J Am Geriatr Soc* 1994;42(5):490–2. [observational study]
525. Wancata J, Alexandrowicz R, Marquart B, et al. The criterion validity of the geriatric depression scale: a systematic review. *Acta Psychiatr Scand* 2006;114(6):398–410. [+]
526. Canadian Coalition for Seniors' Mental Health. The assessment and treatment of delirium. Toronto: Canadian Coalition for Seniors' Mental Health; 2006.
527. Moraga AV, Rodriguez-Pascual C. Accurate diagnosis of delirium in elderly patients. *Curr Opin Psychiatry* 2007;20(3):262–7. [narrative review]
528. Lampinen P, Heikkinen RL, Kauppinen M, et al. Activity as a predictor of mental well-being among older adults. *Aging & Mental Health* 2006;10(5):454–66.
529. Beyondblue: The National Depression Initiative. Fact sheet 8 – keeping active 2008. [cited 24 June 2008]. Available from: http://www.beyondblue.org.au/index.aspx?link_id=7.981&tmp=FileDownload&fid=932.
530. Sjosten N, Kivela SL. The effects of physical exercise on depressive symptoms among the aged: a systematic review. *Int J Geriatr Psychiatry* 2006;21(5):410–8. [+]
531. Cuijpers P, van Straten A, Smit F. Psychological treatment of late-life depression: A meta-analysis of randomized controlled trials. *Int J Geriatr Psychiatry* 2006;21(12):1139–49. [+]
532. Reynolds IC, Dew MA, Pollock BG, et al. Maintenance treatment of major depression in old age. *N Engl J Med* 2006;354(11):1130–8. [+/~]
533. van Schaik A, van Marwijk H, Ader H, et al. Interpersonal psychotherapy for elderly patients in primary care. *Am J Geriatr Psychiatry* 2006;14(9):777–86. [+]
534. Richards JB, Papaioannou A, Adachi JD, et al. Effect of selective serotonin reuptake inhibitors on the risk of fracture. *Arch Intern Med* 2007;167:188–94. [observational study]
535. Mesulam MM. Primary progressive aphasia – a language-based dementia. *N Engl J Med* 2003(349):1535–42.
536. Bains J, Birks JS, Dening TD. Antidepressants for treating depression in dementia. *Cochrane Database Syst Rev* 2002(4):CD003944. [+]
537. Steinberg M, Munro CA, Samus Q, et al. Patient predictors of response to treatment of depression in Alzheimer's disease: the DIADS study. *Int J Geriatr Psychiatry* 2004;19:144–50. [~]
538. de Vasconcelos Cunha UG, Lopes Rocha F, Avila de Melo R, et al. A placebo-controlled double-blind randomized study of venlafaxine in the treatment of depression in dementia. *Dement Geriatr Cogn Disord* 2007;24(1):36–41. [~/x]

539. Teri L, McKenzie G, LaFazia D. Psychosocial treatment of depression in older adults with dementia. *Clinical Psychology – Science and Practice* 2005;12(3):303–16. [~/x]
540. Teri L, Logsdon RG, Uomoto J, et al. Behavioral treatment of depression in dementia patients: a controlled clinical trial. *J Gerontol B Psychol Sci Soc Sci* 1997;52(4):P159–P66. [~/x]
541. Buettner LL, Fitzsimmons S. AD-venture programme: therapeutic biking for the treatment of depression in long-term care residents with dementia. *Am J Alzheimer's Dis Other Demen* 2002;17(121):121–7. [~/x]
542. Royal Australian College of General Practitioners and New South Wales Health. *Care of patients with dementia in general practice*. 2002.
543. Dowell T, McBain L, McKinlay E, et al. *Primary mental health initiatives: interim report*. Wellington: Department of Primary Health Care & General Practice, Wellington School of Medicine and Health Sciences, University of Otago; 2006.
544. Worrall R, Waite A, Le Prou T, et al. *Collaboration in later life depression project*. Manukau: Counties Manukau District Health Board Mental Health Services; 2006.
545. Andrews G, Titov N. Changing the face of mental health care through needs-based planning. *Aust Health Rev* 2007;31.
546. Care Services Improvement Partnership. *Treating common mental health problems through stepped care. Improving access to psychological therapies (IAPT)*. Hyde: North West Development Centre; 2006.
547. Wagner E, Austin B, von Korff M. Organising care for patients with chronic illness. *Millbank Quarterly* 1996;14(4):511–44.
548. Wellingham J, Tracey J, Rea H, et al. The development and implementation of the Chronic Care Management Programme in Counties Manukau. *N Z Med J* 2003;116(1169).
549. McKinlay E. Thinking beyond Care Plus: the work of primary health care nurses in chronic conditions programmes. *New Zealand Family Physician* 2007;34(5).
550. Ministry of Health. *Youth health: a guide to action*. Wellington: Ministry of Health; 2002.
551. Bagshaw S. Survey of the Network of Youth Health Service Providers (NYHSP): affiliated to New Zealand Association for Adolescent Health and Development (NZAHD). *N Z Med J* 2006;119(1243):1–7.
552. Ministry of Health. *Youth Health Services*. Wellington: 2008. [cited March 30]. Available from: <http://www.moh.govt.nz/moh.nsf/UnidPrint/MH7375?OpenDocument>.
553. Ministry of Health. *Te Puāwaitanga, Māori mental health national strategic framework*. Wellington: Ministry of Health; 2002.
554. Mar M. Approaches to establishment and sustainable development of Maori mental health services. *Maori Health Services in New Zealand* 1999;3(8).
555. Ratima MM, Brown RM, Garrett NK, et al. Strengthening Maori participation in the New Zealand health and disability workforce. *Med J Aust* 2007;186(10):541–3.
556. Abel S, Gibson D, Ehau T, et al. Implementing the primary health care strategy: a Maori health provider perspective. *Social Policy Journal of New Zealand* 2005(25).

557. Agnew F, Pulotu-Endemann FK, Robinson G, et al. Pacific Models of Mental Health Service Delivery in New Zealand ("PMMHSD") Project. Auckland: Health Research Council of New Zealand; 2004 September 2004.
558. Foliaki S. Pacific mental health services and workforce: moving on the blueprint. Wellington: Mental Health Commission; 2001.
559. Tamasese K, Peteru C, Waldegrave C, et al. Ole Taea Afua, the new morning: a qualitative investigation into Samoan perspectives on mental health and culturally appropriate services. *Aust N Z J Psychiatry* 2005;39(4):300–9.
560. Health Research Council of New Zealand. Guidelines on Pacific health research. Auckland: Health Research Council of New Zealand; 2004.
561. ØVretveit J, Bate P, Cleary P, et al. Quality collaboratives: lessons from research. *Qual Saf Health Care* 2002;11(4):345–51.
562. Ferlie E, Shortell S. Improving the quality of health care in the United Kingdom and the United States: a framework for change. *Milbank Q* 2001;79(2):281–315.
563. National Institute of Clinical Studies. National emergency department collaborative report. Melbourne: National Institute of Clinical Studies; 2004.
564. Nolan T, Schall M. Reducing delays and waiting times throughout the healthcare system. Boston, MA: Institute for Healthcare Improvement; 1996.
565. Keuhl S, Coupe NM, Sutich E, et al. Best evidence becomes everyday action: results from a New Zealand collaborative. *Br Med J (Clin Res Ed)* In press.
566. Ministry of Health. Process and impact evaluation of the self-harm and suicide prevention collaborative: Whakawhanaungatanga. Wellington: Ministry of Health; 2007.
567. Finlayson M, O'Brien T, McKenna B, et al. Review of mental health post entry clinical training programmes. Auckland: Health Research Council of New Zealand; 2005.
568. Schoen C, Osborn R, et al. Commonwealth Fund: international health policy survey of primary care physicians; 2006.
569. Gillies J. Guidelines and Clinical Pathways in the Health Professions. *Health Care and Informatics Review Online*. 2005. [cited 24 June 2008]. Available from: <http://hcro.enigma.co.nz/website/index.cfm?fuseaction=articledisplay&featureid=000305>.
570. Wells S, Jackson R. Online Management of Cardiovascular Risk in New Zealand with PREDICT™ – Getting Evidence to the "Moment of Care". *Health Care and Informatics Review Online™*. 2005. [cited 24 June 2008]. Available from: <http://hcro.enigma.co.nz/website/index.cfm?fuseaction=articledisplay&featureid=010305>.
571. Chu S. Guideline representation formalism and electronic decision support systems: addressing the guideline – implementation gap. *Health care and informatics review online™*. March 2005. [cited 24 June 2008]. Available from: <http://hcro.enigma.co.nz/website/index.cfm?fuseaction=articledisplay&featureid=020305>.
572. Ministry of Health. Primary health care strategy: key directions for the information environment: sector consultation feedback: analysis report. Wellington: Ministry of Health; 2007.
573. The AGREE Collaboration. The Appraisal of Guidelines for Research and Evaluation (AGREE) instrument. London: The AGREE Research Trust; 2001.

574. New Zealand Guidelines Group. Handbook for the preparation of explicit evidence-based clinical practice guidelines. Wellington: New Zealand Guidelines Group; 2001.
575. Scottish Intercollegiate Guidelines Network. SIGN 50: a guideline developer's handbook. Edinburgh: Scottish Intercollegiate Guidelines Network; 2008.
576. Ministries of Health and Education. New Zealand autism spectrum disorder guideline. Wellington: Ministry of Health; 2008.
577. Searight HR, Rottnek F, Abby SL, et al. Conduct disorder: diagnosis and treatment in primary care. *Am Fam Physician* 2001;63(8):1579–88.
578. National Institute for Health and Clinical Excellence. Community-based interventions to reduce substance misuse among vulnerable and disadvantaged children and young people. NICE Public Health Intervention Guidance 4. London: National Institute for Health and Clinical Excellence; 2007.
579. Lima MS, Moncrieff J, Soares B.G.O. Drugs versus placebo for dysthymia. *Cochrane Database Syst Rev* 2005(4):CD001130.
580. Metge J. Whakamaa, mana and Maori self-image. In: Culbertson P, editor. *Counselling issues and South Pacific communities*. Auckland: Accent Publications; 1997. p. 46–7.

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