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Intergenerational reliance on income support: psychosocial factors and their measurement

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Improving the lives of Australians
Intergenerational reliance on income support: psychosocial factors and their measurement

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Administrative Arrangements Changes
In January 2006 the Office of Indigenous Policy Coordination (OIPC) and the Australian Government Department of Family and Community Services (FaCS) merged to form the Australian Government Department of Families, Community Services and Indigenous Affairs (FaCSIA). The FaCS acronym has been used in most instances to refer to the department now known as FaCSIA.

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Executive summary

The review of literature that follows this executive summary has been framed in terms of the question:

Within developed English-speaking economies, what are (i) the core psychosocial characteristics of families that affect the likelihood of children relying on income support when they attain working age and (ii) appropriate questionnaire-based measures of those concepts?

To the greatest extent possible, we have adopted the rigour of systematic reviewing (Section 5). This included the use of careful screening, inclusion, exclusion and instrument selection criteria to help define the scope of our review with clarity and to ensure that we have reviewed, without bias, the best available material. Our findings are presented in a structure that is suitable for a range of potential end-users (Sections 3 and 5).

Existing evidence for the intergenerational transmission of reliance on income support

There is substantial evidence for the intergenerational transmission of reliance on income support (Section 2). The dominant models in research in this area are the cultural (welfare) model, the structural (economic) model and, to a lesser extent, the genetic model. These models have taken rudimentary account of psychosocial factors, with an emphasis on socioeconomic factors and the use of ad hoc measures. Psychosocial factors typically mean psychological development and social factors, and the ways in which the two may combine. As such, there is considerable scope for increased understanding of the role of psychosocial factors in the intergenerational reliance on income support and for using systematically developed and psychometrically validated measures.

We have not reported in detail on the role of poverty and income support because (i) they have been exhaustively researched already and (ii) they feature prominently in the design of the current Youth in Focus study being conducted by the Social Policy Evaluation and Analysis Research (SPEAR) Centre at the Australian National University (The ANU). We have also not focused on Indigenous Australians because the scope of review is limited to mainstream programs and their potential psychosocial correlates. In addition, the scope is not sufficient to pay appropriate attention to the unique characteristics and needs of this important group of Australians. We have also not focused on genetic and biological factors, or on physical health and other physical attributes, because they do not strictly fall within the psychosocial domain.

Identification of key psychosocial factors

Within this scope, there are many psychosocial factors that are potentially relevant to the transmission of intergenerational reliance on income support. We have therefore applied certain principles to our selection of concepts for detailed consideration in this report (Section 1). The psychosocial factors we have selected for review had to be:

- powerfully and directly or proximally relevant to the receipt of income support payments
- relevant to the reliance of parents on income support and to the subsequent reliance of their children on such support
- located on the developmental pathway from late childhood to young adulthood
- modifiable
- relevant primarily to unemployment and parenting support payments
- not adequately addressed in existing research on transmission of income support.
Based on previous Australian research into the psychosocial correlates of reliance on income support, together with a number of landmark international publications on the intergenerational transmission of psychosocial risk and disadvantage, and applying the principles described above, we have identified nine domains of psychosocial factors that are most likely to play a powerful proximal role in determining intergenerational reliance on income support (Sections 3 and 6). These are:

1. adolescent connectedness
2. aspirations, values and attitudes
3. emotional intelligence
4. mental health
5. parent–child relationships
6. pseudomaturity and life transitions (including childhood adversity)
7. substance use
8. temperament and personality
9. victimisation and violence.

Some of these factors pertain primarily to young people (adolescent connectedness; aspirations, values and attitudes; emotional intelligence; pseudomaturity and life transitions; and temperament and personality), some primarily to their parents (victimisation and violence), and some to both (mental health, parent–child relationships and substance use). But in all cases there are influential intergenerational dynamics linking children's outcomes to their parents' characteristics.

Importance of pathways models

Given the high degree of interconnectedness between families' psychosocial characteristics and children's later reliance on income support, we have advocated the use of pathways models. It is widely accepted that pathways models have to be developed to explain the relationships between psychosocial factors and individual outcomes. Such models can account for the fact that individuals' journeys from one point to another are often indirect, interactive and idiosyncratic (Section 4). Rather than resulting from the effects of any one factor, it is the separate and shared relationships between multiple factors over time that help explain why different people have different outcomes.

In addition, the effects of psychosocial risk factors on young people's outcomes may be outcome specific, but are often general. That is, sometimes exposure to a particular adversity in childhood leads to the development of the same adversity in the child's own adulthood. For example, a child may grow up in an environment in which the caregivers are affected by mental health problems, and may later develop the same mental health problems him or herself. More commonly, children growing up with disadvantage live in environments that expose them to numerous adversities. Each environment is unique. The unique combination of adversities and disadvantages as a whole impact on the child, and is associated with the child developing his or her own unique set of disadvantaged circumstances as an adult. A generic pathways model (Figure 1) illustrates this, showing interrelations between socioeconomic and psychosocial factors and dependence on income support across generations (Section 4).
Within a pathways model, psychosocial factors may play one or more roles (Section 4). They may be confounding, mediating or moderating factors in the model, or any combination of these. They may also be distal or proximal factors, either temporally or, more commonly, contextually in relation to other factors. It is also valuable to identify key underlying theories that need to be taken into account in interpreting a pathways model. In the literature on psychosocial risk factors, reliance on income support and the intergenerational transfer of disadvantage, certain themes recur. The most relevant and frequently occurring themes are:

- risk factors and vulnerability
- protective factors and resilience
- life stage and developmental factors
- outcome-specific factors and pathways (specificity).

For most psychosocial factors, valid, reliable and widely tested measurement instruments are available (Sections 6 and 8). We recommend, where possible, the use of these established instruments in preference to ad hoc measures (Section 7). Further, it is important wherever possible to avoid single-item measures and to use multi-point response formats (Section 7). Because psychosocial factors are typically complex and multi-faceted, and because the effects of exposure are often dose-responsive, using multi-point formats minimises the risk of measurement error.

**Key themes in the literature and their implications within a policy and program development environment**

By identifying key concepts and by using pathways models, it is possible to advance beyond individual consideration of the nine psychosocial factors and to identify recurring themes (Section 7). This permits an overview of how the range of risk factors relates to reliance on income support, and of possible implications for policy development or review, and for program delivery. We identified five key themes that occur across all the factors: the high degree of interrelatedness among key psychosocial factors; the need to focus on parents and children, within households and communities, and not solely on individuals; the range, diversity and intensity of disadvantages that coalesce in the lives of a minority of households; the need for long-term, intergenerational,
multi-factorial designs for research into intergenerational reliance on income support; and the great difficulty and expense commonly (though not always) involved in intervening in cycles of disadvantage.

These themes may have several implications for policy and program development, research design and service delivery, as listed below.

- Research programs need to examine relationships among a range of factors and assess their relative impacts within appropriate explanatory frameworks (pathways models).

- Policy and program development activities, including research programs that support them, would benefit from giving appropriate emphasis to households and communities as well as individuals.

- Continuing upfront policy and program investment is necessary in responding to the (for the most part) genuine and often substantial needs of a minority of Australian households.

- Long-term thinking and investment are required with regard to research design and to understand intergenerational disadvantage.

- Exploring mechanisms for responding creatively to the difficulty and costs of service provision is advisable (for example, investing in relatively low-cost and low-risk early interventions that can be effective with large subgroups of target populations).

FaCSIA is currently pursuing all of these strategies, and this is strongly supported by the findings of this scientific literature review.
1 Introduction

This is the final report of the ‘review and assessment of psychosocial measures relevant to an investigation of intergenerational transmission of welfare dependence’ commissioned by the Department of Family and Community Services (FaCS) in December 2004. Our report addresses key concepts with respect to the psychosocial determinants of intergenerational reliance on income support and provides an assessment of appropriate, valid and reliable instruments for measuring these concepts in young people and adults in a questionnaire and/or interview format. Psychosocial characteristics typically mean psychological development and social factors, and the ways in which the two may combine.

Our review of literature and of measures has been framed in terms of the question:

Within developed English-speaking economies, what are (i) the core psychosocial characteristics of families that affect the likelihood of children relying on income support when they attain working age and (ii) appropriate questionnaire-based measures of those concepts?

The principles that governed our approach to this review are described in Section 1.1 and, within this framework, we have begun by describing the rationale for our approach (Section 2). Section 2 also includes an overview of existing common models of the intergenerational transmission of reliance on income support and a discussion of reviews of psychosocial factors commissioned by FaCS to identify factors that could be incorporated within the common models. Section 2 finishes with a statement of the conceptual gap addressed by this report. In Section 3, we have identified the core parental and child psychosocial factors that could be involved in the intergenerational transmission of reliance on income support. Section 4 describes the key theoretical concepts with respect to building pathways models, and defines the scientific terminology used later in the report. In Section 5, we have presented the review protocol that describes what we have done, the review question we have addressed, how we have searched the literature, various criteria we have applied to the selection of studies for our review, and how we have presented our findings. Section 5 completes the background sections of our report.

Section 6 constitutes the bulk of the report. We have divided this section into nine subsections (Sections 6.1 to 6.9), one for each concept reviewed. Each concept review includes a list of alternative names for the concept, a description of the concept, a discussion of how the concept might relate to the intergenerational transmission of reliance on income support, a review of measurement instruments and a reference list. In this way, complete stand-alone information is presented for each concept.

In Section 7, we have presented an overview commentary on our findings. Section 8 is a consolidated summary table of all measures reviewed in our report, together with some supplementary measures that might be of interest for future work. At the end of the report is a consolidated list of all references cited in the report, supplemented by a list of the main additional citations located in the literature search. For ease of reference, this has been presented as one reference list.

1.1 Governing principles for selecting review materials

Certain principles governed the selection of concepts that are reviewed in our report, and thus the domains within which we have reviewed particular measurement instruments. Key among these was the principle that the concept had to be of direct or proximal relevance to the receipt of income support payments. The concept also had to be relevant to the reliance of parents on income support and to the subsequent reliance of their children on such support. Following on from this principle was the requirement for the concept, or psychosocial factor, to lie on the developmental pathway from childhood to young adulthood. In other words, only factors associated with the course of a young person’s life, and particularly the transition from school to work, were relevant.
Another important principle was that risk factors identified as key concepts had to be modifiable. While it is, of course, worthwhile drawing attention to all relevant risk factors, there is little point in designing research and interventions to address risk factors that cannot be modified, such as sex, country of origin or age. It is more useful to identify these as moderators in a pathways model and to note that, when it comes to policy and program design, one size will not fit all. Also for that reason, we have focused on FaCS’ participation agenda and considered the characteristics of individuals receiving income support primarily related to unemployment and parenting.

Emphasis has been given to issues such as continuity and discontinuity of risk, vulnerability and resilience, and life course development, in preference to attempting to identify and review comprehensively all potentially relevant concepts or factors. These areas were chosen because, both across cohorts and during the life course, psychosocial factors grow and diminish in importance, while underlying issues and causal pathways are less changeable.

Importantly, in identifying key psychosocial factors, emphasis has been given to those factors that are individually powerful predictors of wellbeing in young people and that have not been comprehensively addressed in existing research on the intergenerational transfer of reliance on income support. Certain psychosocial factors, such as parental education and wealth, have been comprehensively addressed in the existing research on the intergenerational transfer of reliance on income support (Section 2). We have therefore summarised this research only briefly and focused more on the novel factors.
2 Rationale for the focus of the present review

In this report, we have focused on the nine core psychosocial factors that we judge to be key to further research into the intergenerational transfer of reliance on income support. In this section of our report, we have presented the background rationale for selecting these nine core psychosocial factors. To do this, we have briefly reviewed existing research in this field, including the dominant models that apply. These are the cultural or welfare model, the structural or economic model, and the genetic model.

This section also acknowledges previous reviews that FaCS commissioned in recognition of the fact that prevailing models account for psychosocial factors in a rudimentary fashion.

We conclude this section with a discussion of the conceptual gap with respect to psychosocial factors that remains to be addressed in further research. The nine core psychosocial factors have been presented in Section 3.

2.1 Studies directly addressing intergenerational reliance on income support

There is substantial evidence for the intergenerational transmission of reliance on income support. Only a minority of children from income support-reliant families actually become income support-reliant themselves; nevertheless, children from families that are dependent on income support are at an increased risk of receiving income support. The aim of this review is to identify the key proximal psychosocial factors that may be associated with this increased risk and that require further investigation. Understanding these psychosocial influences may provide clues to direct effective intervention to this high-risk group.

A variety of theoretical models within the literature provide a framework to explain the intergenerational transmission of reliance on income support. To provide context for this review, we briefly outline the two predominant and competing models. In doing so, we draw largely on material from Rank and Cheng (1995) and Bartholomae, Fox and McKenry (2004). As our aim is simply to provide a context to the review, our description is brief. It is important to recognise, however, that there is extensive literature relevant to this discussion (see, for example, Bartholomae, Fox & McKenry 2004; Corcoran 1995; Duncan & Brooks-Gunn 1997; Heckman & Krueger 2004; Jencks & Peterson 1991; Mead 1992; Murray 1984; Rank & Cheng 1995; Wilson 1994; among many others).

After Rank and Cheng, we have labelled the competing models which provide the basis for our review as the cultural model (which attributes welfare reliance to the process of socialisation and the transmission of behaviours, attitudes and values from parents to children) and the structural model (which proposes that, because their resources are limited, welfare-dependent parents provide insufficient opportunities and resources to their children). These models assume similar characteristics for both parents and children, but differ in the pathways linking these concepts. Both models propose that parental reliance on income support is associated with increased use of income support by children; both assume that parental welfare receipt is associated with parental economic background; and both assume that offspring reliance is associated with human capital, household and other personal characteristics. The difference between the models is in the causal pathways hypothesised to link parental circumstances and offspring outcomes.

In our brief overview, we draw explicitly on the diagrammatic models of Rank and Cheng. As such, we use their labelling of the intervening variables as ‘adult children with less favourable human capital and household characteristics’ (Rank & Cheng 1995). However, our current analysis and other literature considers a much broader range of variables than this label implies, including aspirations, values and attitudes; tastes and preferences; personal characteristics; cognitive and emotional development; and cognitive and non-cognitive skills. While this report maintains the labels used by Rank and Cheng in the diagrams drawn from their paper, we
use the phrase ‘adult children with adverse personal characteristics’ in our hybrid model, but only to reference the comprehensive range of limitations evident in human capital, values, attitudes and behaviours that are likely to be associated with an increased predisposition to income support reliance.

Finally, before introducing our hybrid model, we briefly discuss a third model that suggests a biological basis for intergenerational reliance on income support.

2.2 Model 1: Cultural (welfare) model

The cultural model (Figure 2) maintains that ‘there is something about growing up in a household that receives income support that lends itself to a greater propensity for using public assistance later in life’ (Rank & Cheng 1995, p. 674). Within the culture of poverty argument, Mead (2000) argues that a mindset of ‘dutiful but defeated’ limits the capacity of low-income recipients of income support to find and maintain employment. He contends that while poor adults may want to work, they are unable to do so due to lack of personal self-efficacy, sense of disempowerment, lack of knowledge, restricted awareness of the norms of ‘working’ behaviours, limited coping skills and poor sense of mastery. He reasons that, as the family is the predominant influence on childhood outcomes, these characteristics are passed on to children, limiting their employment potential and reinforcing the culture of poverty.

Figure 2: Hypothesised relationships within the cultural (welfare) model of intergenerational reliance on income support


Saunders and Stone (2000) identified young unemployed people who had negative attitudes and beliefs about employment. These young people appeared to lack parental guidance and had limited contact with their parents. The authors concluded that it was therefore unlikely that parents could have transmitted their attitudes and beliefs to their children, as they had little contact with them. Transmission of values is, however, not straightforward but is subject to a variety of influences. These are discussed in more detail in Section 6.2. But, briefly, it is possible that values and attitudes are assimilated from the general norms and values of the household, rather than specifically taught, and may not require substantial contact between parent and child. It is possible that parental neglect of responsibilities (for example, in spending time with or in guiding their children) might translate into child neglect of responsibilities (but, in this case, with respect to employment). Saunders and Stone touch on this possibility in proposing that, rather than parents somehow transmitting values, it is lack of parental support and guidance that leads to negative attitudes and beliefs. From this viewpoint, intergenerational cultural transmission is a suboptimal work ethic.

The key determinant in this model is the use of income support. The suggestion is that behaviours, values and attitudes are transmitted to children by their parents or their community as a result of the welfare system (Bartholomae, Fox & McKenry 2004). These models may incorporate both indirect and direct causal effects.
Indirect effects
Rank and Cheng (1995) suggest that parents who rely on income support are less motivated and concerned about their children's education. Children may also simply develop the belief that, because income support is available, they do not have to work hard. As a result of their lack of motivation, these children are more likely to develop deficient human capital and household characteristics, which lead to a greater likelihood of reliance on income support. There is tentative support in the psychosocial literature (Rodgers 1996a, 1996b) for aspects of this explanatory framework that relate to motivation with respect to child aspirations and child and parent connectedness (further information is presented in Section 6.1).

Direct effects
An alternative mechanism within the cultural model involves the transmission of preferences or tastes from parents to children. The proposition is that reliance on income support by parents desensitises their children to the stigma and negative views usually associated with the receipt of income support. Having reduced inhibitions about using income support increases the likelihood that adult children will view reliance on income support as an appropriate option, which in turn increases the likelihood of their own future use (Bartholomae, Fox & McKenry 2004). This proposition is easily testable using a survey methodology.

Alternatively, by being in a family that relies on income support, children are exposed to the system and become aware of how it functions. For example, they might obtain knowledge about rules and eligibility for income support that children growing up in non-income-support-reliant households would not encounter. This increased awareness reduces the amount of effort required to investigate reliance on income support as a potential future option. That is, it results in lower ‘transaction costs’ for these children when they grow up (Levine & Zimmerman 2000). The net result is a greater likelihood that these children will access income support later in life.

2.3 Model 2: Structural (economic) model
The structural model is presented in Figure 3. The argument is that intergenerational transmission of reliance on income support is not due to parental reliance on income support, but reflects the fact that income support recipients have poor economic circumstances (Rank & Cheng 1995). Parents’ reliance on income support is correlated with lower socioeconomic status, which is argued to be the key determinant of children’s reliance on income support. There are various models that fall within this theory.

**Figure 3:** Hypothesised relationships within the structural (economic) model of intergenerational reliance on income support

![Diagram of model](source: Rank & Cheng 1995, p. 674)

Resources model
This variation of the structural model proposes that parents with less favourable economic backgrounds are unable to provide their children with sufficient resources and opportunities to enable them to develop favourable human capital and household characteristics in adulthood (Bartholomae, Fox & McKenry 2004). This
leads to a greater risk of reliance on income support. As socioeconomic backgrounds are linked to numerous psychosocial factors that are themselves related to adult reliance on income support, this would be a plausible proposition in a pathways model that included both economic and psychosocial variables.

**Correlated disadvantages model**
This variation of the structural model proposes that parental characteristics other than poverty influence the intergenerational transmission of reliance on income support. For example, parents who promote the value of education, earning an income, the institution of marriage and the acquisition of assets are more likely to have children with the same attitudes than are parents who do not promote these values. Children’s insufficient development of human capital or personal characteristics, associated with reliance on income support, is thought to originate from these parental factors (Bartholomae, Fox & McKenry 2004).

**Underclass model**
The final variation of the structural model is the ‘underclass model’ (Bartholomae, Fox & McKenry 2004). This model proposes that locational disadvantage, such as a lack of jobs in a particular area or community, contributes significantly to reliance on income support and limited economic mobility. Other locational characteristics include fewer social institutions or successful economic role models. Locational characteristics tend to be long term and persistent, and so create an environment that is likely to have ongoing effects across generations.

### 2.4 Model 3: Genetic model
In addition to the two models described above, Rank and Cheng (1995) report on a third model, the genetic model, which proposes that genetic characteristics are primary factors in the transmission of reliance on income support. Accordingly, it is the genetic similarity between parents and children that underlies their shared reliance on income support. For example, it is argued that parents with lower intelligence have a greater risk of poverty due to lower education and unstable employment, which leads to a greater likelihood of income support reliance. Because their children are also more likely to have lower intelligence, they are disadvantaged in acquiring human capital. They are therefore more likely to be poor and, consequently, to rely on income support.

A version of this model may be valid in so far as certain individual characteristics, such as personality, have a heritable component (for further information, see Section 6.8). Current genetic theory states that individual behaviour results from an interaction of genes and the environment in which an individual is raised. The extent of the interaction differs depending on the behaviour under consideration (Feldman et al. 1997). There are two significant drawbacks to this model. One is that it is difficult to assess because genetic, social and other factors are confounded in these types of studies (for example, due to the similar environment of parents and children). Even twin studies do not provide enough information to disentangle genetic from environmental influences (Feldman et al. 1997). Also, and more importantly from the perspective of this review, genetic factors are not amenable to intervention; only the environmental component of the gene–environment interaction is modifiable. The environmental component is addressed by the cultural and structural models, and is the subject of the remainder of this report. Genetic models, therefore, do not feature prominently in this review.

### 2.5 Summary of evidence for the structural and cultural models
Of the models discussed, the structural model has received the most support. In their study, Bartholomae, Fox and McKenry (2004) conclude that economic background factors were more predictive of reliance on income support than cultural factors. Rank and Cheng (1995) also claim that the intergenerational transmission of reliance on income support has little to do with reliance on income support per se. They believe that the transmission of income support reliance occurs because children’s development of human capital is limited due to their parents’ unfavourable economic background.
The models described above are drawn from the economic literature. However, only a limited selection of psychosocial factors, such as values and attitudes, are given prominence in most of the models. Bartholomae, Fox and McKenry (2004) list a large number of related factors that these models have also considered. These include limited work experience, low levels of education, functional disabilities, mental health issues, child care costs, lack of transportation, lack of health care coverage, men’s socioeconomic attainment (family income, earnings, wages and hours of work), race, number of siblings, father’s level of education, mother’s work status, mother’s level of education, family income, high unemployment and poverty rates, limited access to quality jobs and schools and limited availability of services. Because almost all of these factors are socioeconomic, the models do not take account of important psychosocial factors.

Thus, while socioeconomic factors are clearly important in understanding the intergenerational transmission of income support reliance, psychosocial factors have not been adequately represented in the conceptual models. For example, there is considerable evidence that maternal depression can have an adverse impact on child development (see, for example, Section 6.4). This occurs through several mechanisms, including, for instance, poor attachment and unfavourable parenting behaviour (for more detail, see Section 6.5). Numerous other psychosocial factors are also correlated with socioeconomic factors, such as substance use, which could have significant relevance to the correlated disadvantages model (see Section 6.7). A further consideration is that the economic studies tend not to have employed properly tested psychometric measures of psychosocial factors, or to have understood their possible roles in pathways models. The implications of and suggestions for addressing this problem are discussed further in Section 7.

In sum, there may be other direct and indirect pathways from parental to child reliance on income support. These include the possibility that psychosocial factors affect child outcomes directly, as well as through economic factors.

2.6 Literature reviews commissioned

We have argued that the findings of studies directly addressing the intergenerational reliance on income support have emphasised educational, income and wealth explanatory factors and have not given sufficient consideration to psychosocial factors. This view is supported by the findings of a longitudinal study of childhood and adolescent predictors of young people’s reliance on income support (unemployment benefits) that concluded that educational, income and wealth explanatory factors were insufficient on their own (Casp et al. 1998). A fuller specification of the model is needed. To account for the intergenerational transmission of reliance on income support, lifetime psychosocial and economic risk factors for children must be considered in tandem with parental psychosocial and economic risk factors throughout the children’s childhood and adolescence.

In response to the deficiencies of economic-based research, FaCS commissioned a review of the literature on the psychosocial determinants of intergenerational reliance on income support, *Psychosocial factors and ‘intergenerational transmission of welfare dependency’: a review of the literature*, completed in March 2005 (Penman 2005). The review was ‘commissioned to inform the “Intergenerational Transmission of Dependence on Income Support: Patterns, Causation and Implications for Australian Social Policy” project’ (Penman 2005, p. 2). We note that the Penman review’s purpose, content and timing overlap substantially with those of this review; and, like the current review, the Penman review was commissioned to contribute to the same larger project. Also, as the Penman review draws heavily on an earlier review, *A literature review: transgenerational income support dependence* (Kelleher & Jean 1999), we have noted the findings of that review as well.

**Kelleher and Jean 1999 review**

This review considered mainly Australian research. It began by drawing attention to an ongoing debate in the literature about the importance of ‘values and attitudes’ in accounting for reliance on income support in successive generations (Kelleher & Jean 1999). The authors noted that the transmission of values and attitudes from parents to children might not explain reliance on employment-related income support in circumstances
in which there are no employment opportunities. The review listed seven themes in the literature on the intergenerational transfer of reliance on income support:

- intergenerational mobility/rigidity and its relationship to attitudes and values
- community and family characteristics compared with individual characteristics
- family structure
- the new underclass in Australian society
- ethnicity
- changing work patterns and their effect on employment opportunities
- attitudes towards work.

These themes are broadly consistent with those reviewed above. The report included a section on each of these themes. A total of 82 publications were presented throughout the report, mostly from peer-reviewed sources.

**Penman 2005 review**

Penman (2005) reviewed a collection of 45 sources, mainly Australian Institute of Family Studies and FaCS reports and conference papers. These included five secondary citations of material presented in the Kelleher and Jean review (1999) and eight chapters from an Australian Institute of Family Studies publication (Australian Institute of Family Studies 2000). Of the remaining citations, a small number were peer-reviewed journal articles and book chapters from Australian or international sources.

The findings were presented in four main sections on the themes of (i) difficulties with the concept of ‘welfare dependency’, (ii) a culture of dependency, (iii) psychosocial and developmental factors and (iv) conceptual frameworks. The majority of the section on difficulties with the concept of welfare dependency consisted of a discussion about whether or not there are associations between reliance on income support from generation to generation. Material indicating an apparent inconsistency in research findings was presented (for example, evidence indicating that some children who grow up in income support-reliant households rely on such support as adults, while others do not); this theme was revisited throughout the report.

The review concluded with a summary, including the suggestion that a range of factors, some of them psychosocial, might each play a part in a complex of child and parent characteristics and events that leads to particular outcomes. The recommendations of the report were that the Intergenerational Project should include material on poverty and income support, Indigenous culture, quality of home life and capacities of children.

### 2.7 Conceptual gap addressed in this review

There is ample evidence of a link between reliance on income support in the parental generation and that of their children. That not all children growing up in income support-reliant households go on to rely on income support themselves is easily accommodated within a pathways model. Such models allow for idiosyncratic life trajectories and outcomes for individuals while providing evidence for ecological-level mechanisms.

**Pathways models**

Pathways models are used to describe the relationships among a number of variables that are jointly causally related to a particular outcome. In this way, they describe systematic causal processes as well as the mechanisms that underpin them. Causal relationships may be **temporal**, in the sense that one factor precedes another in time. For example, smoking is causally related to lung cancer and precedes it in time: first, people take up smoking; later, they develop lung cancer. Factors may also be **conceptually** causally related. For example, compared with the general population, rates of smoking uptake are greatly elevated among adolescent
girls. Thus, sex (being female) and age (being young) are conceptually causally related to lung cancer. Pathways models can accommodate any number of concepts or variables, with any number of links in the causal chain, and may include factors that are conceptually or temporally causally related, or both. For example, rates of smoking uptake are elevated among adolescent girls growing up in socioeconomically disadvantaged circumstances. Thus, an adolescent girl from a disadvantaged background is at significantly greater risk of taking up smoking than her socioeconomically advantaged male peer; she is thus, in time, at elevated risk of developing lung cancer.

Importantly, these models can accommodate idiosyncratic individual pathways as well as pathways that result from systematic relationships among factors. This is because they describe probabilities of experiencing particular factors and outcomes. A characteristic or factor represented in a pathways model is associated with an increased or decreased likelihood of experiencing the next characteristic in the causal chain. The characteristics do not determine outcomes, or predict them with certainty. Not all socioeconomically disadvantaged adolescent girls take up smoking and, of those who do, not all go on to use other substances. Individual factors, or sets of factors, may be combined in any way. The flexibility of pathways models makes them particularly useful in accounting for heterogeneity in characteristics and outcomes.

**Examples of studies that have used pathways models**

A variety of studies have used pathways models to explain relationships among factors that may be relevant to understanding the intergenerational transfer of reliance on income support. In terms of this review and its research question, the consideration of parent and child psychosocial risk factors are essential to understanding young people's reliance on so-called lifestyle forms of income support (Caspi et al. 1998). Pathways models are also essential to understanding many of the specific psychosocial factors that might be associated with young people's reliance on income support. For example, pathways models have been used for research into parent–child relationships (Belsky et al. 2003), mother–child bonding (Miller, Feldman & Pasta 2002), the effects of grandmothers' parenting skills on the development of child anger (Brook et al. 1998), the development of stable externalising problems in at-risk boys (Campbell, Shaw & Gilliom 2000), the development of intimate-partner aggression in young men (Capaldi & Clark 1998), child cognitive development in disadvantaged environments (Chapman & Scott 2001; Saltaris et al. 2004), the development of self-sufficiency in young adults (Hardy et al. 1998), the effects of neighbourhood on early delinquency (Ingoldsby & Shaw 2002), the relationship between socioeconomic inequality and health (Kawachi & Kennedy 1999), factors affecting teenage child-bearing (Miller-Johnson et al. 1999; Scaramella et al. 1998; Serbin et al. 1998), and the risk of contracting Human Immunodeficiency Virus (HIV) (Moore et al. 2005).

**A pathways model for understanding intergenerational reliance on income support**

It is widely accepted that pathways models are essential in explaining individual outcomes for complex psychosocial phenomena, and that particular individuals' journeys within such models are often indirect, interactive and idiosyncratic. What applies to one case will often not apply to another. Pathways models allow for a range of possible routes from a hypothesised starting point to an end point. Such models are the bread and butter of epidemiological theory development (see, for example, Serbin and Karp's (2004) review of the intergenerational transfer of psychosocial risk for a variety of disadvantaged outcomes). The use of pathways models to address issues associated with the intergenerational transmission of different types of disadvantage is consistent with a long-established scientific tradition that has sought to cope with the complex relationships that exist between a wide array of factors.

Figure 3 shows a hypothetical pathways model of the intergenerational transfer of reliance on income support. Parents' history of income support is related to their socioeconomic background such that those with a background of socioeconomic adversity are more likely than others to rely on income support when they become parents. Parents' current wellbeing and resilience must be taken into account at the same time, since those experiencing less wellbeing and lower resilience are more likely than other parents to rely on income support. In this model, parents who have a history of using income support, who come from disadvantaged backgrounds
and who are experiencing poor wellbeing and limited resilience are more likely than parents with the opposite characteristics to raise children who rely on income support when they grow up.

The model points to a possible mechanism for this phenomenon, namely that the characteristics of highly disadvantaged parents are causally related to their children’s outcomes. Children of highly disadvantaged parents are at high risk of later being disadvantaged themselves. In this model, the children’s experience of disadvantage leads directly to an increased risk of reliance on income support as adults. The model also posits an additional mechanism: disadvantaged children are at risk of poor educational and other outcomes as adults, which in turn increases their likelihood of needing income support when they grow up.

Figure 4: Socioeconomic and psychosocial pathways model of intergenerational reliance on income support

Summary
Pathways models are an established and essential approach in understanding the array of factors that are associated with reliance on income support. These models can account for the fact that individuals have widely differing characteristics across a multiplicity of relevant domains, both personal and contextual, all of which can affect their outcomes and all of which can interact with one another. It is the separate and shared relationships among all these characteristics over time that help explain why different people have different experiences. It is thus expected that some children who grow up in income support-reliant households will themselves rely on income support while others will not, and vice versa. In this framework, growing up in an income support-reliant household can be seen as a risk factor (likely one of several risk factors), rather than as a sole determinant (or not), for such reliance as an adult.
3 Psychosocial factors associated with reliance on income support

There is an enormous array of psychosocial factors that might have a bearing on young people's reliance on income support. Psychosocial factors generally mean psychological development and social factors, and the ways in which the two combine. To develop an appropriate psychosocial pathways model for the intergenerational transmission of reliance on income support, our review focuses on the psychosocial characteristics in families that are most likely to lead to children’s reliance on income support. Addressing this issue requires ‘working back’ from the child to the parent, based on a life course development perspective. It is therefore important to identify:

- the types of income support payments to which young people have access
- the most powerful proximal psychosocial influences on young people's reliance on such types of income support
- the most powerful proximal psychosocial characteristics related to such factors in children.

To select the most powerful proximal psychosocial influences and to make sense of how they might be related to relevant forms of income support, it is also necessary to:

- identify a means of selecting the best and most appropriate material to review
- identify ways of organising the selected material
- clarify the relevant terminology and describe how it has been used and how it will be used.

These issues are discussed in Sections 4 and 5. This section addresses the types of income support available to young people and the selection of psychosocial factors.

3.1 Types of income support available to young people

There are a number of income support payments that are specifically targeted at and commonly received by young people. Data from 2000 (see Butterworth 2003) shows that over 80 per cent of 18 and 19 year olds on income support were receiving Youth Allowance (to support study or unemployment). The next most common categories were Disability Support Pension and Parenting Payment2 (Single), each accounting for around 5 per cent of young income support recipients.

Eligibility for payment is based on personal income and assets tests, as well as other criteria specific to each type of payment (for example, full-time study, looking for work or participation in approved activities). For those Youth Allowance recipients who are not deemed to be ‘independent’ (for example, those who have not been out of school and working for 18 months), eligibility is also based on a parental income and assets test. It may be, therefore, that eligibility criteria that take account of parental circumstances inflate apparent intergenerational consistency in reliance on income support. Young people in identical personal circumstances may be eligible or ineligible on the basis of parental income and assets. Thus, dependent children of low-income parents who receive income support payments may be eligible (demonstrating intergenerational consistency), whereas dependent children of high-income parents may be ineligible.

In considering the intergenerational transmission of welfare dependence, the type of payment received by the parent may be an important factor. Parental characteristics associated with eligibility for different types of payments may play a critical role in children’s outcomes. Evidence suggests children from non-intact families achieve poorer outcomes than those from intact families. Thus, there may be certain factors associated with intergenerational welfare dependence for families with separated parents receiving Parenting Payment (Single). The outcomes achieved by children whose parents experience unemployment and receive unemployment
payments (Newstart Allowance) may be qualitatively different from outcomes achieved by children whose parents require other kinds of income support. Such differences may be a consequence of the poorer educational and vocational skills of parents which limit employment opportunities, or be due to residing in locations with fewer job opportunities.

3.2 Core proximal psychosocial factors in parents and their children associated with young people’s reliance on income support

We have identified a significant gap in the investigation of psychosocial factors in research on the intergenerational transmission of reliance on income support. Because this gap exists, it is not possible to determine from existing research the key proximal psychosocial factors associated with any intergenerational transmission of such reliance. Instead, we have selected a key set of core psychosocial variables that could valuably be investigated. The key factors were selected based on the guidelines outlined below.

- They do not duplicate research that has already been conducted into the intergenerational transmission of reliance on income support, as detailed in Section 2.
- They are factors known to be related to the receipt of income support.
- They are factors known to be associated with the intergenerational transfer of other kinds of disadvantage.
- They are characteristics of young people, and of young people’s behaviour, that are known to be associated with young people’s outcomes.
- They are parental factors known to be implicated in young people’s outcomes.

Our view is that to systematically investigate the roles of psychosocial factors in this transaction, it is advisable to focus on factors that are most likely to be important and, therefore, theoretically enlightening.

We have taken into account the recommendations of the Penman review (2005) that future research focus on poverty and income support, Indigenous culture, quality of home life and capacities of children. We have not further considered the issues of poverty and income support because (i) they have been exhaustively researched already and (ii) they feature prominently in the design of the current Intergenerational Project. We have also not focused on Indigenous Australians. This is because our review is required to focus generally on mainstream programs and their potential psychosocial correlates. While many aspects of these are of relevance to Indigenous Australians, the scope of this review is not sufficient to give the appropriate level of attention to the characteristics and needs of this special group of Australians.

Genetic and biological factors and their measurement are not given prominence in this review, for the reasons set forth in the rationale for the focus of this report (see Section 2.4). We will also not focus on physical health and other physical attributes. Though these attributes can be of great importance in shaping a young person’s outcomes, they do not strictly fall within the domain of the psychosocial factors. Finally, we have not directly addressed the issue of criminal behaviour. This has been indirectly addressed in terms of temperament and personality (Section 6.8) and victimisation and violence (Section 6.9).

Core proximal psychosocial characteristics of young people associated with their reliance on income support

Based on our review of the literature, and subject to the guidelines listed above and to the criteria specified in Section 5, the following set of key proximal factors represents characteristics of young people that are most likely to be powerfully associated with their reliance on income support:

1. adolescent connectedness
2. aspirations, values and attitudes
3. emotional intelligence
4. mental health
5. parent–child relationships
6. pseudomaturity and life transitions (including childhood adversity)
7. substance use
8. temperament and personality.

We have selected these factors because they are most commonly and most strongly associated with a range of adverse outcomes in young people. Factors such as control and mastery, optimism and coping styles are not separately examined because they tend to be subsets of, or subordinate to, concepts such as mental health and personality.

Core psychosocial characteristics of parents associated with young people's reliance on income support

The following characteristics of parents are most commonly and strongly related to adverse outcomes in their children during their childhood and adolescence and into adulthood:

1. mental health
2. parent–child relationships
3. substance use
4. victimisation and violence.

Of these, all but victimisation and violence also appear in the list for young people's factors. For the purposes of this review, victimisation and violence are defined in relation to parents: they refer to a child's parent being the victim of violence. As such, they represent direct proximal risk factors in parents for the development of the same and other risk factors in their children. The risk to the child pertains to (i) the impact of victimisation and violence on the parent that is transmitted indirectly to the child and (ii) the effect on the child of witnessing victimisation and violence.

3.3 Consolidated list of psychosocial factors addressed in this report

Combining the two lists yields the following nine core psychosocial factors:

1. adolescent connectedness
2. aspirations, values and attitudes
3. emotional intelligence
4. mental health
5. parent–child relationships
6. pseudomaturity and life transitions (including childhood adversity)
7. substance use
8. temperament and personality
9. victimisation and violence.
As most of these factors pertain to both parents and children, and are interconnected, the report (Section 6) does not present separate sections on child factors and parent factors. Instead, we have presented each one in turn, and commented on how each is related to the parent and the child, and how they might interact. This is consistent with our view that, to begin to investigate the relationships among these factors, it is necessary to develop potential pathways models that link parental characteristics with child outcomes.

It is not possible to state which factors are the most important in understanding the intergenerational transmission of reliance on income support because there is no research on which to base such a judgement. Instead, the factors are listed in alphabetical order.
4 Pathways models: key theoretical concepts

The vast literature surrounding research into the intergenerational transmission of disadvantage, including reliance on income support and the psychosocial correlates of such reliance, indicates conclusively that there is no single mechanism linking the fate of one generation to that of the next. Rather, it is a matter of identifying potential causal pathways and systematically testing whether factors and complexes of factors predispose particular individuals towards particular outcomes (see Figure 3). The need to take this approach in determining how disadvantage is related to outcomes is an established scientific premise (for example, Kawachi & Kennedy 1999).

Figure 5: Socioeconomic and psychosocial pathways model of intergenerational reliance on income support

4.1 Roles of variables in pathways models

In order to specify a possible pathways model for this review, it is necessary to (i) identify relevant psychosocial factors and (ii) construct hypotheses about how those factors might be related. Psychosocial factors generally mean psychological development and social factors, and the ways in which the two combine. The method for determining which psychosocial factors should be included in the pathways model is described in Section 5. In order to understand the relevance of these factors, and to hypothesise about how they might be related, it is necessary to identify the nature or potential role of each factor. Factors may play more than one role in a pathways model, or may play different roles in different models. A practical and scientifically useful way of describing the different ways that variables can be related in such models is to characterise them in terms of five possible roles. Variables may be confounding, mediating or moderating factors in a model. They may also be distal or proximal, either temporally or, more commonly, contextually in relation to other factors.

Confounding factors

Potential confounders are background psychosocial factors that are associated with income support in parents and also possible determinants of their children's outcomes. Confounding factors are not of primary concern in relation to outcomes of interest, but are factors that confuse or mask relationships between other important factors. Researchers have developed methods for adjusting for confounding factors in multivariate models.
Mediating factors
Potential mediating factors, sometimes called ‘intervening variables’, are intermediate psychosocial factors that lie on the causal pathway between parents’ and children’s welfare dependence. Mediating factors are factors through which an upstream factor has an effect on an outcome of interest. They are usually identified using different types of theory-based regression analyses. More recently, structural equation modelling has provided particularly sophisticated analytic methods for examining potential mediating factors.

Moderating factors
Potential moderators are psychosocial factors that identify subgroups of the population across which the degree of transmission of intergenerational welfare dependence varies. For example, transmission of risk may be greater in women compared with men. Moderating factors may be personal or contextual variables. Typically, they are identified in statistical analyses by explicitly testing for interaction terms between the potential moderating factor and a putative explanatory factor.

Proximal and distal risk factors
Proximal risk factors and distal risk factors may be distinguished in slightly different ways. A proximal (or immediate) factor may be identified by temporal proximity; for example, events in the past year are often expected to be more closely related to current outcomes that earlier factors would be. Immediacy may also be indicated in ecological models by considering, for example, that family environment is more proximal than neighbourhood environment in determining an individual’s behaviour. A third variation uses measures found in psychosocial or epidemiological research, where, for example, classifications of occupation may be used as a distal measure of socioeconomic circumstances by comparison with a more direct assessment of financial hardship.

Although statistical analyses can provide valuable insights into the nature of the interrelationships between factors and their influence on measured outcomes, it should be borne in mind that the development of causal models is more a product of conceptual, theoretical and substantive progress than of statistical testing. Any given empirical dataset will be consistent with multiple alternative explanatory models.

4.2 Theoretical framework
Aside from describing the roles different factors might play in pathways models, it is also valuable to identify key themes that need to be taken into account in constructing a general theoretical framework to interpret such models. In the literature on psychosocial risk factors, reliance on income support, and the intergenerational transfer of disadvantage, certain themes recur. However, they are defined differently and are described using a variety of terms. The most relevant and frequently occurring themes are:

- risk factors and vulnerability
- protective factors and resilience
- life stage and developmental factors
- outcome-specific factors and pathways (specificity).

These themes are discussed briefly below.

Risk and protective factors, vulnerability and resilience
The terms ‘risk factors’ and ‘vulnerability’ are often used interchangeably, as are the terms ‘protective factors’ and ‘resilience’. One distinction sometimes made between these alternative terms is that vulnerability and resilience are more restricted concepts applying particularly to personal factors (such as personality), whereas risk and protective factors encompass environmental and contextual influences as well as personal factors.
For example, social support is usually labelled as a protective factor rather than an indicator of resilience. A personality factor such as neuroticism (emotional instability; see Section 6.8) may be labelled either as a risk factor or as vulnerability. Another distinction, sometimes applied, is that risk and protective factors are identified through their having a main effect on an outcome whereas vulnerability and resilience are characterised by interaction terms in statistical analyses. Social support, for example, has been described as having a buffering effect in that it moderates the impact of stressful life events (Brugha & Cragg 1990). The effect is only seen in conjunction with external stressors and would not be found in the absence of such stress. These different conventions (often not stated explicitly) may be inconsistent. Because of these discrepancies, it is advisable to explicitly define these terms if their meaning is not evident from the context in which they are used.

**Life stage and developmental factors**

In considering the degree of intergenerational continuity and also the range and relative importance of factors in the parental generation that influence their children’s outcomes, it is necessary to identify the life stages of children to which associations and mechanisms apply. In short, relationships identified at one stage in life may not apply to another. Because this report focuses on young people, the psychosocial factors considered are those pertinent to continuities in adolescence and early adulthood.

**Outcome-specific factors and pathways**

Early research on the intergenerational transmission of disadvantage (and particularly poverty) tended to examine continuities observed for similar measures between generations, for example, social class in parents and their children, or criminal behaviour in fathers and sons. One of the major contributions of Rutter and Madge’s (1976) comprehensive review of this early work was their observation that a more precise and useful picture could be assembled through expanding the range of risk factors in the parental generation that are potentially associated with particular outcomes for children. With this approach, a particular characteristic observed in the parental generation becomes just one of many factors under consideration. A significant benefit of adopting this approach is that it permits comparison of risk factors across different outcomes for the children’s generation. Similarities may then be seen in the pathways involved, rather than just similarities or differences in degree of correlation. For example, the factors involved in the intergenerational transmission of divorce are very similar to those found to mediate the association between parent–child relationships and later mental health (Amato 1996; Rodgers 1996b).
5 Review protocol

Our review falls between a general summary of the literature and a systematic literature review. As far as possible, we have adhered to the stringent requirements of systematic reviewing to provide the most comprehensive and rigorous review possible in the circumstances. To the extent that we have not conducted a systematic literature review, this is in response to (i) the vast literature involved, (ii) the end purpose of the review to inform a particular study, and (iii) practical issues to do with the time frame and resources available to complete the report. The following subsections describe how the review was conducted.

In order to target our review as described and to manage the literature in a sensible and useful way, we have applied careful inclusion and exclusion criteria to our selection of materials for review. These criteria scope the review coherently and also have the benefit of ensuring that the best available material is selected. In terms of general content, we have selected for review those factors that we consider to be (i) the most powerful proximal psychosocial influences on young people’s reliance on income support and (ii) the most powerful proximal psychosocial characteristics of parents related to such factors in their children.

5.1 Review question

We have conducted our review in terms of the question:

Within developed English-speaking economies, what are (i) the core psychosocial characteristics of families that affect the likelihood of children relying on income support when they attain working age and (ii) appropriate questionnaire-based measures of those concepts?

This question guided the development of the rest of the review protocol and thus the review itself. Answering this question required ‘working back’ from the child to the parent to identify (i) the most powerful proximal influences on young people’s reliance on income support, and (ii) the most powerful proximal psychosocial characteristics of parents related to such factors in their children. The findings of the review are presented in terms of the review question; the presentation approach is described in Section 5.4.

5.2 Literature search procedure

The goal of our literature search was to identify the maximum number of valid studies of direct relevance to the review question. To do this, we defined our search terms and employed comprehensive search methods, including searching a range of databases. We did not conduct a search of the grey literature (for example, unpublished, web-based, and non-peer reviewed material). Our preliminary search of major databases assisted in refining the search terms, and we confined our searches to major databases. Our intention was to identify only the best mainstream literature relevant to our research question.

Search terms

In an attempt to replicate the literature search that generated the publications cited in the Penman review, we began our initial search by combining the terms ‘social’, ‘psychological’, ‘interpersonal’ and ‘family’ (Penman 2005, p. 4). The search of a major psychosocial database, ProQuest, using these terms generated 1,393,382 sources. When limited to those sources that also included the terms ‘intergenerational’*, ‘parent’* or ‘child’*, the number of sources located fell to 214,221. Further limiting the term by the inclusion of ‘Australia’*, to reflect Penman’s (2005, p. 4) emphasis on Australian research, produced 1,511 sources. A search of other major databases, such as Web of Science and PubMed, produced similar numbers of sources (respectively, 100,000; 84,746; 1,014 and 873,006; 204,599; 4,715 citations).

To manage the volume of sources to be examined, we selected an alternative set of search terms selected based on each psychosocial concept.
5.3 Study selection

Our review encompasses only studies that were considered demonstrably relevant to the review question. Within that, we have selected studies that included a clear statement of the aims of the research and that evidenced scientific rigour in design and execution. The study designs deemed most appropriate to our review questions were observational cohort designs, which are longitudinal community-based studies following the same group or groups of people over a number of years. Other designs, such as natural experiments or quasi-experimental designs, where available, were also considered appropriate.

Before a determination was made as to whether studies should be included in or excluded from the review, we screened out those that did not meet these basic criteria. A number of additional inclusion and exclusion criteria were used to define the scope of the review both in terms of study topics and quality. Exclusion criteria also assisted in defining the scope of the review and in protecting the review against accidental investigator bias.

Screening criteria

Our screening criteria used in the report is listed below.

- Is the study demonstrably relevant to the review question?
- Does the study include a clear statement of its aims?
- Has the study employed an appropriate design and methodology?

Studies that failed to satisfy any one of these screening criteria did not meet the basic relevance or scientific standard required and were excluded from the review.

Inclusion criteria

Our literature review was limited to English language publications that reported on studies conducted in Australia, as well as in New Zealand, the United Kingdom, the United States and Canada. These countries were chosen because (i) there is more similarity between the Australian welfare system and the welfare systems of these countries than there is between the Australian system and those of European or emerging welfare systems, and (ii) the welfare systems of these countries have the most influence on the Australian system.

Within the English language inclusion criterion, we have reviewed studies that fell within the following primary topic areas:

1. adolescent connectedness
2. aspirations, values and attitudes
3. emotional intelligence
4. mental health
5. parent–child relationships
6. pseudomaturity and life transitions (including childhood adversity)
7. substance use
8. temperament and personality
9. victimisation and violence.

Within these primary topic areas, we have included studies that meet the criteria listed below.

- Examination of a general population sample of late adolescents or parents, or another group with clear relevance to the review question.
Examination of a sample of participants reliant on forms of income support.

Recruitment of study participants using an appropriate sampling strategy and/or using an appropriate existing database.

Directly examining reliance on income support, or outcomes directly relevant to such reliance.

Adopting a valid design for addressing their research questions.

Describing the design and methodology in sufficient detail to permit evaluation of whether the study was designed and executed competently.

Using appropriate instruments, including assessing their content, validity and reliability within the particular sample frame, and reporting descriptive statistics for the obtained sample.

Selecting analytic techniques that were appropriate to the research questions set out in the study, and executing them competently.

Collecting data from a sample large enough to produce reliable parameter estimates in the analysis of the data collected.

Presenting reasonable explanations for, or hypotheses about, both their expected and unexpected findings.

**Exclusion criteria**

Studies published in English but reporting on research conducted in countries other than those listed above were excluded. However, where a study was of particular value, we have included it and noted its country of origin. We have also excluded any study that, in our judgement and notwithstanding the inclusion criteria above, did not reach an acceptable standard of research quality. In addition, we have not reviewed:

- conference proceedings
- unpublished higher degree dissertations and theses
- material only available on Internet sites
- studies focusing, to the exclusion of general psychosocial factors, on the role of socioeconomic factors in the intergenerational transfer of reliance on income support.

The fourth category was excluded because studies directly addressing the intergenerational transmission of reliance on income support have explored exhaustively the importance of and role played by parental education, income and wealth. For completeness, however, Figure 3 shows where such factors may fit within a possible pathways model. In order to make sense of the complicated relationships between many of these factors, we have discussed them in terms of their being confounding, mediating or moderating factors, in terms of their proximal or distal location in a pathways model, and in terms of the extent to which they are genetically or environmentally attributable.

We did not contact experts in the field to interview them about their current and/or unpublished research.

**Instrument selection**

For most of the topic areas we have identified in this review, several instruments exist that could be used in adult or adolescent questionnaires within a repeated measures study design. We have included in this review instruments that are:

- directly relevant to the scope of review
- suitable for use in questionnaires
- designed for use with adults and/or adolescents
Where information was available, our report includes author and year of publication, the name of the instrument, the strengths and weaknesses of the instrument, validity and reliability coefficients for the instrument, and our evaluation of the suitability of the instrument for use in questionnaires. We have also identified instruments that are judged to best meet the criteria as ‘preferred’ instruments in the reviews of measures in Section 6 and in the table of measures in Section 8. For information and further reading, Section 8 includes certain instruments that we did consider in the concept summaries in Section 6.

5.4 Approach to presentation of findings

Direct studies have been conducted of the psychosocial determinants of intergenerational reliance on income support, related largely to the role played by parental education, income and wealth. These have been extensively reviewed elsewhere and are discussed in Section 2. Section 2.6 describes the reviews commissioned by FaCS on psychosocial factors and the intergenerational transmission of welfare dependency that are directly relevant to this review (Kelleher & Jean 1999; Penman 2005).

Peer-reviewed academic research that is relevant to the intergenerational reliance on income support and that focuses primarily on its psychosocial determinants falls mainly into two categories. One is factors associated with reliance on income support, and the other is factors associated with the intergenerational transfer of various types of disadvantage relevant to reliance on income support.

To assist in identifying key psychosocial risk factors in parents that are likely to lead to their children’s reliance on income support, our review findings are separated into self-contained concept summaries, followed by synthesis sections. Each self-contained concept review includes a list of alternative concept names, a description of the concept, commentary on how the concept relates to the intergenerational transfer of reliance on income support, a discussion of measurement instruments and a reference list. This complete stand-alone material on each psychosocial factor topic by topic will be the key resource for FaCSIA. For convenience, a consolidated and extended reference list is given at the end of the report. We hope that this approach will facilitate targeted further reading for those interested in a particular psychosocial factor, while also providing a conveniently consolidated single reference point for all citations together with general extension reading.
6 Nine key proximal psychosocial factors related to the intergenerational transfer of reliance on income support

This section comprises stand-alone concept reviews of the nine key proximal psychosocial factors that relate to intergenerational transfer of reliance on income support. The factors are:

1. adolescent connectedness
2. aspirations, values and attitudes
3. emotional intelligence
4. mental health
5. parent–child relationships
6. pseudomaturity and life transitions (including childhood adversity)
7. substance use
8. temperament and personality
9. victimisation and violence.

A different amount of information is presented for each factor because the size and quality of the body of research varies from factor to factor. Often this is simply a reflection of the time period over which research has been conducted. For example, the material cited for temperament and personality is more than twice as extensive as that for emotional intelligence. This imbalance arises because the former has been actively and extensively researched for more than half a century, while research on the latter has been of limited quantity and quality and has been primarily conducted during the last 10 years. The same applies to the number and range of citations. The order of presentation of factors, and the quantity of material and citations, is not, therefore, indicative of their relative importance.

6.1 Adolescent connectedness

Alternative concept names
Adolescent connectedness, school connectedness, peer connectedness, adolescent/teen social connectedness, school attachment, school bonding, school engagement, school involvement, peer groups, adolescent social groups, sense of belonging, belongingness, peer relationships, adolescent relationships, teen relationships

Description of concept
Adolescent connectedness is of fundamental importance in adolescent development and adjustment, particularly connectedness to school and connectedness to parents. Connectedness to parents is discussed in Section 6.5; this section focuses on connectedness to school. School connectedness can be defined as experiencing ‘caring and supportive relationships within schools’ (McNeely & Falci 2004). More than individual factors such as identity formation, independence and self reliance, group-based relationships with peers influence adolescent development (Newman & Newman 2001). As a key source of group-based relationships with peers, school connectedness is also a key source of sense of belonging for adolescents, and sometimes the primary source (Booker 2004).
A recent review identified nine key domains of school connectedness: academic engagement; sense of belonging; discipline and fairness; extracurricular activities; liking school; student voice; peer relationships; safety; and teacher support (Libbey 2004). The relative importance of these domains has not been empirically evaluated, though there is evidence to suggest that different aspects of school connectedness are associated with different outcomes for students (Jenkins 1997). Teacher support seems to be particularly important (Booker 2004; McNeely & Falci 2004). For example, in a study of 233 early year high school students, student perceptions of teacher support and encouragement of respectful classroom relationships were stronger predictors of academic motivation and engagement than any other factors (Ryan & Patrick 2001).

One of the many indicators of school connectedness is the degree of participation in some aspect of school. Participation is especially important; adolescents who participate in extracurricular activities of any kind are more strongly connected to school than those who do not participate (Brown & Evans 2002). Indicators of students' sense of school belonging include being proud of the school, participating in school activities and liking being at school, together with believing that they will be noticed if they cause trouble, that their teachers care and that people are interested in them (Voelkl 1996).

School connectedness is associated with success at school and also with behaviour at school and in the community generally (Brown & Evans 2002). Adolescents who are connected to their school, have a sense of belonging to their school and believe their teachers to be fair and supportive consistently outperform their less connected peers both academically and in the health domain (for a review of literature on this issue, see Libbey 2004). For example, in a cross-sectional study of over 12,000 American high school students, those who reported high levels of school connectedness, in tandem with connectedness to their parents and families, were less likely than other students to engage in any health risk behaviour (Resnick et al. 1997).

A detailed examination (McNeely & Falci 2004) of the relationship between two aspects of school connectedness and six adolescent risk behaviours expanded on Resnick et al. (1997) and introduced an interesting subtlety into the understanding of the respective roles of adults and peers. In a longitudinal study involving over 20,000 American high school students from 80 schools, data for more than 13,000 cases were analysed to examine associations between teacher support (believing that teachers are fair and teachers care), social belonging (feeling part of school and enjoying going to school), and risk behaviours including use of tobacco, alcohol and marijuana; suicidality; first sexual intercourse; and weapon-related violence (McNeely & Falci 2004). Teacher support was associated with a reduced risk for starting any of these risk behaviours, but not with cessation of the behaviours once started. An interesting finding was that social belonging was not protective against these behaviours. Instead, controlling for teacher support, social belonging was a risk factor for starting two risk behaviours: cigarette smoking and hazardous alcohol consumption.

These are important findings because they suggest that the nature of the relationship between school connectedness and various outcomes depends on the aspect of connectedness and the risk behaviour being considered. The role of peer relationships appears less straightforward than the role of relationships with teachers. This might be explained by the fact that peer relationships are not homogenous in their influence. Adolescents can form ‘conventional’ or ‘unconventional’ connections to peers (McNeely & Falci 2004). The former involves connecting with peers who uphold conventional norms and values, while the latter involves connecting with peers who contravene such norms and values. McNeely and Falci (2004) explain their findings by arguing that connections to teachers are always conventional, and that the protective effect of conventional connections to peers is absorbed within the protective effect of teacher support. The risk-elevating effect of school belonging is confined to unconventional connections to peers. These promote counter-conventional norms and values that are associated with the encouragement of risk behaviours. Support for this proposition has emerged in a study that showed that clustering high-risk young people (who have counter-conventional norms and values) for the purpose of delivering a behavioural improvement intervention resulted in worse, not better, behaviour (Cho, Halfors & Sánchez 2005).

In sum, adolescent connectedness to parents, teachers and conventional peers is protective against taking up and continuing with a wide range of risk behaviours during adolescence. But connectedness to unconventional peers may promote and prolong such risk behaviours.
Relationship between parental and child school connectedness and offspring reliance on income support

Social connectedness, or the set of links adults have to people and groups in their community, has been associated with a range of social outcomes, including mental health outcomes. Higher levels of personal social connectedness are associated with fewer mental health problems (Bond et al. 2001; Hendry & Reid 2000; Kawachi & Berkman 2001; Lee, Draper & Lee 2001; Wainer & Chesters 2000), particularly for vulnerable people or those with special needs (Hurwai et al. 2000). For example, one study compared the social connectedness and mental health of immigrants with those born in the community (Hao & Johnson 2000). Community participation, religious observance and being in a relationship were beneficial to both groups’ mental health, but particularly to the immigrant residents.

Parents’ social connectedness is thus of great importance to their own wellbeing and so is also of great importance to children’s outcomes. Further, parents who are more socially connected generally are also more connected to their children’s school than less connected parents (Resnick et al. 1997). Following on from this, children whose parents are involved in their school tend to be connected to school themselves (Jenkins 1997) which, as noted previously, is protective against a range of adolescent risk behaviours. Findings from longitudinal research indicate that lack of school connectedness during adolescence is associated with youth unemployment (Caspi et al. 1998), through mechanisms that include poor school achievement. This provides further evidence for a link between parental social and school connectedness and children’s risk of reliance on income support (in this case, to do with employment difficulties).

Parents influence their children’s success in school and generally in life directly through their relationships with their children (see Section 6.5), and indirectly through their relationship with their children’s school. Connectedness to school and parent–child relationships are both strongly associated with a wide range of health risk behaviours in adolescents (Resnick et al. 1997). These are, in turn, related to youth reliance on income support through various youth outcomes. Adolescents who do not have a strong sense of belonging within their families, compared with those who do, have lower self-esteem, less school and community belonging and a lower sense of mastery, and spend less time with family and less time involved in school and community activities (Chubb & Fertman 1992). Commitment and attachment to school, involvement in school and belief in school rules are affected by students’ personal backgrounds as well as their parents’ involvement in their school (Jenkins 1997).

Measurement instruments

Our preferred instrument for assessing adolescent connectedness to parents is the Parental Bonding Instrument (PBI) (Gamsa 1987; Parker 1989, 1990; Parker, Tupling & Brown 1979). This measure is reviewed in Section 6.5. In brief, it is a commonly used 25-item multiple response category instrument with good validity and factor structure. It is retrospective and predictive of adult mental health. Available versions include one that is 25 items per parent, but the PBI is typically used as a child report instrument only.

Measures of school engagement (specifically, attitudes towards academic and school achievement), a major aspect of school connectedness, are reviewed in Section 6.2. Direct measures of school connectedness include the measure of School Connection (Brown & Evans 2002), the measure of School Connectedness (Resnick et al. 1997) and the Student Identification with School instrument (Voelkl 1996).

The measure of School Connection (Brown & Evans 2002) is a 16-item instrument that assesses four domains: commitment, power (of students), belonging and belief (in school rules). There are four items for each domain, with the belonging domain a concise measure of sense of belonging. The measure of School Connectedness (Resnick et al. 1997) assesses sense of belonging, discipline and fairness; liking of school; feelings of safety at school; and teacher support. The Student Identification with School instrument (Voelkl 1996) is a 16-item scale assessing two domains, belonging and ‘valuing’, which taps liking of school.

Other measures of belonging suitable for use with adolescents include measures used in the American National Longitudinal Study of Adolescent Health (Add Health), a questionnaire-based study for which data were
collected in 1994–95 (McNeely & Falci 2004). A five-point Likert-type response format was used. The measures include three items on social belonging (alpha reliability = 0.78 based on confirmatory factor analysis, a superior method of calculating reliability), three items on teacher support (alpha reliability = 0.63 based on confirmatory factor analysis) and one item on general teacher behaviour.

The Interpersonal Support Evaluation List (ISEL) (Cohen et al. 1985) is a 40-item multidimensional instrument consisting of four scales, including a measure of self-esteem. The three other scales tap social support factors, including the availability of tangible support, advice and information, and sense of belonging. Each subscale has 10 items requiring simple yes/no responses. The ISEL has been extensively used in published studies, including within general population samples in Australia (Berry & Rickwood 2000; Berry & Rodgers 2003).

The Sense of Belonging Instrument (SOBI) (Hagerty & Patusky 1995) is a 27-item self-report instrument consisting of two separately scored scales, SOBI-P (psychological state) and SOBI-A (antecedents). A panel of experts assessed content validity. Construct validity, internal consistency and retest reliability were examined through a series of studies with three subject groups: community college students, patients in treatment for major depression and Roman Catholic nuns. Results suggest that SOBI-P is a valid and reliable measure of sense of belonging. SOBI-A appears to assess an individual's motivation for sense of belonging, but requires additional study regarding its construct validity and internal consistency.

References
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6.2 Aspirations, values and attitudes

Alternative concept names
Aspirations, school aspirations, educational aspirations, school motivation, educational motivation, academic engagement, school engagement, student engagement, school commitment, values, social values, personal values, attitudes, beliefs, norms

Description of concept
Aspirations, values and attitudes are at times construed as equivalent concepts, and thus are often poorly differentiated, or are treated as interchangeable with one another and with a range of other concepts. Values, attitudes, traits, norms and needs are particularly commonly confounded (Hitlin & Piliavin 2004). This confusion flows through to the literature on the intergenerational transfer of reliance on income support.

Values
Values are durable, overarching, hierarchically organised belief systems (Hitlin & Piliavin 2004) about what society ‘should’ be like (social values) and about how people ‘should’ behave (personal values). Values are about ideals, and the notion of ‘should’ is central to the concept. Rokeach (1973, p. 5) defined values as ‘enduring belief[s] that a specific mode or conduct or end-state of existence is personally or socially preferable’. A set of 10 social values appears to be common to all cultures, though their order of importance varies somewhat from culture to culture (Schwartz 1992). The 10 universal values are hedonism, power, achievement, stimulation, self-direction, universalism, benevolence, conformity, tradition and security.

Values develop during childhood and adolescence in step with the development of formal reasoning. Indeed, the nature of values held is associated with the level of formal reasoning achieved (Darmody 1991). Adolescents with higher levels of formal reasoning tend to accept values that relate to higher order issues and longer time frames; those with lower levels of formal reasoning prefer values that involve personal gratification, pleasure and the approval of others. Values’ rankings (the order of importance attributed to each value) change during adolescence, with values relating to family ties falling in rank, and values to do with autonomy and self-realisation rising (Çileli & Tezer 1998).

Parenting style in early childhood is associated with adult values. One study showed that people whose parents tended towards an authoritarian style of child-rearing were, at age 31, less self-directed and more inclined towards conformism and security values, while those who had warm parents reported more tolerant values (Kasser, Koestner & Lekes 2002). Though people’s values tend to be durable once formed (Hitlin & Piliavin 2004; Rokeach 1973). For example, rankings of values in the United States were largely stable over the period from 1968 to 1981 (Rokeach & Ball-Rokeach 1989). Nevertheless, people’s values can change over time, for example, when challenged (Grube, Mayton & Ball-Rokeach 1994). Challenges to people’s values may come from a range of sources, such as in response to societal and cultural change (Çileli 2000; Rokeach 1973, p. 37).

The mechanism for values change is cognitive dissonance, or the discomfort felt when values are inconsistent with circumstances. Values change may thus be particularly marked where a change in circumstances is profound, such as when there is major societal or cultural upheaval that creates a gap between a person’s values and lived reality. Japanese pilots undergoing training in the United States experienced substantial values change over a two-year period, ultimately valuing pleasure and security more highly than they did before their arrival (Murphy & Anderson 2003). Values among employees of the aviation industry in the United States changed substantially following the September 2001 terrorist attacks. Values to do with self-respect and self-actualisation fell in importance, while values related to national security rose (Murphy, Gordon & Mullen 2004).

Based on early work by Rokeach and Inglehart, Australian research has proposed that social values can be reduced to two broad dimensions, ‘harmony’ and ‘security’ values (Braithwaite 1982, 1994, 1997; Braithwaite, Makkai & Pittelkow 1996; Feather 1995). Harmony values reflect a belief that people should be open and cooperative with others for the greater good of all. Examples of harmony values are ‘human dignity’ and ‘rule
by the people’. Security values suggest that society should be controlled and people should compete against others to accumulate and protect personal benefits. Examples of security values are ‘reward for individual effort’ and ‘national greatness’ (Blamey & Braithwaite 1997). People can accept one value orientation and reject the other (security-oriented types and harmony-oriented types, respectively), accept both value orientations (balanced types), or reject both value orientations (relativists).

**Attitudes**

While values systems operate at a general level, attitudes are specific: there are just a few underlying values (Rokeach 1973); Schwartz (1992) argues that there are ten. But people hold perhaps ‘thousands’ of attitudes (Mankoff 1974). Attitudes are orientations towards a particular object, such as attitudes towards high achievers (Feather 1995). Although they are linked to values, attitudes do not necessarily incorporate the idea of ‘should’. For example, people who do not value equality display negative attitudes to gay relationships (MacDonald & Games 1974). That is, such people do not agree that equality should be promoted in society, and they think that gay relationships are undesirable.

Because values and attitudes are linked, certain attitudes and behaviours are associated with each of the value orientations (Braithwaite 1994; Feather 1996). For example, social values predict how people vote and why (Rokeach 1973), which kinds of institutions they trust and their attitudes towards contemporary political issues. People who accept security values and reject harmony values (security-oriented types) vote for the more conservative parties in general elections, are unlikely to go on strike, are against affirmative action and the welfare state, and support harsher penalties for convicted criminals (Braithwaite 1997, 1998a, 1998b). It has been proposed that, while security values robustly predict a variety of social attitudes and behaviours, harmony values often do not (Braithwaite 1997), perhaps because harmony values are more diffuse, more subtle and less concrete than security values (Berry & Rickwood 2000).

**Aspirations**

Values are important for this review topic because they help shape identity and contribute to how people choose to behave, partly through their association with beliefs and attitudes (Hitlin & Piliavin 2004). Aspirations reflect a desire or ambition to achieve a particular goal or set of goals. In this sense, aspirations can be viewed as a subset of, or special case of, attitudes. Aspirations may be conceptually related to values, but they do not depend on a particular values orientation. Instead, they are consistent with any formulation of values, including rejection of values (relativism). Consider, for example, the notion of doing well at school. From the perspective of an adolescent, studying to do well at school is consistent with a security orientation (doing better than others), with relativism (optimising personal outcomes) and with a harmony orientation (expanding the mind). Similarly, the majority of parents may encourage their children to succeed at school, but they may do so from different values orientations.

Aspirations are not specific to or equivalent to school connectedness or to academic engagement and ambition. Nevertheless, this review focuses on education-related aspirations because they are relevant to the target age group and because a positive orientation to school is protective against a number of psychosocial risk factors in adolescence. These include substance use, delinquency, early sexual activity (Jessor et al. 1995) and delaying pregnancy (Manlove 1998). A positive orientation to school is one aspect of a wider concept of academic engagement that is associated with being motivated to do well at school (Libbey 2004). Academic engagement is closely related to and dependent on school connectedness (McNeely & Falci 2004), which is discussed in more detail in Section 6.1.

Indicators that students value school include their believing that school helps in getting a good job and is important in life, that what is taught is useful and represents time well spent and that it is a mistake to drop out of school (Voelkl 1996). Academic engagement involves such concepts as doing homework, including extra homework; believing education to be important; and placing emphasis on doing well in assessable tasks. More specifically, school engagement among adolescents includes an achievement orientation towards grades, including maintaining high grades, wanting to obtain high scores in tests, completing minimum
and supplementary hours of homework and having high educational aspirations (Manlove 1998). Academic engagement is a powerful predictor of school success. In a study of 233 early high school students, initial motivation and engagement were stronger predictors of continuing motivation and engagement than factors such as sex, ethnicity and prior achievement (Ryan & Patrick 2001).

The Seattle Social Development Project, a non-randomised longitudinal control trial of some 600 adolescents followed over nine years to age 21, sheds further light on the role of aspirations in school and life success (Hawkins et al. 2005). The aim of the project was to evaluate the effectiveness of two and six-year interventions intended to prevent mental health problems, involvement in crime and substance use. The interventions involved parent and teacher effectiveness training and interpersonal skills training for students. Compared with a non-intervention control group, the two and six-year interventions were effective, with the latter the more effective. Both areas of training had beneficial effects on students’ school functioning (including academic engagement and aspirations to do well at school), and on post-school work functioning and mental health.

**Relationship between parental aspirations, values and attitudes and offspring reliance on income support**

Children learn about values within their families but, by adolescence, only to a limited degree, because there are numerous other influences on the development of adolescents' values (Hitlin & Piliavin 2004). Beyond parents' values, these influences include biology (perhaps), ethnicity, sex, social background, immigrant status, family characteristics, peers, social and historical change, religion, and national and political context (for example, living in a democracy or not). It is also worth noting that some parents might pass values on to their children that are essentially a rejection of values (a relativistic approach). As we have seen, a relativistic approach is not inconsistent with valuing achievement and doing well.

Though evidence suggests that parents do pass on their values to their children, including perhaps a rejection of values, parent–child values vary in congruence depending on the value. Children's and parents' values seem to be especially congruent on education and career (Gecas & Seff 1990), but parents influence their children's values in a range of other areas, including religion and sexual behaviour (Hitlin & Piliavin 2004). The transfer of values from parent to child may be gendered, with same-sex parents' values influencing their same-sex child more strongly than they influence their opposite-sex child (Hitlin & Piliavin 2004).

Parents may transfer their values to their children through various mechanisms, including those to do with family socioeconomic status and parenting style (Gecas & Seff 1990). Socioeconomic status and parenting style are related in that wealthier, higher status families are able to provide their children with more stimulation and take a less restrictive approach to raising their children than can those with less (Gecas & Seff 1990). Social class may be particularly important in the transfer from parent to child of values such as self-direction and intellectual flexibility, both of which are associated with successful career trajectories. For example, men with more advantaged socioeconomic circumstances value self-direction in their children; this is consistent across men in westernised and non-westernised capitalist economies as well as in socialist countries (Kohn et al. 1990). The relationship between socioeconomic status and self-directedness appears to hold even in times of significant social and economic upheaval (Kohn et al. 1997).

Finally, social values have been linked, through social connectedness, to psychological distress in Australian adults (Berry & Rickwood 2000). People with particular values orientations experience less social cohesion and higher levels of distress than do others. As parents, these people's lack of connectedness and associated mental health problems may negatively influence their children's school engagement. In this way, parents' values would indirectly impact on children's risk factors for reliance on income support.

Parental values thus play a part, perhaps indirectly or distally, in school achievement in adolescence (Hitlin & Piliavin 2004). But parents' attitudes and aspirations directly influence their children's aspirations and academic engagement. In a cross-sectional study of over 12,000 high school students in the United States, those whose parents set high standards for school achievement were less likely than other students to engage in any health risk behaviour (Resnick et al. 1997): they reported lower levels of psychological distress, violence, substance
use and risky sexual behaviours than their peers. In the Seattle Social Development Project, separately from student–teacher interventions, parent effectiveness training had beneficial effects on students’ school functioning (including academic engagement), and on post-school work functioning and mental health (Hawkins et al. 2005). Parental involvement in their children's lives, and parents' social competence, has also been found to be protective against declines in adjustment to and engagement in school during the middle years (Simons-Morton & Crump 2003).

However, this might be the case only for some ethnic and socioeconomic groups. One US study found that parents' involvement in their children's academic lives was related to fewer behavioural problems, higher achievement and higher aspirations, but only among highly educated parents (Hill et al. 2004). Poorly educated parents' academic involvement was related to their children's aspirations, but not to their achievement. Nevertheless, positive parental influence over children's aspirations may be important for other reasons. In households living with socioeconomic disadvantage, parents' high educational aspirations can counteract the effects of disadvantage (Schoon, Parsons & Sacker 2004). Such parents' children do better academically, which has positive flow-on effects. This is because these children adopt their parents' educational aspirations and associated sense of self-efficacy (Bandura et al. 2001). Children growing up with persistent poverty are particularly at risk of poor educational outcomes. Their parents' lack of educational aspirations for them, especially their mothers’, is associated with increased risk of poor educational outcomes over and above the effects of poverty (De Civita et al. 2004).

Parents are not the only influence on young people's values, and they are equally not the only influence on their aspirations. During adolescence, young people expand their connections and, therefore, the sources of influence on them, and attach greater importance to peers and other adults outside the family, such as teachers. Adjusting for demographic characteristics, adolescents who participate in non-sport extracurricular activities through their schools have higher academic aspirations and higher levels of academic achievement (Darling, Caldwell & Smith 2005). As membership of racial minority groups is associated with lower educational aspirations among teenagers (Vazsonyi & Pickering 2003), non-sport-based extracurricular participation may be of particular interest for studying racially-based disadvantage.

Mutual investment by adolescents and significant adults other than parents, such as teachers, is pivotal in adolescent development (McNeely & Falci 2004), including in engendering appropriate aspirations and high levels of school engagement. For example, student perceptions of teacher support and encouragement of respectful classroom relationships were stronger predictors of motivation and engagement than any other factor, including prior motivation (Ryan & Patrick 2001). We have also noted the relationship between values, motivations and behaviour. A key notion to take from these studies is that, importantly, school engagement and success involves a relationship of mutual investment between students and a range of significant people in their lives. Key among these are teachers (McNeely & Falci 2004) and parents (see Sections 6.1 and 6.5 for further information).

**Measurement instruments**

In this section, we have emphasised instruments that measure aspirations as they relate to school engagement, chiefly because education-related aspirations are the key concern for the review’s target age group. In addition, our review revealed no specific measures of adolescent aspirations, and they are best tapped through the strongly related concept of school engagement. For measuring values, the 52-item measure of Schwartz’s 10-domain conceptualisation of values is the most rigorously developed and tested (Schwartz 1992). It has been validated in more than 70 countries and used with Australian populations. The universalism and security domains map onto Braithwaite’s harmony and security domains and would be appropriate indicators of values orientations where the full scale would not be appropriate.

Our preferred measures include the belonging subscales of the School Connection scale (Brown & Evans 2002) or the Student Engagement measure (Ryan & Patrick 2001), the valuing (of school and education) scale of the Student Engagement measure (Ryan & Patrick 2001), and the School Engagement measure (Manlove 1998). The measure of School Connection (Brown & Evans 2002) is a 16-item scale assessing four domains: commitment,
power (of students), belonging and belief (in school rules). There are four items for each domain. The measure of School Engagement (Manlove 1998) is a seven-item scale that focuses strictly on school engagement and not on related constructs. The measure of Student Engagement (Ryan & Patrick 2001) is an 11-item scale that assesses self-regulated learning and disruptive behaviour. As such, it taps academic engagement through both positive and negative indicators.

The following is a list of alternative measures of school engagement.

- **Positive Orientation to School** (Jessor et al. 1995). This nine-item scale measures academic engagement and liking of school.
- **School Bond** (Jenkins 1997). This 36-item scale assesses four domains: commitment (to school), attachment, involvement and belief in school rules. It taps academic engagement comprehensively.
- **School Bonding** (Jenkins 1997). This five-item measure assesses attachment and commitment to school. It taps academic engagement and liking of school.
- **School Climate and School Engagement** (Simons-Morton & Crump 2003). This 14-item measure of school climate is based on Pyper et al.’s (1987) model and is supplemented by the author’s own items on school engagement. It taps academic engagement, discipline and fairness, peer relations and teacher support.
- **Student Identification with School** (Voelkl 1996). This 16-item scale assesses two domains, belonging and valuing. It taps liking of school.

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6.3 Emotional intelligence

Alternative concept names
Emotional intelligence, EI, empathy, optimism, distress management, mood management, EQ (emotional quotient)

Description of concept
Emotional intelligence can be defined as ‘the ability to perceive, understand, and manage one’s emotions’ (Ciarrochi, Chan & Bajgar 2001). Those with high levels of emotional intelligence display characteristics such as self-motivation, persistence, impulse control, patience, empathy, optimism and the ability to manage their own moods and distress (Goleman 1995). Empirical evidence suggests that emotional intelligence:

(i) exists as a unique phenomenon that can be defined, operationalised and measured (Caruso, Mayer & Salovey 2002; Izard 2001)

(ii) is a form of intelligence that is different from other forms of intelligence (Mayer, Caruso & Salovey 1999; Mayer, Caruso & Salovey 2000; Mayer et al. 2001)

(iii) is empirically associated with a range of psychosocial factors.

This range of psychosocial factors includes empathy; general intelligence; defensiveness; personality (Mayer & Geher 1996), including openness (Schutte et al. 1998); social support; mood management (Ciarrochi, Chan & Bajgar 2001); stress; mental health (Ciarrochi, Deane & Anderson 2002); depression; somatising; affect (Dawda & Hart 2000; Schutte et al. 1998); optimism; impulse control (Schutte et al. 1998); and life satisfaction (Gannon & Ranzijn 2005). With respect to its relationship with general intelligence, speed of emotional perception, one aspect of emotional intelligence, may be linked to speed of information processing, with those fast on one also fast on the other (Austin 2005).

Research into emotional intelligence is in its early stages and the concept is not yet mature. For example, there is considerable overlap between the definitions of emotional intelligence (including descriptors such as empathy, optimism and distress management) and its correlates (which include empathy, optimism and mood management). As the concept appears to be useful and has an emerging empirical basis, evidence of its immaturity should not be taken as reason to reject it. Instead, it would be appropriate to continue using the concept, with caution, and with a view to continued empirical investigation.

Within the concept of emotional intelligence, and with respect to this review, optimism deserves particular mention. Optimism is strongly related to life success in general and (negatively) to common mental health problems such as depression, which inhibit success in life. As we have seen, depending on the conceptualisation and measure used, optimism can be considered an aspect of emotional intelligence (for example, Goleman 1995). It has also been linked to emotional intelligence, in that people who have high levels of emotional intelligence also have high levels of optimism (Schutte et al. 1998). The most comprehensive research into optimism has been carried out by Seligman and his colleagues, prompted initially by their research into learned helplessness and depression. Seligman summarised the early decades of this research in his book Learned optimism (Seligman 1991), in which he described pathways from repeated unavoidable failure, through a pessimistic explanatory style, to sense of helplessness, and ultimately on to depression (helplessness).

While this literature is far too extensive to cover in this review, it is worth mentioning that dispositional optimism5 (Scheier, Carver & Bridges 1994) in particular is linked to long-term positive outcomes (Seginer 2000), including health and wellbeing. Optimism has been robustly linked to success in obtaining and succeeding in employment (Seligman 1991) (though not in all studies; see, for example, Kanfer, Wanberg & Kantrowitz 2003), including returning to work after injury (Chapin & Kewman 2001). It is associated with success at school, including with cognitive ability (Lounsbury et al. 2005), and with lower levels of school absenteeism (Lounsbury et al. 2004). The benefits of dispositional optimism continue throughout the life course and across a variety of life challenges. For example, optimism is linked to success in sport and politics (Seligman 1991). High levels of
dispositional optimism in men with HIV have predicted healthier immune status over time compared to that of other HIV-infected men who are less optimistic (Tomakowsky et al. 2001). And older people with dispositional optimism tend towards greater positive affect over time when faced with negative life events than their less optimistic peers (Isaacowitz & Seligman 2002).

**Relationship between parental emotional intelligence and offspring reliance on income support**

One study has specifically examined the intergenerational relationship between emotional intelligence, educational attainment and income. In a longitudinal study that followed men from age 14 to 65, low-IQ men with high levels of emotional intelligence achieved incomes as high their high-IQ peers, and raised children who were as highly educated as those of the high-IQ men (Vaillant & Davis 2000).

More generally, emotional intelligence has been associated in adults with a number of psychosocial factors. Some of these are known correlates of reliance on income support, for example, mental health and social support (Berry & Butterworth 2003; Butterworth & Berry 2004). Where such factors in parents are transmitted to their children (such as is the case for mental health problems), emotional intelligence may be indirectly related to the intergenerational transfer of reliance on income support through its association with other psychosocial factors. In adolescents, emotional intelligence has been linked to the misuse of alcohol and tobacco, with those reporting higher levels of emotional intelligence less likely to misuse substances (Trinidad & Johnson 2002). As substance use is related to mental health, emotional intelligence may be indirectly related to reliance on income support in young people through its shared association with mental health. Finally, it may be that some aspects of emotional intelligence are biologically transferred from parent to child. Dispositional optimism is a personality characteristic, and personality is heritable (see Section 6.8). If dispositional optimism is a defining or core feature of emotional intelligence, rather than one of its correlates, then this aspect of emotional intelligence may be heritable.

**Measurement instruments**

The debate about how to conceptualise emotional intelligence is not resolved and nor, therefore, is the continuing debate about how to operationalise and measure it. The most significant issue in this debate is whether emotional intelligence is a separate concept from the concept of personality. A small number of studies provide convincing preliminary evidence that personality and emotional intelligence are separate but related concepts (Brackett & Mayer 2003; Petrides & Furnham 2000, 2001), though, as we have seen, some aspects may overlap.

The most commonly used and systematically developed instruments are the **Mayer–Salovey–Caruso Emotional Intelligence Test (MSCEIT)** (Mayer et al. 2003), the **Emotional Quotient Inventory (EQi)** (Bar-On 1997a, 1997b) and the **Self-Report Emotional Intelligence Test (SREIT)** (Schutte et al. 1998). These were reviewed by Brackett and Mayer (2003). Of the three measures, empirical analysis suggests that the MSCEIT has the greatest ability to discriminate between emotional intelligence and personality (Brackett & Mayer 2003), and thus to respond to the issues of (i) whether emotional intelligence and personality are discrete phenomena and (ii) how to operationalise and measure it.

The MSCEIT is a 141-item self-completion test designed to measure four defining facets of emotional intelligence. These are (i) being able to perceive emotions, (ii) using emotions to assist thinking processes, (iii) understanding emotions and (iv) regulating emotions. The test involves a combination of responding to images and responding to questions and scenarios. The EQI is a self-report questionnaire that originally comprised 15 subscales that tapped five underlying constructs. It has been revised to include four of the five original underlying constructs: intrapersonal EQ, interpersonal EQ, adaptability and stress management. It is not clear whether these subscales tap a unidimensional or multidimensional construct. The SREIT is a 33-item self-report questionnaire that the authors claim taps an underlying uni-dimensional construct. Empirical review of the measure suggests that it may in fact tap a four-factor multidimensional construct that includes optimism and mood regulation, appraisal of emotions, social skills and utilisation of emotions (Petrides & Furnham 2000).
Emotional intelligence can be reliably measured in adolescents aged 13 to 15 using adult measures, though most of the skills involved in emotional intelligence mature earlier in girls than in boys (Ciarrochi, Chan, & Bajgar 2001; Dawda & Hart 2000; Rosso et al. 2004; Silveri et al. 2004).

If it is determined that optimism plays a possible role in emotional intelligence, dispositional optimism can be easily and conveniently measured using pencil and paper tests. A simple, short and well-validated 10-item general measure has six items tapping optimism (three reverse-scored) and four ‘filler’ items that can be excluded if desired (Scheier, Carver & Bridges 1994).

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6.4 Mental health and wellbeing

**Alternative concept names**
Psychiatric disorders, mental disorders, psychological distress, general psychological distress, psychological wellbeing

**Description of concept**
Mental health refers to the ability to function and undertake productive activities, to develop and maintain meaningful relationships and to adapt to change and cope with adversity (Berry & Butterworth 2003). The Australian Health Ministers (2003) have defined mental health as ‘a state of emotional and social wellbeing in which the individual can cope with the normal stresses of life and achieve his or her potential’. More elegantly, Herrman (2001) has defined mental health as a person's ability to think, to learn, and to live with his or her own emotions and the reactions of others. Thus, mental health underlies an individual's ability to interact with others and with the environment. It represents individuals’ sense of wellbeing and competence, and their ability to realise their full potential (Berry & Butterworth 2003). Implicit in such definitions is that mental health has a developmental element, with individuals' mental health status evolving and changing throughout the life course in response to personal characteristics, experiences and circumstances.

Mental disorders are characterised by alterations in thinking, mood or behaviour associated with distress or impaired functioning. Mental disorders include schizophrenia, other psychoses, bipolar disorders and forms of depression, anxiety disorders, psychological distress, dementia and other forms of cognitive decline, substance use disorders and eating disorders. Each condition is unique in its symptoms and effects, causal factors and treatment, and each affects people differently (Berry & Butterworth 2003). However, current definitions of mental health problems no longer rest on diagnosing the presence or absence of symptoms or particular disorders at a point in time. Instead they emphasise viewing mental health and wellbeing as a dynamic continuum. Poor mental health can interfere with people's lives and their productivity (in school, work or personally), and impacts negatively on their personal relationships. In their mental health promotion plan, the Department of Health and Ageing has described mental health problems and mental illness as the ‘range of cognitive, emotional and behavioural disorders that interfere with the lives and productivity of people’ (Department of Health and Aged Care 2000). Mental health problems and disorders thus refer to experiences at the negative end of the continuum at a point in an individual's life. An important factor to take into account in research into mental health problems is whether such experiences, symptoms and characteristics are severe or enduring, or both.

There are two main approaches to the conceptualisation and measurement of mental health. One reflects the clinical or categorical approach to the determination of mental (or psychiatric) disorders, where individuals meet criteria for discrete conditions. The other adopts a dimensional approach to measuring constructs, so that individuals are ranked from low to high on an attribute or trait. In practice the two approaches become similar if a threshold level on a scale is chosen to indicate those who have extreme scores. The dimensional approach has traditionally been used by epidemiologists, social scientists and educationalists, and the categorical approach by psychiatrists and clinical psychologists. In recent research, diagnostic instruments have been developed for administration by lay interviewers and even by computer, and their use has increased accordingly in large-scale surveys (Kessler et al. 1998; World Health Organization 1997).

The clinical approach uses survey instruments to distinguish people who meet certain criteria for diagnosis. Currently, the two most common classification systems for mental health disorders are the American Psychiatric Association’s *Diagnostic and statistical manual of mental disorders* (DSM-IV-TR) (American Psychiatric Association 2000) and the World Health Organization's International Classification of Diseases (ICD-10) (World Health Organization 1992). These systems list criteria that need to be met for a diagnosis to be made. While their structure and approach to diagnosis are broadly similar, the agreement between the two systems is not perfect (Andrews et al. 1999). Therefore the instrument used reflects the diagnostic criteria on which it is based. Dimensional instruments may have a direct relationship to particular diagnoses, such as scales to measure...
depression, or may be more general. The most common instruments for adult assessment incorporate a large number of measures that assess general psychological distress, typically including symptoms of depression and anxiety and sometimes somatic manifestations or changes to day-to-day functioning.

Psychiatric diagnoses are numerous, and structured interviews have been developed to cover common mental disorders (particularly anxiety disorders and depression) through to disorders that are of relatively low frequency in the general population (for example, schizophrenia and bipolar disorders). Substance use disorders may be included and some instruments cover personality disorders, such as antisocial personality disorder or borderline personality disorder.

In the dimensional approach, scores at the lower end of a scale can be interpreted as indicating wellbeing. Some scales, such as the five-item scale from the Short-Form Health Survey of the Medical Outcomes Study (Ware et al. 1993), measure positive aspects of mental health (such as feeling happy), not merely the absence of negative features. With a categorical approach, wellbeing is indicated by the absence of disorder. Both approaches, however, would require a comprehensive assessment to identify individuals who were free of all types of problems. Research questions are more often framed in relation to a specific disorder or a particular dimension, although recent epidemiological research has recognised comorbidity (the co-occurrence of disorders) much more than earlier investigations had done (Andrews, Henderson & Hall 2001; Kessler et al. 1996).

When adults are the focus of study, interviews and self-completion questionnaires are typically administered to the individuals themselves. Traditionally, studies of children have relied heavily on reports and ratings of parents and other observers, especially teachers. In the last 15 years, however, interviews and self-completion measures for children have become more common (Verhulst & Koot 1992).

A distinction is often made in children and adolescents between internalising disorders and externalising disorders; the former are characterised by features such as shyness and anxiety, and the latter by aggressive behaviour and rule breaking. This appears to fit the distinction between the common mood disorders of depression and anxiety (called neuroses in the past) and antisocial behaviour in adults. However, the developmental continuity for externalising disorders is far stronger than for internalising disorders. Measures of internalising behaviour in children obtained from teachers and parents appear more closely associated with the personality dimension of introversion than with the expected construct of emotional stability (or neuroticism) and they are relatively weak predictors of mood disorders in adulthood (Rodgers 1990).

Most measures of mental health, whether used with children or adults, or whether employing a dimensional or categorical approach, focus on the recent past; typically this ranges from the past week to as far back as one year. Even though attempts have been made to assess psychiatric disorders over the lifetime, there is considerable scepticism regarding the validity of such assessments. Assessments that draw on recollections of specific acts are expected to have greater validity than those that depend on recollections of mood and other internal states. The latter may also be biased by current mood states. Generally, retrospective assessments should be interpreted with caution.

**Relationship between parental mental health and offspring reliance on income support**

There are several possible pathways through which parental mental health problems may place children at higher risk of reliance on income support during their own adult years. First, parental mental health is consistently related to developmental progress of children and can impact on their educational attainment (Downey & Coyne 1990; Oates 1997). This pathway is closely connected to parent–child relationships (see Section 6.5) as mental health problems have a marked effect on parenting skills (Smith & Farrington 2004). Second, intergenerational continuity is observed in regard to the mental health of offspring, through childhood and into adulthood (Rutter & Quinton 1984). Third (and related to the previous pathway), parental mental health problems may lead to relationship difficulties in children, including the risk of marital separation in their adult lives. Finally, serious disorders in parents may cause significant disruption to families, such as changes in their social and material circumstances, or causing temporary separations and discontinuities in care, which, in turn, influence outcomes for children (Oates 1997).
**Relationship between child mental health and their own reliance on income support**

The cross-sectional association between income support and mental health problems has been established in Australia (Butterworth, Crosier & Rodgers 2004). Again, there are several possible pathways through which child mental health problems may increase their risk of reliance on income support during the adult years. Severe psychiatric disorders have been shown to negatively affect a person's capacity to achieve educationally or to obtain and maintain paid employment. Similarly, severe disorders are known to be predictive of relationship breakdown (Kessler, Walters & Forthofer 1998; Merikangas 1984). There is less compelling evidence for more common disorders or general psychological distress placing people at risk of relationship breakdown (Hope, Rodgers & Power 1999), but there is support for a link with unemployment (Berry & Butterworth 2003; Butterworth & Berry 2004; Fergusson, Horwood & Lynskey 1997).

**Measurement instruments**

It should be noted that the instruments reviewed in this section do not address chronicity, or the important issue of whether an individual's mental health problems have occurred before, have been severe before or are enduring. Instead, they measure current or very recent general mental health status. Longitudinal studies are helpful in charting the effects over time of mental health problems that are severe or enduring, or both. Such problems tend to be considerably more detrimental to wellbeing and life success, over the life course, than are short-term problems.

The range of measures used to assess mental health in children and adults is far too great to detail in this review. Even measures of a single construct (such as depression in adults) would be too numerous to list. For the Intergenerational Review and other, similar, large-scale surveys, interviews to establish psychiatric diagnoses are not feasible because of the time and expense involved in their administration and scoring. For assessments of young people and adults, the most appropriate instruments available measure general psychological distress, or measure depression and anxiety separately, as dimensional constructs. This allows the flexibility of identifying high scorers by applying standard or arbitrary cut points, or of using continuous (albeit skewed) scores as independent or dependent variables.

We recommended for this purpose the use of any of the K10 or K6 (Andrews & Slade 2001; Furukawa et al. 2003; Kessler et al. 2002; Kessler et al. 2003), or the mental health subscales of the SF-36 (Ware et al. 1993) or SF-12 (Ware, Kosinski & Kellar 1996). In circumstances where yes/no responding to items is required (for example, in telephone interviews), the Goldberg depression and anxiety scales are recommended (Goldberg et al. 1988).

These and other commonly used measures are briefly described below.

The **K10** is a measure of general psychological distress characterised by symptoms of depression and anxiety (Andrews & Slade 2001; Furukawa et al. 2003; Kessler et al. 2002; Kessler et al. 2003). It has 10 items, which measure negative emotional states. Respondents use a five-point scale to indicate the amount of time they experience each emotion, from ‘none of the time’ to ‘all of the time’. All items are summed to yield a total score. The **K6** is a short form of the K10. The ability of the K10 and K6 to discriminate among disorders diagnosed by the Composite International Diagnostic Interview (World Health Organization 1997) has been demonstrated in the 1997 Australian National Survey of Mental Health and Well-Being (Andrews & Slade 2001; Furukawa et al. 2003; Kessler et al. 2002; Kessler et al. 2003).

The **Short-Form Health Survey (SF-36)** of the Medical Outcomes Study (Ware et al. 1993) is a general health and functional disability questionnaire with eight subscales, including a five-item mental health subscale (MHI-5). The MHI-5 assesses symptoms of anxiety and depression; unlike in the K10, some items are framed with positive wording. Each item has multiple response categories (six per item). It is also possible to derive Mental Component Summary (MCS) and Physical Component Summary (PCS) scores from the full SF-36 using weights derived from orthogonal factor analysis. Ware et al. (1993) provides details on the performance of these measures, and their validity was assessed in the Household, Income and Labour Dynamics in Australia (HILDA) survey (Butterworth & Crosier 2004). The reliability of the MHI-5 subscale is 0.84, which correlates well with the MCS score (0.87) and poorly with the general PCS score (0.17) of the SF-36. Researchers have produced
general and specific population norms. Recent work has encountered problems arising from the use of weights derived from orthogonal factor analysis; these can be circumvented by using weights derived from oblique factor rotations, referred to as RAND-36 scoring (Hays 1998).

The **12-item Short Form (SF-12)** of the Medical Outcomes Survey (Ware, Kosinski & Keller 1996) is a short version of the SF-36, devised to reduce completion time and facilitate use in large-scale assessments. Some items in the SF-12 require yes/no responses; the rest have between three and six response options. The 12 items were selected based on the two factors from the higher-order factor analysis of the SF-36, and weights are provided to calculate PCS and MCS scores from these items. Together these scores account for over 90 per cent of the variance represented in the scales of the longer version. For the SF-12, the PCS test–retest reliability was found to be 0.89 in the United States and 0.86 in the United Kingdom, and the MCS test–retest reliability was 0.76 in the United States and 0.77 in the United Kingdom (Ware, Kosinski & Keller 1996). There is now an extensive body of research demonstrating criterion validity for both scales. Alternative scoring weights, derived from oblique factor rotation, are available for the 36-item version (Hays 1998). These eliminate anomalies that arise in the scoring of MCS for people with serious physical health problems and disabilities. Another advantage of these weights in large-scale surveys is that the MCS can be calculated from just six items rather than the full set of 12.

The **Goldberg Depression Scale** (Goldberg et al. 1988) is a nine-item scale used to screen for depression. The items require yes/no responses. The last five questions can be omitted if negative responses are given to the first four. Compared with diagnoses from research interviews using Diagnostic and Statistical Manual of the American Psychiatric Association, Third Edition (DSM-III) criteria, sensitivity is 85 per cent and positive predictive value is 85 per cent. The **Goldberg Anxiety Scale** (Goldberg et al. 1988) is a parallel nine-item anxiety screening scale requiring yes/no responses. Again, the last five questions can be omitted if negative responses are given to the first four. Compared with diagnoses from research interviews using DSM-III criteria, sensitivity is 82 per cent and positive predictive value is 56 per cent. The overall specificity (for both scales combined) is 91 per cent and the overall sensitivity is 86 per cent.

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6.5 Parent–child relationships

Alternative concept names
Parent–child relationships, parent–child closeness, parent–child bonding, parent–child conflict, parenting, parenting behaviour, parenting style, parenting practices, positive or negative parenting, constructive parenting, successful or competent parenting, authoritative parenting, harsh, abusive or authoritarian parenting, dysfunctional parenting, child abuse, child maltreatment, child sexual abuse

Description of concept
The term ‘parent–child relationships’ is used to describe the nature of the interactions between parents and their children and its impact on the resulting quality of relationships at a given point in time and over time. It includes factors such as the nature and consistency of discipline and monitoring, warmth and affection, the interaction of parents’ and children’s personalities, and communication styles.

Parenting, and the parent–child relationships to which different parenting styles give rise, are considered extremely influential in the cognitive, emotional and social development of children and adolescents. The most important dimensions of parenting style are considered to be:

(i) caring, warmth and affection
(ii) appropriate involvement and monitoring
(iii) controlling or overprotective supervision
(iv) abusiveness.

The combination of the first two is referred to as ‘authoritative parenting’ (not to be confused with ‘authoritarian parenting’); it is generally thought to be conducive to the healthy and positive development of children (Baumrind 1966; Pryor & Rodgers 2001). Controlling (or overprotective) parental style and physical, sexual or psychological abuse of children by their parents have been consistently linked with a wide range of poor outcomes for children (Parker 1983; Beitchman et al. 1992; Mullen et al. 1996).

The findings of such studies indicate that parenting often plays a key role as a mediator of child outcomes in pathways models for the intergenerational transfer of a wide range of outcomes for children and young people (Serbin & Karp 2004). As parents often adopt similar parenting practices to those of their own parents (Belsky 1984; Putallaz et al. 1998; van Ijzendoorn 1992), intergenerational factors are included in the more rigorous pathways research designs. Specific parenting practices for which there is evidence of intergenerational transmission include harsh parenting ( Holden & Zamarano 1992; Simons et al. 1991) and child abuse (Egeland, Jacobvitz & Sroufe 1988; Egeland & Susman-Stillman 1996; Hunter & Kilstrom 1979; McCloskey & Bailey 2000; Markward et al. 2000; Oliver 1993; Pears & Capaldi 2001; Putallaz et al. 1998; Zeanah & Zeanah 1989; Zuravin et al. 1996). On the positive side, there is also evidence for the intergenerational transmission of child–parent bonding and attachment (Benoit & Parker 1994; Kretchmar & Jacobvitz 2002).
Other mediators of intergenerational continuity of negative parenting practices are parental personality, severe sexual abuse of parents when they were children, depression, post-traumatic stress syndrome, and parents’ own adolescent behaviour problems (Serbin & Karp 2004). Some of these, such as parental personality, have direct and indirect effects (see also Section 6.8). For example, parents who had problems with aggression and hostility as children are inclined to develop dysfunctional parenting styles when they have their own children. Their children are thus at risk directly through the parenting style they experience and indirectly through the genetic heritability of aggression. Further evidence exists for a biological link in the transmission of parenting behaviour from one generation to the next, both directly (Caspi et al. 2002; Putallaz et al. 1998; Raine 2002), and indirectly, through the link between attachment disorders and temperament (Zeanah & Fox 2004). In addition, life course events affect parent–child relationships independently of the young person’s personality or mental health, or the history of their relationship with their parents (Belsky et al. 2003).

Most theoretical stances propose that social learning, including the acquisition of cognitive schemata with respect to parenting, explains the transmission of parenting behaviour from one generation to the next (Serbin & Karp 2004). Cognitive schemata are templates, or mental frameworks, that structure the way people think. People have mental frameworks for conceptualising parenting, and these frameworks predispose them to particular styles of parenting. There is evidence for a social learning perspective, for example, with respect to the development of relationship skills in childhood that ultimately affect parenting when the child becomes an adult. Parent–child relationships always include a vertical element, meaning that one side of the dyad (typically the parent) has more power and control than the other. Sometimes parent–child relationships also include a horizontal element, such as when parents play with their children as equals in a game. Parent–child relationships that include an appropriate horizontal element have been associated with superior development of peer relationship skills in children (Russell, Pettit & Mize 1998). Functional peer relationships are among the many factors that are associated with a variety of positive outcomes when children grow up (see, for example, Section 6.1).

There is widespread agreement that parenting style is transmitted from one generation to the next, and that social learning and biological pathways both play a part. Yet relatively little is understood about the specific mechanisms that underpin this transaction (Serbin & Karp 2004), or about why those who experience negative parenting do not necessarily adopt negative practices when they become parents. The literature offers some clues about this latter mechanism. It is possible, for example, that post-secondary education is an intergenerational moderator of parenting style. In a midwestern United States study of 40 families, most of the women who were brought up by parents with an unsupportive co-parenting style adopted a similar style themselves (Stright & Bales 2003). However, women with university education tended to adopt a supportive style of co-parenting regardless of their own parents’ style.

**Relationship between parent–child relationships and offspring reliance on income support**

Parenting practices are the key determinant of the nature of the parent–child relationship, and almost all parenting practices directly or indirectly influence children's outcomes. Supportive and caring relationships between parents and children are protective against problem behaviours in adolescence and promote success at school (see Section 6.1: McNeely & Falc 2004; Resnick et al. 1997) and are predictive of good mental health and social adjustment in the adult years (Rodgers 1996a, 1996b). Good mental health and social adjustment are associated with reduced likelihood of reliance on income support (Berry & Butterworth 2003; Butterworth & Berry 2004).

Conversely, negative, abusive or neglectful parenting is associated with poor outcomes in adolescence and adulthood. For example, recurrent physical abuse of children by parents has been associated with substantially elevated aggression in those children in their early adult years (Moe, King & Bailly 2004). Elevated aggression is associated with less favourable relationship outcomes (see Section 6.9), which in turn is associated with an increased probability of reliance on income support. In addition, children who are subject to physical and sexual abuse, lack of warmth and parental rejection are more likely to run away from home than their non-abused peers (Whitbeck, Hoyt & Ackley 1997), which has implications for their immediate welfare requirements. In a similar manner, each parenting behaviour, and associated child response, is related to the likelihood that children will require income support when they grow up. For example, women who experienced sexual abuse as children
are heavily overrepresented among income support-reliant single mothers (Butterworth, Crosier & Rodgers 2004). Typically, negative parenting practices involve a number of negative behaviours on the part of parents and a number of negative outcomes for children, compounding the risk of adult children later requiring income support.

During adolescence, children move away from closeness to parents towards intimacy with peers (Newman & Newman 2001; Nickerson & Nagle 2005). Nevertheless, parent–child closeness is a key protective factor for a wide range of negative outcomes throughout adolescence and into early adulthood. For example, parent–child closeness is heavily implicated in the risk of teen pregnancy (for a review, see Miller, Benson & Galbraith 2001). It also protects adolescents against the effects of negative life events, such as parental separation (for a review, see Hines 1997). Indeed, contrary to popular belief, parenting may be more influential than peer relationships during adolescence, at least in some respects. Evidence from randomised clinical trials comparing school-based and family-based interventions for adolescent substance use indicate that family-based interventions are the more successful strategy (Liddle et al. 2004).

Even when parent–child relationships have been strained during the early years, there is considerable value in parents developing positive practices during their children's adolescence. ‘Past may not be prologue when it comes to intergenerational relationships’ (Belsky et al. 2003), and interventions that support relationships between parents and their adolescent children could prove just as valuable as early childhood interventions. In a longitudinal intergenerational study of 980 participants in the Dunedin Multidisciplinary Health and Development Study in New Zealand, parent–child relationships were examined from preschool through early adulthood (Belsky et al. 2003). The quality of the parent–child relationship when the children were young adults was almost entirely explained by the parent–child relationship during the children's adolescence, irrespective of the quality of the early childhood relationship. Positive relationships between parents and adolescent children predicted warm and harmonious parent–child relationships when the children were young adults.

As noted above, interventions in parenting practices can be effective, especially when they are family based. For example, consistent discipline has been found to protect the parent–child relationship in situations in which parents are at risk of transmitting their own experiences of negative parenting to their children (Pears & Capaldi 2001), and this skill can be taught. Another strategy for parents who have had difficult experiences is to encourage their children to develop functional relationships when they grow up. Young people's interpersonal relationships outside the family setting, and their participation in the community, may mediate the relationship between the parenting they received and their own subsequent parenting (Chen & Kaplan 2001).

Measurement instruments

Parent–child relationships can be measured by collecting data from either the parent or the child. Ideally, data are collected longitudinally, from both parent and child (for a useful example, see Chen & Kaplan 2001).

The most widely used instrument for retrospective assessment is the Parental Bonding Instrument (PBI) (Parker 1990; Parker, Tupling & Brown 1979). It has been extensively validated and reviewed (Cox, Enns & Clara 2000; Lizardi & Klein 2002; Manassis et al. 1999; Martin et al. 2004; Parker 1989; Wilhelm & Parker 1990), including within Australian samples (Mackinnon, Henderson & Andrews 1991; Mackinnon et al. 1989). The PBI is a measure that was developed for use with adults, but is also suitable for adolescents (Klimidis, Minas & Ata 1992; Martin et al. 2004). A shortened version is available (Todd et al. 1994). Several items of the PBI are included in the subsequently developed Measure of Parenting Style (MOPS), which yields additional scales of parental abuse and indifference (Parker et al. 1997).

Another widely cited instrument, the Conflict-Tactics Scale (CTS), assesses violence and aggression within relationships (Straus 1979, 2004; Straus et al. 1996). The 1996 scale is a revised version (the CTS2) with content validity and reliability, clarity and specificity, differentiation between minor and severe incidents, and new scales for sexual coercion and physical injury. The authors report reliability (internal consistency of scales) ranging from 0.79 to 0.95, and preliminary evidence of construct validity (Straus 2004). There is also preliminary evidence for cross-cultural validity of the CTS2. A version was developed for use with children and adolescents aged 10 to
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18 years (Straus et al. 1998) and normed on 1,000 American children. It is a parent–child instrument and shorter than the CTS2, and so is perhaps the most suitable of the CTS measures when short instruments are needed for use in questionnaires. The instrument is administered to parents but can be easily adapted for and administered to their late-adolescent children.

The Schuster, Kessler and Aseltine (1990) measure of social support assesses positive and negative interactions with key people, including spouses, relatives and friends. As such, it is more a measure of relationship quality than of social support, and could be relatively easily adapted for use with parents and their adolescent children to assess parent–child relationships. The measure has been used with large samples of Australian adults. It consists of six separate indices of supportive and negative social interaction. These include supportive spouse interaction (five items: alpha (α) reliability = 0.84); negative spouse interaction (five items: α = 0.76); supportive interactions with friends (two items: α = 0.64); supportive interactions with relatives (two items: α = 0.75); negative interactions with friends (three items: α = 0.56); and negative interactions with relatives (three items: α = 0.74). The reliabilities for the negative interactions were below accepted levels (α can range from 0 to 1, with higher scores indicating greater reliability; the criterion for acceptability varies, but is usually between 0.70 and 0.80).

The development of measures of abusive parenting has been less systematic. Parental abuse is a difficult area of study due to logistical and legal constraints on obtaining information directly from parents themselves. Information is most often obtained retrospectively from children when they reach adulthood (for example, Fergusson, Lynskey & Horwood 1996). One instrument that extends the range of the PBI to include dysfunctional parenting is the Measure of Parenting Style (MOPS) (Parker et al. 1997). The MOPS incorporates items that assess parental indifference (the original care items from the PBI load negatively on this dimension) and parental abuse. The third dimension of ‘over-control’ is similar to the control dimension of the PBI. Although it covers more dimensions, the MOPS is slightly shorter than the original PBI and has 21 items per parent.

A more comprehensive measure of family childhood adversity was developed for use in the ANU’s Personality and Total Health (PATH Through Life) study (Rosenman & Rodgers 2004). The measure took several items from existing scales and questionnaires and supplemented them with items tailored to capture responses given to open-ended questions about mistreatment by parents. There are 17 items in the scale, most of which require yes/no responses (Rosenman & Rodgers 2004). The items can be used individually to represent specific forms of adversity, mistreatment or abuse or they can be added to yield a total score ranging from 0 to 17.

Finally, as part of the longitudinal American Adverse Childhood Experiences Study (ACE Study), a questionnaire was developed to assess childhood exposure to abuse, neglect and household dysfunction (Dube et al. 2001). It drew on items about childhood abuse and household dysfunction taken from published surveys (Felitti et al. 1998; Schoenborn 1995; Straus & Gelles 1990; Wyatt 1985). Some further items on neglect (Bernstein et al. 1994) were added for Wave 2 of the study (Dube, Anda, Felitti, Croft et al. 2001). Within these three broad areas, the questionnaire contains 28 items in 10 categories: verbal abuse (two items), physical abuse (two items), sexual abuse (four items), emotional neglect (five items), physical neglect (five items), battered mother (referred to as ‘violent treatment of mother’ in Wave 1; four items), household substance abuse (two items), mental illness in household (two items), parental separation or divorce (one item) and incarcerated household member (one item). Depending on the item, respondents use a five-point scale or give a yes/no response to indicate whether they experienced adversity during their first 18 years of life. Respondents are attributed a score of 1 (the abuse occurred) or 0 (the abuse did not occur) for each of the 10 categories. For the categories with more than one item, a positive response to any of the items defines the respondent as having experienced that category of adversity. The scores for each category are added. The total number of adverse childhood experiences reported yields a score ranging from 0 to 10.

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6.6 Pseudomaturity and life transitions (including childhood adversity)

Alternative concept names
Pseudomaturity, adolescent life transitions, transition to adult roles, premature role transitions, early life transitions

Description of concept
This concept differs from others under consideration in this report in that it relates less to a domain of behaviour and more to a person’s age when a particular behaviour or a set of behaviours occurs. It has been applied in studies of adolescent behaviours and transitions from child to adult roles. In many areas of developmental psychology, early achievement is viewed as a positive outcome and a sign of early maturity. However, reaching developmental stages early is not always indicative of high achievement, and may instead be indicative of false or ‘pseudo’ maturity. Proponents of this theory maintain that behaviours occurring at an unusually young age are inappropriate in their own right or have the potential to lead to adverse outcomes. The feature that that makes this ‘pseudo’ maturity, rather than real maturity, is that individuals are considered not to be sufficiently mature to deal adequately with circumstances in which they find themselves or which they choose for themselves. Beyond


this, the range of behaviours that has been considered is varied, as are the links to eventual adverse outcomes, and the concept appears in a diverse literature.

Pseudomaturity as a concept used in psychiatry has been specifically linked to parental divorce (Kalter 1987) in that children who have experienced parental separation often seem older than their peers. Empirical evidence from large-scale surveys confirms that children from divorced families are more likely to leave school at an early age, leave the parental home at an early age, enter into sexual relationships when young, get married themselves when young and have children when young (Pryor & Rodgers 2001; Rodgers & Pryor 1998). The concern is that these early transitions, rather than being viewed as signs of success, are predictive of the breakdown of individuals’ own relationships and marriages (Amato 1996) and are linked to poor developmental outcomes in the next generation (Furstenberg, Levine & Brooks-Gunn 1990; Manlove 1997; Miller, Benson & Galbraith 2001). In other areas of research, pseudomaturity has been linked particularly to substance use in adolescents (Newcomb 1996).

Relationship between pseudomaturity and intergenerational reliance on income support
The research evidence indicates how it is both possible for early life transitions in teenagers to be predictive of later receipt of income support (for example, through lone parenthood) and how that can be a link between adversity in the previous generation (for example, parental divorce) and the teenagers’ own outcomes.

Measurement instruments
Although some research has adopted a psychometric approach to this issue (Newcomb 1996), the diversity of fields in which the concept has been applied has resulted in similarly diverse methods of measurement. However, the examples given above of young people going through certain transitions form a possible basis of assessment and such information is often collected in surveys. It is possible to use answers to individual questions or to combine these into a simple scale. In the PATH Through Life Project, four questions were asked covering age of first living away from parents, age of first sexual intercourse (excluding child sexual abuse or rape), age of first living with a partner and age when first child was born. Age of leaving full-time education is similarly useful and is routinely ascertained in many surveys.

References


6.7 Substance use

**Alternative concept names**
Substance abuse, substance misuse, drug use, illegal drug use, illicit drug use

**Description of concept**
Several conceptual issues are important in describing the measurement of substance use and how it might relate to reliance on income support. These are:

(i) the types of drug used
(ii) the distinction between degree of use and disorders or problems resulting from use
(iii) the high prevalence of polydrug use and co-occurring mental health problems.

The type of drug being investigated is clearly of importance in measuring substance use. Legal drugs, namely alcohol and tobacco, are the most commonly used and are associated with high rates of disease and disability in the population (Mathers, Vos & Stevenson 1999). Looking at commonly used substances is valuable in general population research because these substances often contribute more to the burden on society, even if they impact less on the individuals concerned. By assessing degree of use or extent of problems arising from use, greater discrimination can be achieved in measurement.

Levels of substance use in Australia are assessed on a regular basis through the National Drug Strategy Household Survey, with the most recent data collected in 2004 (Australian Institute of Health and Welfare 2005a, 2005b). Preliminary results indicate that 17.4 per cent of the Australian population reported smoking on a daily basis and a large proportion were drinkers (83.6 per cent reported consuming alcohol in the past year) (Australian Institute of Health and Welfare 2005). The National Health and Medical Research Council produced Australian Alcohol Guidelines for men and women, defining consumption levels considered low risk, risky and high risk for harm in the short term and long term (National Health and Medical Research Council 2001). In 2004, 35.4 per cent were drinking at levels defined as risky or high risk in the short term and 9.8 per cent of the population were drinking at levels considered risky or high risk in the long term.

People more frequently report having tried marijuana/cannabis (33.6 per cent) than any other illicit drugs (meth/amphetamines 9.1 per cent, ecstasy 7.5 per cent). However, the use of some illicit drugs (specifically meth/amphetamines and ecstasy) has increased over the past 10 years, particularly among young people (Australian Institute of Health and Welfare 2005b). While a substantial proportion of young adults aged 20 to 29 reported having used marijuana/cannabis in the past year (26.0 per cent), recent use of meth/amphetamines (10.7 per cent) and ecstasy (12.0 per cent) is also not unusual (Australian Institute of Health and Welfare 2005b). As a result, these illicit drugs are increasingly being measured in population research. Researchers tend to report frequency rather than quantity of use for marijuana and meth/amphetamines because variations in composition, strength and method of administration make it difficult to accurately quantify the amount used.

Substance use disorders, such as dependence, are defined by both the American Psychiatric Association's *Diagnostic and statistical manual of mental disorders* (DSM-IV-TR) (American Psychiatric Association 2000) and the World Health Organization's International Classification of Diseases (ICD-10) (World Health Organization 1992) systems. Diagnosis requires meeting strict criteria covering a range of symptoms including withdrawal, tolerance and impaired control over using a drug. Research investigating levels of substance use disorders in the general population has been conducted less frequently than studies assessing levels of use. The 1997 Australian National Survey of Mental Health and Well-Being (Andrews et al. 1999) used a modified version of the Composite International Diagnostic Interview schedule (World Health Organization 1997) and reports substance use disorders as classified by the ICD-10, including harmful use and dependence. The ability of measures to discriminate between people with substance use problems from those without these problems varies according to the drug, the measure and the population being investigated (for example, the general population compared to clinical samples). A review of the reliability and validity of these measures is beyond the scope of this report.
In general, however, when choosing among measures identifying people with substance use disorders, the reliability and validity of the measure needs to be considered.

The DSM-IV-TR distinguishes substance abuse from substance dependence disorders. This distinction acknowledges that an individual can experience social and/or personal consequences from the use of a drug, but not necessarily meet the criteria for dependence (Donovan & Jessor 1983; Stein, Newcomb & Bentler 1987, 1988). Furthermore, some patterns of use (not just the total amount used) may be particularly harmful. For instance, people who 'binge drink', even if they do not meet the criteria for alcohol abuse, can experience significant social and personal consequences. Hall, Lynskey and Teesson (2001, p. 1) stated that:

…restricting discussion to disorders may limit our understanding of the extent of the problem, partly because there is not a clear distinction between those who meet the criteria for a disorder and those who do not.

The notion that the use of different drugs tends to co-occur is frequently termed ‘polydrug’ use. This refers to the use of two or more drugs within a specified time period, such as during the past year or within an individual’s lifetime (Boys, Marsden & Strang 2001). The term polydrug has also been used to describe concurrent drug use, so that the acute effects of these substances are experienced simultaneously (Boys, Marsden & Strang 2001). In Australia, a large proportion of recent (past year) smokers also reported recent use of alcohol (92 per cent of smokers, 81 per cent of non-smokers) and marijuana (30 per cent of smokers, 7 per cent of non-smokers) (Australian Institute of Health and Welfare 2005a). A large proportion of recent (past year) marijuana users had also recently consumed alcohol (98 per cent of marijuana users, 82 per cent of non-users) and used tobacco (54 per cent of marijuana users, 16 per cent of non-users) (Australian Institute of Health and Welfare 2005a).

Research has consistently documented that people with drug use disorders are more likely to report and experience other disorders, including other substance use disorders (Degenhardt, Hall & Lynskey 2001; Kessler et al. 1997; Regier et al. 1990) and physical (for a review, see Rehm, Taylor & Room 2006) and mental health problems, such as depression and anxiety (Andrews et al. 1999; Teesson & Burns 2001). The term ‘comorbidity’ is frequently used to refer to more than one disorder or problem being present during a specified time period (Andrews, Issakidis & Slade 2001), and similar to polydrug use, the term and the timeframes involved need to be carefully defined. In the 1997 Australian National Survey of Mental Health and Well-Being, comorbid substance use and mental health problems were common. For instance, during the year prior to interview, 25 per cent of men and 46 per cent of women with a substance use disorder also had an affective or an anxiety disorder (Andrews et al. 1999). A substantial proportion of men (10 per cent) and women (18 per cent) with substance use disorders reported both anxiety and affective disorders (Hall et al. 1998). People with psychotic disorders were also more likely to report problematic use of a range of substances, including tobacco, alcohol and illicit drugs (Degenhardt & Hall 2001).

In the context of reliance upon income support, it is important to allow for the co-occurrence of drug and mental health problems because this is associated with poorer outcomes compared with single disorders. The poor outcomes include increased disability, more chronic and severe disorders (Kessler et al. 1994), higher relapse rates, attempted suicide, poorer physical health and increased treatment seeking (Andrews, Henderson & Hall 2001; Hasin et al. 2002; Kessler et al. 1994; Kessler et al. 1996; Newman et al. 1998).

Relationship between parental substance use and offspring reliance on income support

A number of pathways may be involved in explaining how parental substance use can lead to a child’s reliance upon income support. Substance use is associated with family dysfunction, conflict and violence, which are strongly related to the adverse development of children (Dube et al. 2001; Holmes 1998; Romelsjo et al. 1991). In addition, serious financial difficulties may arise from problems with substance use, which may impede children’s long-term progress. Parental substance use and their attitudes towards substances have also been found to relate to the future use of substances in their children, including smoking (Fagan et al. 2005) and drinking (Johnson & Leff 1999).
Relationship between offspring substance use and their own reliance on income support

Substance use and substance use disorders are generally more prevalent in recipients of income support than in the general population (Pollack et al. 2002). In Australia, it was reported that 12.6 per cent of income support recipients had a substance use disorder, compared to 8.3 per cent of those not receiving income support (Butterworth 2003). Students and people receiving unemployment benefits were identified as particularly at risk compared to other income support recipients. This Australian research is consistent with US studies finding that the prevalence of substance abuse varies according to the type of support received (Schmidt, Weisner & Wiley 1998).

Schmidt et al. (2002) reviewed several hypotheses accounting for the association between welfare dependence and addiction. The hypotheses include the notions that:

(i) addiction impairs work capacity and therefore increases vulnerability to repeated welfare use
(ii) recipients who have drug dependence problems lack the necessary social capital to consistently avoid relying on income support
(iii) people who abuse substances are more prone to repeat reliance on income support because welfare agencies and case workers are less hospitable to people with substance use problems.

The authors describe the idea that recipients who have drug use problems may inadvertently or actively resist the bureaucratic processes of the income support system, rendering them susceptible to repeatedly exiting from and returning to reliance on income support.

Research findings suggest that the broader experiences of income support need to be considered in addition to the issue of how addiction to drugs is directly related to an individual's capacity to work. In general, researchers have had difficulty in attributing a direct causality (Pollack et al. 2002). For example, the association between use of substances and reliance on income support could be a result of common factors, such as lower educational achievement, that leads to both substance use and income support reliance (Tseng & Wilkins 2003).

Measurement instruments

The National Drug Strategy Household Survey questionnaire contains a wide range of items about licit and illicit drugs, including quantity and frequency of use, age of first use, experiences and problems resulting from using substances, and attitudes about drugs and their use (Australian Institute of Health and Welfare 2005a, 2005b). The survey is included as an appendix in the first report from the 2004 survey and can be accessed online at the Australian Institute of Health and Welfare Internet site.

The Alcohol Use Disorders Identification Test (AUDIT) (Saunders et al. 1993) is a screening instrument for identifying hazardous and harmful levels of alcohol consumption. The AUDIT has 10 items, including quantity, frequency and binge-drinking questions, and seven questions about various problems resulting from drinking. Each item has four response options to reflect frequency of occurrence. The AUDIT items are summed to create a total score. Cut points are then used to indicate those who are at high risk of meeting criteria for an alcohol use diagnosis. The AUDIT total score does not distinguish between abuse and dependence. Cut points of greater than 8 and greater than 10 are commonly used (Bohn et al. 1994; Saunders et al. 1993), although recent research recommends using a lower cut point (for example, greater than 6) for women (Selin 2003). The sensitivity for detecting hazardous consumption using a cut point of greater than 10 is 87 per cent and the specificity is 75 per cent; the figures for detecting harmful consumption are 60 per cent and 87 per cent, respectively (Bohn et al. 1994).

Several short forms of the AUDIT have been recommended, including three, four and five-item versions (Gual et al. 2002; Miles, Winstock & Strang 2001).

AUDIT consumption (AUDIT-C) is a three-item subscale that measures alcohol consumption (Bush et al. 1998). Each item has four response options to reflect frequency of occurrence. The AUDIT-C is the sum of quantity, frequency and binge-drinking items. An estimate of weekly alcohol consumption can also be obtained from...
the first two AUDIT items assessing frequency and quantity of use (Shakeshaft, Bowman & Sanson-Fisher 1999), and this can be further refined to reflect regular binge drinking (Rodgers et al. 2005). Items in the AUDIT questionnaire that tap into alcohol-related problems can also be separately scored using the seven items that assess these problems.

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### 6.8 Temperament and personality

**Alternative concept names**

Personality, personality type, temperament, temperament type, temperament subtype

**Description of concept**

Temperament and personality are linked to mental health (see Section 6.4). Temperament is biologically based, evident from babyhood, stable over the life course and measurable. It has been defined as an underlying orientation to life that systematically biases people’s experiences and their reactions to events (Moore et al. 2005). Researchers have proposed various categorisations of temperament, including a four-dimensional typology consisting of people whose underlying orientations to life are harm avoiding, novelty seeking, reward dependent or persistent (Cloninger & Svrakic 2000). An alternative four-dimensional typology linking temperament to mood disorders includes depressive, irritable–anxious, hyperthymic (excessively emotional) and cyclothymic (alternating depression and elevated mood) types (Akiskal 1995). This model has been challenged, and an alternative five-temperament typology has been proposed consisting of cyclothymic, hyperthymic, anxious, irritable–explosive and depressive types (Moore et al. 2005).

Temperament is sometimes used interchangeably with personality, but they are not the same concept. Temperament is a fundamental, stable, lifelong orientation that interacts with a person’s environment, and with the events and experiences encountered, to shape personality (Moore et al. 2005). Unlike temperament,
personality evolves over the life course, though it is reasonably stably established in most people from early adulthood (Clausen & Jones 1998). There are various models of personality, each proposing different numbers of primary dimensions, with considerable overlap and congruence between the models (van Dam, Janssens & De Bruyn 2005).

A five-factor conceptualisation of personality (commonly known as the 'Big Five') is dominant in the literature (for a review, see Goldberg 1990). The factors are extraversion, neuroticism, agreeableness, conscientiousness and openness to experience. Each factor contains a number of 'facets'. Extraversion includes warmth, gregariousness, assertiveness, activity, excitement seeking and positive emotions. Neuroticism includes anxiety, hostility, depression, self-consciousness, impulsiveness and vulnerability. Agreeableness includes trust, modesty, compliance, altruism, straightforwardness and tender-mindedness. Conscientiousness comprises competence, self-discipline, achievement striving, dutifulness, order and deliberation. Openness to experience comprises fantasy, aesthetics, feelings, actions, ideas and values. Neuroticism is sometimes reframed as 'emotional stability' (van Aken et al. 1999), a more illustrative and less pejorative term. Openness to experience is sometimes referred to as 'intellect' (Jang et al. 2006), also a more descriptive term.

While the five-factor model dominates the field, three-factor conceptualisations are also common, particularly Eysenck's psychoticism–extraversion–neuroticism (PEN) formulation (for example, Eysenck 1990). In this model, psychoticism is conceptualised as including attributes such as impulsivity, autonomy and aggression. Controlling for items in the PEN psychoticism scale that directly tap antisocial behaviour, psychoticism has been found to be related to self-reported delinquency in young people (van Dam, Janssens & De Bruyn 2005).

Childhood personality predicts adult personality reasonably strongly, with evidence of core traits emerging early (Asendorpf & van Aken 2003a). Certain personality traits, such as conscientiousness, are stable, while others, such as agreeableness, are malleable over time (Judge et al. 1999). During adolescence, all of the Big Five core dimensions of personality emerge distinctly and become relatively stable (Asendorpf & van Aken 2003b). At the same time, three ‘surface’ personality attributes, global self-worth (as opposed to specific components of self-worth), perceived peer acceptance and loneliness, develop. The development of these surface attributes is, unlike the core Big Five attributes, contingent on the parent–child relationship, and appears to depend on how supportive parents have been through adolescence (Asendorpf & van Aken 2003a).

Adolescents who have personality vulnerabilities are overrepresented among those experiencing difficulties with various transitions into and through early adulthood, partly because of the associations between those vulnerabilities and mental health problems (Belsky et al. 2003). The same vulnerabilities and problems are associated in adolescents with higher levels of conflict and lack of closeness with their parents (Belsky et al. 2003).

In terms of how personality develops through adolescence, research based on the five-factor formulation of personality has led to the proposition that, by early adolescence, children settle into one of three ‘personality prototypes’. These are ‘resilient’, ‘undercontrolled’ and ‘overcontrolled’ (Asendorpf & van Aken 1999). Detailed cluster analysis revealed that each of these has two subtypes (van Aken et al. 1999). Resilient adolescents, who score above average on all five personality dimensions, can be ‘agentic’ or ‘communal’. Undercontrollers display low scores on agreeableness and conscientiousness, and can be ‘impulsive’ or ‘antisocial’. Overcontrollers have low extraversion and low emotional stability scores and can be ‘achievement oriented’ or ‘vulnerable’. Within this model of personality prototypes, two subtypes, the antisocial undercontrollers and the vulnerable overcontrollers, have been respectively found to be at risk of externalising and internalising behaviour problems (van Aken et al. 1999), both of which are upstream risk factors for reliance on income support.

It has been proposed that the three ‘personality prototypes’ that emerge during adolescence also apply through adulthood (Asendorpf et al. 2001). This theory provides a possible avenue for future research on how the link between temperament and personality develops and, ultimately, how they are related to reliance on income support. When including personality in a pathways model of factors contributing to reliance on income support, it is important to recognise that adult personality is a more accurate predictor of employment success than child personality, and that the relationship between personality and employment success endures throughout the working lifetime (Judge et al. 1999).
In addition to the ‘personality prototypes’, and as an alternative to that approach, factor analytic investigation of super-ordinate personality factors based on the Big Five model has led to a proposition that there are two higher order factors evident in adults, \( \alpha \) and \( \beta \) (Digman 1997). The \( \alpha \) factor is a combination of agreeableness, conscientiousness and emotional stability, while the \( \beta \) factor comprises extraversion and openness (intellect).

A study examining monozygotic and dizygotic twins from three cultures provided support for the posited genetic role played in the phenotypic expression of these factors (Jang et al. 2006). Genetic and environmental variables, modelled using stringently controlled exploratory and confirmatory factor analyses, clearly supported a genetically based two-factor model reflecting Digman's \( \alpha \) and \( \beta \) factors. This model provides a useful summary description of personality and a useful heuristic for the theoretical examination of personality development. At the same time, Jang et al. (2006) note that their findings also indicate that it is important to examine specific facets of personality, because all facets do not contribute equally to overall personality.

**Relationship between parental personality and offspring reliance on income support**

Almost from birth, children's temperaments affect a wide range of parental behaviours. These include mother–child bonding (Miller, Feldman & Pasta 2002), which can affect factors of lifelong importance, such as adult attachment style (for example, Hoppe et al. 1998; Nickell, Waudby & Trull 2002; Saunders & Edelson 1999) and whether adolescent mothers use affectionless control with their children (Hassan & Paquette 2004). Such factors can influence the likelihood of adult children's reliance on income support. For example, hostile parenting styles have been associated with adolescent problem behaviours (Scaramella & Conger 2003), and authoritarian parenting can be related to children's difficulty adjusting to tertiary education environments (Peterson & Duncan 1999), both of which are ultimately linked to employment success.

The degree of match between parent and child temperament can itself sometimes be associated with child outcomes. For example, in a study of 288 Dutch adolescents and their parents, for some temperament types only, the more similar parents' and children's temperaments were, the less likelihood there was of the children displaying either internalising or externalising behaviours (van Tuijl et al. 2005). This relationship was not mediated by parenting style factors such as warmth or control. Temperament has also been linked to various forms of substance use, which is in turn associated with reliance on income support. The relationship between temperament and substance use is partially biologically transferred (for a review, see Moore et al. 2005). That is, parents can possess and pass on to their children, through their genes, a temperament profile associated with elevated risk of substance use.

The relationship between parental personality and offspring reliance on income support is likely to be extremely complex, not least because the relationship between personality and adult outcomes is itself complex. There are at least three reasons for the complexity of this issue. First, like temperament, parent and child personality interact, and particular parental personalities have different effects on children depending on the children's own personalities. Second, personality develops over time, introducing a temporal dimension into the evolving dynamics of the relationship between parents' and children's personalities. Third, personality is heavily bound up with other factors that are related to reliance on income support, most notably with key factors such as mental health, substance use, educational attainment and parent–child relationships. This means that any pathways from parental personality to offspring reliance on income support will be multiple and interactive.

In examining how children's characteristics affect parenting behaviour and how this, in turn, affects children's outcomes as adults, associations between personality and mental health add another layer of complexity. Young people's personality structures and associated mental health status from childhood onwards affect their relationships with their parents on an ongoing basis, even after they have left home (Belsky et al. 2003). For example, those with more challenging personalities have less contact with their parents and receive less tangible support once they have left home, while ‘happy and sociable’ and ‘responsible and conscientious’ young people have warmer, closer relationships with their parents, and receive more tangible support (Belsky et al. 2003). At the same time, out of a sense of duty and obligation, parents provide ongoing support to adult children with mental health problems (Belsky et al. 2003).
There are various mechanisms through which parental personality may influence children's reliance on income support. It has been proposed that 'modes of mental functioning', or the ways in which the components of personality interact and find expression, more than the components of personality themselves, are transmitted from parent to child (Imbasciati 2004). This theory suggests that the mechanism for transmission is more temperament than personality, with overall 'modes of mental functioning' biasing individual children's self-selection into certain events, experiences and reactions.

Additional complexities arise from the temporal aspects of personality. Not only do particular personality dimensions vary in stability over time, but the stability of personality over the life course varies from person to person. People with stable personalities tend to be 'planfully competent' (Clausen & Jones 1998), which is related to certain career and relationship outcomes that may affect their children. Men with unstable personalities tend to have disorderly careers, while women with unstable personalities experience more divorces (Clausen & Jones 1998). Disordered employment histories and multiple relationship transitions are independently associated with suboptimal outcomes for children, and they also have an additive effect.

At a more specific level, particular personality attributes in parents may also influence their children, and thus affect their risk of reliance on income support, irrespective of the children's personalities. In a widely cited life course study based on 50 years of data from the landmark Berkeley and Oakland studies of children growing up in the United States during the Great Depression, the personality domain of conscientiousness predicted above average employment success in terms of job satisfaction, income and job status, while neuroticism predicted below average income and job status (Judge et al. 1999). Thus, parents with low levels of conscientiousness, or with low levels of emotional stability, are at risk of achieving below average employment success, including lower incomes, which may be linked to children's reliance on income support. As employment success and associated higher incomes in parents are associated with more favourable child-rearing environments, parental personality may be a moderator of the impact of environment on child outcomes.

Finally, parents with low emotional stability are at elevated risk of developing a range of other problems, including mental health problems. Mental health problems are important predictors of suboptimal outcomes in children and are also predictors of the development of mental health problems in the children themselves. In addition to the transfer of dysfunctional but normal personality attributes (such as emotional instability) from generation to generation, there is clinical evidence of the intergenerational transfer of severe personality disorders. Such disorders are strongly and severely related to problems with employment and relationships (for a review, see Berry & Butterworth 2003; Butterworth & Berry 2004), both of which are risk factors for reliance on so-called lifestyle forms of income support (such as Newstart Allowance and Parenting Payment). Implicated disorders include dissociative identity disorder and the violent behaviour that accompanies it in adults (Yeager & Lewis 1996), and borderline personality disorder, arguably a severe manifestation of post-traumatic stress disorder (Herman 1992; Lonie 1993). In one of a series of studies examining the mental health outcomes of children of Holocaust survivors, a dose-response effect on child mental health was also found for parental personality disorders (Yehuda, Halligan & Grossman 2001). The study concluded that the greater the parents’ childhood trauma, the greater the likelihood of those parents developing adult post-traumatic stress disorder, and the higher the risk of their own children experiencing trauma.

**Measurement instruments**

There are numerous instruments designed to measure different conceptualisations of personality. This section reviews a selection of the major validated instruments for measuring the most commonly accepted conceptualisations of personality. One instrument measuring temperament is also reviewed.

As personality is not the key factor of interest in the Intergenerational Project, we recommend the **Ten-Item Personality Inventory (TIPI)** (Gosling, Rentfrow & Swann Jr 2003). It is a brief, 10-item overview of the Big Five personality dimensions derived from the NEOPI-R (reviewed below). There are two items tapping each of the Big Five dimensions. The TIPI has acceptable psychometric properties and seems to tap the five dimensions of personality reasonably well. Because it is very new, there is little information, other than that offered by the authors, on validity and reliability.
The Behavioural Inhibition System and Behavioural Activation System scales (Carver & White 1994) were designed to measure the aversive and appetitive motivational systems described by Gray (1987) in his physiological model of personality. The motivational system that is responsive to aversive cues is referred to as behavioural inhibition (BIS), while the system that is responsive to appetitive motivation is referred to as behavioural activation (BAS). The BIS is sensitive to signals of negative outcomes such as punishment, and inhibits behaviour that may result in undesirable consequences. The BAS is sensitive to signals of reward and avoidance of negative outcomes and stimulates goal-directed activity. In personality terms, greater BIS sensitivity is believed to be associated with a greater proneness to anxiety, while a greater BAS sensitivity promotes positive emotional experience through exposure to cues reflecting desirable outcomes. The measure consists of 20 items, which are statements that reflect BIS and BAS sensitivity. Respondents use a four-point Likert-type scale to indicate level of agreement with the statements. The patterns of correlation between the BIS and BAS scales and other measures suggest adequate convergent and discriminant validity. The BIS scale is predictive of adult outcomes and has been used in large-scale surveys, including in Australia.

The Eysenck Personality Questionnaire (EPQ-R) (Barrett & Eysenck 1984; Barrett et al. 1998; Eysenck 1990; Eysenck, Eysenck & Barrett 1985, 1995) is a measure of personality based on the proposition that there are three major dimensions of personality: extraversion, neuroticism and psychoticism. The short form of the EPQ-R has been validated against the full scale (Barrett & Eysenck 1992) and consists of 48 items that require yes/no responses (including a lie scale). The reliability for the extraversion scale is 0.88 for men and 0.84 for women, for the neuroticism scale is 0.84 for men and 0.80 for women and for the psychoticism scale is 0.62 for men and 0.61 for women. The EPQ-R uses a continuous response format. This measure has been associated with some confounding between trait and state in the neuroticism domain and anxiety.

The Mastery Scale (Pearlin et al. 1981) is a commonly used seven-item scale for measuring mastery, or the extent to which people see themselves as being in control of factors that affect them. Each item is a statement and respondents indicate how much they agree or disagree with each one on a four-point Likert-type scale from ‘strongly agree’ to ‘strongly disagree’. The correlation between time one and time two measures is 0.44. Construct validity is reported to be robust and population reliability high. Cronbach's coefficient alpha ranges from the upper 70s to the low 80s indicating satisfactory scale reliability.

The Multidimensional Personality Questionnaire (MPQ) (Tellegen 1985; see also Bouchard et al. 2003; Harkness, Tellegen & Waller 1995; Patrick, Curtin & Tellegen 2002; Waller et al. 1991) is another well-known measure of personality. It is no longer frequently used, but was part of the development of personality theory. It includes scales for positive and negative emotionality, alienation and aggression.

The Positive and Negative Affect Schedule (PANAS) (Watson, Clark & Tellegen 1988; see also Crawford & Henry 2004; Crocker 1997; DePaoli & Sweeney 2000; Melvin & Molloy 2000; Schmukle, Egloff & Burns 2002) is a two-dimensional measure of positive and negative affect with 10 items in each subscale, giving a total of 20 items. Different versions are available, including a brief 10-item version (five items for each dimension) that was validated on an Australian community sample (Mackinnon et al. 1999), a 25-item scale for children (Laurent et al. 1999) and a youth version (Wilson, Gullone & Moss 1998). The measure has also been found to be appropriate for use with elderly age groups. Each item has a word describing an emotion and respondents are asked to what extent they have experienced each emotion in the past year. Responses are given on a five-point Likert-type scale ranging from ‘not at all’ to ‘very much’. The scales use a continuous response format. The reliabilities are 0.75 and 0.81 for the positive affect and negative affect subscales respectively.

The Hostility subscale from the Positive and Negative Affect Schedule—Expanded Form (PANAS-X) (Baggozzi 1993) is a six-item instrument assessing the emotional state of hostility based on the scales originally developed by Watson, Clark and Tellegen (1988). Each item has a word describing an emotion and respondents are asked to what extent they have felt each emotion during a particular timeframe. Responses are indicated on a five-point Likert-type scale ranging from ‘very slightly or not at all’ to ‘extremely’. The alpha test–retest reliabilities of the Hostility subscale reported for different timeframes ranged from 0.79 to 0.89 (median $\alpha = 0.85$). The Hostility subscale has a convergent correlation of 0.91 with the Anger-Hostility subscale in the Profile of Mood States scale (POMS) (McNair, Lorr & Droppleman 1971). The subscales on the PANAS-X are less highly correlated with
each other than are the subscales on the POMS, thus showing better discriminant validity. The Hostility subscale also shows significant self–peer convergence.

The Revised NEO Personality Inventory (NEOPI-R) (Costa & McCrae 1992), based on the NEO Five-Factor Inventory, is a multidimensional measure of the Big Five domains of personality. It has five subscales, one for each domain, with six facets within each domain. The NEOPI-R is based on the most widely accepted theory of personality and represents the ‘gold standard’ in personality measurement. However, with 240 items, it is much too long for inclusion in most questionnaire-based epidemiological studies.

The Temperament Evaluation of Memphis, Pisa, Paris and San Diego–autoquestionnaire revised version (TEMPS-A) (Akiskal et al. 2005) is a measure of temperament rather than of personality. This 39-item self-report questionnaire is suitable for use with general population samples and people with psychiatric disorders; norms are reported for the latter group. Reliability for the five subscales (cyclothymic, depressive, irritable, hyperthymic and anxious) ranges from 0.67 (anxious) to 0.91 (cyclothymic) based on alpha coefficients.

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6.9 Victimisation and violence

Alternative concept names

Victimisation, violence, domestic violence, domestic abuse, child witnessing of victimisation or violence, invisible victims

Description of concept

For purposes of this review, victimisation and violence refer to actions against parents. The concept involves the impact on children of victimisation of, or violence towards, a parent during a period in which the child is living with the parent. The child may or may not have witnessed the violence. Victimisation of and violence towards a parent are defined as any form of physical or sexual assault perpetrated on a parent in the parental home. Verbal aggression does not fall under this definition unless it is accompanied by physical or sexual assault.

Violence within adult relationships is common. In one US study, marital violence was estimated to take place in between one-third and one-half of marriages (Katz & Low 2004). Because of its consequences for the child (Katz & Low 2004), witnessing such behaviour between parents is sometimes referred to as indirect abuse of the child, with children considered the ‘invisible victims’ of the abuse (Hedeen 1997). Some have even called for the criminalisation of allowing children to witness violence (Kantor & Little 2003).

We have also included in our definition the situation in which violence towards one or both parents is occurring in the home, but is not witnessed by the child. This is because unseen abuse is relevant because it has an
NINE KEY PROXIMAL PSYCHOSOCIAL FACTORS RELATED TO THE INTERGENERATIONAL TRANSFER OF RELIANCE ON INCOME SUPPORT

indirect impact on the child through its effect on the victimised parent's parenting behaviour (Holden & Zambarano 1992; Levendosky & Graham-Bermann 2001). Negative aspects of victimised parents' behaviour can range from neglect to direct abuse of the child (Kantor & Little 2003). Issues surrounding direct abuse of children are discussed in more detail in other concept reviews, particularly Section 6.5.

Relationship between parental victimisation and offspring reliance on income support

Following some general comments, this section is structured in two parts, reflecting the two aspects of interest for this review: the effects of domestic violence on children resulting from its effects on the victimised parent's parenting, and the effects on children of witnessing domestic violence.

General comments

Evidence suggests that there is a genetic component to the intergenerational cycle of violence in relationships, at least in men (Caspi et al. 2002). This suggests that there may be a direct biological pathway from parent to child that operates as a risk factor for children who experience abuse, inclining those with genetic sensitivity to use violence themselves as adults. Such children are likely to be particularly vulnerable to the effects of living in violent families and witnessing that violence (Raine 2002). On average, effect sizes for violence for different outcomes appear to be much the same, indicating that witnessing violence is not disproportionately associated with any one outcome, or any subset of outcomes, but has equally harmful effects on all areas of child development (Kitzmann et al. 2003). Overall, children seem to fare better when they do not actually witness the violence (Holden & Zambarano 1992; Kitzmann et al. 2003).

Effects of domestic violence on contemporaneous parenting

Parenting practices are the key factor in determining the nature of the parent–child relationship, and almost all parenting practices directly or indirectly influence children’s short and long-term outcomes. The association between parenting practices and child outcomes is discussed in Section 6.5, and is not repeated here. Instead, this section focuses on the ways in which violence and victimisation affect parenting.

One theory proposes that violence between adults ‘spills over’ into a wide range of harmful parenting practices, including violence against children, aggression and irritability, inconsistent discipline, and lack of warmth and involvement (for a review, see Katz & Low 2004). Two hypotheses, one about co-parenting and the other about family systems, have been proposed to explain why children of families in which there is violence between adults might be at risk of relying on income support when they grow up. The co-parenting hypothesis relates to child witnessing of violence and is addressed below. The family systems hypothesis proposes that the behaviour of any one member of a family is symptomatic of wider problems within the entire system of relationships within the family. In a well-controlled study, members of families in which there was violence were observed to behave more autonomously and less cohesively, and to adapt less well to outside exigencies, than were members of families in which there was no violence (Holden & Zambarano 1992).

Victimisation of parents may also affect children’s outcomes through the material deprivation and poverty that are associated with violence, particularly where the abuse is intergenerational (Purvin 2003). For example, women experiencing violence in their relationships may be more likely than other women to have unstable employment situations (Romito, Crisma & Saurel-Cubizolles 2003), and thus be at risk of poverty and its consequences for their children.

Effects on children of witnessing domestic violence

There is a substantial body of literature claiming that child witnessing of violence in the home has negative effects on a wide range of contemporaneous and long-term child outcomes (Katz & Low 2004), including behavioural and academic problems (Kitzmann et al. 2003), substance use (Sullivan, Kung & Farrell 2004), physical health problems (Onyskiw 2002) and mental health problems (Litrownik et al. 2003). Child witnessing of violence has also been associated with the development of post-traumatic stress syndrome in young children (Rossman, Bingham & Emde 1997). Further, it has been linked to poor conflict management skills in intimate
relationships when the children reach young adulthood (Halford, Sanders & Behrens 2000; Skuja & Halford 2004), perhaps because the experience of witnessing violence distorts certain ways of thinking, or cognitive processes (Langhinrichsen-Rohling, Hankla & Stormberg 2004). For women, witnessing violence as a child has been associated with self-esteem problems and a variety of mental health problems in adulthood (Davies, DiLillo & Martinez 2004), and these are associated in turn with reliance on income support (Butterworth 2003). However, a recent meta-analysis found that around one-third of children who witness violence show no serious adverse effects (Kitzmann et al. 2003). The resilience of these children is worthy of further research, particularly with respect to informing future policy and early intervention program development. It may be that the children grew up in families that, despite the violence, managed to provide an adequate level of monitoring and support, which mediates the relationship between witnessing violence and child outcomes (Sullivan et al. 2004).

The co-parenting hypothesis suggests that children who witness violence have a higher level of acceptance of violence as a form of relationship management because this is what has been modelled for them (Markowitz 2001). Co-parenting within families where there is violence might also model quite specific behaviours pertaining to particular ‘scripts’ (Pollak 2004). In other words, by observing their parents, children learn a specific set of behaviours in response to specific circumstances; the children later use these behaviours when they encounter the same circumstances themselves as adults.

The quality of co-parenting is related to the parents’ level of satisfaction with their relationship. The climate and functioning of families in which parents are satisfied with their relationship are very different from those in which parents are dissatisfied. Within satisfying relationships, parents tend to cooperate better; be more affectionate, sensitive and supportive; have less conflict; be less hostile and competitive with each other; and share power more than parents who are less satisfied with their relationships (Katz & Low 2004). Negative co-parenting has been linked to a wide range of child outcomes, including externalising behaviours, aggression, disinhibition, poor emotional regulation, poor coping, bossiness and/or withdrawal in peer relationships, difficulties handling frustration and high levels of frustration (Katz & Low 2004).

Measurement instruments

There is some evidence that domestic violence can be accurately assessed from reports by either parents or children. In a study of homeless adolescents who ran away from home and their parents, there was substantial consistency between adolescent and parent reports of the nature of the home environment that the adolescent had fled (Whitbeck, Hoyt & Ackley 1997).

The review identified only one suitably developed and validated measure of victimisation and violence within families. The Conflict-Tactics Scale (CTS) is a widely cited instrument that assesses violence and aggression within relationships (Straus 1979, 2004; Straus et al. 1996). The 1996 scale is a revised version (the CTS2) with content validity and reliability, clarity and specificity, differentiation between minor and severe incidents, and new scales for sexual coercion and physical injury. The authors report reliability ranging from 0.79 to 0.95 for each scale, and preliminary evidence of construct validity (Straus 2004). There is also preliminary evidence for cross-cultural validity of the CTS2. A version was developed for use with children and adolescents aged 10 to 18 (Straus et al. 1998) and normed on 1,000 American children. It is a parent–child instrument and shorter than the CTS2, and so is perhaps the most suitable of the CTS measures when short instruments are needed for use in questionnaires.

References


7 Psychosocial factors in the intergenerational transmission of reliance on income support: commentary on review findings

In this report, we have addressed the review question:

Within developed English-speaking economies, what are (i) the core psychosocial characteristics of families that affect the likelihood of children relying on income support when they attain working age and (ii) appropriate questionnaire-based measures of those concepts?

In addressing this question, we have documented the rationale for our approach and our review methods used. To the greatest extent possible, we have adopted the rigour of systematic reviewing. Specific areas for which it was not been feasible to complete a full systematic review were clearly identified. Careful screening, inclusion, exclusion and instrument selection criteria assisted in defining the scope with clarity, avoiding bias in publications selected for review, and ensuring that the review encompassed the best available material. Our approach to presenting our review findings was systematic and designed with a range of potential readers in mind.

Based on previous Australian research into the psychosocial correlates of reliance on income support (for example, Butterworth 2003; Butterworth & Berry 2004; Butterworth, Crosier & Rodgers 2004), together with a number of landmark publications examining the intergenerational transmission of psychosocial risk and disadvantage (for example, Amato 1996; Capaldi et al. 2003; Caspi et al. 1998; Eysenck 1990; Goldberg 1990; Kessler, Walters & Forthofer 1998; Miller, Benson & Galbraith 2001; Pryor & Rodgers 2001; Rutter 1998; Rutter & Madge 1976), the review identified nine psychosocial factors that are most likely to play a powerful proximal role in determining the likelihood of young people relying on income support. Some of these factors pertain primarily to young people (adolescent connectedness; aspirations, values and attitudes; emotional intelligence; pseudomaturity; and temperament and personality), some primarily to their parents (victimisation and violence), and some to both (mental health; parent–child relationships; and substance use).

7.1 Psychosocial factors in young people’s lives

The key point with respect to the role psychosocial factors might play in the intergenerational transmission of reliance on income support is that it tends not to be outcome specific, but general. Consider, for example, a parent with problems with alcohol dependence. The child of such a parent might develop his or her own problems with alcohol dependence; a different psychosocial problem; a whole set of problems, including or excluding problems with alcohol; or no problems at all. Where there is a genetic component, such as with some aspects of personality, there may be a degree of specificity (for example, aggression and hostility in parents may give rise to aggression and hostility in children, because personality has a biological basis).

Other than situations in which a degree of specificity accounts for the intergenerational transfer of a psychosocial risk, two perspectives are of interest in terms of how parents’ problems relate to their children’s outcomes. The first is that children’s outcomes can be related to the absolute number of disadvantages they experience while growing up (for example, violence [yes/no], authoritarian parenting [yes/no], parental substance use [yes/no], and so on). Children who experience larger numbers of disadvantages experience worse outcomes throughout childhood, and as adults, than less disadvantaged children. Simply counting a child’s total number of disadvantages is a somewhat crude approach, but it is remarkably predictive of the child’s outcomes. In other words, there is a dose-response relationship between disadvantage in childhood and outcomes in adulthood.
Secondly, children of parents with psychosocial problems tend to grow up in an environment that has a set of disadvantaged circumstances, rather than simply one disadvantage. For example, if there is substance use in a household, it is likely there are other problems too, such as mental health disorders. In addition to the absolute number of factors a child faces, interactions among factors within households also help shape the child's development. The child, in turn, tends to develop his or her own set of disadvantaged circumstances as an adult. In other words, parental problems and disadvantages tend to be multiple, and they come together to provide a high-risk environment in which children are raised. Children respond to—and help shape—factors within this environment according to their particular characteristics and experiences.

The principal implications of these perspectives in designing research projects are that:

(i) it is important to consider a range of potentially important parent and child factors
(ii) the variety of potential outcomes that may be observed in children need to be considered in terms of the range of factors in their parents, together with the interactions among factors in both generations.

In the research arena, these requirements are most appropriately met using pathways models. Given the very large number of candidate factors, it is sensible to select those that are the most proximal and powerful in influencing child outcomes, and then to examine those factors systematically.

We identified nine such psychosocial factors and each was separately reviewed in this report. Certain themes recur throughout the individual factor reviews. These themes permit a broader perspective to be taken on how risk factors as a whole relate to reliance on income support, on their implications for policy development and review, and on their implications for program delivery. Five recurring themes were identified; they are considered briefly in turn below.

### 7.2 Implications of findings for intergenerational research

One key theme is the high degree of interrelatedness among the psychosocial factors. For example, adolescent connectedness is very closely related to parent–child relationships and the interpersonal aspects of emotional intelligence, while adolescent aspirations are closely related to academic engagement (one aspect of adolescent connectedness). Mental health is an exceptionally powerful risk factor for reliance on income support and is associated with almost every other psychosocial risk factor. It is also closely bound up in some aspects of personality, such as hostility and emotional stability. Temperament and personality are tied to victimisation and violence, and all psychosocial disadvantages in parents are risk factors for pseudomaturity in their children. One of the implications of the high degree of interrelatedness among factors is that effective research programs need to examine a range of factors to investigate the relationships among the factors and to assess their relative importance within an explanatory framework.

Another theme is that the interconnectedness of parents and children's lives, and their joint connectedness to their experiences in their local communities, highlights the importance of focusing on household and community levels of analysis, and not exclusively on individuals, to properly understand the relationships between psychosocial factors and reliance on income support. A key implication of this is that research design and analytic strategies need to incorporate nested approaches in which individuals are seen as part of households, and individuals and households are seen as part of communities.

A further theme was the range, diversity and intensity of disadvantages that some children face. Psychosocial problems among parents are not evenly distributed within the population, but tend to be clumped together within a relatively small proportion of disadvantaged people and households. For example, we saw that in the case of substance abuse, not only do people using one substance have a higher risk than non-users of using other substances (polydrug use), but they also tend to have one or more mental health problems at the same time (comorbidity). Children growing up with parents with such sets of characteristics face substantial adversity and disadvantage. As we noted in Section 7.1, children's outcomes are related to the total number of disadvantages they face during childhood. This is a remarkably robust summary indicator of likely outcomes.
While children whose parents have multiple disadvantages will not necessarily develop the same problems, they are at significant risk of developing some sort of problem and thus of experiencing disadvantage themselves. An immediate policy implication of this is that targeting assistance towards these children and households as early as possible, and thereafter on a continuing basis as necessary, could be an especially wise investment for the children themselves and for the economy. As adults, these children are often at greatly elevated risk of having difficulties with employment and of experiencing premature life transitions (such as early parenthood), which have specific and enduring implications for their participation in the income support system. Approaches to managing the quantum of reliance on income support within the Australian community are likely to be most effective when they take account of the pathways that have likely been causally implicated in such reliance. Such policy responses are likely to be effective because they will be sensitive to the kinds of life events that might precede enduring and intransigent reliance on income support. Success in reducing the financial burden on the economy of income support reliance will be supported by an initial investment in addressing these people’s (for the most part) genuine, complex and often substantial needs.

The range, diversity and intensity of disadvantages that some children face underpins the need for research into reliance on income support to consider potential mediating and moderating relationships among the variables themselves, and between the variables and income support reliance outcomes. Filtering out confounders is essential to the validity of this process. A fourth theme that emerged, therefore, is the care needed in designing such research and the difficulty and expense involved in conducting research into cycles of disadvantage and their implications for the welfare system. Typically, very long-term, intergenerational, multi-factorial designs are required, and these are challenging to set up and costly to run. The implications of this within the policy and planning framework are that long-term thinking and investment are an essential component of the broad research agenda.

Finally, the great difficulty and potential expense involved in intervening in cycles of disadvantage is apparent. Because people facing disadvantage (typically multiple disadvantage) have such complex and idiosyncratic characteristics, it tends to be necessary to engage in tailored and long-term interventions, particularly where early intervention has not occurred and circumstances have deteriorated (Berry & Butterworth 2003; Butterworth & Berry 2004). The Personal Support Program is a successful example of this approach. It is generally not the case that one-size-fits-all, and this has implications for the difficulty and costs of service provision. That said, as Berry and Butterworth (2003) point out, relatively low-cost and low-risk options exist that can be effective with large subgroups of the population, and trials of some of these have begun and been evaluated in Australian contexts. For example, befriending programs have been successful in addressing the social connectedness and mental health needs of single mothers, while mentoring programs have been effective with older men who have lost employment.

7.3 A pathways model

Figure 6: Socioeconomic and psychosocial pathways model of intergenerational reliance on income support
The socioeconomic and psychosocial pathways model presented in our report (Figure 3, repeated here for convenience) proposes that parents’ past reliance on income support is directly linked to their experiencing a high level of socioeconomic disadvantage.

These parents’ children grow up in an environment of socioeconomic disadvantage that is created by the parents’ characteristics. This socioeconomic disadvantage is independently associated with a number of other adversities, such as poorer access to educational opportunities and the development of generally unfavourable human capital and household characteristics. In this respect, the model is consistent with the structural (or economic) model presented in Figure 2. When psychosocial factors are included in the pathways model, as in Figure 3, a mediated model is derived. For the sake of simplicity, we have only drawn the main mediated and direct pathways in the model.

In the psychosocial pathways model, the effects on children’s outcomes of parents’ past reliance on income support and associated high level of socioeconomic disadvantage are not only direct, but also mediated by the effects of both sets of factors on parents’ psychosocial characteristics. For example, sole parents who rely on income support frequently live in poverty and experience high levels of socioeconomic disadvantage. This directly affects their children. In addition, it is associated with elevated levels of a range of mental health problems, which also directly affects children. In this way, high levels of socioeconomic disadvantage have a direct impact on children’s outcomes, and as well as an indirect impact through their effect on the sole parent’s mental health.

The same pathways model applies substituting any of the psychosocial factors that are associated with reliance on income support and disadvantage generally. In a fully specified model, all the psychosocial factors would be included so that their roles could be evaluated and their relative importance assessed.

### 7.4 Using psychosocial measurement instruments

For most psychosocial factors, valid, reliable and, in many cases, widely tested measurement instruments are available. We have highlighted our preferred instruments in the individual psychosocial concept reviews. A summary of these instruments, with extension material, is provided in Section 8. In general, established, systematically developed and validated instruments are preferable to ad hoc measures. If using ad hoc measures is unavoidable, it is important to conduct pre-testing to ensure that each measure taps the construct intended and that its psychometric properties reach a minimum acceptable standard.

In deciding among measures, it is important wherever possible to avoid single-item measures, particularly when attempting to measure complex concepts. It is not sufficient to measure a complex phenomenon with a single item: such concepts are multi-faceted, containing a multiplicity of subtleties. Even if the concept were unitary, a sole item would not capture its full range of meaning. Further, complex phenomena are often contextual, and their manifestation often depends in both nature and degree on the situation in which measurement takes place or to which measurement refers. Similarly, complex concepts are rarely dichotomous categorical concepts (‘violent’ or ‘not violent’) but are almost always dimensional (‘extremely violent’, ‘frequently violent’, ‘occasionally violent’, ‘rarely violent’, ‘never violent’, and so on). It is reasonable to expect that any relationship between a form of disadvantage and an outcome of interest will be related to the degree of expression of the disadvantage within a particular individual or group, as well as to the degree of sensitivity of the recipient of the disadvantage. It is advisable to avoid dichotomous measures because they cannot capture these sensitivities. Multi-category rather than dichotomous response formats can also enhance the accuracy of measurement of a multi-faceted concept.

A satisfactory measure of a multi-faceted concept would have a multi-item scale that could tap different aspects of the concept and also have a multi-point response format allowing sensitive gauging of respondents’ degrees of expression of the concept. These types of measurements produce ordered categorical scales, which are then often analysed as quasi-interval data; a minimum of five response categories is required to obtain reliable parameter estimates.
In terms of participant agreement to be involved in research, and the accuracy and veracity of their responses, a number of points can be made about the use of instruments. The first is of course that brevity is highly desirable. For this reason, we have preferred short measures, and short forms of longer measures, where possible. Secondly, respondents may refuse to answer certain items, or to take part in the research at all, if they perceive the items to be intrusive, embarrassing or confronting. Because respondents may not wish to reveal their true situation or response in the presence of an interviewer, it may be advisable to include the more intrusive, embarrassing or confronting measures in self-completion materials.

Whether a questionnaire is self-completed (pencil and paper, or computer assisted) or interviewer administered, it may also help to:

(i) word items positively rather than negatively
(ii) order items in a way that makes it easier to endorse more socially undesirable options
(iii) randomly order positively and negatively worded items.

In terms of the first two of these items in this list, a parent, for example, may be more likely to disclose that their child could benefit from getting fitter, or losing weight, if it does not involve labelling their child as overweight or obese.

As an extension of this point, response formats can be chosen that increase the accuracy of data collected. For example, since most respondents are likely to wish to record a score at a particular end of a scale, using an asymmetrical scale can maximise the likelihood of obtaining variance in the data collected. Asymmetrical scales are also useful for eliciting accurate responses for concepts, such as social values, that are by definition consensual (that is, almost everyone agrees with them). If respondents are asked simply whether they accept or reject a particular social value, almost all will answer in the affirmative. In order to distinguish degrees of acceptance, therefore, respondents can be asked to state how much importance they attach to each value on an asymmetrical scale (‘I reject this’, ‘I am inclined to reject this’, ‘I neither accept nor reject this’, ‘I am inclined to accept this’, ‘I accept this as important’, ‘I accept this as very important’, ‘I accept this as of the utmost importance’). In asking parents about their children, asymmetric response formats can be used with items that could reflect negatively on a child’s (and potentially on a parent’s) success. For instance, most parents would not wish to label their child a failure at school. However, parents may be willing to disclose that their child does well on tests ‘occasionally’ when it is the middle response category (‘my child [never, very rarely, rarely, occasionally, sometimes, often, very often, always] does well on class tests’).

More generally, the wording of items, or instructions for items, can sometimes be made more sensitive. Generally speaking, this should not be done on standardised measures because the results cannot be later compared with the findings of other studies that have used the same measures.
8 Consolidated table of reviewed measures and supplementary measures

This section provides a summary table of all measures we have reviewed in this report, together with some supplementary measures that may also be of interest to other studies or in future work. We have also included as much detail as possible for each measure. As the quality and amount of information available varies from measure to measure, more material is presented for some measures than for others.

The entries are sorted by psychosocial factor and, within that, alphabetically by instrument authorship.
<table>
<thead>
<tr>
<th>Key concept area</th>
<th>Citation</th>
<th>Instrument name</th>
<th>Characteristics of instrument</th>
<th>Preferred</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adolescent connectedness</td>
<td>Brown &amp; Evans 2002</td>
<td>School Connection</td>
<td>Multidimensional (four scales) 16 items (four domains with four items each) Domains: commitment to school, power (of students), sense of belonging and belief (in school rules)</td>
<td>Yes (belonging subscale)</td>
</tr>
<tr>
<td></td>
<td>Cohen et al. 1985</td>
<td>Interpersonal Support Evaluation List (ISEL)</td>
<td>Multidimensional (four scales) 40 items (four domains with 10 items each) Simple yes/no responses Domains: tangible support, advice/information, sense of belonging and self-esteem First three domains relate to overall social support Extensively used in published studies, including in Australian general populations</td>
<td>Yes (belonging subscale)</td>
</tr>
<tr>
<td></td>
<td>Hagerty &amp; Patusky 1995</td>
<td>Sense of Belonging Instrument (SOBI)</td>
<td>Multidimensional (two scales, separately scored) 27 items SOBI-P (psychological state) and SOBI-A (antecedents) Good content and construct validity, and internal consistency Test–retest reliability for SOBI-P acceptable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Hawkins et al. 1999, 2001, 2005</td>
<td>School Bonding</td>
<td>Multi-item, multidimensional (two scales): commitment and attachment to school Extensively analysed in large US longitudinal study of primary and high school children (Seattle Social Development Project)</td>
<td></td>
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<tr>
<td></td>
<td>Jenkins 1997</td>
<td>School Bond</td>
<td>Multidimensional (four scales) Based on Hirschi’s social bonding theory 36 items, four domains: commitment, attachment, involvement and belief in school rules</td>
<td>Yes (involvement subscale (participation in school))</td>
</tr>
<tr>
<td></td>
<td>Jessor et al. 1995</td>
<td>Positive Orientation to School</td>
<td>Multidimensional (two scales) nine items, two domains: attitudes to school and motivation towards academic achievement</td>
<td></td>
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<tr>
<td>Key concept area</td>
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<tr>
<td>Parental bonding</td>
<td>Parker 1989, 1990; Parker, Tupling &amp; Brown 1979</td>
<td>Parental Bonding Instrument</td>
<td>Commonly used 25-item multiple response category instrument Retrospective Good validity and factor structure Predictive of adult mental health Versions include 25-item parent form Typically used as a child report instrument</td>
<td>Yes</td>
</tr>
<tr>
<td>Parental bonding</td>
<td>Resnick et al. 1997; also extensively reported in McNeely &amp; Falci 2004</td>
<td>School Connectedness from the American National Longitudinal Study of Adolescent Health</td>
<td>One dimension, six items (mix of sense of belonging and teacher support) Likert-type response format Used with 12,000+ adolescents grades 7 to 12</td>
<td></td>
</tr>
<tr>
<td>Parental bonding</td>
<td>Ryan &amp; Patrick 2001</td>
<td>Student Engagement</td>
<td>Multidimensional (two scales) 11 items, two domains: self-regulated learning (six items) and disruptive behaviour (five items)</td>
<td></td>
</tr>
<tr>
<td>Parental bonding</td>
<td>Voelkl 1996</td>
<td>Student Identification with School</td>
<td>Multidimensional (two scales) 16 items, two domains: belonging (nine items) and valuing of school/education (seven items)</td>
<td>Yes (valuing subscale)</td>
</tr>
<tr>
<td>Aspirations, values and attitudes (see adolescent connectedness for aspirations)</td>
<td>Schwartz 1992</td>
<td>Conceptualisation of values</td>
<td>Multidimensional (10 scales) 52 items, 10 domains Validated in over 70 countries; used with Australian adult and adolescent populations</td>
<td>Yes</td>
</tr>
<tr>
<td>Emotional intelligence</td>
<td>Bar-On 1997a, 1997b</td>
<td>Emotional Quotient Inventory (EQI)</td>
<td>Multidimensional; four subscales in revised version: intrapersonal EQ, interpersonal EQ, adaptability and stress management Self-report questionnaire Not empirically established whether the instrument taps uni-dimensional or multidimensional underlying construct</td>
<td></td>
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<tr>
<td>Key concept area</td>
<td>Citation</td>
<td>Instrument name</td>
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<td></td>
<td>Mayer, Caruso &amp; Salovey 2000; Mayer et al. 2003</td>
<td>Mayer–Salovey–Caruso Emotional Intelligence Test (MSCEIT)</td>
<td>Multidimensional (four subscales) 141 items, four defining facets: perceiving emotions, using emotions to assist thinking, understanding emotions and regulating emotions. Self-report questionnaire Discriminates between EQ and personality Lengthy and expensive to administer Must be administered by trained interviewer</td>
<td>Yes</td>
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<tr>
<td></td>
<td>Schutte et al. 1998</td>
<td>Self-Report Emotional Intelligence Test (SREIT)</td>
<td>Authors claim this is a uni-dimensional scale 33 items Self-report questionnaire Empirical review suggests this is a four-dimensional scale: optimism and mood regulation, appraisal of emotions, social skills and utilisation of emotions.</td>
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<tr>
<td>Mastery/control (sub-set of mental health)</td>
<td>Gurin, Gurin &amp; Morrison 1978; Gurin &amp; Brim 1984</td>
<td>Multidimensional I–E = ‘internal–external’ Scale</td>
<td>10-item scale Based on Rotter Locus of Control Scale (see below)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pearlin et al. 1981</td>
<td>Pearlin Mastery Scale</td>
<td>Uni-dimensional scale Seven-item scale with four-point Likert-type response format Measures perceived control over life Several versions Widely used</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Rotter 1966</td>
<td>Rotter Locus of Control Scale</td>
<td>Multidimensional scale (two dimensions) Internal versus external locus of control (‘internals’ and ‘externals’) Forced-choice 29-item scale: 23 locus of control items and six filler items Widely used</td>
<td>Yes (if interested in internals versus externals)</td>
</tr>
<tr>
<td>Mental health</td>
<td>Goldberg et al. 1988</td>
<td>Goldberg Depression Scale</td>
<td>Uni-dimensional scale (depression) Simple yes/no responses Systematic item selection Low discrimination/length Moderate validity for diagnosis</td>
<td>Yes (if binary items are appropriate)</td>
</tr>
<tr>
<td>Key concept area</td>
<td>Citation</td>
<td>Instrument name</td>
<td>Characteristics of instrument</td>
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</table>
|                  | Goldberg et al. 1988 | Goldberg Anxiety Scale | Uni-dimensional scale (anxiety)  
Simple yes/no responses  
Systematic item selection  
Low discrimination/length  
Does not screen for specific anxiety disorders | Yes (if binary items are appropriate) |
|                  | Kessler et al. 2002; Kessler et al. 2003 | K6 and K10 | Uni-dimensional scales (general psychological distress)  
Short form (six items) and long form (10 items)  
Multiple response categories  
Systematic item selection  
High validity for diagnoses  
High discrimination/length  
Extensively used in surveys, including in Australia | Yes, either version |
|                  | Ware, Kosinski & Kellar 1996 | SF-12 (Short Form of SF-36) | Uni-dimensional scale (health)  
12 items  
Multiple response categories  
Systematic item selection  
High validity for diagnoses  
High discrimination/length  
Extensively used in surveys, including in Australia | Yes |
|                  | Ware et al. 1993 | SF-36 | Multidimensional measure, including five-item mental health subscale  
Multiple response categories  
Systematic item selection  
High validity for diagnoses  
High discrimination/length  
Extensively used in surveys, including in Australia | Yes (mental health subscale) |
|                  | Watson & Clark 1994 | Positive and Negative Affect Schedule (PANAS), Hostility scale from expanded scale (PANAS-X) | One scale of multidimensional expanded scale  
Continuous response format  
60 items in full expanded scale | |
<table>
<thead>
<tr>
<th>Key concept area</th>
<th>Citation</th>
<th>Instrument name</th>
<th>Characteristics of instrument</th>
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<tbody>
<tr>
<td>Parent–child relationships</td>
<td>Bernstein et al. 1994</td>
<td>Adverse Childhood Experiences (ACE) scales</td>
<td>Scales assess three broad areas: abuse, neglect and household dysfunction Areas are assessed through 10 subscales, 28 items in total Response format: five-point scale, with some yes/no items</td>
<td></td>
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<td></td>
<td>Parker, Tupling &amp; Brown 1979</td>
<td>Parental Bonding Instrument</td>
<td>24-item scale per parent, but typically children report only Multiple response categories Good validity and factor structure Predictive of adult mental health Commonly used Retrospective Different versions are available</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Parker et al. 1997</td>
<td>Measure of Parenting Style (MOPS)</td>
<td>21-item multidimensional measure (per parent) Multiple response categories Good factor structure Used in large surveys</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Rosenman &amp; Rodgers 2004</td>
<td>PATH Childhood Adversity Scale</td>
<td>17 items; long but fairly comprehensive Total score or individual items can be used Limited to intra-familial adversity Positively worded items (three) can be added</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Schuster, Kessler &amp; Aseltine 1990</td>
<td>Measure of social support</td>
<td>Multidimensional (positive/negative scales can be adapted to assess parent–child relationships) 20 items Multiple response format Positive and negative interaction Used in large surveys</td>
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<tr>
<td></td>
<td>Straus et al. 1998</td>
<td>Conflict-Tactics Scale version 2 (CTS2), child version</td>
<td>The ‘child version’ is for use with adolescents aged 12 to 18 Assesses violence and aggression in relationships</td>
<td>Yes</td>
</tr>
<tr>
<td>Pseudomaturity and life transitions</td>
<td>PATH Through Life project (unpublished)</td>
<td>Items developed for use in Personality and Total Health (PATH) study</td>
<td>Four to five-item uni-dimensional scale Continuous response format Predictive of adult outcomes Items used in large surveys</td>
<td>Yes</td>
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<tr>
<td><strong>Self-esteem</strong> (subset of mental health)</td>
<td>Rosenberg &amp; Pearlin 1978; Rosenberg 1985; Rosenberg, Schooler &amp; Schoenbach 1989</td>
<td>Self-Esteem Scale</td>
<td>Uni-dimensional scale 10 items with continuous response format, half negatively, half positively worded Designed as a Guttman scale but usually scored as a Likert-type scale Very commonly used</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Substance use</strong></td>
<td>Australian Institute of Health and Welfare 2005a, 2005b</td>
<td>National Drug Strategy Household Survey questionnaire</td>
<td>Covers alcohol, tobacco and illicit drugs Estimates weekly alcohol consumption Identifies risky and high-risk alcohol use for short-term and long-term harm (National Health and Medical Research Council guidelines) Quantifies amount smoked by daily and weekly smokers Assesses frequency of use for many illicit drugs Designed for general population surveys</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Saunders et al. 1993</td>
<td>Alcohol Use Disorders Identification Test (AUDIT)</td>
<td>10-item scale gives single total score Consumption and problems can be scored separately Systematic item selection Multiple response categories Used in population surveys Several short versions Non-standard binge item Abuse and dependence not distinguished Mixes current and lifetime problems</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Temperament and personality</strong></td>
<td>Achenbach 1990, 1991, 1997</td>
<td>Youth Self-Report scale</td>
<td>112-item scale Self-ratings of behaviour problems Items rated 0 to 2 Widely accepted measure of child/adolescent externalising behaviours</td>
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<td></td>
<td>Akiskal et al. 2005</td>
<td>Temperament Evaluation of Memphis, Pisa, Paris and San Diego—autoquestionnaire revised version (TEMPS-A)</td>
<td>Multidimensional scale 39-item measure of temperament Suitable for use with general population samples and with people with psychiatric disorders</td>
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<td></td>
<td>Benet-Martinez &amp; John 1998</td>
<td>Big-Five Inventory (BFI)</td>
<td>Multidimensional scale (five ‘factors’) 44-item short version of NEOPI-R Widely accepted and commonly used</td>
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<tr>
<td></td>
<td>Carver &amp; White 1994</td>
<td>Behavioural Inhibition System (BIS) and Behavioural Activation System (BAS)</td>
<td>Multidimensional (two scales) 20-item scale, 10 items for each subscale Continuous response format BIS scale predictive of adult outcomes Items used in large surveys Yes (BIS Scale)</td>
<td></td>
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<td></td>
<td>Costa &amp; McCrae 1992</td>
<td>Revised NEO Personality Inventory (NEOPI-R); NEO Five-Factor Inventory (NEO-FFI)</td>
<td>Multidimensional (five domains, six facets per domain), 240 items in total Self-report and other report forms available Most widely accepted theory of personality ‘Gold standard’ in personality theory and measurement</td>
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<td></td>
<td>Eysenck, Eysenck &amp; Barrett 1985</td>
<td>Eysenck Personality Questionnaire (EPQ)</td>
<td>Multidimensional (three scales) Short-form has 30 items, 10 items measuring each of extroversion, neuroticism and psychoticism Continuous response format Scale assesses personality according to one of the major theories of personality Some confounding between trait and state with neuroticism and anxiety</td>
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<td></td>
<td>Gosling, Rentfrow &amp; Swann Jr 2003</td>
<td>Ten-Item Personality Inventory (TIPI)</td>
<td>Multidimensional (five scales) 10 items, two items measuring each of neuroticism, extraversion, openness to experience, agreeableness and conscientiousness Derived from NEOPI-R Acceptable psychometric properties Little track record of use because very new Yes</td>
<td></td>
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<td></td>
<td>Hill et al. 2005; Kercher 1992</td>
<td>Positive and Negative Affect Schedule (PANAS)</td>
<td>Multidimensional (two scales, 10 items each) Continuous response format Different versions available, including brief 10-item version (Mackinnon et al. 1999) and 25-item scale for children (Laurent et al. 1999) Widely used</td>
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<td>Tellegen 1985; see also Bouchard et al. 2003; Harkness, Tellegen &amp; Waller 1995; Patrick, Curtin &amp; Tellegen 2002; Waller et al. 1991</td>
<td>Multidimensional Personality Questionnaire (MPQ)</td>
<td>Multidimensional (three scales) Includes scales for positive and negative emotionality, alienation and aggression Not frequently used now</td>
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</tbody>
</table>
Endnotes

1 There may be sex differences in the antecedents of externalising disorders in adolescents. For example, girls may be more likely than boys to act out as a result of disordered family relationships (Ehrensaft 2005).

2 While Parenting Payment constitutes only a small percentage of total payments in this age group, it tends to predict long-term reliance on some form of income support, including moving between different forms of income support. For this reason, it is an important form of income support to target for possible early intervention.

3 Web of Science searches do not identify the exact number of citations located when the number exceeds 100,000.

4 Harmony and security values have been shown to be associated such that higher levels of acceptance of one dimension predict higher levels of acceptance of the other (Braithwaite 1994). In this sense, people can be divided into those who accept values as important, whichever kinds of values they accept, and those who do not.

5 Dispositional optimism can be compared to a personality characteristic, or trait, in that it constitutes a typical feature of a person’s orientation to life and underlying motivation with regard to behaviour. Optimism can also refer to having an ‘optimistic explanatory style’, which is a situation-specific way of thinking about, and consequently reacting to, positive and negative life events.

6 This study was rigorously conceptualised and executed. However, it should be noted that one of the authors of this report, Mayer, was one of the authors of the MSCEIT.

7 ‘Yes’ means the instrument (i) is appropriate for use with adults or adolescents within a questionnaire design in which brevity is important and (ii) meets basic validity and reliability criteria (or an acceptable equivalent, or is the best available).
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<td>The Australian system of social protection—an overview</td>
<td>Peter Whiteford</td>
<td>February 2000</td>
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<td>Parents, the labour force and social security</td>
<td>Karen Wilson, Jocelyn Pech and Kylee Bates</td>
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<td>Thorsten Stromback and Mike Dockery</td>
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<td>How do income support recipients engage with the labour market?</td>
<td>Paul Flatau and Mike Dockery</td>
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<td>The policy-maker’s guide to population ageing: key concepts and issues</td>
<td>Natalie Jackson</td>
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<td>14</td>
<td>The dynamics of participating in Parenting Payment (Single) and the Sole Parent Pension</td>
<td>Garry Barrett</td>
<td>July 2001</td>
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<td>The impact of social policy initiatives on labour supply incentives: a review of the literature</td>
<td>Guyonne Kalb</td>
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Peter Saunders, Judith Brown and Tony Eardley (April 2003)

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