



Child poverty and mental health

A literature review

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Child poverty and mental health: A literature review

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Introduction

Summary

Large numbers of children in New Zealand suffer from mental health problems, and large numbers of children suffer from poverty and hardship. This literature review provides information on the relationship between poverty experienced during childhood and the impact that poverty may have on the mental health of a child or young person, or later in their adulthood. It was found that:

- There is an accepted relationship between poverty experienced in childhood and a greater likelihood of mental health problems through the life span.
- Child poverty and its associated problems such as poor nutrition, inadequate housing, increased likelihood of adverse events and living in poor neighbourhoods put children at higher risk of having mental health problems.
- The evidence strongly suggests that the incidence of mental health conditions among children and adolescents can be reduced by addressing severe and persistent poverty, particularly during the early years of a child's life.
- Intervention to address poverty and the effects of poverty on children is likely to prevent the perpetuation of inter-generational cycles of poverty and poor mental health.
- The prevalence of child poverty and mental health issues is likely to be higher for Māori and Pasifika than for other children and young people.
- While many Māori and Pasifika children are subject to inequities in material and socio-economic circumstances as well as institutional racism, they also experience the benefits of a rich cultural life and sense of belonging that is seldom accounted for in research reports that focus on deprivation.

The evidence strongly suggests that the incidence of mental health problems throughout the lifespan could be reduced through addressing the causes of child poverty and associated factors. Any mental health strategy for children should sit alongside a comprehensive programme to alleviate poverty. Strategies aimed at addressing child poverty in Māori and Pasifika communities are more likely to be effective if these are well-resourced at an early stage and developed in a genuine partnership with local communities.

Purpose of review

This literature review was commissioned in order to provide information on the relationship between poverty experienced during childhood and the impact that poverty may have on the mental health of a child or young person, or later in their adulthood.

Key questions

This review outlines findings on relationships between child poverty and mental health in New Zealand.

The following questions are addressed in this review of the New Zealand and international literature:

- What is the prevalence of child poverty?
- What is the prevalence of mental health issues in New Zealand among children and young people?
- What is known about the influence of child poverty on mental health from New Zealand and international literature?

Methodology and scope

A range of material was identified from databases using a combination of search terms relating to children, poverty and mental health. Given the breadth of the field, we particularly sought out good quality review articles and established reports to provide an over-arching perspective on the existing research. This search was augmented by additional articles sourced through the databases we used with ideas suggested by New Zealand Psychological Society Executive Committee members, Wellington-based poverty researchers, material on New Zealand government agency websites and in bibliographies or links on websites specialising in poverty research.

As far as possible this review has focused on:

- Recent New Zealand research on the prevalence of poverty in New Zealand.
- New Zealand mental health data.
- New Zealand research concentrated on the interaction between poverty experienced in childhood or adolescence, the mental health of children and young people, and to a lesser extent, the mental health of adults.
- The relationship between child poverty and mental health. Given the paucity of local research in New Zealand, use has also been made of relevant international research.

Child poverty in New Zealand

Defining and measuring child poverty in New Zealand

It is challenging to define and measure poverty in children as children experience poverty through their families and the wider cultural and socio-economic context in which they live. Measures need to capture the various components of their reality including the age at which poverty is experienced, the depth or severity of poverty and the length of time over which it is endured.

For the purposes of brevity, this review has not focused on a broader understanding of poverty such as the loss of land and intergenerational deprivation that impact on Māori together with economic poverty. Similarly it does not acknowledge the cultural resources and strengths that Māori might draw on. Government and researchers in the future will need to work with Iwi and Māori organisations to develop appropriate measures and indicators.

An overview of recent issues and options for measuring and monitoring child poverty in New Zealand is provided in a report commissioned by the Children's Commissioner who, in 2012, established the Expert Advisory Group (EAG) on Solutions to Child Poverty. Its brief was to develop robust and reliable measures of poverty for policy purposes and tracking poverty over time. The EAG produced a series of reports investigating various dimensions of poverty and a final report containing recommendations of action (EAG 2012a; 2012b; 2012c; 2013). The EAG defined children living in poverty as "those who experience deprivation of material resources and income that are required for them to develop and thrive". This leaves such children unable to enjoy their rights to achieve their full potential and to participate as equal members of society. They described child poverty as involving a higher chance of insufficient nutritious food, going to school hungry, wearing worn out shoes or going barefoot, having inadequate clothing, living in cold, damp houses and sleeping in shared beds.

Two key sources of information on poverty in New Zealand are published annually. The first is the Ministry of Social Development (MSD)'s report "Household Incomes in New Zealand – trends in inequality and hardship", which uses household income data dating back to 1982 and was last published in August 2016. The report includes a section on trends for dependent children (0-17 years) using both income and non-income measures (Perry, 2016).

The Child Poverty Monitor (www.childpoverty.co.nz) has been produced annually since 2012 as a partnership between the Children's Commissioner, J R McKenzie Trust and the University of Otago. It measures and reports on child poverty rates annually drawing from the existing sources of information of MSD (above), and the University of Otago's New Zealand Child and Youth Epidemiology Service.

This Service was formed in 2007, and publishes a series of reports that make extensive use of information on the determinants of health for children and young people. This series is conjointly commissioned by the Ministry of Health and the Paediatric Society of New Zealand and includes reports provided by District Health Boards (DHB) and for Māori and Pasifika children and young people (Simpson et al., 2016a).

The child poverty measures used in these reports, and the number and proportion of children affected are shown in the table below.

Table 1: Children 0-17 years in poverty in New Zealand, 2016, using different measures [Perry, 2016]

Child poverty figures in NZ	No. of children	% of children
Total children	1,060,000	100%
Income poverty (<60% 2015 median after housing costs)	295,000	28%
Severe income poverty (< 50% 2015 median after housing costs)	210,000	20%
Very severe income poverty (<40% 2015 median after housing costs)	125,000	12%
Material hardship (children living in households that go without 7 or more things they need)	155,000	14%
Severe material hardship (children living in households that go without 9 or more things they need)	85,000	8%
Material hardship and income poverty	90,000	8%

Each of these definitions of poverty is measured and monitored by the Ministry of Social Development (MSD). The household income measures give an estimate of the monetary resources available to support the child. The non-income measures (material hardship) estimate the lack of necessities for the child's health and well-being. Both are important, and related. The most severely affected children have both income poverty and material hardship (nearly one in 10 children).

Extent of child poverty in New Zealand

In New Zealand, globally, and in international bodies such as the World Health Organisation, there has been increasing concern about the impact and experience of child poverty on future life chances as well as on basic human rights resulting in attention being given to the measurement and monitoring of poverty levels. New Zealand trends in poverty rates for subgroups of dependent children have been analysed by Perry (2016), who reported on the changing composition of children identified as poor from the year 1982 to 2015. Key points were that poverty rates are consistently higher for dependent children compared with other age groups; younger children (0-11 years) compared to older children (aged 12-17 years); Māori and Pasifika compared to European/Pākehā; and where parents have lower levels of educational qualifications (Perry, 2016). Some of these patterns are evident in Table 2 which is derived from the report. It is based on a poverty measure averaged across surveys – relating to the 60 percent of median income after housing costs. The analysis is based on the number of dependent children aged 17 years or younger (N= 1,060,000). Two alternative perspectives are provided in the table. One presents the proportion of all children falling into each characteristic that are poor. For example, overall 23% of all NZ children are characterised as poor, whereas 64% of children in sole parent households are poor. The alternative view is to consider and compare the proportion of all children that fall into each category, with the proportion of poor children that do so (Columns 3 and 4). For example, 18% of all New Zealand children are in sole parent households, whereas, 47% of poor children are in sole parent households.

Table 2: Income poverty rates and composition for New Zealand (NZ) children by their ethnicity and by characteristics of their households

	Estimated poverty rate (%) by characteristic	Of all NZ children (estimated %)	Of all children in poverty in NZ (estimated %)
Characteristics			
All New Zealand children	23	100	23
Household type			
Sole parent	64	18	47
Two parent	15	69	44
Multi-adult family	16	12	8
Family type			
Two parent families	15	76	47
Sole parent families (SP)	53	24	53
a) in SP family on own	69	16	45
b) in SP family within a wider household	23	8	8
Number of children in the household			
1 or 2	21	63	55
3 or more	29	37	45
Ethnicity			
Māori	34	24	34
Pacific	34	10	13
Other ethnicity	27	12	14
European/ Pākehā	17	54	38
Highest household educational qualification			
No formal qualification	55	7	15
School qualification only	35	25	38
Post-school non-degree	21	38	33
Degree or post-graduate	12	30	14
Main source of income for household			
Benefit	75	22	63
Market	12	78	37
Housing Tenure			
Housing New Zealand C	54	9	19
Private rental	38	33	53
Own home	12	59	28

(Source: Adapted from Perry, 2016)

Table 3 presents key indicators relating to income and material hardship from the Child Poverty Monitor and similarly shows that many New Zealand children are in poverty; that children are over-represented as a group in terms of New Zealanders in poverty (compared with the over 65s for example) and; that Māori and Pasifika children and youth are twice as likely to be in poverty. A sizeable number of children are in severe or persistent poverty. Again, other data shows that younger children are more likely to be in poverty than older children (Simpson et al., 2016a).

Table 3: Poverty measures used in the Child Poverty Monitor 2016 relating to the 2015 year

INDICATORS RELATING TO POVERTY MEASURES
<p>a. Relative income poverty - Using the relative income measure of below 60% of the contemporary median income after housing costs.</p> <ul style="list-style-type: none"> • A total of 295,000 or over one in four children (0-17 years) were living in relative income poverty. • An average of 63% of children in poverty live in beneficiary households while 37% live in households where one or more adults are in paid employment • 53% of children in poverty are in sole parent families and 47% are in two parent families. • 1 in 3 Māori, 1 in 3 Pasifika and 1 in 6 European children are in poverty • Children are more than twice as likely to be in poverty than those aged 65+
<p>b. Material hardship - Non-income measures, NIMs, (based on DEP-17 scores and the Material Wellbeing Index) provide a description of everyday life for children and families' actual living standards (including ability to keep the house warm in winter, afford meat, fresh fruit and vegetables, to replace worn out shoes and clothing, visit the doctor, have broken appliances fixed and cope with unexpected demands on their budget). Work is currently being undertaken to increase the robustness of these measures.</p> <ul style="list-style-type: none"> • 14% or 148,000 were in material hardship
<p>c. Persistent poverty - Poverty persistence is defined from a participant's average income over seven years of the Statistics New Zealand's Survey of Family, Income and Employment.</p> <ul style="list-style-type: none"> • Of all the children in poverty, three in five are in persistent poverty.
<p>d. Severe poverty Where children are living in households with both a low income and material hardship. This means they go without things they need and their low family income means that they have little opportunity to change this.</p> <ul style="list-style-type: none"> • While 5% of New Zealand's total population are living in severe poverty, nearly double the proportion (8%) of all New Zealand children are living in severe poverty (material hardship and income poverty).
<p>e. Trends over time</p> <ul style="list-style-type: none"> • Child poverty is much worse than in the 1980s regardless of measure. In 2015, it was 28% of all children whereas in 1982-1990 it was only 10-15% of all children.

(Source: Based on Simpson et al., 2016b)

Table 4 presents some of the other poverty indicators included in the Child Poverty Monitor and focuses on those where the association with mental health has been explored.

Table 4: Other findings from the Child Poverty Monitor 2016 for the 2015 year

INDICATORS RELATING TO OTHER ASPECTS OF POVERTY

Crowded homes and housing costs

Where one or more bedrooms are needed to accommodate the number of people living in the house. Crowding can cause serious health problems and has been linked in New Zealand to meningococcal disease and rheumatic fever.

- 16% of children aged 0-14 years live in crowded homes.
- 50% of Pasifika children live in a crowded home.
- 25% of Māori children live in a crowded home.
- 20% of Asian or Indian children live in a crowded home.
- 5% of European children live in a crowded home.
- 40% of families in the lowest income bracket are spending more than 30% of their income on housing.

Indicator: Education outcomes

Those growing up in disadvantaged areas have a greater risk of poor education outcomes.

- 79% of all students achieved NCEA level 2 or above in 2014. This compared with 65% of students from disadvantaged areas and 92% of those from the most advantaged areas.

Indicator: Poor health

Children growing up in poverty have greater health risks.

- Children in poor communities are three times more likely to end up in hospital.
- Those in the most disadvantaged areas are much more likely to be admitted to hospital for infectious diseases and respiratory illnesses.
- Rates of Sudden Unexpected Death in Infants are more than six times higher for infant in the most disadvantaged areas.

(Source: Based on Simpson et al., 2016b)

Mental health of New Zealand children

Definitions in mental health

The World Health Organisation defines mental health as a state of well-being in which an individual realises his or her own abilities, can cope with the normal stresses of life, can work productively and can contribute to his or her community. An important implication of this definition is that mental health is more than just the absence of mental disorders or disabilities (World Health Organisation, 2016).

Mental disorders are commonly classified using the Diagnostic and Statistical Manual of Mental Disorders, published by the American Psychiatric Association (APA) or the International Statistical Classification of Diseases and Related Health Problems (ICD), produced by the World Health Organisation. Survey information provided by children, youth or their parents is often coded using these classification systems.

It should be noted that this review may not encompass some concepts of well-being and mental health that exist within Māoridom and other cultures. Other commentators have noted the significance of each community determining what is necessary to thrive rather than having this determined for them (Berentson-Shaw and Morgan, 2017). Different iwi/hapū might include aspects of wellbeing that acknowledge the impact of the confiscation of whenua and loss of maunga, awa or moana, thereby loss of food sources and with that, loss of their mana whenua, mana tangata.

The mental health status of New Zealand children and youth

Youth (15-24 years) have the highest suicide rate of all groups within New Zealand with Māori youth having a suicide rate of 2.8 times the rate for non-Māori youth. Half of the young Māori that died from suicide came from the most deprived areas of New Zealand as defined by the NZ Deprivation Index 2006. Only about half of these young Māori who suicided had contact with mental health services before their deaths (Suicide Mortality Review Committee, 2016).

New Zealand also has large numbers of young people who are affected by different forms of mental distress. New Zealand Health Survey data analysis (Ministry of Health, 2015a) provides estimates by age group, ethnic group and neighbourhood deprivation of diagnosed prevalence of various conditions with a 95% confidence interval. For example, the New Zealand Health Survey data estimated that between 0.6% and 1.8% of children aged 14 years or less have been diagnosed with a depressive disorder (i.e. between 5,000-14,000 children) while between 6.6 and 8.1% of young adults aged from 15 to 24 (or 43,000 – 64,000 young adults) have a similar diagnosis.

Much higher rates of mental distress were reported in the Youth12 Survey of 8,500 secondary school students (Clark et al., 2013). In this survey, 16% of females and 9% of males self-reported clinically significant symptoms of depression. In addition, 38% of female students and 23% of male students reported feeling down or depressed most of the day for at least two weeks in the year over the previous 12 months. In the same survey, 29% of female students and 18% of males had deliberately harmed themselves over the previous 12 months. 21% of female and 10% of male students had seriously thought about suicide in the previous 12 months, with 6% of females and 2% of males attempting suicide.

The links between child poverty and mental health problems

The link between poverty and children's mental health is well recognised in a range of international reports. For example, a report prepared for the Canadian Ministry of Children and Youth services concludes that the likelihood a child or young person from a family living in poverty of having a mental health problem is three times that of a child from a family that is not living in poverty (Lipman & Boyle, 2008). A more recent technical report prepared for the American Academy of Pediatrics reiterates these findings, noting that children raised in poverty face compromised mental health, behavioural health and relational development (Pascoe et al., 2016). This report suggests that even temporary poverty may have lasting effects on health. Compared to children in families with adequate resources, those in poverty are more likely to be diagnosed with conduct disorders, attention-deficit disorders and have higher levels of depression. In turn, depression in children aged under 18, who experience poverty, was linked to substance abuse, unemployment and poor academic performance. Findings from the Norwegian Bergen study of children (Bøe, 2012) similarly noted that family economy was a significant predictor of child mental health problems when measured across a range of symptom dimensions (such as conduct, hyperactivity/inattention, emotional and peer problems). Overall, poor economic circumstances predicted a higher probability that children and young people will be diagnosed with a psychiatric disorder that may be attributable to the stressful effects of poverty.

A more recent report documenting the link between child poverty and mental health has come from the UK. In March 2016, The UK Children's Society published "Poor Mental Health – the links between child poverty and mental health problems" (Ayre, 2016). The report notes that while the impact of growing up in poverty on educational attainment and physical health outcomes is widely acknowledged, there is less recognition that poverty also presents a substantial risk for the development of mental health problems. Findings show that children in the poorest households are three or four times more likely to have mental health or problems than children in the best-off households. This report describes a range of different ways that poverty might affect the mental health of children and young people.

- A greater proportion of young people aged 16 to 19 years living in poverty were "not optimistic", "did not feel useful" and "felt a failure" compared to those not in poverty. They suggest that combination of the lack of optimism and self-worth suggests a negative association between growing up in poverty for children and young people's emotional well-being.
- Being born into poverty can increase the risk of mental health problems in children and young people, which in turn, can have long-term consequences for educational outcomes and social relationships.
- Children are acutely aware when their parents struggle with school costs (for example school trips or uniform items) and often suffer bullying or embarrassment.
- Discrimination and associated stigma can impact on the emotional well-being of children and young people growing up in poverty and lead to loneliness, depression and loss of confidence. Fear of this type of discrimination can be as damaging as actual discrimination.
- Those households with adults supported by a disability benefit have a higher prevalence of children and young people with mental health problems.

A systematic review of 55 studies on the relation between socio-economic inequality and mental health problems in childhood and adolescence supports these conclusions noting that children and young people (aged 4-18) who were socio-economically disadvantaged were two to three times

more likely to develop mental health problems, particularly if that disadvantage persisted over time (Reiss, 2013).

The association between socio-economic status, mental health status and suicide has revealed mixed findings. However, taking into consideration methodological problems, the weight of evidence suggests that suicide in general is associated with economic deprivation (Rehkopf & Buka, 2006). A recent Australian longitudinal study (Page et al, 2014a, 2014b) found strong associations between mental disorders and youth suicide for both males and females. These researchers concluded that it was likely that mental disorders act as intermediaries between socio-economic status and suicide. They concluded that suicide prevention and interventions should target socio-economic disadvantage as well as mental illness. This research found specifically that lower socio-economic position during childhood was associated with incidents of self-harm in adolescents aged 16 to 18 years. This association was stronger for self-harm involving a suicide attempt than for incidents of self-harm without a suicide attempt. The association was also stronger for those who experienced a consistently lower socio-economic position (Page et al., 2014b).

New Zealand has four major longitudinal studies following cohorts of children born in New Zealand which give an insight into possible links between experiences of poverty in childhood and later mental health problems. The Dunedin Multidisciplinary study which began in 1972-3 found that, compared with those from high socioeconomic status (SES) backgrounds, children who grew up in low SES families had poorer cardiovascular and periodontal health, and a higher incidence of substance abuse; and these were not changed if the children improved their SES later (Poulton et al., 2002). Findings from the Christchurch Health and Development Study, which started in the mid-1970s, suggest that a low standard of living together with a number of other features of childhood adversity (low maternal educational attainment, low educational aspirations by parents, single parent family type, parental history of criminal offence including substance abuse, and childhood exposure to family violence, regular/severe physical punishment and sexual abuse) may increase the likelihood of mental health problems in adulthood (Fergusson, 2015). More recent data from the Growing Up in New Zealand longitudinal study, which began in 2009, showed that risk factors for vulnerability of children included maternal characteristics and behaviours, features of the home environment and poor maternal mental wellbeing and physical health in late pregnancy. Exposure to multiple risk factors for vulnerability at any one time point increased the likelihood that children will experience poor health outcomes during their first 1000 days of development; and that Māori and Pacific babies are disproportionately exposed to these risk factors (Morton et al., 2014). The Pacific Islands Family Study which began in 2000 found a relatively high prevalence (7.3%) of depressive symptoms in 9-year-old Pacific children; there was no relationship to SES apart from low maternal education (Paterson, Lustini & Taylor, 2014). A major New Zealand report in 2011 “Reducing social and psychological morbidity during adolescence” identified poverty as one of several factors influencing mental health of adolescents and the importance of early intervention (Gluckman, 2011).

Explaining the relationship between child poverty and mental health problems

A range of theoretical approaches and models have been developed to help understand how poverty affects child development and mental health, including the following key ideas summarised by Duncan and Magnuson (2013):

- Economic models that focus on what money can buy suggest families with greater economic resources are better able to purchase or produce meaningful resources to support their young children's development (for example, nutritious meals, enriched home learning environments and childcare settings, safe and stimulating neighbourhoods) and higher quality schools and post-secondary education for older children. The costs of the inputs and family income constraints are key considerations for understanding the effect of poverty on children.
- Psychological and sociological models focus on the quality of family relationships to explain poverty's detrimental effects on children. Higher incomes may improve parents' psychological well-being and their ability to engage in positive family processes and high quality interactions with children. Research has established that low-income parents are more likely than others to use an authoritarian and punitive parenting style and be less resourced to provide stimulating learning experiences in the home. A possible cause of this is that parent's mental health itself may be compromised by the contribution of poverty and income insecurity to psychological distress, which can affect parents' interactions with their children.
- Neuroscience studies show correlation between socio-economic status and various aspects of early brain function. Along with human and animal studies, there is emphasis on the importance of early childhood for establishing the neural functions and structures that shape future cognitive, social and emotional outcomes.

An overlapping approach is to identify and distinguish variables that partly or fully explain the association between child poverty and mental health (mediating variables) from those that explain who is more likely to be affected (moderating variables). Lipman and Boyle (2008), identify factors that moderate and mediate the relationship between child poverty and mental health. This is summarised in Table 5.

Table 5: Mediating and moderating variables between child poverty and mental health (adapted from Lipman and Boyle 2008)

Mediating variables (explain the association)	Moderating variables (explain who is more at risk)
<ul style="list-style-type: none"> • Exposure to trauma • Family conflict • Maternal mental health and depression noting that mothers living in poverty may be more distressed and depressed due to circumstance, which may lead to inconsistent or harsh parenting. • Broader community factors such as levels of community violence, have been associated with child outcomes even when accounting for effects of poverty. • Family processes – for example inadequate maternal responsiveness and use of physical punishment explained the relationship between current poverty and mental health but did not explain the relationship between persistent poverty and mental health. • Socioeconomic status to child wellbeing – nutrition, child physical health status, housing, cognitively stimulating materials and experiences, parent expectations and styles, teacher attitudes and expectations and lifestyle or health behaviours. 	<ul style="list-style-type: none"> • Children from single parent, mother-led families – have higher rates of mental health problems than those from two parent families who are similarly impoverished • Children of teen mothers – children born to a mother who had a first child as a teenager have a risk of emotional and behavioural issues. • Children of families on social assistance - have an elevated risk of morbidity with outcomes such as psychiatric disorder and difficulties with school performance. • Children of immigrants - inconclusive evidence. • Youth transitioning out of foster care – considered to be a small but vulnerable population • Youth who drop out of school • Children and youth with physical disabilities.

Timing of poverty

Recent research in neuroscience and developmental psychology is now suggesting that poverty early in a child's life may be especially harmful because of the very rapid development of a young child's brain, which leaves them sensitive to environment conditions. Developmental vulnerability and the dependence of very young children on their family context makes them especially susceptible to the effects of poverty on their household (Duncan & Magnuson, 2013). This finding is recognised in a range of international reports on child poverty (Duncan & Brooks, 1997; Lipman & Boyle, 2008). This has also been well-recognised in New Zealand literature. In a local review of child poverty and its impact on psychosocial outcomes, Davies et al. (2010) concludes that poverty has its greatest impact on the well-being of younger children, leaving them more susceptible to abuse, neglect and lack of positive social interaction. The authors, however, note that not all young children raised in poverty will experience these aversive conditions.

Depth/severity and persistence of poverty

Research indicates that a person's standard of living likely to impact on the severity of mental health issues. For example, Foulds (2014), suggests that people with the lowest living standard are at far greater risk of having a current serious mental illness than those with a comfortable living standard or better. Other research suggests similar findings. The report for the Children's Society noted findings that children from the poorest households in the UK are three or four times more likely to have mental illness than children in the best-off households (Ayre, 2016). In addition, children in poverty were found to have a greater number of mental health problems in conjunction than children not experiencing poverty.

Children living in circumstances of persistent poverty appear to do worse than those with transitory poverty in terms of socio-emotional functioning (McLoyd, 1998; Reiss, 2013). Research also notes that persistent economic stress predicts internalising mental health problems (such as anxiety and depression) while externalising problems such as conduct disorders and attention-deficit hyperactivity disorder are more strongly associated with concurrent poverty (Murali et al., 2004).

Particular aspects of poverty affecting the mental health of children

Inadequate housing

A growing body of evidence points to the impact that situations of deprivation, and insecurity both social and economic, can have on the mental health and general wellbeing of children. In this section we highlight some aspects of poverty, and draw attention to the disproportionate effects that are being experienced by Māori and Pasifika tamariki, rangitahi and their whānau and the need for different approaches to improve their mental health outcomes.

Living in a poor-quality state or private rental housing (for example, over-crowded, cold, damp or mouldy housing) is recognised to impact negatively on children's health and can also impact significantly on their mental health. The Marmot Review conducted in 2011 in the UK noted that one in four adolescents living in cold housing "are at risk of multiple mental health problems compared to 1 in 20 adolescents who have always lived in warm housing" (Marmot et al., 2011).

A review of the relationship between poor housing and mental health problems also highlights other negative effects of poor housing (Evans, 2003). This review notes there may be restricted play opportunities for young children and difficulties supervising older children, lack of contact with the natural environment and lack of safety which is likely to impact on their mental health. Poor housing may also create tension in inter-personal relationships between members of the household. Evan's review acknowledges that the effects of poor housing may be worse for younger than older children because of their restricted ability to escape the confines of the home. These are important relationships for New Zealand where crowded, unhealthy housing is a common issue, and is disproportionately associated with family poverty; these housing issues adversely affect the health of children and are amenable to policy solutions (Asher, 2016; Howden-Chapman, Baker, & Bierre, 2013). In the past year, particular attention has been paid in the media to the number of people, particularly Māori and Pasifika, who are living in cars and motel accommodation – at rates they must repay to Work and Income New Zealand – living in garages, night shelters, or living on the streets (Wesley-Smith, 2017). The stress related to these living conditions should be a priority research and intervention target.

Poor nutrition

Food insecurity during childhood has many adverse effects on physical, mental and emotional health including problems with growth, iron-deficiency anaemia, poor academic performance and psychosocial problems (American Dietetic Association, 2003). A survey of low-income families in the United States (Kleinman et al., 1998) found children who reported that they experienced frequent hunger were more likely to have emotional, behavioural and academic problems than those from the same low-income families that did not experience hunger. The association was strongest for aggression and anxiety. The mental health of children can be affected by levels of iodine, folate, omega-3 fatty acids and other nutrients. Low iodine has been associated with lower cognitive performance and lower folate with depression. Suboptimal nutrient levels may contribute to symptoms

of ADHD while omega-3 fatty acids can improve mental health across the lifespan (Parletta & Segal, 2016). The New Zealand Youth 2012 survey found that the percentage of students reporting that parents worry about having enough money for food increased across all age groups from 8% in 2001 and 2007 to 12% in 2012; this change was especially evident among students aged 15 years and under (Clark et al., 2013). Over the last decade in New Zealand there has been concern about school children being hungry at school (Cox & Black, 2012; Wynd, 2011).

Parenting under stress

Being overwhelmed by the demands of poverty and associated stressors can limit the ability of parents to provide the emotional support that children need. In a review of the effects of child poverty on mental health in the US, Bringewatt and Gershoff (2010) conclude that this can limit parents' ability to provide the necessary emotional support children require, with implications for the development of attachment, cognitive and behavioural problems. In the same review notes, parents in poverty also have a higher rate of depression and substance abuse than parents not affected by poverty, which can also impact the mental health of children. Parental depression, is well-recognised to increase a range of mental health problems for children (Olson et al., 2003).

Adverse events

In a review of the relationship between socio-economic status and child development, Bradley and Corwyn (2002) note that exposure to ongoing and multiple stressors is an important factor in accounting for outcome differences found between children exposed to high and low socio-economic conditions. They summarise research which notes the greater likelihood of children living in poverty to be exposed to various environmental hazards, violence and discrimination as well as destabilising events in the family such as family break-up and household moves.

While child abuse and neglect occurs in all socio-economic groups, research suggests a strong link between poverty and child abuse (DiLauro, 2004). Connell-Carrick (2003), for example, showed that the age of the mother and poverty of the neighbourhood interact to create greater risk of child neglect. They found that children of young mothers living in poor areas were 17 times more likely to neglect a child than older mothers in less poor areas. Stress factors associated with poverty, such as inadequate income and space, may also increase the likelihood of child maltreatment (Tyler et al., 2006). The relationship between child maltreatment and mental health problems is well-established in the research literature (Edwards, 2003). In 2013 this was included as part of a review of child abuse and poverty in the New Zealand context (Wynd 2013).

Poor neighbourhoods

Neighbourhood poverty is recognised to impact negatively on children's mental health (Kalff et al., 2001). Externalising behaviour problems such as conduct disorder were more strongly associated with living in a low socio-economic neighbourhood than were internalising mental health problems such as anxiety and depression (Leventhal & Brooks-Gunn, 2000). Studies also suggest that the effects of neighbourhood disadvantage may be stronger and more consistent among adolescents than among young children, which may be because older children engage more with the broader community than younger children (Boyle & Lipman, 2002). Ayre (2016) cites previous research conducted by the Children's Society which notes that children living in poor areas reported concerns

about their safety related to high levels of drug and alcohol abuse in their areas.

Limited access to mental health services

Living with poverty may also have implications for people's access to mental health and related services (Edlund et al., 2002). Although New Zealand has a largely tax-funded health system, there may still be barriers for children to access mental health services. The Child and Mental Health Service (CAHMS) has the goal of reaching 3% of the population, but in 2011 were only seeing 1.49% of the population (The Werry Centre, 2011). While the New Zealand CAMHS has recently adopted the Choice and Partnership Approach which allows more children and adolescents to receive at least an initial appointment, in practice there are often long waitlists for children to be seen. Costs such as those needed for transport, child-care and the ability to negotiate time off work may make it more difficult for families experiencing economic adversity to access these services (Appleby & Phillips, 2013). Families with economic resources are also able to make use of a variety of private mental health intervention health support not available to those in poverty. Timely intervention is recognised to be essential for preventing the development of more serious mental health problems or the continuing effects on adult mental health (Kieling et al., 2011).

The effects of mental health on subsequent poverty

As much as poverty increases the likelihood of mental health problems, mental health problems have also been found to result in an increased risk for poverty (Reiss, 2013). There is strong evidence for this in local studies. The Dunedin Multidisciplinary Health and Development Study, for example, found an increased association between behavioural problems in childhood, having a diagnosable mental health condition at age 15 and the length of time spent on the benefit in early adulthood (Welch & Wilson, 2010). Findings from the Christchurch Health and Development Study also suggest that mental health problems contribute to on-going poverty (Boden et al., 2013). These researchers argue that this helps to create an inter-generational cycle of poverty.

Māori and Pasifika child poverty and mental health

Based on the ongoing effects of colonisation and colonial privilege in New Zealand, Māori have been exposed to social and economic disparities that have been developed in a political context that privileges the dominant group. Māori are more likely to live in poverty on the basis of systemic discrimination, and are more likely to develop mental health problems as a result of disconnection and alienation from their cultural institutions (Hodgetts et al., 2016). Pasifika people also experienced economic and racial discrimination and other challenges to the maintenance of their traditional values (Kingi-Ula'ave et al., 2016). In 2006, the New Zealand Mental Health Survey suggested that Pasifika people experienced the highest rates of mental health problems in New Zealand (Oakley-Browne et al., 2006). Both Māori and Pasifika have youthful populations (Statistics New Zealand 2014; Statistics New Zealand, 2015) which are over-represented in poverty and (Perry, 2016). The effects of poverty on the mental health of Māori and Pasifika people are in need of deliberate attention if we are to disrupt the intergenerational effects on our most marginalised population.

The rates at which Māori and Pasifika children and youth are diagnosed, or underdiagnosed with a mental health condition has been recognised as an effect of institutional racism and as well as the associated effects of poverty. For example, Becares, McCormack and Harris (2013) found that Māori are more likely to experience health issues due to the unequal distribution of concentrated poverty in areas of high Māori density, and the institutional structures and racist practices that created health and social inequities. The potential that exists for a protective and supportive community is difficult to attain as the context of poverty is maintained by “the racialised nature of access to goods, services, and opportunities within New Zealand society” (p76).

Māori child poverty and mental health

In addition to the attainment of health equity as a moral imperative, tamariki and rangatahi Māori as tangata whenua have the right to experience equitable health outcomes affirmed by Te Tiriti o Waitangi (1840), the United Nations Convention on the Rights of the Child (ratified by New Zealand in 1993) the United Nation's Declaration on the Rights of Indigenous Peoples (endorsed by New Zealand 2010) and within the broader frameworks of international human rights pertaining to indigenous peoples. However, Māori children disproportionately experience poor mental health outcomes.

The Christchurch Health and Development Study found that families of Māori cohort members had lower living standards as measured by both equivalised income and a hardship measure than families of non-Māori cohort members. This study also showed that (based on equivalised income scores), 22% of families of Māori cohort members were classified as being in poverty compared 9% of non-Māori ($p < 0.0001$). However, Māori ethnicity was not a predictor of economic wellbeing because ethnicity was correlated with several factors that were predictive of living standards. For example, Māori respondents: a) more often lived in households with dependent children and/or b) had greater exposure to socio-economic disadvantage in childhood. These factors (dependent children; childhood social disadvantage) appear to have combined to place Māori at greater disadvantage (Boden et al., 2013).

An analysis of longitudinal data from the Christchurch Health and Development study concluded that improving SES for Māori would go some way to reducing the disparities in psychosocial wellbeing between Māori and non-Māori in improving education and welfare outcomes but less so for improving mental health, substance use and criminal offending outcomes. Applying an ecological model, the authors suggest disparities between groups as resulting from unequal exposure to wider environmental risk factors, of which socio-economic factors are only one (Marie et al., 2014). This study does not address racism underpinning Māori lives that, despite higher SES, is still an everyday experience.

As well as being a relatively young population, Māori young people are likely to be living in persistent and severe poverty from a young age (Perry, 2016). Together this means that young Māori people are at a greater risk of developing mental health problems during childhood, adolescence and as adults. This is borne out by mental health statistics (Oakley-Browne et al., 2006) and youth suicide rates (Ministry of Health, 2015b)

Additional factors specific to Māori are believed to impact mental health status and youth suicide at the population level. These factors include societal prejudice and discrimination, loss of sovereignty, dispossession and alienation from traditional lands, culture and intellectual resources. (Durie, 2004). It is clear that different approaches are needed to address poverty and promote mental health among young Māori which recognise the value Māori place on the quality of relationships with whānau, iwi, community, the land, sites of heritage and traditional knowledge (Waitoki & Levy, 2016).

Pasifika child poverty and mental health

The Youth 2000 survey found young Pacific people were approximately twice as likely to attempt suicide and suffer depression and anxiety issues compared to the rest of the population (Fa'alili-Fidow et al., 2016). The New Zealand Health Survey found that while Pacific peoples were less likely to have diagnosed mood disorders or anxiety disorders, psychological distress was much higher in the Pacific population than among New Zealand Europeans (Ministry of Health, 2015a).

Conclusions

This review of the New Zealand and international literature has established that:

- There is an accepted relationship between poverty experienced in childhood and a greater likelihood of mental health problems through the life span.
- Child poverty and its associated problems such as poor nutrition, inadequate housing, increased likelihood of adverse events and living in poor neighbourhoods put children at higher risk of having mental health problems.
- The evidence strongly suggests that the incidence of mental health conditions among children and adolescents can be reduced by addressing severe and persistent poverty, particularly during the early years of a child's life.
- Intervention to address poverty and the effects of poverty on children is likely to prevent the perpetuation of inter-generational cycles of poverty and poor mental health.
- The prevalence of child poverty and mental health issues are likely to be higher for Māori and Pasifika than for other children and young people.
- While many Māori and Pasifika children are subject to inequities in material and socio-economic circumstances as well as institutional racism, they also experience the benefits of a rich cultural life and sense of belonging that is seldom accounted for in research reports that focus on deprivation.

The evidence strongly suggests that the incidence of mental health problems throughout the life span could be reduced through addressing the causes of child poverty and associated factors. Any mental health strategy for children should sit alongside a comprehensive programme to alleviate poverty. The Children's Commissioner's Expert Advisory Group (2012a) offers a starting point for tackling poverty with 78 carefully considered recommendations that have been prioritised by professionals and others after wide consultation in this country. Strategies aimed at addressing child poverty in Māori and Pasifika communities are more likely to be effective if these are well- resourced at an early stage and developed in a genuine partnership with those communities.

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