

EMOTIONAL OR BEHAVIOURAL PROBLEMS

Introduction

Good mental health, as indicated by social and emotional well-being, is fundamental for healthy child development and success in school and in later life.¹ Mental health problems, which in children are usually manifested as emotional and behaviour problems, are estimated to affect 10–20% of children.^{2–6} Common mental health conditions in children include anxiety, depression, attention deficit hyperactivity disorder (ADHD), behaviour disorders such as conduct disorder and oppositional defiant disorder, and substance use disorders.^{3,4}

Mental health problems that arise in childhood can have consequences throughout the rest of life that are burdens not only for the individuals affected but also for families, communities, and the health, justice and welfare systems.⁷ Without treatment, only half of preschool children grow out of behaviour problems.⁸ Half of all lifetime mental disorders are apparent by age 14 and three-quarters by age 24.⁹ It is both more effective and less costly to address mental health problems early in life, than to attempt to fix long standing problems later in life that have resulted from complex interactions between mental health difficulties, family breakdown, employment problems and drug and alcohol abuse.¹⁰

The following section provides data from the New Zealand Health Survey for children with emotional or behaviour problems and children with ADD/ADHD (Attention Deficit Disorder/Attention Deficit and Hyperactivity Disorder) using data from the New Zealand Health Surveys.

Data sources and methods

Indicators

Prevalence of emotional or behavioural problems

Prevalence of ADD/ADHD

Definition

Diagnosed emotional or behavioural problems (depression, anxiety disorder, ADD and/or ADHD) (2–14 years)
Child respondents (aged 2–14 years) are defined as having emotional or behavioural problems if the child's parents or caregivers had ever been told by a doctor that the child has depression, anxiety disorder (this includes panic attack, phobia, post-traumatic stress disorder, and obsessive compulsive disorder), attention deficit disorder (ADD) or attention deficit hyperactivity disorder (ADHD).

Data sources

New Zealand Health Survey (2006/07–2014/15), see Error! Reference source not found.

Additional information

This definition is likely to underestimate the true number of children with emotional or behavioural problems, as some people may not be aware that their child has a mood or anxiety disorder, and also children with ADD or ADHD, as some people may not be aware that their child has ADD or ADHD.

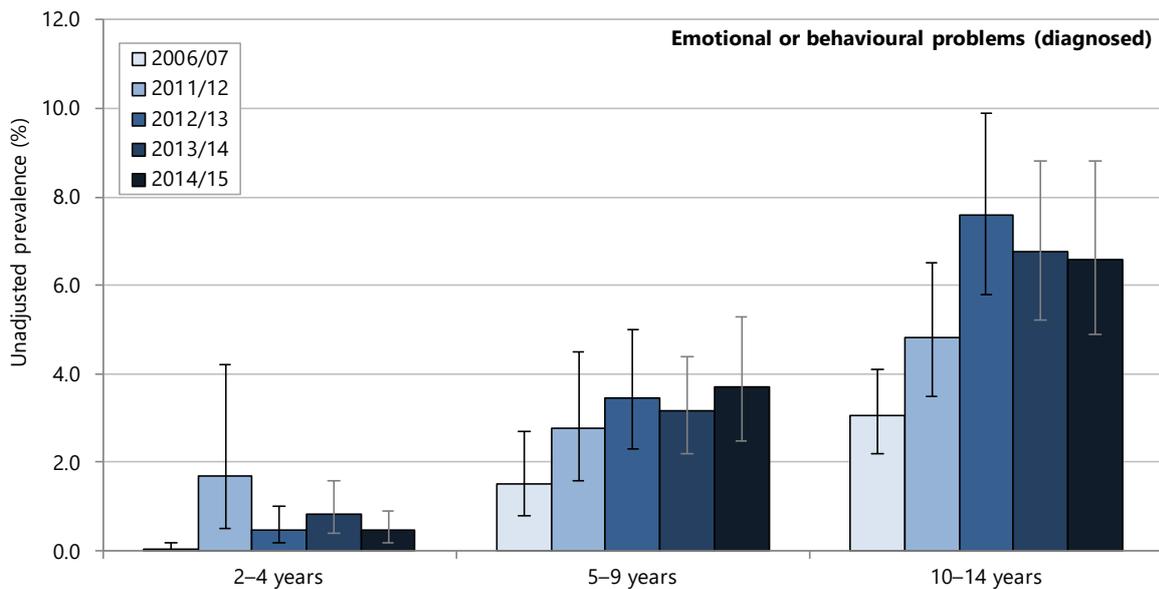
Not all of the respondents who have ever had depression, anxiety disorder, ADD or ADHD would meet the criteria for depression, anxiety disorder, ADD or ADHD at the time they were surveyed.

New Zealand trends and distribution

Over the five years of the NZHS 2006/07 to 2014/15, the percentage of children aged 2–14 years who were ever diagnosed with an emotional behaviour problem is lower for 2–4 year olds than for those older, with percentages for 5–9 year olds slightly lower than those of 10–14 year olds (**Figure 1**). Over the five years of the NZHS 2006/07 to 2014/15, the percentage of children aged 2–14 years who were ever diagnosed with ADD/ADHD (Attention Deficit Disorder/Attention Deficit and Hyperactivity Disorder) is lower for 2–4 year olds than for those older, with percentages for 5–9 year olds slightly lower than those of 10–14 year olds (**Figure 2**).

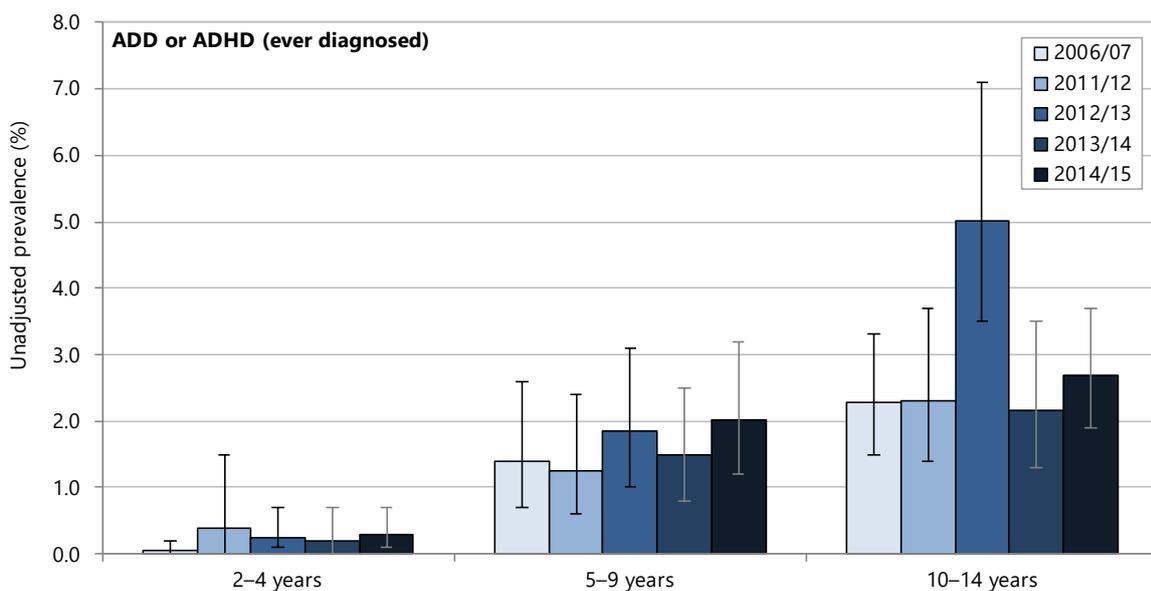
Data from NZHS for one year, 2014/15 shown in **Figure 3**, indicates that the percentages of children aged 5–9 and 10–14 years with emotional or behavioural problems were significantly higher than for 0–4 year olds. The percentages for Māori and European are higher than for Pacific and Asian.

Figure 1. Emotional or behavioural problems (diagnosed) in 2–14 year olds, by age group and survey year, NZ Health Surveys 2006/07–2014/15



Source: NZ Health Survey

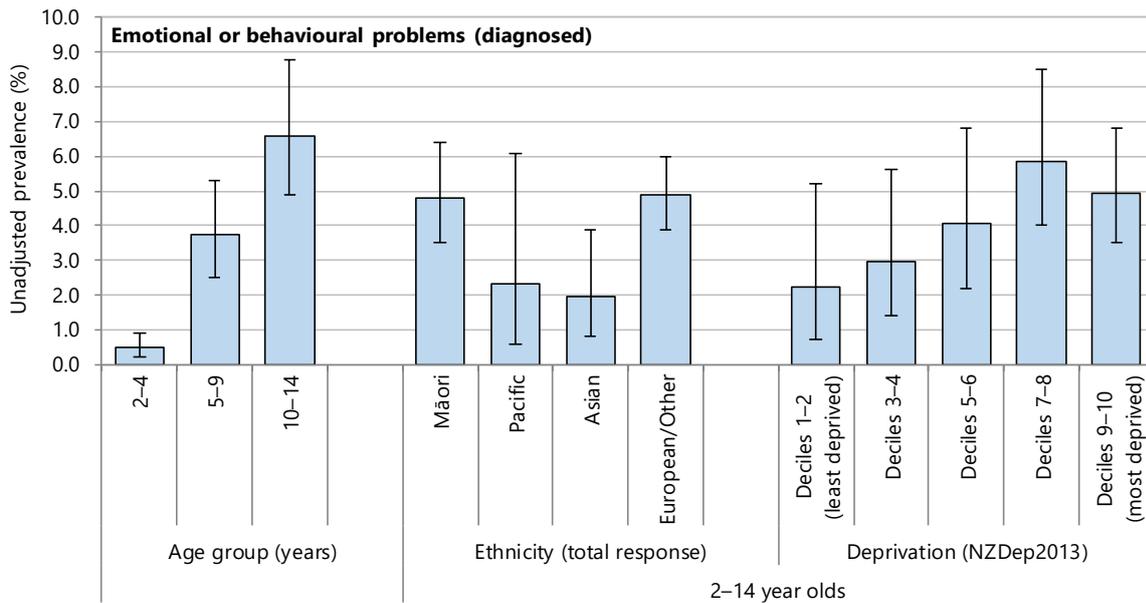
Figure 2. ADD or ADHD (ever diagnosed) in 2–14 year olds, by age group and survey year, NZ Health Surveys 2006/07–2014/15



Source: NZ Health Survey

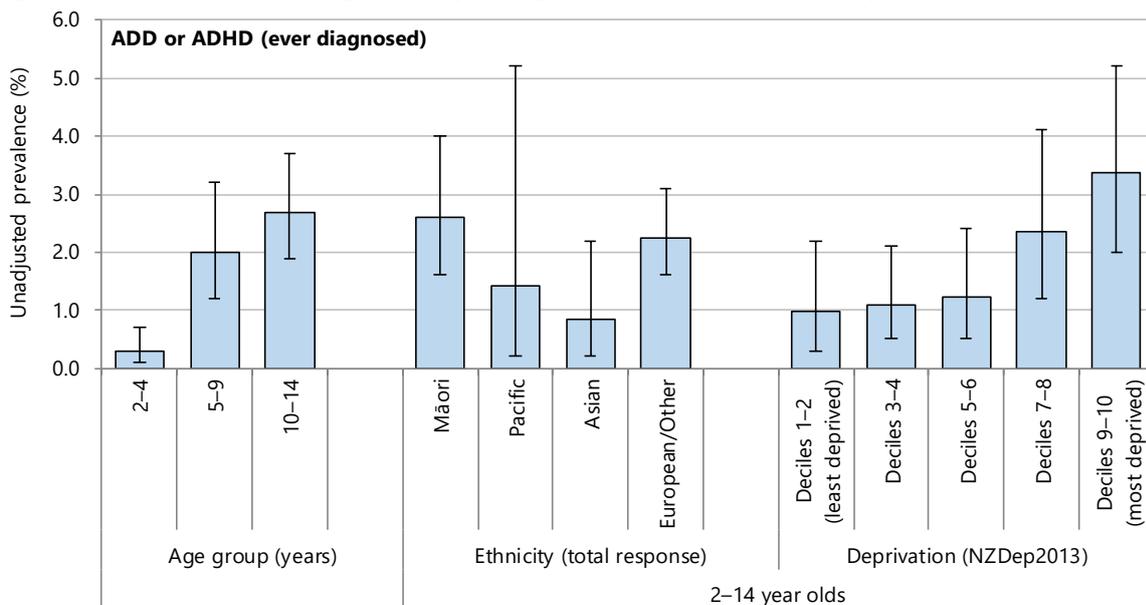
Data from NZHS for one year, 2014/15 shown in **Figure 4**, indicates that the percentages for 5–9 year olds and 10–14 year olds with ADD/ADHD (Attention Deficit Disorder/Attention Deficit and Hyperactivity Disorder) are significantly higher than for 0–4 year olds. The percentages for Māori and European are higher than for Pacific and Asian, but not significantly so. The percentages increase for children in areas with higher deprivation scores, but none are significantly higher.

Figure 3. Emotional or behavioural problems (diagnosed), by demographic factor, NZ Health Survey 2014/15



Source: NZ Health Survey

Figure 4. ADD or ADHD (ever diagnosed), by demographic factor, NZ Health Survey 2014/15

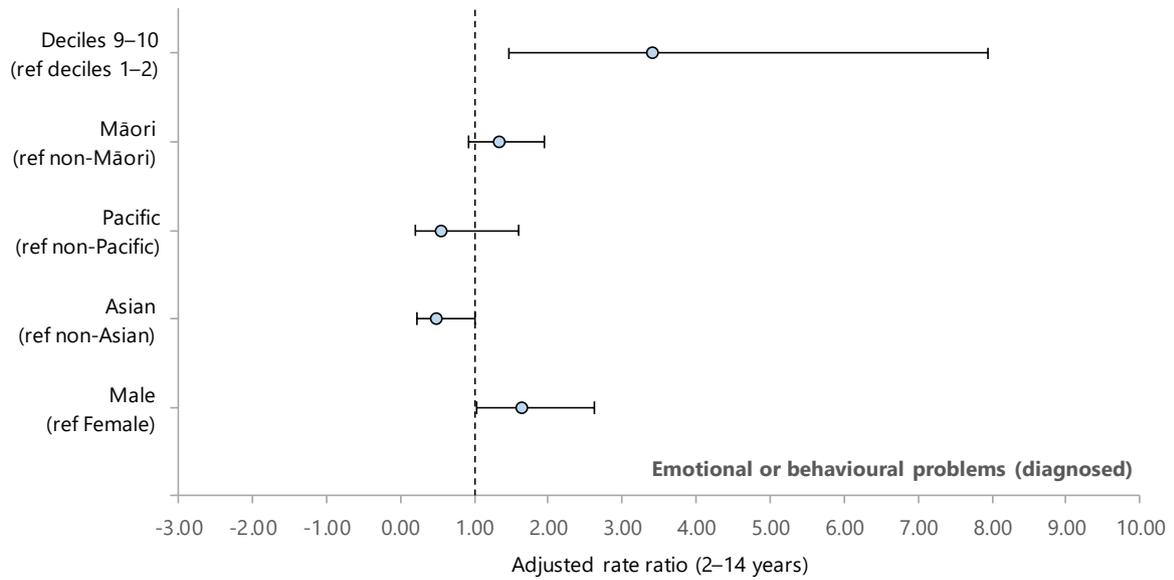


Source: NZ Health Survey

The percentage of emotional or behavioural problems was significantly higher for males and significantly lower for Asian children (**Figure 5**). The percentage of ADD/ADHD (Attention Deficit Disorder/Attention Deficit and Hyperactivity Disorder) was significantly higher for males (**Figure 6**).

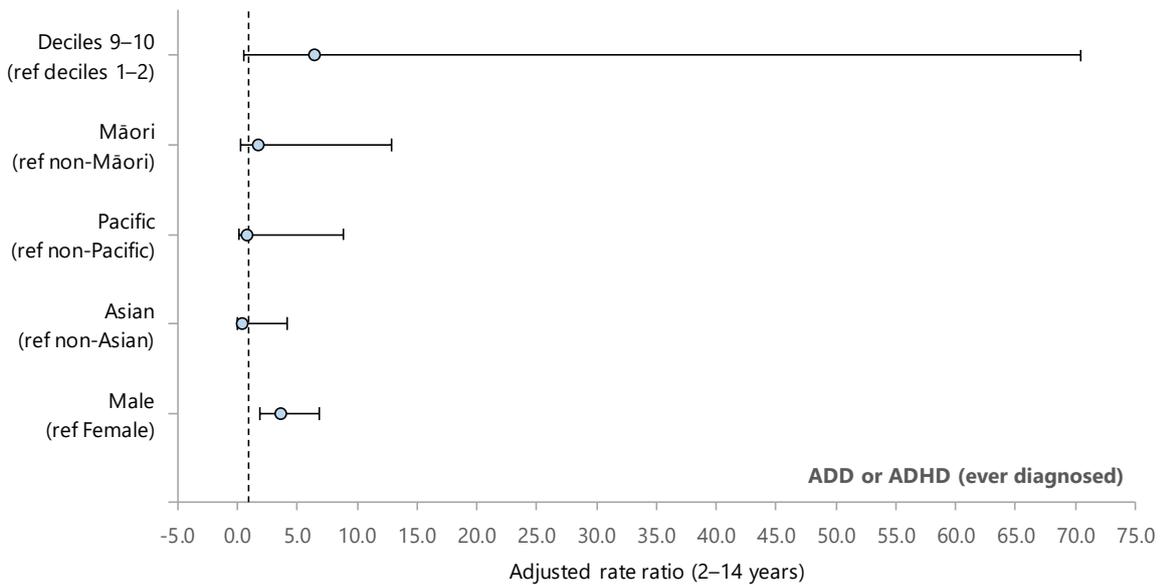
The percentages of emotional or behavioural problems for males were higher for Māori and for European/Other (**Figure 7**). The percentage of ADD/ADHD (Attention Deficit Disorder/Attention Deficit and Hyperactivity Disorder) for males was higher for all ethnicities reported (**Figure 8**).

Figure 5. Comparisons for 2–14 year olds diagnosed with emotional or behavioural problems (diagnosed), by sex, ethnic group, deprivation, NZ Health Survey 2014/15



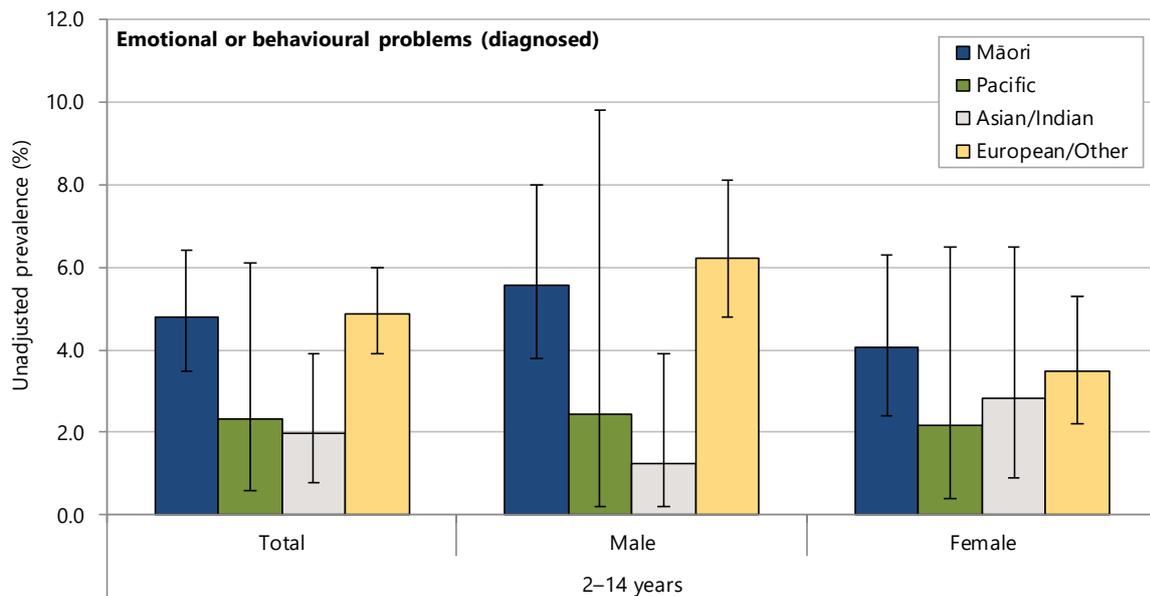
Source: NZ Health Survey. Ethnicity is total response

Figure 6. Comparisons for 2–14 year olds diagnosed with ADD/ADHD, by sex, ethnic group, deprivation, NZ Health Survey 2014/15



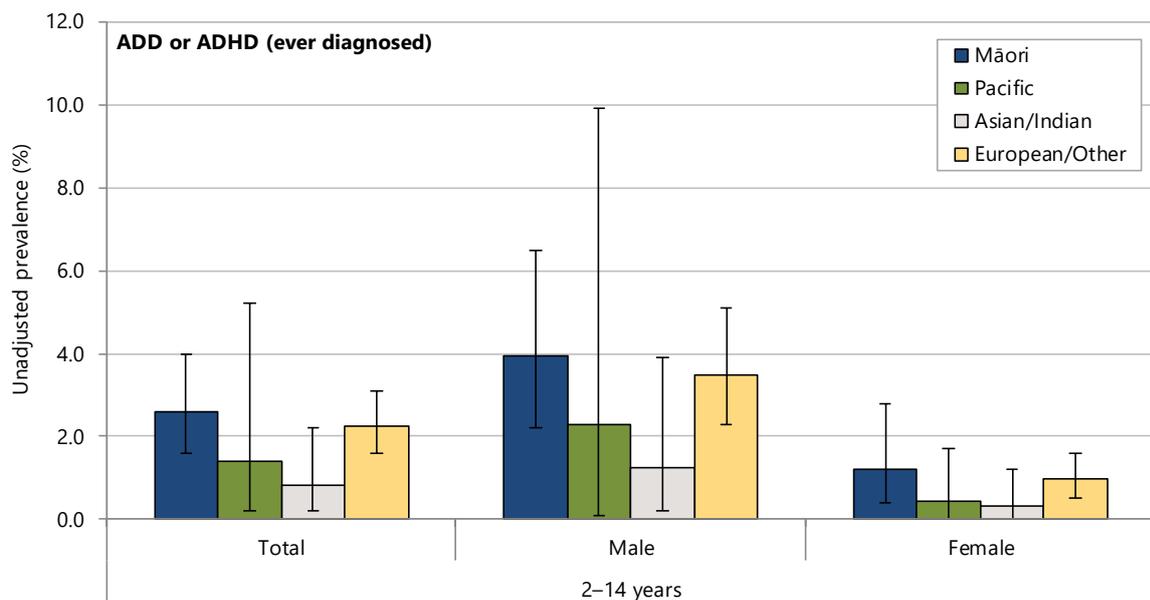
Source: NZ Health Survey. Ethnicity is total response

Figure 7. Emotional or behavioural problems (diagnosed) in 2–14 year olds, by ethnicity and sex, NZ Health Survey 2014/15



Source: NZ Health Survey. Ethnicity is total response

Figure 8. ADD or ADHD (ever diagnosed) in 2–14 year olds, by ethnicity, and sex NZ Health Survey 2014/15

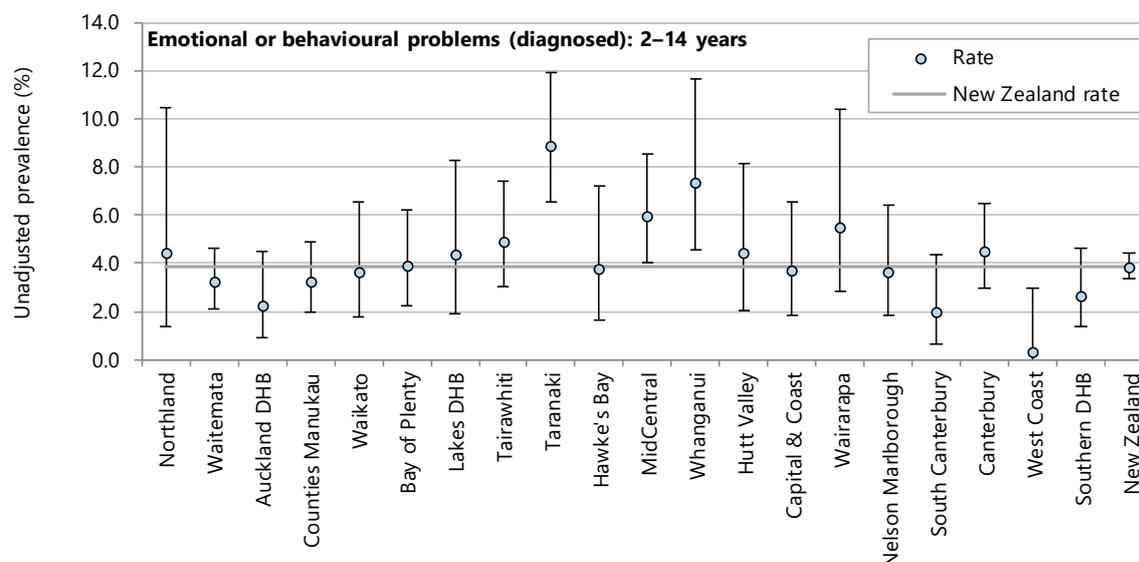


Source: NZ Health Survey. Ethnicity is total response

Regional trends and distribution

Figure 9 shows the distribution across the district health boards was varied. Rates in South Island DHBs were similar to the national rate. The apparently low prevalence in the West Coast is likely to be the result of the small numbers of West Coast children sampled in the surveys rather than an actual low prevalence.

Figure 9. Emotional or behavioural problems (diagnosed) in 2–14 year olds, by district health board, NZ Health Survey 2011–2014



Source: NZ Health Survey

Evidence for good practice

Possibilities for prevention

Children's emotional and behavioural problems have both genetic and environmental causes. Since little can be done about the genetic factors that may predispose a person to mental health problems, preventive interventions primarily focus on optimising children's environments to prevent or manage emotional and behavioural problems.¹⁰ The early years are especially important for a child's healthy mental, social and emotional development.¹¹

Parenting style has been found to be the single most important environmental influence on children's behaviour and therefore most preventive interventions aim to improve parenting skills.¹⁰ Parenting programmes are designed to improve parents' capabilities to identify, define, observe and respond to child behaviours in new ways. They help parents to identify problem behaviours and to use non-punitive discipline techniques, such as ignoring and time out, to discourage undesirable behaviour. They teach parents to use positive reinforcement to encourage desirable behaviour, to understand the ways children think and their motives for their behaviour, and to adopt strategies that strengthen parent-child relationships such as active listening, and responding warmly and sensitively when their child is distressed or seeking interaction.¹⁰

Preventive strategies can be either universal (aimed at the whole population) or targeted (aimed at children who have identified risk factors such as young, low-income parents).¹⁰ A 2009 systematic review that aimed to identify evidence-based preventive interventions for emotional and behavioural problems in children aged 0–8 years found that over fifty such interventions, most targeting behavioural rather than emotional problems, had been evaluated through randomised controlled trials.¹⁰ The review authors identified a number of interventions that were both effective and showed promise in the Australian context. Three US programmes well supported by evidence were the individual *Nurse Home Visitation Programme* (for infants), the individual *Family Check-up* (for pre-schoolers), and the class programme the *Good Behaviour Game* (for children of school age).¹⁰ Three parenting programmes in England and Australia were also considered especially worthwhile: the *Incredible Years* (group format), *Triple P* (individual format), and *Parent Education Programme* (group format).¹⁰

A 2007 Canadian systematic review identified and reviewed 15 RCTs on programmes intended to prevent conduct disorder, anxiety and depression in children aged 0–18 years.¹ Four especially noteworthy programmes for preventing conduct disorder targeted at-risk children in the early years using parent training or child social skills training (or a combination of both), typically delivered over one to two years in homes, preschools or schools by clinicians or teachers.¹ All of these four: Fast Track, Johns Hopkins, Nurse Visitation and Perry Pre-school, significantly reduced two or more symptom measures. One universal group cognitive-behavioural training (CBT) programme (the Australian Friends programme) was effective in reducing anxiety in 10–13 year

olds, with a greater magnitude of effect in at-risk children. Two of the four RCTs of programmes to prevent depression, both assessing the targeted US CBT group programme *Coping With Stress*, showed significant reductions in both diagnostic and symptomatic measures of depression.¹ Few studies had evaluated costs but the review authors pointed out that the lifetime costs of a single case of conduct disorder may be over a million dollars therefore the costs of not implementing preventive programmes is high.

A 2013 review sponsored by the US Agency for Healthcare Research and Quality assessed the effectiveness of interventions for preschoolers at risk for attention-deficit/hyperactivity disorder (ADHD).¹² The interventions evaluated were parent behavior training (PBT), combined home and school/day care interventions, and methylphenidate use. Data from eight good-quality studies provided high quality evidence that PBT improved child behaviour. Only one relatively small good quality study evaluated methylphenidate therefore the evidence for its effectiveness was low. Some adverse effects were reported for methylphenidate but not for PBT. Studies of combined home and school/daycare interventions showed inconsistent results.

A recent Cochrane review (2016) assessed cognitive behavioural therapy and other psychological interventions for preventing depression in children and adolescents.¹³ It included 83 trials, most of which (67) were carried out in school settings. It found that, overall, there was low to moderate quality evidence of small positive effects in depression prevention in the short- to medium-term (up to 12 months). In universal populations, prevention programmes showed a lack of effects in comparison with an attention placebo control. Interventions delivered to targeted populations, especially where these were selected because of having depression symptoms, had larger effects but few of these trials had used an attention placebo control. (An attention placebo control is a control intervention that attempts to control for non-specific factors associated with receiving a therapeutic intervention, such as being part of a trial and receiving attention from researchers.) The review authors concluded that there is still not sufficient evidence to support the implementation of depression prevention programmes.

Mindfulness-based interventions to improve children's social and emotional wellbeing have become popular in recent years.^{14,15} Mindfulness is a practice derived from the Buddhist contemplative tradition. Mindfulness exercises teach practitioners to continually bring their attention back to present moment experience, noticing current thoughts, emotions or bodily sensations.¹⁴ There have been a number of studies of mindfulness interventions for young people age less than 18 years, including more than ten RCTs.¹⁴ The research evidence to date suggests that mindfulness is not harmful and that it has small mental health benefits for young people in general and moderate benefits for young people with symptoms of psychopathology.^{14,15} New Zealand's Mental Health Foundation has developed the *Pause, Breathe, Smile* mindfulness programme for schools.^{14,16}

Evidence-based healthcare for children with mental health problems

It is important that children's mental health difficulties are recognized and treated early since early intervention can prevent problems worsening. It is important that all those working with young children and their parents, whether they work in education, health, child welfare or other services, are aware of the importance of children having nurturing and responsive relationships with their caregivers. They need to be able to recognize and respond to emotional and behavioural problems in children and maternal mental health issues that may make it difficult for a mother to provide the best care for her child. When a parent seeks help, there should be no wrong door: all professionals need to be able to link parents with appropriate services.

Interventions for emotional and behavioural problems in young children always need to involve parents. There is low quality evidence that group-based parenting programmes reduce parent-reported emotional and behavioural problems in children under four years old.¹⁷

Parent-infant psychotherapy (PIP) aims to improve parent-infant relationships.¹⁸ It involves a parent-child psychotherapist working with a parent and infant at home or in a clinic to identify unconscious patterns of relating and behaving, and influences from the parent's past, that are negatively affecting the parent-child relationship.¹⁸ A recent Cochrane review concluded that, although PIP seems to be a promising way of improving the security of infant attachment, there is no evidence that it improves other outcomes, and no evidence to indicate whether it is any more effective than other types of treatment for parents and infants.¹⁸

In children with conduct disorder (up to 11 years old), parent-focused interventions are effective for reducing anti-social behaviour.¹⁹ Limited evidence suggests that group interventions for parents, interventions based on cognitive behavioural principles, and interventions using the Triple P or Incredible Years programmes are especially effective.¹⁹ Child-focused interventions for children and young people with conduct disorder also seem to reduce anti-social behaviour and limited evidence suggests that they may be more effective if delivered in a school rather than a clinic setting.¹⁹ It is uncertain whether interventions delivered separately to both the

parent and the child are any more or less effective than those delivered to parents alone.¹⁹ Multi-modal interventions may reduce anti-social and offending behaviour in young people with conduct disorder.¹⁹

In children with disruptive behaviour associated with conditions such as conduct disorder, oppositional defiant disorder or ADHD, the atypical antipsychotic drug risperidone reduces aggression and conduct problems to some degree after six weeks of treatment but is associated with significant weight gain.²⁰

Young children and school-aged children (6–12 years) with ADHD are likely to benefit from psychological interventions, particularly those that train parents in behaviour management techniques.²¹ Behavioural classroom management and behavioural peer interventions are also well-established treatments.²¹ There is little evidence that parent-based interventions are effective in adolescents with ADHD.²¹

Pharmacological treatment of ADHD is highly effective in most children with ADHD and the psychostimulant methylphenidate is the most commonly prescribed drug.²² In patients who cannot tolerate psychostimulant therapy or have comorbid conditions, atomoxetine or alpha₂-adrenergic agonists (such as clonidine and guanfacine) may be effective.²²

In children and young people with depression of any severity, psychological therapy, such as cognitive behavioural therapy should be offered initially.²³ There is little clear evidence to favour one psychological therapy over another.²³ In young people (12–18 years) with severe depression, antidepressants and psychological therapy may be started concurrently as an alternative to trying psychological therapy first and starting antidepressants only if this trial is unsuccessful.²³ The evidence regarding the relative effectiveness of psychological interventions, antidepressant medication and a combination of these interventions in children and adolescents with depression is very limited.²⁴

There is evidence that cognitive behavioural therapy is an effective treatment for anxiety disorders in children and adolescents but the evidence suggesting that CBT is more effective than active controls or treatment as usual or medication at follow-up, is limited and inconclusive.²⁵

Evidence-based care for children and young people with ADHD and other mental health conditions

International guidelines relevant to the treatment of ADHD

- Canadian Agency for Drugs and Technologies in Health. 2016. Pharmacologic Management of Patients with ADHD: A Review of Guidelines. Ottawa (ON): Canadian Agency for Drugs and Technologies in Health. <https://www.ncbi.nlm.nih.gov/pubmedhealth/PMH0086535/>
- National Institute for Health and Care Excellence. 2008 (updated February 2016). Attention deficit hyperactivity disorder: diagnosis and management. <https://www.nice.org.uk/guidance/cg72?unlid=3080387942016329183448>
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- Canadian Attention Deficit Hyperactivity Disorder Resource Alliance (CADDRA). 2011. Canadian ADHD Practice Guidelines, Third edition. Toronto, ON: CADDRA. <http://www.caddra.ca/pdfs/caddraGuidelines2011.pdf>

International guidelines relevant to the treatment of other mental health conditions

- Siu AL. 2016. Screening for Depression in Children and Adolescents: U.S. Preventive Services Task Force Recommendation Statement. *Annals of Internal Medicine* 164(5) 360-6 <http://dx.doi.org/10.7326/m15-2957>
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- McClellan J, Stock S. 2013. Practice parameter for the assessment and treatment of children and adolescents with schizophrenia. *Journal of the American Academy of Child and Adolescent Psychiatry* 52(9) 976-90 <http://dx.doi.org/10.1016/j.jaac.2013.02.008>

Evidence-based medicine reviews relevant to the treatment of ADHD

- Punja S, Shamseer L, Hartling L, et al. 2016. Amphetamines for attention deficit hyperactivity disorder (ADHD) in children and adolescents. *Cochrane Database of Systematic Reviews* (2) <http://dx.doi.org/10.1002/14651858.CD009996.pub2>
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