

# Promoting mental health in scarce-resource contexts

Emerging evidence and practice

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This volume is dedicated to our colleague, Alan Flisher.

# Foreword

Mental health in scarce-resource settings has received considerable attention in the new millennium, in response to the growing evidence on the burden of mental disorders and their cost-effective treatments. The World Health Organization's (WHO) *World Health Report 2001*, and *The Lancet* series on Global Mental Health in 2007, are two major initiatives that synthesised the evidence from these settings. While the former highlighted the burden of mental disorders and the large treatment gaps in all countries, the latter described the exciting new evidence on treatment and prevention for many mental disorders, but also the many barriers to scaling up these treatments. *The Lancet* series ended with a call to action to scale up services for people with mental disorders, based on evidence and a commitment to human rights. Both these initiatives, however, focused on the extreme end of the distribution of distressing mental health experiences in the population – the end where most individuals would satisfy diagnostic criteria for mental disorder. It is in this context that the larger role of promoting mental health in scarce-resource settings at the level of the population as a whole, or sub-groups targeted on grounds of vulnerability or age, becomes highly relevant. And this is why this new volume is so welcome and an important contribution to this relatively sparse landscape.

As indicated by Dhillon et al. in the 1994 WHO report, *Health Promotion and Community Action for Health in Developing Countries*, health promotion consists of social, educational and political actions that: enhance public awareness of health; foster healthy lifestyles and community action in support of health; and empower people to exercise their rights and responsibilities in shaping environments, systems and policies that are conducive to health and wellbeing. It must be acknowledged, as is done in the opening chapter of this volume, that it is not an easy task to define mental health promotion. As defined by the WHO, mental health promotion refers to positive mental health, rather than the absence of mental disorders. Thus, mental health promotion is not explicitly related to treating those who are mentally ill (although this extremely vulnerable group should always be at the heart of any mental health programme, regardless of its theoretical basis), nor is it about preventing mental disorders (although the lines between promotion and prevention are especially blurred). In this regard, mental health promotion may be seen as the natural corollary of the notion of addressing the social determinants of health. The landmark report of the WHO's Commission on Social Determinants of Health, *Closing the Gap in a Generation*, in 2008 made three major recommendations to improve daily living conditions: tackle the inequitable distribution of money, power and resources; measure and understand the problem; and assess the impact of action. These could well be the basis for conceptualising most mental health promotion activities. In this regard, we must acknowledge the argument of Patel et al. (2006) in the WHO report, *Promoting Mental Health*, that the interventions most

likely to promote mental health are those whose original motivation had no specific mental health goal. Such interventions are based on principles of human values which, to some extent, are more universal than specific definitions of mental health or mental disorder. The strategies most likely to promote mental health are likely to be those found within existing human development initiatives that combat the fundamental social and economic inequities, which are ultimately the basis of much human suffering today.

A key question, then, is whether mental health promotion is a unique discipline from the other disciplines with which it overlaps – addressing social determinants of health (where determinants are common for many health outcomes); and prevention and treatment of mental disorders. In my view, this volume makes a compelling case for this distinction in two ways. First, it is clear that while mental health will be promoted through addressing social determinants or through interventions for the prevention of mental disorders, at the same time there are interventions that are uniquely mental health promotive: strengthening life skills in young people or early child development strike me as two examples; neither is specifically preventing or treating a mental disorder and neither addresses upstream social determinants. Yet, both do improve the mental and developmental outcomes of beneficiaries and, in the long run, their social and economic outcomes. In this context, mental health promotion becomes a strategy for addressing socio-economic inequities. Second, the concept of resilience is, as the authors propose, central and unique to mental health promotion. The evidence that resilience is a critical factor in promoting mental health comes from the same research that shows us that social disadvantage is a risk factor for mental ill-health. The latter finding is almost intuitive; the question of real importance is why most people who face disadvantage, whether it is women with violent partners or young people facing an insecure employment environment or families living in squalor, do *not* become mentally ill. Here, I suggest that Amartya Sen's theory on capabilities offers a critically useful lens through which one can view resilience: people will use resources if they have the *capability* to do so; mental health promotion aims to build the *capabilities* of people to more effectively use resources to be in good mental health. A key research question linked to resilience is, therefore, identifying the capabilities of people who, by all accounts, should have been mentally ill because of their appalling social circumstances, but in fact remain in optimal mental health. How do they manage to do this? What can we learn from them that can change the way we approach mental health promotion strategies?

While this volume does a sterling job of reviewing the evidence in support of mental health promotion in scarce-resource settings from a life course perspective, some traditionalists might argue that this evidence base remains weak. I would respond, however, that the epistemology of what constitutes evidence will necessarily be different for mental health promotion (and, in this way, not dissimilar from the evidence base on upstream social determinants) when compared to other areas of public health and clinical practice. It is unlikely that we will be able to run randomised controlled trials of the mental health impacts of economic interventions

to reduce income inequalities, of housing interventions to reduce urban squalor, of gender equity interventions to improve the status of women in society and their homes, or of life skills interventions for young people. One may even question if we need to, given that the immediate outcomes of these interventions – for example, improved housing quality or life skills – are sufficient to support their justification. This does not imply that we do not need research; it simply means that the theoretical framework for research will naturally be more descriptive and narrative.

There remain, however, fundamental questions about the contributions mental health practitioners may make to human welfare in a global context. The divisions between ‘mental health’ and other desirable social values are to an extent arbitrary, and informed by a cultural perspective on health, illness and well-being, which differentiates to degrees between the ‘physical’, the ‘mental’, the ‘spiritual’ and the ‘social’. Some may posit that the very concept of ‘mental health promotion’ implies a set of attitudes and assumptions that are not universally held. Mental health promotion programmes may be accused of amounting to strategies of cultural imperialism. In response, though, it could be argued as follows: ‘we need both to engage with this possible criticism by being reflexive about what we do, but we also must not allow a form of radical relativism to undermine our goals, and dissuade us from exploring what we know from other contexts to be good for mental health’ (Patel et al., 2006, in *Promoting Mental Health*). This volume superbly demonstrates that apparently universalist positions do, in fact, also have great relevance in low and middle income countries. Mental health promotion is both the result of actions taken to address the grotesque socio-economic inequities so pervasive in our world, and can contribute to their amelioration through empowerment of individuals and their families, as well as strengthening of community protective influences and health enhancing policy and legislative frameworks: herein lies the main reason why this is a critically important, and cross-culturally valid, global mental health discipline.

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# Abbreviations and acronyms

AIDS	Acquired Immune Deficiency Syndrome
AD	Alzheimer's disease
CHAMP SA	Collaborative HIV/AIDS Adolescent Mental Health Programme in South Africa
CBO	community-based organisation
CVRF	cardiovascular risk factors
CVD	cardiovascular disease
DSM	Diagnostic and Statistical Manual of Mental Disorders
FAS	foetal alcohol syndrome
HIV	Human Immunodeficiency Virus
LMIC	low and middle income countries
NCD	non-communicable disease
NGO	non-governmental organisation
NIMH	National Institute of Mental Health
SATZ	South Africa Tanzania programme
STD	sexually transmitted disease
TTI	theory of triadic influence
UK	United Kingdom
UN	United Nations
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNICEF	United Nations International Children's Fund
US	United States
USA	United States of America
WHO	World Health Organization

**Part 1**

**The imperative for,  
and emerging practice of,  
mental health promotion and  
the prevention of mental disorders  
in scarce-resource contexts**





# 1 At the heart of development: an introduction to mental health promotion and the prevention of mental disorders in scarce-resource contexts

Inge Petersen

Mental and behavioural health, together with physical health, are central for optimal human development and functioning of people in any society. Mental health is a multidimensional construct made up of people's *intellectual well-being*, their capacity to think, perceive and interpret adequately; their *psychological well-being*, their belief in their own self-worth and abilities; their *emotional well-being*, their affective state or mood; and their *social well-being*, their ability to interact effectively in social relationships with other people.

Behavioural health is often linked to mental health and refers to behaviour that impacts on people's health and functioning. Health behaviour can be either positive or negative. For example, negative health behaviours such as unsafe sex can put people at risk of contracting diseases such as HIV/AIDS; and substance abuse can inhibit effective intellectual and social functioning. Both mental and behavioural health are important for optimal health, personal development and functioning. Mental health is much broader than the absence of mental disorders. As defined by the World Health Organization (WHO), mental health is, 'a state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community' (WHO, 2001, p. 1).

Poor mental health thus impedes a person's capacity to realise their potential, work productively and make a contribution to their community. This includes mental health problems such as mild anxiety and depression, and behavioural problems such as substance misuse that may not meet diagnostic criteria of mental and behavioural disorders but that impede effective functioning and, if unattended, may develop into diagnosable disorders. It is only in its most severe state that poor mental and behavioural health may manifest in diagnosable mental and behavioural disorders or mental illness that significantly interferes with a person's functioning (Barry & Jenkins, 2007). For the purposes of this text, behavioural health is subsumed under mental health.

## Mental health, poverty and development

Post-colonial development in many low and middle income countries (LMICs) was characterised by both state and international agencies emphasising social and

economic policies that favour wealth creation as a means for these countries to enter the global economy (Kothari, 1999). These have included, for example, the adoption of more flexible labour standards and policies to encourage foreign investment. While some more privileged sectors of LMICs have benefited from these policies, they have the potential to increase employment insecurity and deepen poverty in the socially marginalised (L. Patel, 2005). The disabled, the chronically ill and women (because of their traditional childbearing and child care role) are amongst those who are particularly vulnerable to being excluded in a sustained way from the formal economy. Further, trading and food production opportunities in the informal economy are often undermined by global economic forces (Kothari, 1999). These sectors of society are thus at risk of being caught in a 'poverty trap'. Being excluded from being a productive member of society, and having no financial protection, they often have to bear the brunt of global economic crises. 'Social exclusion' as defined by Castells (2000) refers to a process by which individuals and groups are systematically barred from access to positions that would enable them to achieve autonomous livelihoods.

This extends to countries and regions as well, leading to a deepening in wealth disparities both within and between developing economies (Kothari, 1999; UNDP, 2003). Economic growth has not automatically resulted in poverty reduction in LMICs, with poverty having been shown to actually increase in some countries that have achieved overall economic growth (UNDP, 2003).

In response to the growing wealth inequalities within and between countries, the Millennium Development Goals, emerging out of the UN Millennium Declaration against poverty, bind countries – rich and poor alike – to advancing development and reducing poverty worldwide by 2015 or earlier (UNDP, 2003). Sustainable *human development* is understood to be at the heart of this endeavour, given that economic growth alone does not necessarily result in poverty reduction. The United Nations Development Programme (UNDP) measures human development using the human development index along the dimensions of longevity and health, education attainment and standard of living (UNDP, 2003). Investing in human development is understood to be central to addressing the problem of social exclusion. The UNDP adopts a human rights agenda, locating the locus of change within poor people, and empowering them to fight for policies and actions that will, inter alia, create employment opportunities and increase access to education, health and other basic services, as well as hold political leaders accountable (UNDP, 2003).

There are a number of development approaches that foreground human development. These include the *social development model* and the *sustainable livelihoods framework* (Helmore & Singh, 2001; L. Patel, 2005; Rakodi with Lloyd-Jones, 2002). The social development model, endorsed by the UN World Summit for Social Development in 1995 in response to inequities in development across the globe, focuses on strengthening citizen participation in decision-making, as well as people's participation as productive members of the economy, as the means to enhance people's welfare and achieving economic development (L. Patel, 2005). This approach requires that economic policies be harmonised with social service policies to promote human development, through creating jobs and employment

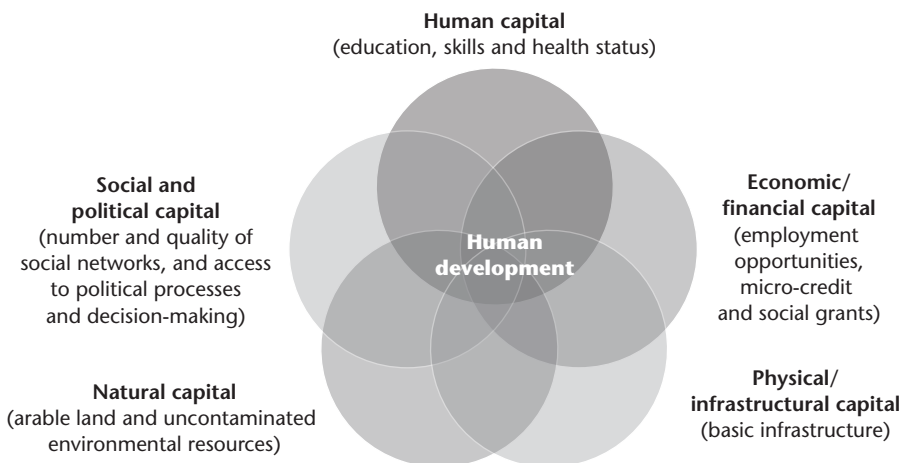
opportunities; the provision of credit and other forms of economic assistance; infrastructure development; and investing in human and social capital development (Midgley & Tang, 2001; L. Patel, 2005). This multisectoral approach to development is understood to be in service of human development.

The sustainable livelihoods framework, adopted by the UNDP, as well as the Department for International Development (DFID), emerged out of a number of perspectives on sustainable development, including Amartya Sen's capability approach, which understands people's capabilities to be a function of both intrapersonal factors and external conditions (Brocklesby & Fisher, 2003). The sustainable livelihoods framework extends the social development model in that it includes a focus on environmental concerns, as well as situating micro level analyses within broader macro policy issues impacting on human development (Brocklesby & Fisher, 2003). These aspects are important in the context of globalisation, where there is recognition that many of the poorest countries of the world are caught in a 'poverty trap' where they would not be able to attain the Millenium Development Goals on their own (UNDP, 2003). They require additional finance and technical support from wealthier nations to promote human development and break the cycle of poverty.

The sustainable livelihoods approach is multifaceted and uses a livelihood asset model to understand vulnerability to poverty, with poverty reduction and development strategies focused on increasing the livelihood asset base of the poor in a sustainable way. Livelihoods are understood to be sustainable when they are able to withstand stresses and shocks and enhance assets for the present and the future without undermining the natural resource base for future generations (Helmore & Singh, 2001).

Five types of assets essential for sustainable livelihoods in service of human development are identified: human capital, social and political capital, economic/financial capital, physical/infrastructural capital and natural capital (see Figure 1.1).

**Figure 1.1** Sustainable livelihoods framework



These assets are understood to be interconnected, with people drawing on these different assets to survive. Human development is clearly located within the need for a multisectoral approach to development that acknowledges the dynamic interplay of multiple elements on people’s lives and strives to build on the amount of capital that people have in relation to the different asset bases (Helmore & Singh, 2001). Mental health, together with physical health, falls within the sphere of human capital. Given the interrelationship between the different asset bases and their impacts on people’s lives, the promotion of mental health requires a strengthening of all the asset bases. For instance, there is an increasing body of evidence that links health enhancing social capital to improved mental health status. In turn, low levels of social capital have been linked to poor physical/infrastructural capital in the form of low residential stability and to low economic/financial capital characterised by high levels of poverty (Smedley & Syme, 2000). Table 1.1 provides examples of the different assets.

The promotion of mental health thus needs to be located within a multisectoral approach to development such as that afforded by the sustainable livelihoods approach. Simultaneously, the centrality of mental health to the development of the other asset bases and human development as a whole, requires recognition. The promotion of mental health, however, generally receives minimal attention in development initiatives. Further, within the health sector, the focus of health service provision is primarily on reducing morbidity and the economic burden of care, as opposed to its role in ensuring optimal functioning. This is evident in the Millenium Development Goals, which make no direct reference to mental health (Miranda & Patel, 2006), and where the major health focus is on reducing mortality and infectious diseases.

**Table 1.1** Examples of sustainable livelihood assets

<b>Capital assets</b>	<b>Examples of assets used by the poor</b>
Human	Productive labour resources available to households and capacity to work Number of workers in households and time available to engage in earning income Levels of education and skills, and health status of household members
Social and political	Available networks, group memberships, relationships of trust and reciprocity, social support, access to wider institutions of society, including access to political processes and decision-making that may facilitate/impeid access to other assets (child care, information about labour and other opportunities)
Economic/financial	Sale of labour Credit accessibility and affordability Social welfare grants
Physical/infrastructural	Basic infrastructure (transport, water, energy, communications etc.) Housing (tenure, rental, size, quality) Education and health facilities
Natural	Land, water and other environmental resources Urban agriculture (land as asset) Environmental contamination/degradation

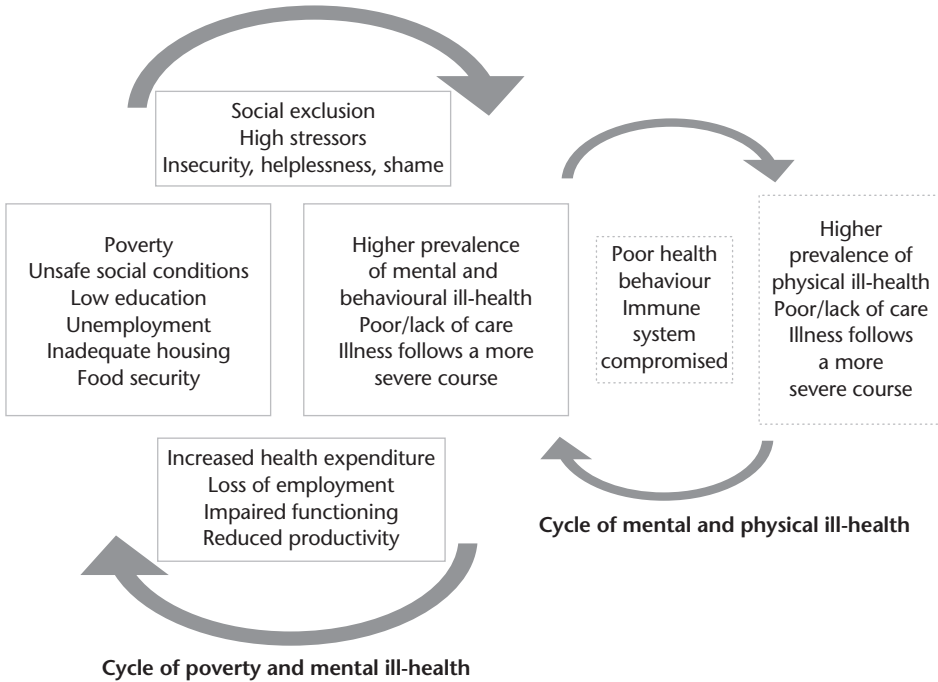
Source: Adapted from Rakodi (2002)

In the quest for human development and self-reliant sustainable communities, this book calls for greater attention to be paid to mental health. Through impeding optimal development and functioning, poor mental health impedes the development of people and the development of societies as a whole, trapping people in a cycle of poverty and mental ill-health. This is well illustrated using Martha Nussbaum's extension of Amartya Sen's concept of capability, differentiating between basic, internal and combined capabilities (cited in Clark, 2006). Basic capabilities refer to innate aspects of the individual (e.g. genetic potential for normal intelligence), which are transformed into internal capabilities with the support of the environment (e.g. adequate nutrition is required for normal intellectual development). Inadequate nutrition, and lack of adequate maternal care, sensitivity and stimulation in young children can lead to impaired cognitive and socio-emotional development (compromised internal capability), even if there was an innate potential for normal intellectual and socio-emotional ability. Combined capabilities are internal capabilities combined with suitable external conditions to facilitate the exercising of a function (e.g. normal intellectual development and exposure to adequate schooling are important for the development of adequate numeracy and literacy). When a person's basic capability is compromised (e.g. through genetic predisposition for low intelligence), additional resources in the external environment, such as remedial education, may be required to compensate for the disability.

As children grow up, impaired cognitive and socio-emotional development (internal capabilities) traps them in a negative cycle of poor educational achievement and reduced productivity and wage earning potential (combined capabilities), which is transmitted to the next generation (Grantham-McGregor et al., 2007). It is estimated that the cognitive abilities of over 200 million children in LMICs are impaired as a result of poverty-associated malnutrition and inadequate care (Grantham-McGregor et al., 2007). This illustrates the extent to which social-environmental factors, which are a product of global societal policies, impact on human life.

Further, in adults, as depicted in Figure 1.2, poverty-related social conditions such as food insecurity, inadequate housing, unsafe social conditions, unstable income resulting from unemployment or under-employment and low levels of education have been found to result in feelings of insecurity, helplessness and shame, which are linked to emotional states of depression and anxiety (V. Patel, 2005). It is not surprising that women, who are more likely to bear the brunt of poverty in LMICs, carry a higher burden of mental ill-health than men in these contexts (V. Patel, 2005). Poor mental health in adults deepens poverty as it has a debilitating effect on income generation potential, as well as increasing income expenditure. Further, maternal depression, which is estimated to affect 20–30 per cent of mothers in LMICs (Rahman, 2005), can lead to impairment in cognitive development, as well as behavioural and emotional problems in children (Murray & Cooper, 2003). Maternal depression has also been linked to stunted growth in children in South East Asia and Pakistan (Patel et al., 2003; Rahman et al., 2004), although similar effects were not found in South Africa (Tomlinson et al., 2006).

**Figure 1.2** Cycles of poverty and mental and physical ill-health



Disability-adjusted life years (DALYs) is a measure of years of life lived with disability, as well as years of life lost, with the disability burden of neuropsychiatric conditions being estimated to account for 13.5 per cent of DALYs worldwide and 27.5 per cent of non-communicable disease DALYs worldwide (WHO, 2005). Neuropsychiatric conditions include mental and behavioural disorders such as depression, schizophrenia and substance misuse disorders, as well as neurological disorders such as epilepsy, Parkinson’s disease and multiple sclerosis (Prince et al., 2007). While the contribution of neuropsychiatric conditions to the overall disease burden in LMICs is lower than in high income countries, given the higher contribution made by communicable diseases, the role of mental health problems in the spread and control of infectious diseases should not be overlooked.

As depicted in Figure 1.2, the links between poor mental and physical health in LMICs is clearly established (Das et al., 2007). A person’s mental health impacts on their physical health in two ways: through negative, health-related behaviour; and through their endocrine and immune systems. Depression and low self-esteem are associated with high risk health behaviours such as smoking, substance abuse, eating disorders and unsafe sex, which increase risk for diseases such as HIV/AIDS, cardiovascular diseases and diabetes (Herrman et al., 2005). Further, when people are stressed, anxious or depressed, their endocrine and immune systems are compromised, which increases their vulnerability to infection (Ray, 2004).

In turn, physical illness can lead to mental ill-health. People with HIV/AIDS are, for example, more likely to suffer from mental health problems than the general community and clinic population (Prince et al., 2007). This is a result of the increased psychological burden of having the disease, as well as direct effects of the disease itself on the central nervous system – effects that can include depression, mania and dementia (Prince et al., 2007). These mental health problems, in turn, deplete a person's immune system, as well as compromising treatment adherence (Prince et al., 2007), trapping people in a negative cycle of physical and mental ill-health and poverty as their productive capacity and resources are eroded even further.

The interrelationship between poverty and mental and physical ill-health thus reduces the human capabilities available in LMICs to reach their potential. It also has the negative effect of eroding socio-economic resources and deepening the health crisis of the poor as a result of reduced productivity, lost employment, increased burden of care on families and caregivers, and increased health and social service expenditure (Desjarlais et al., 1995). This traps people in a vicious cycle of poverty and ill-health.

This cycle demands that development initiatives in LMICs begin to take seriously the need to promote mental health as part of their efforts at developing human capital, alongside physical health, education and skills development. Further, mental health problems contribute to mortality. An estimated 800 000 people commit suicide every year, with 86 per cent coming from LMICs and more than half being between the ages of 15 and 44 (Prince et al., 2007). These are the most productive years of a person's life, with mental disorders being strongly associated with suicide (Prince et al., 2007). While not a Millenium Development Goal in itself, as suggested by Miranda and Patel (2006), mental and behavioural health is fundamental to the achievement of a number of the Millenium Development Goals such as eradicating poverty, reducing child mortality, improving maternal health, achieving universal primary education and combating HIV/AIDS, malaria and other diseases.

## **Defining mental health promotion and the prevention of mental disorders**

The *prevention* of mental disorders is concerned with reducing the incidence, prevalence, duration and recurrence of these disorders, as well as their prognosis (WHO, 2004). Mental health *promotion* is essentially concerned with promoting optimal mental and behavioural health and psycho-physiological development rather than the amelioration of symptoms and deficits (WHO, 2002, 2004). Mental health promotion and the prevention of mental disorders (hereafter referred to as mental health promotion and prevention) are interrelated concepts. Promoting mental health may have an effect on reducing the incidence of mental disorders, as positive mental health is protective against mental disorders, and the prevention of mental disorders may use mental health promotion strategies. Thus, both concepts may be present in the same intervention, having different but complementary outcomes (WHO, 2004). Both aim to reduce risk factors for mental ill-health as well as strengthen protective factors for mental well-being.

Further, following the public health understanding of prevention, the prevention of mental disorders occurs at three levels, namely, primary, secondary and tertiary (WHO, 2004). Primary prevention of mental disorders aims to reduce the onset of mental ill-health, thus reducing the incidence of mental health problems. According to the WHO (2004), these interventions can be universal, selective or indicated. Universal interventions target a whole population; selective interventions target individuals or groups whose risk of developing a mental health problem is elevated as a result of biological, social or psychological risk factors; and indicated prevention programmes target individuals having minimum but detectable signs of mental health problems, or biological markers of a predisposition for mental disorders that are not diagnosable.

Secondary and tertiary prevention do not reduce the incidence of mental disorders, but seek to lower the prevalence of established cases. Secondary prevention is concerned with early detection and treatment of a problem, and tertiary prevention aims to reduce relapse, disability and morbidity, as well as enhance rehabilitation. Together with treatment, all levels of intervention can assist to break the cycle of mental ill-health and poverty. Treatment of maternal depression as a means to prevent mental and physical impairment in children provides a good example of the false distinction often made between mental health promotion and prevention and treatment.

The scope of this volume is, however, limited to mental health promotion and *primary* prevention, given the overlap that primary prevention has with mental health promotion, as well as the overlap that secondary and tertiary prevention have with treatment and ameliorative care. Both mental health promotion and prevention aim to reduce risk factors for mental ill-health, as well as strengthen protective factors for mental well-being. They generally target multiple risk and protective influences that have dual outcomes of promoting mental health and reducing risk for a range of mental disorders.

## **Breaking the poverty and mental ill-health cycle**

Given the deprivation and trauma that many people within LMICs face, increased access to appropriate ameliorative care and treatment for mental health problems is an ongoing imperative. The inadequacies of mental health service provision and unmet need in LMICs are well documented (Saxena et al., 2007; Wang et al., 2007; WHO, 2001, 2005). This response will, however, do little to reduce the prevalence of mental disorders because the incidence of some mental health problems is likely to continue to rise even as the severity, duration and possibility of relapse for those with mental health problems are reduced. It is estimated that depression will be the second leading health disability in the world by 2020 (WHO, 2001). To stem the rising incidence of mental health problems, mental health promotion and prevention interventions that adopt a multisectoral development approach are essential. Smedley and Syme (2000) highlight the importance of social-environmental approaches to disease prevention on the basis of the fact that population groups have characteristic

disease patterns. While individuals may come and go from these groups, disease patterns often persist, indicating the importance of social and environmental factors in disease aetiology (Smedley & Syme, 2000).

Further, there has been a recent surge in scientific knowledge on the role of both individual, social and structural risk and protective factors associated with impairment of development potential, and factors associated with the development of mental disorders. This knowledge base stems from epidemiological studies, which highlight risk and protective factors; evidence on health outcomes from life course development studies; ethnographic studies; and recent evidence from social neuroscience on the neural consequences of social experience. Many of these risk and protective factors are malleable, with an emerging evidence base demonstrating that cognitive and socio-emotional impairment in children can be reduced, and psychological, emotional, social and behavioural health promoted in young people and adults through reducing risk and strengthening protective factors at multiple levels (Barry & Jenkins, 2007; Chunn, 2002; Engle et al., 2007; Jané-Llopis et al., 2005; Saxena et al., 2006).

While these interventions may not be able to eradicate poverty, they have an important role to play in building the human capital asset base in LMICs necessary for breaking the cycle of poverty and ill-health. Reducing risk influences and strengthening protective factors will promote resilience within stressful environments, as well as promoting empowerment of people to challenge the structural and material bases of mental ill-health.

### **Understanding resilience: risk and protective factors**

'Risk factors' refers to conditions that increase the probability of onset of a mental health problem, as well as greater severity and duration of the problem. By contrast, protective factors serve to improve a person's resilience to risk factors through modifying, ameliorating or altering conditions to ensure adaptive responses to environmental stressors (Saxena et al., 2006; WHO, 2004).

Risk and protective factors for mental ill-health are multifaceted, ranging from individual level factors, which include genetic influences, physical health, temperament and personality factors; interpersonal and immediate social factors related to family, peer, school and community influences; and societal structural factors, such as economic policies and cultural influences; to other macro issues such as war and natural disasters. Mental ill-health generally results from the interplay of multiple risk influences within a context of a paucity of protective influences.

Further, risk and protective influences vary in their impact depending on the developmental challenges associated with temporal developmental phases across the lifespan. Life course development studies are increasingly providing information on the long-term health impacts of exposure to risk influences at different developmental stages (Costello et al., 2006). These studies are particularly important for identifying varying risk and protective influences across the lifespan that predict the onset of

mental health problems and that are amenable to promotion/prevention interventions to reduce these risk influences and strengthen protective influences. There is an increasing body of knowledge pointing to generic risk and protective influences, which are temporally linked to the developmental challenges facing the different developmental phases across the lifespan. This indicates the need for vulnerable children and adolescents to be exposed to a series of longitudinal, developmentally timed interventions that mediate these temporally related risk influences.

Given the multifaceted nature of risk and protective influences on mental health, as well as their varying impact across the lifespan, understanding and mediating these influences are best informed by ecological and developmental perspectives. Further, a competency-enhancement perspective is particularly pertinent in scarce-resource contexts, where people are exposed to many risks associated with poverty, social inequality and injustices. While risk reduction interventions (which target modifiable risk factors for poor mental health) are important, promoting resilience in the face of risk through health promotive interventions can promote positive mental health outcomes in the context of risk. The competency-enhancement perspective focuses on enhancing resilience in the face of risk through strengthening protective factors, thus reconceptualising mental health in positive rather than negative terms (Barry & Jenkins, 2007).

Further, a competency-enhancement approach demands that communities 'in receipt' of interventions are active and equal partners in the intervention. Given the history of colonialism and oppression experienced by many LMICs, this is particularly important to promote empowerment, ownership and cultural congruence of the programme with the target population. A review of health promotion interventions reveals that those programmes where communities have been involved as partners in the design, implementation and evaluation of interventions are most successful (Smedley & Syme, 2000).

The majority of programmes building resilience within a competency-enhancement approach have focused on children and adolescents (Barry & Jenkins, 2007). Resilience in children and adolescents is understood to occur when promotive factors facilitate a process of overcoming or ameliorating the negative effects of risk exposure (Fergus & Zimmerman, 2005). Resilience models, which understand the developing person ecologically, focus on building promotive factors both within and external to the individual. Building promotive factors at the individual level involves strengthening factors internal to the person, such as coping skills and self-efficacy. Building resources external to the individual involves strengthening protective influences, which can occur at the interpersonal level (for example, strengthening parental support and monitoring), the community level (such as developing community organisations that promote youth development) and the policy level (for example, policies that promote school nutrition programmes) (Fergus & Zimmerman, 2005).

Bronfenbrenner's (1979) *ecological developmental perspective* provides an important framework for understanding mental health promotion and prevention from a life-

span developmental perspective. This perspective understands human development across the lifespan as being shaped both by immediate influences and more remote influences. Within this eco-development theory, risk and protective influences operate within four nested systems: the microsystem, the mesosystem, the exosystem and the macrosystem. Immediate systems in which the individual's interpersonal transactions occur include the micro- and mesosystems. Bronfenbrenner (1979) theorises that the microsystem contains basic dyadic relationships where a person interacts with another person who could, for instance, be a parent, teacher or friend, but extends to include larger interactive relationships such as triads, tetrads and so on. As with other ecological understandings, these interactions are reciprocal, with each party influencing the outcome of the interaction.

The mesosystem refers to a person's accumulated microsystems. It follows that health promotion interventions within the mesosystem would monitor and intervene within the multiple microsystems of an individual to strengthen protective influences. Strengthening protective influences within one microsystem may serve to offset the negative influences of another microsystem. For example, strengthening a supportive relationship with a teacher may serve to buffer a child against a negative parent-child relationship. While microsystem interventions serve to increase proximal protective influences, they do little to overcome distal influences, which may compromise sustainable health promoting practices.

According to Bronfenbrenner (1979), the exosystem refers to more distal settings that impact on the developing person, but which do not involve them as an active participant. Examples include settings such as the school governing body, parents' place of work, or the neighbourhood or community development board. These settings occur largely at the community level and influence the developing person indirectly through influencing environmental contexts that may or may not be health enhancing, such as safe or unsafe neighbourhoods. The macrosystem refers to distal influences of a cultural and societal nature, including structural influences. Structural societal influences encompass the impact of broader socio-economic policies on health outcomes; for example, the existence of early childhood learning centres, free health care and school nutrition programmes. Cultural influences include belief systems and ideologies, which inform attitudes and may or may not be health enhancing.

Ecological transitions occur whenever there is a change in role, settings or both (Bronfenbrenner, 1979). For example, becoming a mother involves a change in role, as does reaching puberty and becoming an adolescent. Becoming an adolescent and entering secondary schooling involves a change in both setting and roles. Bronfenbrenner (1979) suggests that the ecology of human development is the process of mutual accommodation between the person and their environment. Changes can occur within any of the four levels of a person's ecosystem. For example, the birth of an additional child for a mother will represent the development of a new microsystem. Joining a parent group will change the mother's mesosystem and provide her with more social support, which would help her emotionally and

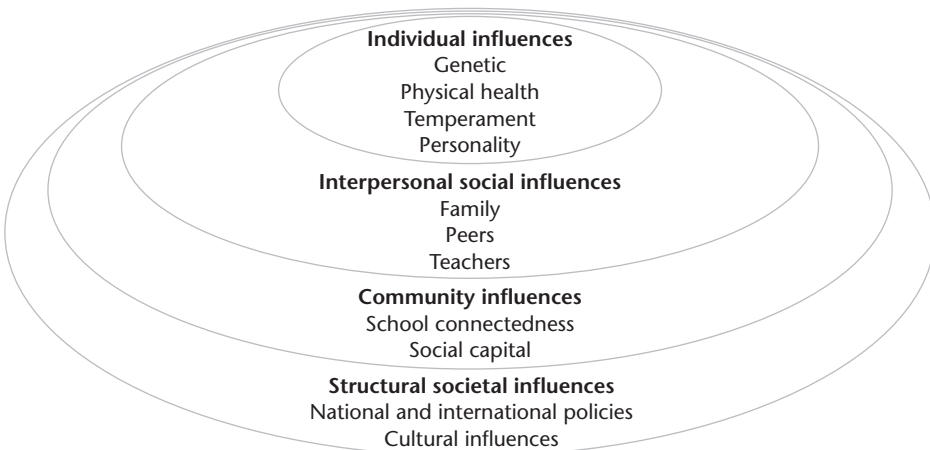
materially to parent more effectively. The development of a community policing forum, which ensures greater informal social controls at a community level, represents a change in the exosystem that would be beneficial to the child – directly through increased neighbourhood safety, as well as indirectly through a reduction in the mother’s stress levels as a result of not having to worry constantly about her child’s safety. The introduction of early childhood learning centres by the government represents a macrosystem change that would benefit the child directly through providing educational stimulation outside the parent–child microsystem.

Bronfenbrenner’s (1979) eco-developmental model has been largely used as a theoretical framework for understanding risk and protective factors impacting on child development, yet it provides a useful framework for understanding the multiple influences that impact on mental health across the lifespan and takes account of the varying impact that these influences may have, depending on the developmental challenges that a person confronts.

While Bronfenbrenner’s (1979) model has been elaborated on, given its developmental focus, there is a wide assortment of theories spanning ecological perspectives from a variety of disciplines and sub-disciplines, including health promotion, health psychology, developmental psychology and community psychology. The terminology and configuration used to describe each level may vary, but they can generally be synthesised into four common levels, as depicted in Figure 1.3, which form the basis for understanding risk and protective influences in this text: individual, interpersonal and community level influences, which are more proximal; and structural societal influences, which are more distal.

Using this ecological perspective and drawing from a model developed by the Pan American Health Organization for changing youth behaviour (Breinbauer & Maddaleno, 2005), a framework for guiding the development and implementation of mental health promotion and prevention programmes in scarce-resource contexts

**Figure 1.3** Levels of risk and protective influences for mental health



**Figure 1.4** Staged framework of change

Theories for understanding influences	Identification of context & risk & protective influences	Interventions: methods & processes	Assessing effects	Dissemination
Individual level theories	Individual level context & risk & protective influences	Individual level interventions	Assessing changes in individual level influences	Dissemination of individual level interventions
Interpersonal level theories	Interpersonal level context & risk & protective influences	Interpersonal level interventions	Assessing changes in interpersonal level influences	Dissemination of interpersonal level interventions
Community level theories	Community level context & risk & protective influences	Community level interventions	Assessing changes in community level influences	Dissemination of community level interventions
Policy level theories	Policy level context & risk & protective influences	Policy level interventions	Assessing changes in policy level influences	Dissemination of policy level interventions

Source: Adapted from Breinbauer & Maddaleno (2005)

has been developed for this text, and forms the basis of the chapters on practice issues in Part 1 of the volume (see Figure 1.4). This framework incorporates five distinct stages that should occur at each ecological level. The first stage involves selecting theories for each ecological level described above – theories that are appropriate for understanding the risk and protective influences for the issue at hand and the developmental stage of the target group. The second stage entails developing an understanding of the socio-cultural context and the risk and protective influences for mental health of the target group at each ecological level. The third stage involves developing and implementing theoretically and contextually informed interventions at each ecological level, while simultaneously identifying measurable variables of change. The fourth stage involves assessing the intervention effects in relation to the identified measurable variables, as well as understanding the processes involved in the change or lack thereof. Once the efficacy of the programme has been established, the final stage would entail disseminating the programme more broadly in a manner that ensures that fidelity and effectiveness are maintained.

Using this framework within each developmental phase, interventions would ideally be developed for each ecological level of influence. These interventions may occur in multiple settings, for example, in people's homes, in schools, in the community more generally, in the health system and in the workplace. This highlights, once again, the intersectoral nature of mental health promotion and prevention interventions. Further, intervening at national and international levels to facilitate structural, policy changes may be required, to facilitate sustainability of programmes through mainstreaming them into the normal service delivery functions of the various sectors.

## Structure of the book

The volume is divided into two parts. The first part is devoted to practice issues, providing the reader with the necessary information to embark on programme development and implementation following the model provided in Figure 1.4. As such, Part 1 covers the theoretical models, processes, research methods and challenges of developing, implementing, evaluating and disseminating mental health promotion and prevention programmes in LMICs.

Chapter 2 is divided into two sections. The first section provides an overview of relevant theories for understanding risk and protective influences that mediate mental health in scarce-resource contexts at each identified ecological level. Thus, it provides the reader with the necessary information to embark on the first stage in the development of an intervention, as identified in Figure 1.4. The second section is concerned with how theories inform interventions and provides a theoretical framework for guiding mental health promotion and prevention interventions in scarce-resource contexts. Thus, it also provides the reader with assistance to develop theoretically informed interventions in the third stage of Figure 1.4.

Chapter 3 essentially covers contextual issues and processes that need to be considered in working with people and communities in the implementation of mental health promotion and prevention programmes in scarce-resource contexts. Thus, it too provides assistance with the third phase of the intervention model in Figure 1.4. Given that most mental health promotion programmes in LMICs are adapted from interventions developed for high income contexts, special attention should be paid to cultural and social dynamics in LMICs to ensure that interventions are participatory and culture centred.

Chapter 4 is concerned with research evaluation aspects of programme development and implementation. It deals with formative evaluation, which is concerned with understanding risk and protective influences for a particular issue and target group so as to inform the intervention. Thus, it provides assistance for the second phase of the intervention model in Figure 1.4. This chapter also covers process and summative evaluation, which are concerned with establishing the efficacy and effectiveness of mental health promotion and prevention interventions, as well as the process factors that aided or hindered the intervention's success or lack thereof. Thus, Chapter 4 is useful for guiding the fourth phase of the intervention model in Figure 1.4. Evidence-based programmes are crucial for future dissemination and uptake of programmes by government and non-governmental agencies in LMICs.

Chapter 5 focuses on the challenges of dissemination and diffusion of promotion and prevention interventions post the research phase. Thus, it is helpful for guiding the fifth and final stage of the implementation model depicted in Figure 1.4. In the context of scarce mental health resources and infrastructure in developing countries, the transfer and dissemination of interventions associated with mental health promotion and prevention are made more difficult, with issues of fidelity and sustainability coming to the fore with a heavier reliance on non-professional people to deliver programmes.

The second part of the volume adopts a temporal lifespan developmental approach to mental health promotion and prevention in scarce-resource contexts. As indicated previously, different developmental phases across the lifespan are associated with varying developmental challenges and varying risk and protective influences. Using the ecological levels identified in Figures 1.3 and 1.4 as a framework, each chapter in Part 2 provides a detailed overview of the extent of impaired mental health in LMICs associated with each developmental stage, risk and protective influences, and evidence-based mental health promotion and prevention programmes that have been found to be effective for scarce-resource contexts.

Chapter 6 focuses on *early childhood*, typically up to 5 years, which is a crucial period for sensori-motor, cognitive language and socio-emotional development, and a particularly vulnerable period with regard to the possible development of a wide range of cognitive and socio-emotional deficits (Grantham-McGregor et al., 2007). A review of development outcome research in LMICs reveals that risk influences for cognitive impairment and socio-emotional deficits are associated with poor nutrition; micronutrient deficiencies; environmental toxins; infectious disease such as HIV/AIDS, diarrhoea and cerebral malaria; poor maternal stimulation and sensitivity; and exposure to stress and violence (Walker et al., 2007).

Using an ecological systemic framework, mental health promotion interventions that have been shown to mediate mental health outcomes in a positive direction are described. Examples include ensuring adequate nutrition and micronutrient supplements for pregnant women and babies, as well as treatment of maternal depression at the individual level; programmes to improve mother-child connectedness at the interpersonal level; the introduction of early childhood learning centres (school setting) at the community level; and structural, policy level interventions to ensure widespread coverage and sustainability of such interventions.

Chapter 7 is concerned with *middle childhood* and *pre-adolescence*, which is characterised by formal primary schooling from about 6/7–10/11 years. During this period, exposure to influences beyond the family widens as children are exposed to other adults and peers through the school and other settings. The development of a healthy self-concept is particularly important during these formative years, with the school and family settings playing an important role in this regard.

This chapter discusses important interventions for children during this period, including programmes aimed at strengthening family and school connectedness, and social skills training and remedial education, as well as treatment for children with emotional and specific difficulties of learning, to prevent school failure and dropout, which are associated with negative mental and behavioural health outcomes later in life.

Chapter 8 deals with the challenge of *adolescence*, which includes adjustment to biological changes associated with sexual maturation; the emergence of more complex cognitive abilities associated with the development of more abstract thinking; and socio-emotional changes associated with individuation, identity development and separation from parents. As discussed in the chapter, universally,

this is also the time of onset of most mental disorders, which may only be detected later in life. Disadvantaged adolescents are at greater risk, with the WHO (2004) reporting that 1 in 5 disadvantaged adolescents under the age of 18 has a mental disorder, compared to 1 in 8 worldwide.

This chapter reviews successful mental health programmes for adolescents, which typically involve life skills education programmes at the individual level. At the interpersonal and community levels, programmes that promote more protective family, school and community influences in LMICs are also discussed.

Chapter 9 is concerned with mental health promotion interventions with *adults*. Work stress and unemployment are identified as global risk influences for anxiety, depression, burnout, cardiovascular disease and suicidal behaviour in adults (Saxena et al., 2006). In LMICs, single, widowed or divorced women are particularly at risk for developing common mental disorders (Das et al., 2007). Given the association between poverty, gender, social isolation and mental ill-health in adults, the importance of poverty alleviation strategies and social support, in addition to treatment and rehabilitation services for adults, is discussed. In particular, the importance of treatment of maternal depression in LMICs is highlighted, given the negative impact that this can have on the cognitive and socio-emotional development of children (also discussed in Chapter 6).

Chapter 10 addresses mental health promotion in *old age*. Dementia is one of the major causes of disability in later life, with the limited evidence available from LMICs suggesting that depression may be associated with social disability and impaired quality of life in these contexts. As indicated in this chapter, within scarce-resource contexts, programmes to mediate positive outcomes for the older person at the individual level include micronutrient support, the promotion of lifelong physical health, and treatment of depression. At the interpersonal level, strengthening familial and peer social support are important, given the shrinking social networks of older people. And at a policy level, financial protection of older people should be promoted where possible through the provision of state old age pensions or mandatory intra-family cash transfers.

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# 2 Theoretical considerations: from understanding to intervening

Inge Petersen & Kaymarlin Govender

Theory is important for aiding understanding of risk and protective influences, as well as guiding interventions for mental health promotion and the prevention of mental disorders (hereafter referred to as mental health promotion and prevention). Some theories aid both in understanding the problem and intervening to change it, while others only assist with one or the other (Bartholomew et al., 2001). In this chapter, we discuss theories for understanding the problem and theories for intervening separately, even though some theories account for both. We first provide an overview of theories that aid understanding of risk influences for mental ill-health, organising them into the ecological systemic levels presented in Chapter 1 of this volume. Thereafter, drawing on several influential change theories, we suggest a macro theoretical framework for guiding mental health promotion and prevention interventions in scarce-resource contexts.

## Theories for understanding the problem

### Individual level theories

Health promotion theories, developed largely in high income contexts, have been dominated by theories for understanding influences on individual behavioural intention. Common health promotion theoretical models at this level include the Health Belief Model (Becker, 1974), the theory of reasoned action and the theory of planned behaviour (Ajzen, 1991; Fishbein & Ajzen, 1975), and the theory of triadic influence (Flay & Petraitis, 1994) – for a more detailed description of these theories and others, consult Bartholomew et al. (2001).

#### The Health Belief Model

The Health Belief Model was one of the first health promotion theories and is based on the understanding that a person's likelihood of performing a health behaviour is based on an assessment of the following constructs: *perceived susceptibility* (perception of personal risk of contracting the condition); *perceived severity* (perception of the severity of the condition); *perceived benefits* (perception of the effectiveness of various actions to reduce susceptibility to the condition); and *perceived barriers* (perception of potential difficulties in performing the health action). Health behaviour is understood to be informed by a cost–benefit analysis of the perceived feasibility and benefits weighed against the costs of performing the behaviour. In addition, the Health Belief Model understands behaviour to be

triggered by a *cue to action*, which refers to factors that prompt action. These factors could be internal, such as a symptom of an illness, or external, such as a health message. Later descriptions of the Health Belief Model also understand *self-efficacy* – which refers to perception of ability to successfully perform an action – to play an important role in health-related behaviour (Bartholomew et al., 2001; Rimer & Glanz, 2005).

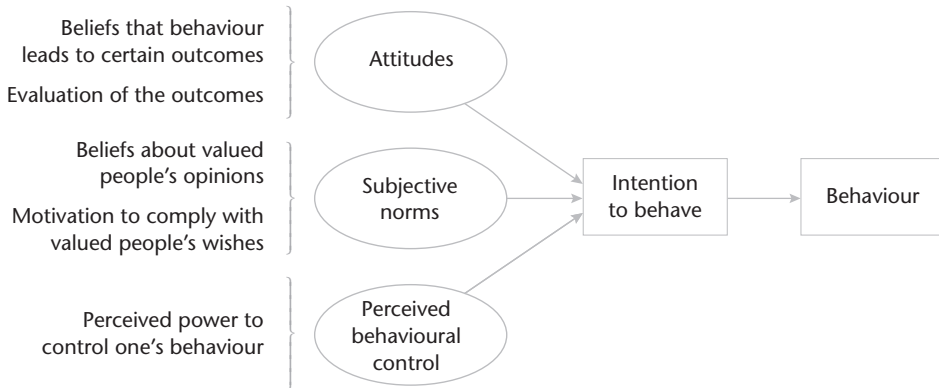
Within the Health Belief Model, motivation to change behaviour requires that people are sufficiently threatened by their behaviour, and that they feel that they have the ability to behave differently. Further, it requires logical deductive thinking characteristic of formal operations which, within the Piagetian developmental framework, begin to develop during adolescence. The Health Belief Model should thus be applied with caution to children and adolescents. Pre-adolescent children are unlikely to have the intellectual maturity to engage in the cognitive processes embedded in the Health Belief Model's understanding of behaviour change. Further, with regard to adolescents, their egocentricism or preoccupation with the self, which has been associated with a sense of invincibility (Elkind, 1984), may result in their feeling less threatened by their behaviour, thinking that they are impermeable to the negative consequences of risk behaviour. This trend has been documented in South African studies on early adolescent sexual risk behaviours related to HIV/AIDS (Eaton et al., 2003).

#### Theory of reasoned action and theory of planned behaviour

The theory of planned behaviour (Ajzen, 1991) is an extension of the theory of reasoned action (Fishbein & Ajzen, 1975) and is perhaps the most frequently used theory of health promotion. The theory of reasoned action posits that a person's intention to perform a behaviour is the most important determinant of actual behaviour and is in turn determined by their *attitude towards the behaviour*, as well as *subjective norms* associated with the behaviour. The theory of planned behaviour adds the construct of *perceived behavioural control* to informing behavioural intention.

*Attitude towards the behaviour* is derived from an individual's beliefs about the outcomes of a behaviour and their evaluative judgement of the behaviour. By *subjective norms* is meant perceived social expectations or beliefs about whether valued people would approve or disapprove of the behaviour, as well as motivation to comply with norms that would facilitate approval. This is sometimes referred to as social pressure. *Perceived behavioural control* is the additional construct that differentiates the theory of reasoned action from the theory of planned behaviour; perceived behavioural control refers to self-efficacy or the subjective belief that one can perform a particular behaviour (Bartholomew et al., 2001; Rimer & Glanz, 2005).

As with the Health Belief Model, these theories require the presence of logical deductive reasoning to facilitate the recognition of how these different elements influence behaviour. While recognising the role of emotions in behavioural intention, these theories assume that one can identify the underlying reasons for the prevailing emotions as a means to understanding behavioural intention (Breinbauer & Maddaleno, 2005).

**Figure 2.1** The theory of planned behaviour

Source: Adapted from Rimer & Glanz (2005)

Thus, the application of these models to understanding influences on the behaviours of children and pre-adolescents is questionable, given that these age groups are likely to have difficulty identifying underlying reasons and emotions that drive behaviours.

### Theory of triadic influence

The theory of triadic influence (TTI) is very similar to the theory of planned behaviour, understanding behavioural intention to be influenced by the following three streams of influence, which are interconnected: intrapersonal influences, cultural environmental influences, and social situation contextual influences. The TTI provides, however, greater detail with respect to the intrapersonal influences that inform perceived power to perform a behaviour or behavioural control.

*Intrapersonal influences* encompass the psychological, cognitive, emotional and social factors that make up the mental health of a person (as described in Chapter 1 of this volume). These influences inform perceived power to perform a behaviour through self-esteem and self-efficacy. Flay and Petraitis (1994) broadly define personality along five main dimensions, which are thought to affect health-related behaviour through self-esteem and self-efficacy, and which apply equally to mental health. These are as follows:

- Behavioural control, which includes behavioural constraint, impulsivity, task orientation, hyperactivity, aggressiveness and achievement motivation.
- Emotional control, which includes psychological adjustment, emotional stability, neuroticism and emotional distress.
- Extraversion/introversion, which includes such things as social activity, social adaptability and assertiveness.
- Sociability, for example, likeability, friendliness, compliance and conformity.
- General intellectual intelligence.

The TTI understands a person's sense of self – or self-concept – to be influenced by their ability to control their behaviour and/or emotions, with people who are able to control their actions or moods being likely to develop stronger self-esteems and self-concepts and consequently being more likely to display greater self-determination in health-related behaviour (Flay & Petraitis, 1994).

Further, extraversion/introversion and sociability are thought to shape a person's health-related social competence, with low perceived self-efficacy with regard to social situations compromising a person's ability to successfully change health-related behaviour. Flay and Petraitis (1994) suggest that health-related self-efficacy is shaped by self-determination as well as the belief in one's competence to perform a given health-related behaviour.

With regard to *cultural environmental influences*, as with the Health Belief Model, the TTI understands health-related beliefs and attitudes, which tend to originate in the broader socio-cultural environment, to inform health-related knowledge, beliefs, values, expectations and evaluations of the outcomes of behaviour (Flay & Petraitis, 1994).

With respect to *social situation contextual influences*, the TTI understands motivation to comply with perceived norms to originate in a person's immediate social context. Similar to the theory of reasoned action and the theory of planned behaviour, the TTI recognises that people are likely to observe and imitate the attitudes and behaviour of those with whom they are closely bonded.

A limitation of all these theories at the individual level in scarce-resource contexts is environmental factors, which may constrain individual choice. A person may have the intention to perform a behaviour – for example, go for voluntary counselling and testing – but not have access to such services. Availability of economic resources, political history and the extent to which people are aware of and can access community services are likely to play a greater role in influencing individual behavioural choices than in rich-resource contexts. A further constraint in collectivist societies, which frequently dominate in low and middle income countries (LMICs), is that greater emphasis on collectivist identities may constrain individual decision-making to a greater extent than in Western societies (Airhihenbuwa & Obregon, 2000). Despite this constraint, it should be noted that individual level theories have increasingly been found applicable in LMICs, amongst, for example, youth in sub-Saharan Africa (Mathews et al., 2009; Schaalma et al., 2009).

## Interpersonal level theories

### Social cognitive theory

Bandura's (1986) social cognitive theory is one of the most frequently used health behaviour theories to understand how interpersonal relationships inform behaviour. It explains, amongst other things, how in the context of close relationships with others, behaviour is learned through observation and imitation as well as through social reinforcement.

Social cognitive theory has its roots in social learning theory, to which Bandura (1986) added the construct of self-efficacy, again demonstrating the linkages between the different streams of influence. Central to social cognitive theory is the construct of *reciprocal determinism*, which refers to the dynamic interaction between the person, their behaviour and the environment. A person is understood as not simply automatically responding to influences in their social environment; rather, they make personal choices, as well as influencing the social environment through their behaviour.

The person learns behaviour through *observational learning* or *modelling*. A person learns by observing the behaviour of others, as well as the reinforcements (rewards or penalties) that others receive for their behaviour, known as vicarious reinforcement. Observational learning has the greatest impact when the person being observed is a powerful role model. *Outcome expectations* are derived from observational learning and the term refers to the expected outcome of one's own action if the behaviour is modelled. Further, a person's behaviour is maintained or eliminated through positive or negative reinforcements, which can be either internal (self-initiated rewards) or external. Added to these concepts are intrapersonal level characteristics of *self-efficacy*, or confidence in one's ability to perform a behaviour. This is differentiated from *behavioural capability*, or the actual knowledge and skills to perform the behaviour (Bartholomew et al., 2001; Rimer & Glanz, 2005).

### Social support theories

Social network and social support theories are also used to understand and inform interventions at the interpersonal level (Bartholomew et al., 2001; Breinbauer & Maddaleno, 2005). There is ample evidence on the role of social support in bolstering mental and physical health in adults (e.g. Brownell & Shumaker, 1984). This is thought to occur through providing a context for modelling and reinforcement of positive health behaviour, serving to buffer the effects of stress on health and facilitating access to resources to help cope with stress (Heaney & Israel, 1997).

Social support can be derived from significant 'others' in the context of an interpersonal relationship, as well as within the context of group systems that may not necessarily include significant others. For the purposes of this chapter, we differentiate social support derived from significant others in the context of a microsystem, as conceptualised by Bronfenbrenner (1979) (see Chapter 1, this volume), from social support derived from broader social networks, often referred to as social capital. For the purposes of this text, social support derived from microsystem relationships is located at the interpersonal level and social support derived from broader social networks is located at the community level.

Social support can take different forms: emotional support such as empathy and caring; instrumental support, which could be material support (for example, lending money), or service assistance (such as babysitting); informational support in the form of giving advice or suggestions; and appraisal support such as constructive feedback, which assists in self-evaluation and identity enhancement (Heaney & Israel, 1997).

Emotional support is, however, the form of social support most strongly associated with good health and well-being (Heaney & Israel, 1997); having at least one strong intimate relationship has been found to be important for health and well-being (Michael et al., 1999). Interestingly, more recent studies differentiating perceived social support, which refers to the perception of how available and how adequate social support is, from actual social support suggest that perceived social support may be a more important factor in promoting mental health (e.g. McDowell & Serovich, 2007).

Studies on social support have also found cultural and gender differences. A study of European American, Chinese American and Japanese American breast cancer patients found that European Americans desired more social support than the other two groups (Wellisch et al., 1999). In terms of gender differences, in one study of 2 348 married and cohabiting heterosexual adults, social support from one's partner and family predicted psychological well-being amongst both women and men. However, women's psychological and physical health was more likely to suffer when their family was under stress. Moreover, whereas social support reduced stress amongst men and women in this sample, friends and family were more common sources of social support for women than for men (Walen & Lachman, 2000).

Further, social support groups are more likely to be sought out by people suffering stigmatising illnesses such as cancer than by those suffering less stigmatised disorders such as heart disease (Davison et al., 2000). This finding suggests that people suffering from more stigmatised illnesses such as HIV/AIDS and tuberculosis, which are highly prevalent in certain LMICs, would benefit significantly from social support groups.

### Parental styles

Parental styles have been found to play a crucial role in the mental and behavioural health of children and adolescents within Western cultural contexts (Fergus & Zimmerman, 2005). In contrast to the influence of peers, dating partners and community factors, parents are non-replaceable significant others who are responsible for the primary socialisation of children and adolescents in these contexts (Longmore et al., 2001). 'Parenting styles' refers to the attitudes and behaviour of parents towards their children, which create the context for a child's development. Maccoby and Martin (1983) distinguish four parenting styles, which occur across two dimensions: involvement support and control. Authoritative parenting is characterised by high involvement support and control; authoritarian parenting, by high control and low involvement support; permissive parenting, by high involvement support and low control; and uninvolved or neglectful parenting, by low involvement support and low control.

Breinbauer and Maddaleno (2005) build on Maccoby and Martin's (1983) and Steinberg's (1999) understanding of authoritative parenting, identifying four essential elements: acceptance-involvement, structure, autonomy support and development support (see Figure 2.2).

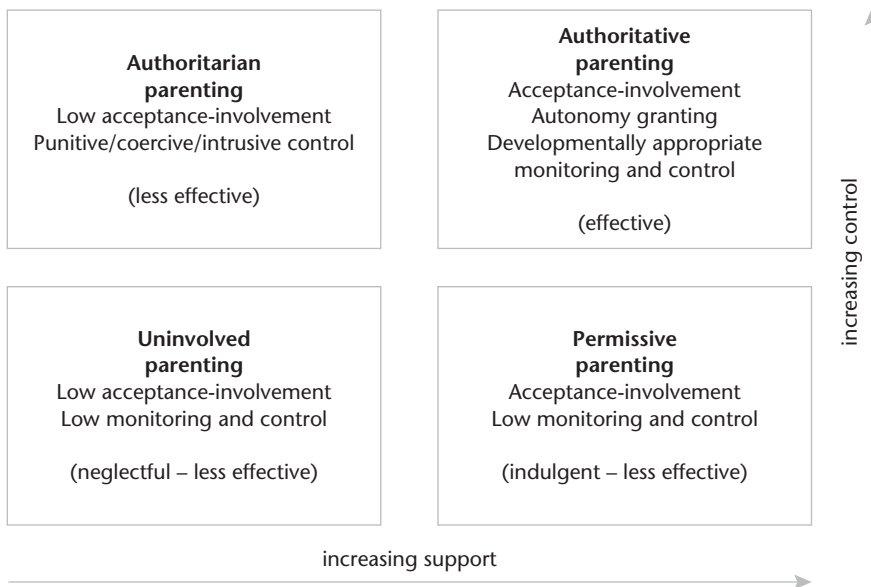
*Acceptance-involvement* in a relationship is present when there is a connected, supportive and responsive relationship between parent and child, which encourages open communication. This dimension has been found to promote healthy psychosocial development and fewer internalising psychological problems in children (Grey & Steinberg, 1999).

*Structure* or behavioural monitoring and control refers to the extent to which a parent sets limits and monitors a child's behaviour. Authoritative parents are firm in setting limits and monitoring behaviours that are appropriate for the child's/ adolescent's developmental stage. This dimension has been found to reduce the risk of behavioural problems in children (Grey & Steinberg, 1999).

*Autonomy support* or *autonomy granting* refers to the extent to which parents facilitate developmentally appropriate autonomy and self-reliance within a protective parent-child relationship where parents still assume ultimate responsibility for their child's behaviour through setting limits and monitoring of behaviour. Autonomy granting has been associated with healthy psychosocial development and lower internal distress in children (Grey & Steinberg, 1999).

*Development support* refers to the degree to which parents encourage the development of reasoning abilities and problem-solving, as well as emotional thinking and empathy. The former is enabled through verbal interactions that both value and challenge a child's opinion in the context of a loving relationship. The latter is facilitated by interactions that encourage verbal expression of emotions, as well as reflection on the consequences of the child's actions for other people.

**Figure 2.2** Parenting styles



Source: Adapted from Breinbauer & Maddaleno (2005)

There is an increasing body of literature, largely from Western cultural contexts and Latin America, that links authoritative parenting to decreased risk behaviour and increased adjustment in children. A review of studies in these contexts by Breinbauer and Maddaleno (2005) suggests that, compared to authoritarian, uninvolved and permissive parenting, authoritative parenting has been linked to both increased mental health and lower risk behaviour amongst adolescents. With regard to mental health, authoritative parenting has been associated with greater self-control, peer resistance and conflict resolution, as well as decreased psychological distress, antisocial behaviour and school misconduct. In relation to risk behaviour, authoritative parenting has been associated, *inter alia*, with decreased sexual risk behaviour, decreased teenage pregnancy and decreased interpersonal violence, as well as lower use of tobacco, alcohol and drugs in adolescents (see Breinbauer & Maddaleno, 2005, for a review).

While the elements of authoritative parenting are deemed to be health enabling for children in Western culture, which encourages individuation processes during adolescence, their application to other cultures requires further investigation. There is an emerging body of evidence that suggests that in collectivist societies, such as Arab culture, which place greater emphasis on collectivist and familial identities, authoritarian parenting is associated with better functioning in children (Dwairy, 2004; Dwairy & Menshar, 2006).

Further, evidence suggests that in contexts of poverty, high levels of parental absence make it difficult for parents to adopt an authoritative parenting style (Govender & Moodley, 2004; McLoyd, 1990; Paruk et al., 2005). In these contexts, parents often adopt an authoritarian style of parenting. Evidence as to whether authoritarian parenting is protective in these contexts is equivocal. While it has been found to be protective for African American girls in high risk environments (Baldwin et al., 1990), South African studies suggest the opposite. For example, Wood, Jewkes et al. (1997) found that mothers who felt that they could not control their children's sexual behaviour, arranged for their daughters to receive contraceptive injections from menarche. While this was associated with a reduction in pregnancy risk, low parental guidance and supervision contributed, however, to increased rates of adolescent sexual activity and lower rates of condom use in these communities (Kelly & Parker, 2000). Forbidding contraception as a means of controlling children's sexual activity, another common practice in South Africa, was also found to be associated with lower condom use due to fear of discovery and parental anger (Wood, Maepa et al., 1997).

In relation to factors that have been found to assist parents in poor communities to more effectively parent their children, social support and positive social capital, discussed in greater detail in the following sections, have been found to be protective influences. Social support at the interpersonal level can assist poor families with informal child care. Social capital at a community level can assist through providing informal social controls for monitoring children's behaviour, as well as minimising risk influences within the community (Paruk et al., 2009; Taylor, 1996).

## Community level theories

Communities are commonly understood as geographically bounded areas, but 'communities' also refers to social groups with whom people are bonded and have something in common. Thus, risk and protective influences at a community level emanate from the physical environment of a geographical community in which a person is located, as well as from their social environment.

### Social and cultural identities and representations

Social identities or cultural identities refer to the social categories or groups to which people belong (Hoggs & Abrams, 1988). A social group or category is a set of individuals who hold a common social identification or view themselves as members of the same category. Helman (1994) asserts that this common social identification or cultural base is related to a set of guidelines (both explicit and implicit), which members of a particular society inherit, which tell them 'how to *view* the world, how to experience it emotionally, and how to *behave* in relation to other people' (Helman, 1994, pp. 2–3). Through a social comparison process, persons who are similar to the self are categorised with the self and labelled the in-group; persons who differ from the self are categorised as the out-group.

'Social or cultural representations' (Joffe, 1999) refers to group-based symbolic understandings of issues. Social representations are associated with values, images, social stigma, beliefs and myths held by a group, which inform taken-for-granted normative behaviour within the group (Markova & Wilkie, 1987), such as child rearing and sexual behaviour. Social representations, which are constructed within cultural contexts, provide a mechanism for transmitting these cultural guidelines within and across generations through the use of symbols, language, art and ritual. These cultural practices are fundamentally related to the process of being and becoming a social being (Swartz, 1998).

The process of *anchoring* and *objectifying* describes the way in which social and cultural representations and associated practices are developed. Anchoring involves people making sense of new information and events through moulding them in such a way that they appear continuous with existing ideas (Joffe, 1999). New knowledge and events – for example, information that 'dry sex', a common sexual practice in some African cultures, increases one's risk of contracting HIV – are transmitted through various media forms and authority figures and interpreted in lay terms, rendering that which is unfamiliar (and initially inherently threatening), familiar.

Importantly, anchoring is not an individual process, but one in which group members make the unfamiliar familiar through shared ideas, images and language. This process occurs within group contexts or dialogical spaces where social and cultural identities and representations form.

Through the second generative process of *objectifying*, ideas, words and images become a 'reality' that is independent of group members (Joffe, 1999). Such

representations have a prescriptive role. That is, they impose their meanings of people, events or issues upon us with an irresistible force.

The concept of social and cultural identities and representations is highly relevant to health promotion in African contexts, given the dominance of collectivist societies. Campbell and MacPhail (2002) assert that ‘in contrast to views that health-related behaviours are determined by individual rational choice, the social identity literature emphasises how health-related behaviours are shaped and constrained by collectively negotiated social identities’ (p. 332).

### Social capital theory

There is increasing evidence to suggest that positive social capital has a positive impact on mental health (as discussed in Chapter 1 of this volume). While there are a number of varying conceptualisations of social capital (Poortinga, 2006), Carpiano’s (2006) model, which is based on the work of Bourdieu and Putnam, is one of the clearest. Using Carpiano’s (2006) conceptualisation, social capital is understood to emerge out of social networks that provide the basis for the development of socially cohesive communities characterised by strong social organisations, common norms and social trust, which facilitate coordination and cooperation for mutual benefit. Carpiano (2006) identifies four forms of social capital:

- Social support, consisting of emotional, instrumental, appraisal and informational components on which an individual can draw to cope with daily problems.
- Social leverage, which helps individuals access information and advance socio-economically.
- Informal social control, which is the ability of individuals to collectively maintain social order and keep the neighbourhood safe.
- Community organisation participation, which refers to formally organised groups for addressing neighbourhood issues.

Further, these forms of social capital can be categorised into individual and community social capital.

*Individual social capital* occurs within groups in the form of social support and social leverage, which the individual acquires through direct contact with other people in groups or microsystems. Social support, as previously described under interpersonal level theories, is broadly understood as an exchange of resources between individuals that is perceived to be helpful to the recipient.

While individual social capital emerges out of social networks in which a person participates directly, *community social capital* is an outcome of social networks, which benefit the entire community and in which a person may or may not participate. Using Carpiano’s (2006) conceptualisation, community social capital is evident when there is formal community organisation participation, as well as when there are informal social controls. Community organisation participation refers to

the presence of formally organised groups for addressing neighbourhood issues (e.g. a neighbourhood or community development board or a school board). Whether a person participates directly or not in these organisations, the person will benefit from them. By 'informal social controls' is meant collective efforts to maintain social order and keep the neighbourhood safe. Such informal social controls may be aided by the existence of a formal community-based organisation such as a neighbourhood policing forum or more informally by, for example, groups of concerned parents taking measures to improve safety in the community and address unsafe elements (e.g. taking action against drug dealers).

What is evident from this conceptualisation of community social capital is that it emerges out of social networks, be they informal groups or more formal organisations, and in which a person may or may not participate.

### Structural societal level theories

#### Public policy

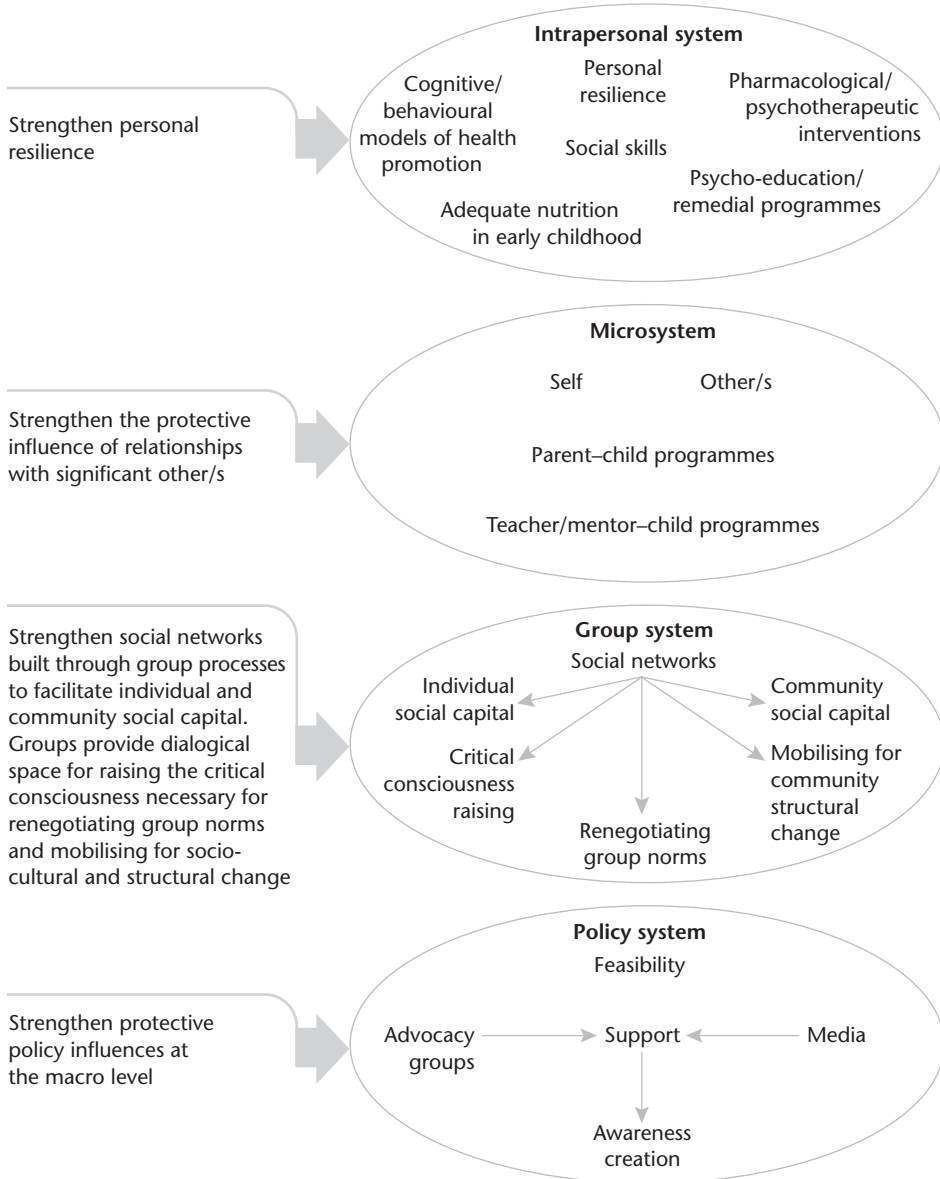
Policies may be differentiated in terms of global policies, national macro policies and micro policies. Global and national macro policies have a widespread impact across multiple sectors and populations, whereas micro policies are generally related to a particular sector, for example, health or education (Breinbauer & Maddaleno, 2005). Global economic forces through to national economic policies determine, for example, a country's income and fiscal expenditure, which influence people's mental health through various micro public policies such as the presence of income grants, health, welfare, education and social development policies.

### Theories for informing interventions

Drawing on these theoretical models for understanding risk and protective influences, we provide a framework for guiding mental health promotion and prevention interventions in scarce-resource contexts. Our point of departure has been to identify points of intervention that would be most appropriate to effect change in these contexts. As such, this framework identifies *four* points of intervention, which mirror the four ecological levels of influence used in the previous section: within the *intrapersonal system* (individual level), within the *microsystem* (interpersonal level), within the *group/cultural system* or *organisational system* (community level), and within the *policy system* (see Figure 2.3). Interventions within the intrapersonal system are concerned with strengthening the individual influences a person brings to a situation; interventions within the microsystem (which is defined as a significant and sustained interpersonal relationship that a person has with significant others) are essentially concerned with strengthening the protective influence of these significant interpersonal relationships; group/cultural or organisational system interventions are concerned with facilitating community and societal level change, harnessing group processes as the starting point for initiating change from a grassroots level; and policy systems interventions are concerned with facilitating macro and micro

policy level changes through national and global policy interventions. The latter two points of intervention aim to achieve similar ends through different methods. They are given particular attention in this text, given the role played by poverty and other socio-economic factors on mental ill-health (as described in Chapter 1 of this volume). A number of influential micro theories are drawn on to inform interventions at all these points.

**Figure 2.3** Points of intervention



## Intervening within the intrapersonal system

Interventions within the intrapersonal system aim at strengthening the personal influences or assets that a person brings to a situation such as coping skills, cognitive abilities and so on. Given that there are numerous factors thought to affect mental health at the intrapersonal level, there are multiple possible interventions to strengthen the assets a person brings to bear on a situation. Such interventions include nutritional supplements to enhance cognitive development in young children, individual psychopharmacological treatment to assist with emotional regulation and attentional capacities, psychotherapeutic interventions to reduce the impact of emotional trauma, social skills training, and developmentally timed remedial education interventions. Challenging beliefs and attitudes, as well as a person's motivation to comply with social normative behaviour, would also apply. With respect to the latter two aspects, health promotion interventions have traditionally adopted health education and cognitive behavioural interventions to achieve these ends. The Stages of Change and Trans-theoretical Model, described below, is a useful one for understanding the stages through which an individual goes in changing a health compromising behaviour, as well as educational and cognitive behavioural interventions that could assist in this process. While interventions located at the interpersonal level, particularly social support, are identified as being important to assist a person to move through the stages of change, the model largely focuses on strengthening the self-efficacy a person brings to bear on a situation. As discussed in the first section, self-efficacy is central to a number of health promotion models, including the Health Belief Model (Becker, 1974), Bandura's social cognitive theory (1986), Ajzen's theory of planned behaviour (1991), and the theory of triadic influence (Flay & Petraitis, 1994).

### Stages of Change and Trans-theoretical Model

This model was initially developed as a framework for studying addictive behaviours such as alcohol and drug abuse. It understands change as occurring through a number of stages, and integrates processes and principles of change from a wide variety of theories – hence the name 'trans-theoretical' (Prochaska & DiClemente, 1984). Research on smoking cessation found that people could be categorised into a number of stages depending on their motivation to stop smoking. The stages are known as: precontemplation, contemplation, preparation, action and maintenance.

During the *precontemplation stage*, people have no intention of changing their behaviour. They may even be unaware of the risk or that their behaviour represents a problem. At this stage, there is considerable resistance to change. Once they become aware of their problem behaviour, and start to consider doing something about it, they are in the *contemplation stage*. Although they are aware that their behaviour represents a problem, they do not take any action to initiate change in their behaviour. At this point, they tend to struggle with indecision about changing their behaviour. In the *preparation stage*, people begin to take small steps towards changing their behaviour. They begin to formulate specific intentions to change their

behaviour. Once they take significant steps to change their behaviour, they are in the *action stage*. They invest considerable time and energy in their actions and persevere with the changes. During the *maintenance stage*, people make every effort to prevent relapse and continue with successful strategies that helped them to successfully change their behaviour. Rimer and Glanz (2005) assert that the model is circular and not necessarily linear: 'In other words, people may not systematically progress from one stage to the next ultimately "graduating" from the behaviour change process' (Rimer & Glanz, 2005, p.15). Instead, people may enter the change process at any stage, relapse to an earlier stage, and begin the process once more. They may cycle through this process repeatedly, and the process can also truncate at any point. This model provides a theory for both understanding the stages of change and guiding interventions.

Shifting people through the various stages can include a wide array of processes and strategies. In moving people from precontemplation to contemplation, interventions could include raising awareness about the causes, course and consequences of a particular behaviour. This could include raising awareness about the emotions that may underpin certain behaviours, as well as the consequences for other people exposed to the behaviour (Breinbauer & Maddaleno, 2005).

Interventions to assist people to move from the contemplation to the preparation for action stage may include re-evaluation of the self with the changed behaviour. Strategies to achieve this could involve cognitive imagery techniques, identifying healthy role models, and value clarification. Improving self-efficacy to perform a behaviour through skills training, including role playing, is also an important intervention (Breinbauer & Maddaleno, 2005).

Assisting people to move from the preparation phase to action can include interventions that assist people to set goals. This is particularly important for adolescents, as it can assist in identity development, a fundamental task at this age. It can assist in the development of an 'ego ideal', which enables adolescents to have a vision of themselves over time that may serve to protect them from peer pressure to engage in high risk behaviour (Breinbauer & Maddaleno, 2005). Identifying obstacles to changing behaviour and assisting people to develop solutions for dealing with such obstacles, using problem management techniques, may also be useful interventions during this phase.

Maintaining the changed behaviour could include, in the first instance, substituting healthy behaviours for problem behaviours. This would depend on the problem behaviour and could include, for example, relaxation training, introducing positive self-statements, and assertiveness training. However, it is important that health enhancing substituting behaviours fulfil the need that the health compromising behaviour was originally serving (Breinbauer & Maddaleno, 2005). For example, substance use to regulate anxiety may be substituted with relaxation training. Substituting reminders or cues to engage in unhealthy behaviour with positive ones, or encouraging the person to avoid high risk situations that may tempt them to engage in the unhealthy behaviour, are also helpful during the maintenance phase.

Finally, positive reinforcements for health enhancing behaviour in the form of putting in place rewards and recognition are likely to increase the probability that the new behaviour will be maintained (Breinbauer & Maddaleno, 2005).

In the case of relapse, attributional retraining or reattribution techniques, where failure is attributed to an unstable cause such as bad luck or circumstances, as opposed to a stable cause such as ability, can be used. This serves to increase self-efficacy as it helps people reinterpret failures to unstable attributions, such as a difficult situation, as opposed to their ability (Bartholomew et al., 2001).

Across all the stages of change, support from family, friends and colleagues remains very important. This occurs within a person's interpersonal relationships with microsystems and group systems and is discussed in greater detail in the sections covering interventions within these systems.

While the principles of the Stages of Change Model can be applied to children and adolescents (cf. Breinbauer & Maddaleno, 2005), some of the cognitive behavioural approaches suggested for improving self-efficacy may not be appropriate, as they require formal operations of logical and deductive thinking, which develops during adolescence. The *Challenge Model*, described below, is provided as an alternative approach that can be used to build self-efficacy in children and adolescents.

### Challenge Model

In building self-efficacy in children and adolescents, this model understands exposure to a moderate amount of stress as being useful to strengthen a child's capacity and mastery to deal with stressors at later points in life. A stressor is understood to be a potential enhancer of resilience as long as it is not too stressful. In the latter case, it may render a child helpless and result in maladaptive behaviour (Zimmerman & Arunkumar, 1994). The same principle applies to learning a new behaviour. Breaking down a complex new behaviour into incremental tasks that are mastered separately through repetition, builds self-confidence about each task and allows for the steps to be put together incrementally to ensure self-efficacy about performing the behaviour in its entirety (Bandura, 1986).

Through mastering a challenge, a child builds competence and coping capacity. Not successfully meeting a challenge can, however, lead to a sense of failure and be disempowering. This model does not hold if the challenge is too stressful or the targets set are beyond the competence of the child. For example, a moderate amount of interpersonal conflict within a family, which is handled well by parents, provides the development support (described under the authoritative parenting style) necessary to assist the child to learn how to handle interpersonal conflict outside of the home. Too much and poorly managed family conflict may, however, have the opposite effect, leading to distress and disempowerment (Fergus & Zimmerman, 2005). Interventions informed by this model would intervene to build children's coping capacities, as is well illustrated by the programme, Zippy's Friends (see box – Example of an intervention with the individual).

**EXAMPLE OF AN INTERVENTION WITH THE INDIVIDUAL: ZIPPY'S FRIENDS**

Early training in adaptive coping skills can prevent the development of maladaptive coping skills and problems later in life. Zippy's Friends is a school-based mental health promotion programme for children aged 5–7 years, developed to strengthen children's capacity to cope with everyday difficulties and identify and talk about their feelings, as well as help other children with their problems and seek out help when they have problems (Mishara & Ystgaard, 2006).

Zippy's Friends uses trained teachers to deliver the programme and comprises 24 sessions of 45-minute duration. The programme uses a set of stories that centre around a cartoon stick insect, Zippy, and his friends. Each session uses role plays, games, drawing and so on to confront common issues that children generally have to deal with in life, for example, friendship, bullying and loss.

The programme was originally developed in Denmark and further adapted for Lithuania. The evaluation of the pilot programme in both Denmark and Lithuania, using a quasi-experimental design with 322 participating children in Denmark and 314 participating children in Lithuania, compared to 110 control group children in Denmark and 104 control group children in Lithuania, showed clear improvements in children's coping abilities in the intervention condition, compared to the control condition in both countries (Mishara & Ystgaard, 2006). In Lithuania, externalising problems and hyperactivity were also shown to decrease.

The programme has since been adapted and delivered in a number of LMICs, including Brazil, India and China. For more information, visit [www.partnershipforchildren.org.uk](http://www.partnershipforchildren.org.uk).

In scarce-resource contexts, where poverty and power imbalances have a greater material impact on mental health, it is imperative that these individual level interventions occur within the context of a broader ecological systemic approach where greater attention is also paid to contextual influences. While individually focused models are helpful, they have not been found to be sufficiently efficacious or lasting to be used alone to promote mental health and reduce risk behaviour in these contexts (Coates et al., 2008).

### **Intervening within the microsystem**

In addition to strengthening the intrapersonal system, strengthening the protective influence of interpersonal relationships in a person's microsystems can be health enhancing for children, adolescents and adults. Models of building resilience in children are particularly appropriate for informing microsystem interventions with children and adolescents, whereas social support theories are useful for informing interventions with adults.

#### Models of resilience in children and adolescents

The *compensatory* and *protective factor* models for building resilience in children and adolescents fall within microsystem interventions (Fergus & Zimmerman, 2005;

Zimmerman & Arunkumar, 1994). Essentially, these models of building resilience focus on building protective influences that can mediate and moderate outcomes in the face of exposure to risk influences towards health enhancing outcomes. As discussed in Chapter 1 of this volume, health promoting factors can be assets and/or resources (Fergus & Zimmerman, 2005). Assets are internal to the person, such as self-esteem and self-efficacy, whereas resources are external. Given that building assets falls within the intrapersonal system, discussed above, the focus in this section is on strengthening the resources within a person's microsystem, which essentially refers to strengthening the protective influence of the relationship with one or more significant others.

In the *compensatory model*, a compensatory factor is understood to act directly and independently from risk factors to compensate for the negative influences of risk factors on the outcome of interest. For example, another adult's independent interest and extra attention in a child's life could provide an independent compensatory factor where there is a lack of parental involvement. Interventions drawing on this model would necessarily engage in strengthening the compensatory protective influence afforded by other people in a person's microsystem, such as strengthening the role of identified mentors in supporting a child's development.

The *protective factor model* is one of the most widely studied resilience models for children and adolescents (Zimmerman & Arunkumar, 1994). It suggests that the effects of exposure to risk can be moderated by protective factors, which interact with risk factors to moderate the probability of a negative outcome (risk/protective). In this model, protective factors may also interact with one another to enhance the protective effects of other variables to decrease the probability of negative outcomes (protective/protective) (Zimmerman & Arunkumar, 1994). This model is differentiated from the compensatory model in that the protective influence does not operate independently to moderate the outcome, but interacts with the risk factor to moderate the outcome. For example, the risk protective mechanism may function where an authoritative parenting style, characterised by support and structure, on the part of a mother, may serve to moderate the effect of sexual abuse on a child. Interventions informed by this model would aim to assist parents to adopt an authoritative parenting style. The protective factor model is particularly important in LMICs to moderate the outcome of children growing up in deprived and dangerous settings, and is illustrated by the intervention to provide psychosocial support to mothers in the aftermath of the war in Bosnia and Herzegovina (see box – Example of microsystem intervention).

### Social support

Interventions aimed at increasing social support within the context of microsystems can include, in the first instance, strengthening the quality of existing relationships within the microsystem. This can occur through psycho-education and training of significant others in the microsystem to provide support. For example, family members of a person who has a mental illness or has been exposed to a traumatic event

EXAMPLE OF MICROSYSTEM INTERVENTION: CHILDREN AND MOTHERS IN WAR – PSYCHOSOCIAL SUPPORT FOR MOTHERS PROJECT, TUZLA, BOSNIA

Psychosocial assistance to traumatised children often involves working directly with children to help them process their traumatic memories; for example, through drawings, play, or talking about what has happened. Another approach is to educate and support parents, teachers and other caregivers so that they can support their children. In contexts of adversity, like war conditions, with massive needs and the shortage of mental health personnel, the latter approach may be the only option. For instance, Kalantari et al. (1993) found that the best way to help traumatised children who had lost their fathers was to help the mothers provide a well functioning family environment for the children.

Dybdahl (2001) describes an intervention programme that was designed to help mothers with their own psychological problems, as well as those of their children, and to facilitate improved mother–child interaction, following the war in Bosnia and Herzegovina. The intervention, which was also a field experiment, was carried out in Tuzla, a multi-ethnic industrial town in north-eastern Bosnia with a pre-war population of about a million. With the aid of UNICEF, 87 Bosnian displaced mother–child dyads (48 girls and 39 boys, mean age = 5.5 years, standard deviation = 0.7) participated in the study. The majority of the participants had fled from rural areas near Bratunac, Zvornik and Srebrenica during the war. The aim of the psychosocial intervention was to promote the development and well-being of young children, both through parental involvement, support and education, and by focusing on the importance of the mother–child interaction for the child’s development and healing.

Five preschool teachers were trained as group leaders for the discussion groups. Each group leader met weekly with two groups, each of which consisted of approximately five mothers. The group discussions were designed to support the mothers and increase their well-being, self-confidence and ability to care for their children in this difficult situation and to be their children’s best healer. Each meeting was semi-structured and dedicated to education and discussions about specific topics, such as child development, mother–child interactions, trauma and coping strategies. This non-formal programme tried to support the mothers so that the normal, basic communication and interaction skills that already existed were reinforced. The support also involved direct attention to the mothers and their mental health, to their beliefs and knowledge about their children, and to the reactions and needs of adults and children following traumatic events. Further, the group leaders visited each of the women in their homes once for about one hour to get to know them better and express support. In addition, the group leaders themselves met once a week in a group led by a supervisor to discuss their experiences and support each other (for more information about the content and organisation of the group work, see Dybdahl, 2001). All of the families were also provided with free basic health care once a month during the intervention period.

A randomised controlled study indicated that the intervention programme (receiving psychosocial support and basic medical care,  $n = 42$ ) had a positive effect on participating mothers’ mental health, children’s weight gain, and several measures of children’s psychosocial functioning and mental health in comparison to the control group (only receiving basic medical care,  $n = 45$ ). This study has provided some evidence that a simple and inexpensive psychosocial intervention aimed at mothers can have a beneficial effect on their children in conditions of war.

can be provided with information on how the person is likely to behave and provided with skills on how to assist. Second, through providing people with information on the benefits of social support and how to develop socially supportive relationships, interventions can encourage people to develop and maintain relationships that provide social support. Third, interventions can focus on developing new socially supportive relationships for people at risk. Examples include mentorship programmes, where mentors are people who have successfully coped with the situation experienced by an individual; buddy systems, where people experiencing a similar problem are paired off; and programmes that use natural helpers and lay community caregivers who live in the same community as the people at risk and are trained to provide advice, assistance and referrals (Breinbauer & Maddaleno, 2005).

Heaney and Israel (1997) suggest that socially supportive relationships are characterised by the following: trust, understanding and empathy; mutual interdependence and exchange; and social similarity, with a history of similar experiences. It is, therefore, questionable whether professional helpers, such as health care providers, who may provide support during consultations, could be considered effective sources of social support. These relationships are characterised by unequal power relations, with support being unidirectionally provided by the professional helper to the client and not vice versa (Breinbauer & Maddaleno, 2005).

### Intervening within the group system

While interventions within group systems can be health enhancing in and of themselves for the individual participant, through providing social support and social leverage as described at the interpersonal level, the focus on group systems interventions in this chapter is to provide methods for strengthening more immediate community level influences, as well as more distal societal level protective influences. Strengthening group processes, to promote individual and community social capital, can build resilience through strengthening the resources on which a person can draw in their immediate social environment. Inserting *critical consciousness* theory into group processes provides a mechanism for facilitating more distal protective influences at a structural and cultural/social normative level.

#### Strengthening social capital

Drawing on social capital theory, strengthening and expanding people's social networks can be health enhancing. Interventions aimed at increasing social support within group systems include strengthening existing networks through enhancing skills of members to provide support to one another. They can also include creating new social networks, for example, self-help groups such as Alcoholics Anonymous, with self-help groups having been found to be particularly effective in assisting people with mental health problems (Heaney & Israel, 1997).

*Community development theory*, which is a common method for promoting community level change, focuses on increasing community social capital. Members

of community groups, which could be bounded by locality or a common issue, are helped to increase their collective capacity to identify common problems, set goals, develop strategies and mobilise and manage resources to achieve their goals (Minkler & Wallerstein, 1997). Central to community development are democracy and empowerment at grassroots level. Through democratic participation in mutual support groups, self-help groups or action-oriented groups, participants may gain new skills, social support and a sense of control over their lives and environment. The concept of empowerment is central to community development theory and is understood to be an enabling process whereby individuals and communities assume control of their lives and their environments. Individual empowerment occurs when people develop a sense of control over their lives and their environments, and political empowerment is understood to emerge when people begin to have access to and control of resources (Rappaport, 1985).

While there is an emphasis on capacity development, with the hope that the benefits accruing to the participants would spread throughout the community and beyond, the community development approach does not address broader structural issues that maintain underdevelopment in scarce-resource contexts, thereby preserving the status quo. Notwithstanding this criticism, the community development approach is useful in LMICs, where there is underdevelopment, as it aims at building the capacity of local resources, of both a material and human nature.

The *social action model* (Alinsky, 1971), also a community organisation model commonly used to facilitate change, uses the same community organising principles but aims to address the need for changes at a structural level. It has an activist agenda and adopts peaceful conflict methods of change such as boycotts and demonstrations to force change at a structural level.

Empowerment within the community development and social action models is understood to emerge as a result of bringing people together in social networks, which facilitates social support and skills acquisition, as well as providing power in numbers to effect change. In both these models, there is generally an external facilitator or activist 'helping' the community. In this sense, these models have been labelled 'needs-based' (Minkler & Wallerstein, 1997). The understanding of empowerment within these models also does not adequately theorise the individual-societal interface in the empowerment process; to do so demands, rather, a critical understanding of the concept of empowerment in which the development of 'critical consciousness' is central.

### Critical consciousness raising

In order to ensure a transformative agenda, which is facilitative of more protective distal, higher order influences such as cultural and structural change, health promotion interventions need to harness the social bonding that occurs within networks and groups to promote the process of conscientisation, as suggested by Campbell and MacPhail (2002). This is especially important in groups that have been traditionally disadvantaged in ways that compromise their health. The process

of conscientisation enables group members to exercise agency in relation to their existing social or cultural concerns (Patel, 2005).

This critical approach to empowerment can be traced back to Paulo Freire's (1993) adult education methods, whereby small groups of participants reflect on the root social causes of problems that they experience. Two processes are involved. The first is the development of a critical consciousness. Through critically analysing their problems, group members are able to develop a critical consciousness. This is a form of psychological and intellectual empowerment, whereby members become invested in the joint production of meaning that can serve as a form of ideological critique and a catalyst for social transformation. The second process is that of social action, as advocated by social action theory. According to Freire (1993), through the development of a collective critical consciousness, group members are more likely to be able to collectively engage in actions to challenge the material bases of ill-health at community and structural levels. This is a form of political empowerment and is related to a process of mobilisation to challenge a hegemonic social order, which perpetuates social injustices on a particular sphere within a society. The positive impact of this approach is evident when there is sufficient social action and mobilisation by groupings to effect health enhancing changes within the immediate community context, as well as changes at a structural or policy level.

#### Renegotiating social norms: the 'popular opinion leader' approach and the diffusion of innovation

The development of a critical consciousness together with critical social dialogue in groups is also central to the renegotiation of collective social identities and associated social and cultural representations and practices towards more health enhancing alternatives (Campbell & Murray, 2004).

When existing social and cultural representations are no longer adaptive to the changing social context – for example, having multiple sexual partners in the context of HIV/AIDS – the development of more health enhancing social representations and practices becomes an important health promotion activity.

While many beliefs and practices originate from the broader socio-cultural milieu, a change in social representations and practices is located in dialogical spaces afforded by social groups. It is in these kinds of social groupings that social and cultural representations are remoulded and developed during the course of group interactions. Opinion-forming interlocutors, who reinterpret media and other messages for the benefit of subordinate group members, often lead this process.

Health promotion interventions can harness these processes to challenge existing social norms and mediate the renegotiation of social representations and practices towards health enhancing options. The '*popular opinion leader*' approach has been shown to be successful in renegotiating sexual social norms towards more health enhancing alternatives within the context of the HIV/AIDS epidemic within gay communities in the United States (Kelly et al., 1997). More recently, it is being

utilised in a randomised control trial across five LMICs (India, China, Peru, Russia and Zimbabwe) (NIMH Collaborative HIV/STD Prevention Trial Group, 2007). The popular opinion leader approach uses ethnographic techniques to identify opinion leaders who are both popular and socially influential members of a target group (Kelly, 2004) and who can serve as opinion-forming interlocutors. These individuals are trained to endorse and promote health enhancing behavioural norms during everyday conversations, which are then diffused through the population through the process of diffusion of innovation (Rogers, 1995).

*Diffusion of innovation theory* is a well known community level theory, concerned with how new ideas and practices are objectified and spread within and between communities (Rogers, 1995). Opinion leaders are thought to play a very important role as trendsetters, first influencing early adopters most open to new innovations. A change in social and cultural norms occurs when there is a tipping, with the majority of the population adopting the new actions, attitudes and views (Rogers, 1995).

EXAMPLE OF A GROUP SYSTEM INTERVENTION: WHAT'S IN THE NAME?

PROSTITUTE OR SEX WORKER – THE SONAGACHI PROJECT, CALCUTTA, INDIA

The Sonagachi Project, based in Calcutta, India, has been associated with lower HIV rates among sex workers as compared to other urban centres in India (Jana et al. , 2004). A significant aspect of the programme involved the reframing of the identity of the target group from 'prostitute' to 'sex worker'. Through the renegotiation of a more empowering identity, a discourse of commerce gradually supplanted a discourse of immorality and crime. Traditionally, the identity of prostitutes meant that women were powerless in interactions with various economic stakeholders (e.g. landowners, madams, fixed clients, local organised crime, police and political parties). They were stigmatised as being the source of HIV infection in the community and the accompanying responsibility of risk management was located with them.

Popular opinion leaders began actively to work to reshape the identity of the sex worker and HIV/AIDS. As an important step in the process, influential opinion-forming interlocutors sought to redefine 'sex work' as 'employment'. This involved the articulation of the following sets of rights: sex work is work, sex workers have the right to speak out, sex workers and their children deserve an education, sex workers deserve good health, sex workers can have freedom of movement, and sex workers deserve fulfilment in a sexual relationship. The reflective spaces for sex workers to re-position themselves as being more in control of their lives occurred in interactions with peers, and other important community stakeholders.

Against a backdrop of disenfranchisement in broader Indian society, the positive experiences of sex workers within the programme allowed them to 'find their voice' and engage in action to challenge traditional cultural understandings of the problem of HIV in the community.

As the programme evolved, the articulation of the empowered identities of sex workers was diffused to the community, resulting in increased acceptance of condom sales in the community, as well as the trade unionisation of sex workers (Jana et al., 2004).

The Sonagachi Project in India (see box – Example of a group system intervention) provides a good example of how the renegotiation – by popular opinion leaders – of social identities and norms of sex workers in India led to more health enhancing behaviour for both sex workers and their clients.

### **Intervening within the policy system**

While group systems interventions can ultimately lead to policy change through community organisation and advocacy (as discussed in the previous section), policy change can also be initiated from within government structures and global institutions. The former is referred to as the outside-initiative model and the latter as the inside-initiative model (Bartholomew et al., 2001). Advocacy work still forms part of the policy change process, but occurs through health advocates forming relationships with policy-makers and providing timely and accurate information on health issues.

Legitimacy, feasibility and support are all important factors influencing how much attention is paid to a policy issue (Hall et al., 1975). Legitimacy refers to whether there would be public acceptance of state interventions on an issue. Issues that have a broad social impact and long-term implications are likely to have greater legitimacy (Bartholomew et al., 2001). Feasibility refers to how possible it is to implement the policy within resource and infrastructure constraints. Support refers to the level of public support for the policy.

The timing for placing issues on legislative and institutional agendas is also crucial. Opportunities for policy change occur when there is heightened awareness of a particular problem (Breinbauer & Maddaleno, 2005). Further, the ability of organised advocacy groups to create increased awareness of an issue is particularly effective at times of elections, party policy formulations and changes in administration, especially when national mood regarding government's handling of an issue is poor. Further, the amount of power and legitimacy that the advocacy group or individual has will influence how well policy changes can be achieved (Bartholomew et al., 2001). Effective use of communication strategies and media by advocacy groups is also central; for example, short advocacy statements and fact sheets are useful, as are face to face and group meetings with policy-makers and political leaders (Breinbauer & Maddaleno, 2005).

At the international level, global policies in relation to key health issues affecting vulnerable populations like women and children can be part of a global policy and advocacy plan that sets clear and time-bound targets for achieving development objectives, such as in the Millennium Development Goal 4, which focuses on improving child survival, with the specific target of reducing by two-thirds the mortality rate amongst children under 5 years by 2015 (UNICEF, 2007) (see box – Example of global public policy intervention). In this instance, the UN member states that adopted the Millennium Declaration reflected their commitment to advancing this most pressing development issue.

EXAMPLE OF GLOBAL PUBLIC POLICY INTERVENTION: VITAMIN A SUPPLEMENTATION – A UNICEF GLOBAL INITIATIVE

All children have the right to adequate nutrition for a healthy life. Unfortunately, this fundamental right is often overlooked because the consequences of poor nutrition may not be immediately apparent. Vitamin A deficiency is one such consequence of poor nutrition (Beaton et al., 1993). Approximately 127 million preschool children, especially in South Asia and sub-Saharan Africa, are affected by an underlying vitamin A deficiency, putting them at greater risk of illness and at an educational disadvantage (UNICEF, 2007). Effective and inexpensive means to fight this hidden hunger have existed for years, and the international community has made multiple commitments to its elimination. According to UNICEF (2007), just two high-potency supplements annually, costing less than US\$0.04 per child, can prevent and correct the deficiency, and contribute to child survival. Achieving and maintaining high coverage of vitamin A supplementation is crucial to attaining Millennium Development Goal 4: reduce by two-thirds the mortality rate among children under 5 years by 2015. UNICEF has played a leading role in the effort to reach all children between the ages of 6 months and 59 months with life-saving supplements every 4–6 months. This includes technical assistance to countries, monitoring intervention coverage at the national and global levels and supplying nearly 100 per cent supplements to countries through an in-kind donation from the Government of Canada and The Micronutrient Initiative. UNICEF (2007) indicates that efforts to ensure children receive the recommended two annual supplements have increased dramatically. In 1999, just 16 per cent of children in the 103 priority countries were fully protected with the recommended two doses. By 2004, this proportion had climbed to 58 per cent, representing a threefold increase. Successes are primarily the result of countries establishing dedicated mechanisms for vitamin A supplementation, often with other key child survival interventions.

## Conclusion

Using the various ecological levels of influence identified in Chapter 1 of this volume, we have provided an overview of some of the common health promotion theories for understanding risk and protective influences for mental and behavioural health. From this ecological systemic understanding of influences, we have identified and discussed four points of intervention: within the intrapersonal system to strengthen the assets a person brings to bear on a situation; within the microsystem (interpersonal level interventions) to strengthen the protective influences of relationships with significant others; group systems interventions which, from within a competency-enhancement approach, have a two-pronged effect of promoting change at a proximal community level, as well as at more distal socio-cultural and structural levels; and policy level interventions to achieve global and national macro and micro policy change towards health enhancing alternatives.

A fundamental principle of the ecological systems approach is that there is a reciprocal relationship between agents within any system and across systems. Thus,

any intervention aimed at promoting a more health enhancing outcome should ideally consider a multisystems intervention, which moves beyond strengthening only intrapersonal, interpersonal or community influences to include approaches that engage with facilitating health enhancing identities and socio-cultural, structural and policy issues affecting marginalised groups. This is particularly important in LMICs, which have a history of poverty, inequality and social injustices and where the materiality of existence plays an important role in the epidemiology of mental health problems.

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# 3 Contextual issues

Leslie Swartz

This volume presents information on well tested theories and approaches to mental health promotion and the prevention of mental disorders (hereafter referred to as mental health promotion and prevention) in the fields of mental and behavioural health. However, while it is one thing to implement programmes and innovations in the context of specific research projects, it is quite another to see these working in the 'real world' of everyday life. Chapter 5 of this volume discusses how we scale up innovations learned from science into the everyday service context; this chapter discusses some principles that may help us understand how people and communities interact with projects we may wish to implement.

One of our first tasks, when we want to implement any kind of change in health sector and community settings, is to understand the logic of things as they are now. Even when everyone in a community is agreed that a practice is not helpful or is even harmful, it is important to understand the ways in which the practice provides something for that community.

Anybody who has been involved in innovation in health care systems will probably have a story to tell that is similar to the one described in the box – A failure of innovation. But what is going on here? At the most basic level, we must not discount the possibility that the new clerk is indeed incapable or inefficient. This possibility must be explored. In this case, though, the clerk was very competent and soon was extremely frustrated by not being allowed to do the work for which he had been employed. Something more fundamental was going on; even though the

## A FAILURE OF INNOVATION

A group of health workers have the chance to implement a new health promotion programme. They are all very excited about the programme, and they say that they would love to implement the programme, but cannot do so because they have too much tedious administrative work to do. If only, they say, we could rid ourselves of all these forms. The psychologist who has designed the programme arranges for a clerk to be employed to do the administrative work. The health workers say that this is a very good idea, but as soon as the clerk starts his work, they complain that he does not understand professional ethics, and that he does not understand the hospital system. Instead of handing work over to the clerk, they continue to do the administration they have done before and they also have the added load of handing their completed work to the clerk for copying and filing. The 'solution' that the psychologist has offered has led to more work for the health workers and less chance to implement the health promotion programme than there was before!

health workers really valued and wanted the change, they were very unsure about whether they would manage the health promotion work. Although they all detested paperwork, they all knew how to do it. They experienced their manager as very critical and very rigid in what she expected from them, and they worried that the manager would not appreciate the new way of working – in fact, they feared being punished for implementing the psychologist’s suggestions because they believed that the manager did not approve of the psychologist or his schemes. They feared, in addition, that they did not have the skills to implement the changes, and that talking with community members about health issues would open the floodgates of complaints and worries from community members. They were worried about being overwhelmed by the needs of community members. The psychologist had to spend a considerable amount of time dealing with these issues and concerns before there could be any hope of implementing the programme.

There are at least two ways of looking at the difficulties described above. On the one hand, we can easily speak of the ‘resistance’ or the ‘incompetence’ of the health workers, and see the barriers they put in the way of change as problems they have created. On the other hand, though, we can understand that the resistances encountered tell us an important story about the health workers’ experiences. If we are serious about building sustainable innovative programmes, we have to understand the contexts in which we are working.

In this story (see box – A failure of innovation), there are at least three levels of barrier to implementation that can be seen. These are:

- Health workers’ lack of skills.
- A hierarchy within the health system by which innovation will not be supported and may even be punished.
- Health workers’ anxieties about the consequences of changes.

Too often, only the question of skills is addressed; in this chapter we look more closely at the other issues. There is a further important factor that affects how and whether people change, and that is the system of beliefs and investments people have in particular health and social practices. In her description of a tragic encounter between health workers and a Hmong immigrant family in the USA, Fadiman (1997) shows how a lack of understanding by the health workers in America of the cultural context of health in Hmong society, on the one hand, and a lack of understanding by the Hmong family of the culture of the American medical system, on the other, had disastrous consequences.

One of the important reasons why health researchers do their work is that they want to contribute to changing people’s health for the better. In an ideal and less complex world, we might expect that researchers would collect data on good practices, that this information would be passed on to policy-makers and that these innovations would be implemented. As we see in this chapter, though, there are a number of ways in which this ideal picture does not reflect the actual situation of mental health research and practice, especially in scarce-resource contexts.

A recent overview of mental health research in low and middle income countries (Sharan et al., 2007) showed that relative to wealthier countries, and certainly relative to the burden of disease in these countries, comparatively little research is undertaken. To make matters more challenging for the subject matter of this volume, there is even less research on mental health promotion and prevention. This means that some of our implementation efforts must be based on research conducted elsewhere and some on ideas that we have extrapolated from available knowledge and literature. Along with this challenge are more hidden challenges to implementation.

What are the frameworks that should ideally be in place for the implementation of successful mental health promotion and prevention efforts? Table 3.1 outlines some basic building blocks that need to be in place for promotion and prevention efforts to have the best chance of success.

If we examine these requirements carefully, it is immediately clear that though some of them relate directly to resource issues (e.g. how many people there are to do the

**Table 3.1** Basic building blocks for mental health promotion and prevention

Requirements	What is it?	What can happen when it is not in place?
Good governance	A broad political system that is supportive of human rights and the development of human potential	Political systems that are oppressive or neglectful of their citizens are not conducive to mental health promotion – war, tyranny and population displacement, for example, are all bad for mental health (Drew et al., 2005).
Infrastructure	A system in place that enables the proper delivery of interventions	In the absence of a properly functioning health system and/or system of social security, it is difficult to provide interventions on anything but a small and local scale.
Record-keeping	A system of keeping records, which enables interventions to be noted down and monitored	If a system does not keep records of what it does and the impacts of these actions, it is not possible to keep track of what is being done and what needs to be done.
Data-driven decision-making	A system in which decisions are made as far as possible on the basis of knowledge of what is happening in the world in which the organisation operates, and of what works and what does not	Where systems operate on the basis of impressions only, or on the basis of what seems politically or interpersonally the best thing to do, it becomes almost impossible to track whether prevention and promotion activities have an impact.
Sufficient staff	Sufficient staff, and sufficiently skilled staff, to implement and monitor interventions	In the absence of sufficient staff, it is sometimes possible to use other resources creatively but it is not reasonable to expect very few people to do many jobs – and asking for too much may lead to poor motivation and burnout.
Motivated staff	Staff who are keen to implement interventions	If staff do not believe in or are opposed to interventions, they can undermine or interfere with the success of interventions.
Cultural acceptability	Interventions that are acceptable to people in the community	If interventions are not culturally acceptable, they will not be adopted and may be rejected as useless.

work) and to quality of resources, many of them also have to do with human behaviour – how governments work, how management is undertaken, how well motivated health workers are, and so on. The main focus of this volume is not on these issues; but we would be remiss if we did not mention them as factors that need to be taken into account in the development of any plans to improve mental health. Clearly, the role of the mental health practitioner who is concerned about issues of mental health promotion and prevention is far greater than that of the person who works as a clinician alone – we have to think of a range of roles and engagements, which may even include the role of political activist. It is difficult, for example, to think of doing excellent mental health promotion work in a country in which there is enormous political oppression and certain groups of people are being jailed, beaten and tortured.

It is possible to think of maximising the chances for success of mental health promotion activities at a number of levels. In this chapter we consider four levels, not because they exhaust all possible levels of intervention or because it is easy to separate each level from the other, but because they each illustrate different kinds of skills and ways of thinking about processes. Not all people will work at all levels, but at every level at which we work we should be aware of the others. The levels we deal with are the political level, the bureaucratic and policy level, the project implementation level and the scaling up level.

## **The political level**

This level is the most complex and may seem the most distant, but it is important that people interested in mental health work are aware of this level and that mental health practitioners contribute to improvement of human rights, which in turn improves community mental health.

For example, in Africa some issues to do with mental health are dealt with under the broader banner of disability. In the operation of the UN-mandated African Decade on Persons with Disabilities, which was established to help realise the rights of disabled people on the African continent, it soon became clear that it was very difficult in a number of African contexts to help disabled people self-organise and take their rightful place as major contributors to policy affecting disabled people. This was because there were so many challenges to adequate governance in a number of contexts, including war, famine, displacement of large numbers of people, corruption, and political oppression. In a context like this, which is unfortunately not uncommon in a number of low and middle income countries, those interested in mental health issues may say that there is nothing that they can do. The approach of the secretariat of the African Decade was different, and more constructive. This was to engage with the UN and with governments to assist governments to make progress on implementing policies that realise the rights of disabled people. The Decade also played a major role in the development of the UN Convention on the Rights of Disabled People, which has now been signed and which will be a further instrument through which the rights of disabled people, and the mental health of communities, will be promoted (Chalklen et al., 2006).

There are other ways in which people interested in mental health become involved in political work. In the aftermath of the Vietnam war, for example, the USA faced a major crisis that had implications for mental health in the country. Young men who had been conscripted to go to Vietnam, and others who had volunteered, returned after that war to a USA that was different from the country they had left. The war had become extremely unpopular in America, and the lack of a US victory was humiliating to many. Instead of returning as conquering heroes, Vietnam veterans were an embarrassing reminder to their compatriots of something many would rather forget. To add to the difficulties, amongst those who went to Vietnam in the first place, there was an over-representation of people from minority groups and of people who were from poorer and more vulnerable backgrounds. Like many people in history who had been victims, perpetrators or witnesses of the atrocities of war, these veterans were not unaffected by what they had been through, and some of them showed signs of psychological distress and socially disruptive behaviour. By contributing centrally to the codification of what came to be known as post-traumatic stress disorder, the psychiatrist Robert Jay Lifton (1973) was able to contribute significantly to what became a major drive to provide these veterans with the mental health care they needed. Possibly even more importantly, though, Lifton and his colleagues provided a way for people in the USA to think about how to help those who had been badly affected by war and trauma in a manner that did not blame those who behaved oddly when having been traumatised, but rather promoted understanding and tolerance and hence greater opportunities for broader mental health. The work of Lifton on other politically related topics such as Nazism and brainwashing (Lifton, 1986, 1989) is relevant to current anguish in the USA on the role of mental health professionals in torture in the context of the USA's battles with terrorism.<sup>1</sup>

## The bureaucratic and policy level

Even where there is an enabling and well functioning political infrastructure, there is often a gap between what is on paper in terms of policy and what is needed in order to maximise the potential for a mental health intervention. It is essential to attempt to maximise the potential for a mental health promotion project to be accepted and disseminated (see box – Preparing the way for a mental health promotion project).

In the case of this mental health intervention, the preliminary negotiations necessary took a great deal of time and effort; yet efforts such as these are often not taken into account or recognised in the literature.

Even where attempts are made to engage with the bureaucratic and policy levels, though, the relationship between any study and the broader context is likely to change over time. For example, in the case of the project featured (see box – Preparing the way for a mental health promotion project), the personnel in charge of health services at both national and regional levels changed over the course of the project. There is also the difficulty that it takes a long time for results of health promotion research to be disseminated, by which time priorities amongst policy-

#### PREPARING THE WAY FOR A MENTAL HEALTH PROMOTION PROJECT

In a peri-urban area close to Cape Town, South Africa, the rate of postnatal depression was found to be very high, and residents were very poor (Cooper et al., 1999). As both postnatal depression and poverty have been found to increase risks for optimal social, emotional and cognitive development of infants, an intervention was planned to attempt to promote better development amongst infants (Cooper et al., 2002). In preparing for this intervention study, the researchers negotiated entry into the community at a number of levels:

- The local street committees (the informal structures of local governance, which had developed during the apartheid era as an alternative to discredited local authorities).
- NGOs that had an interest in parenting, child care and social development.
- The local clinics where women received health care.
- The regional health department.
- The national health department.

All of these role-players were deemed necessary to consult in order for the project to have the maximum potential benefit.

makers and bureaucrats in charge of services may have changed (Swartz et al., 2004). For these reasons, it is important to keep feedback going between a project and those who may later be able to implement recommendations, and also to keep abreast of the changing policy landscape.

### The project implementation level

It is relatively rare, in scarce-resource contexts in particular, that a project will be implemented that will be staffed entirely by funding from outside the country. Indeed, there is much to be said for trying to embed projects in existing services and structures as this will increase the potential for the benefits of projects to be taken up more widely. Developing projects that link to existing services requires us to have an understanding of the pressures on people who work in existing services and health settings.

In low and middle income countries, but even in contexts that are better resourced, health and social service workers may feel overwhelmed by their work. The work is complex and challenging, and there are often too few people trying to do too many jobs. The situation is made worse by the large-scale migration of health workers and other professionals to wealthier countries.

A pioneer in our understanding of how people in stressful, human service professions experience anxiety and defend themselves against it was Isabel Menzies, later known as Isabel Menzies Lyth (1990, 1992). She is best known for her mid-20th century work on nurses in Britain, whom she saw as defending against the anxiety associated with their work by splitting their work into tasks and not engaging with patients as whole people. The influence of Menzies Lyth can be seen in a number of more recent studies into how organisations function (see, for example, Hinshelwood &

Chiesa, 2001; and Obholzer & Zagier Roberts, 1994), and her work has been seen to have relevance beyond the context of hospital work in Britain. Van der Walt and Swartz (1999, 2002), for example, argue that within the context of tuberculosis control programmes in South Africa, nurses may deal with their anxiety about the epidemic by focusing on tasks and treating patients as a series of separate 'medical problems' but not as whole people with whom they interact.

There are two important implications of this kind of understanding for mental health promotion and prevention programmes. First, as with any programme, we need to understand the investment of people who are currently doing (or not doing) the work in things as they are. We need to understand the emotional lives of people who provide services so that we can innovate in a sensitive and helpful way. Nobody, especially if they are overworked and feel disregarded in the first place, likes to be told that what they are doing is wrong; we need to understand why people do what they do. A second, related issue is that we need to understand what organisations do. In an early text on mental health promotion, Tudor (1996) emphasised the importance of conducting an organisational assessment of any context within which mental health promotion work is planned. This involves more than just understanding individuals in the organisation – it requires us to gain a sense of how the organisation as a whole sees itself and its functioning.

In order to demonstrate the importance of thinking about organisational issues in planning mental health-related work, let us consider a hypothetical example. A group of mental health professionals are approached to assist an existing trauma service organisation to expand its work into peace building and prevention of violence activities. As part of the evaluation activities, the professionals who have been approached to help ask a number of questions. Some of these questions, and the answers to them, are presented in Table 3.2.

It will be clear from the example in Table 3.2 that simply going into an organisation with a plan for what to do will not work. The new team in such instances must first negotiate entry with a range of role-players (including people who do not hold formal power). They must see how ready the staff are for change, given that they work under such difficult circumstances. And they must work in such a way that they do not appear to be doing violence to and disrespecting what the organisation already does.

These are just some of the ideas that need to be considered, but they provide a flavour of the kind of thinking that is necessary for this work.

## The scaling up level

There is little point to doing new work in the field of mental health promotion and prevention if one does not wish to implement what is learned in these projects and to scale the projects up for broader use. By this stage in this chapter, it should be clear that we should be thinking about implementation and scaling up before we start any project – this is definitely not something to think about only at the end.

**Table 3.2** An example of how exploratory questions can help to reveal organisational issues

What is the primary task of this organisation?	To provide mental health services to survivors of violence
Do all members of the organisation agree on the primary task?	No – the director feels that there should be more promotion and prevention work and less emphasis on services for survivors; some counsellors feel there should be an exclusive focus on treatment for gender-based violence.
Are there any secondary tasks? How do these relate to the primary task?	The organisation is under financial threat and the staff are united in trying to save the organisation – this in effect has become the primary task.
How realistic are the goals the organisation has set for itself?	As part of its mission the organisation claims that it wants to ‘eradicate all forms of violence in the country’. Though this is a commendable aim, no small organisation can achieve this aim, and the organisation is not in fact set up to eradicate violence.
How is power distributed in the organisation?	The director is notionally in charge of the organisation, but as she is an accountant and does not hold a mental health qualification, she is not respected in terms of the daily work. There is a very charismatic junior counsellor who is a social worker, who dominates in most discussions and to whom other staff defer. There are 3 men in an organisation of 35 people and it appears that these men are subtly blamed by association for the preponderance of gender-based violence in the lives of clients of the organisation – rape and spouse abuse, perpetrated largely by men.
How are decisions made in the organisation?	Officially there is a management team headed by the director but informal contact between the director and the junior counsellor seems to determine policy and practices.
How does the work of the organisation affect the people who work there?	The staff of the organisation hear daily stories of rape, abuse and brutalisation. They live in the same areas their clients come from. They are frightened. The building itself has been threatened by angry husbands and has fortress-like security. The staff are angry at what they see and despairing as to whether any change is possible.

There are, however, some issues that we have not yet discussed, which must be borne in mind. The most salient of these, perhaps, is the question of culture. As we have seen from previous chapters in this volume, the field of mental health is very broad, and much of what we do cannot narrowly be termed ‘mental health’ work, as narrowly understood. Prevention and promotion in this area, as in many others, touch on issues of values, culture and everyday practices. We need to think about how people think about the world and how what we are doing intersects with their belief and value systems. Some years ago, for example, a group of developmental psychologists wanted to implement a school readiness development project in a community that had until then had no psychological services at all. The psychologists called a meeting to explain to the parents in the community what they planned to do. The parents were baffled. They could not understand how activities with preschoolers could have anything to do with school learning, as they saw school learning as something that started only when children went to formal school; they thought that the games the psychologists wanted to play with the children might be fun, but to no purpose. Some

of the psychologists, aiming to be culturally sensitive, concluded that this meant that they should not engage in the developmental activities as these were not welcomed by, or meaningful to, the parents. Nevertheless, after a long discussion between the parents and the psychologists about their different views, it emerged that the parents were very happy for the psychologists to proceed with their work. At the heart of this successful encounter is the principle that for implementation to happen properly, there must be some negotiation between the way the mental health team see the world and the way the public at large see the world. This does not mean agreeing with the public, if the mental health team has specialised knowledge to which the public does not have access, but it does mean taking the trouble to listen and to understand the different explanatory models, to use Kleinman's (1980) term. There are a number of useful questions, derived from Kleinman's work, that can be employed when thinking about cultural understandings of problems and difficulties. These include:

- How do different groups name a problem? What do they call it? It may be helpful to know, for example, if one group sees a problem as a fight about space and land and another sees the issue as a dispute about ancestry.
- What different causes are given for the problem? For example, where one group sees a problem as caused by evil forces and another sees it as caused by faulty brain chemistry, some negotiation and discussion will be needed.
- What do different groups think will happen if nothing is done to address the problem? One group may think it will go away in time; another may believe the situation will deteriorate.
- What kinds of remedies are potentially available to deal with the problem? One group may, for example, favour a healing ritual and another may want to employ outside consultants.
- What are the boundaries of the problem? Some may see the problem as one that affects all groups and societies; others may view the problem as more specific to issues facing a particular group.

These are certainly not all the questions that can be asked but they give an indication of how to think constructively about issues of difference. For further discussion of how to negotiate across different explanatory models in a mental health context, and a discussion of the concept of cultural competence, see Swartz (1998, 2007).

On some occasions, there will of course be clashes between beliefs held by mental health practitioners and those held by members of a community or group, and negotiations can in these circumstances be difficult. We need to be as clear as we can be about how important these differences are. If, for example, we are working with a group of people who believe that mental ill-health is primarily caused by a poor relationship with ancestral shades, is this important for what we are planning to do together, or is it quite simple for us to work together from very different world views?

We also need to be aware of the ways in which the idea of culture may be used to block change or even to legitimate harmful practices. DiNicola (1986) helpfully distinguishes between what he terms 'cultural costume' – those aspects of culture

that everyone wears or embodies – and ‘cultural camouflage’ – the practice of appealing to culture to resist change. In many projects dealing with gender violence, for example, men will say that they beat their wives because this is part of their culture. In so doing, they may successfully stop a person who is interested in mental health from doing anything about the violence, even though they know it is bad for mental health. It is commonly the case, however, that spousal abuse is not in fact part of the culture at all – quite the contrary. People interested in mental health issues need to be robust enough to see beyond, and to question, the camouflage.

Work to scale up or implement innovations, then, needs to take careful account of cultural issues alongside issues of infrastructure, governance and so on, as we have discussed earlier. It is not possible to scale up interventions without an understanding of the most local interpersonal issues, as well as more global forces shaping how people interact.

## Conclusion

This chapter has taken a very brief tour through some of the contextual issues we need to consider in developing mental health promotion and prevention programmes. There are many more issues, both personal and structural, that need to be considered (Gibson et al., 2002; Herrman et al., 2005). The important lesson, though, is that we cannot think in a narrow way about mental health issues – we have to consider structure, strategy and agency, and we have to be prepared to engage with resistance to change, despair and a feeling that nothing new is possible. It is this range of engagement that gives some of the excitement to our work.

## Note

- 1 On 13 September, 2008, for example, the Parr Center for Ethics at the University of North Carolina at Chapel Hill, held a symposium on ethics in the professions entitled *Torture & Interrogation: Have we gone too far?* – see <http://parrcenter.unc.edu/events/seminars/fall2008/interrogation/>. One of the contributors to the meeting was Stephen Soldz, a psychoanalyst who has written on issues of torture – see [www.informationclearinghouse.info/article14329.htm](http://www.informationclearinghouse.info/article14329.htm).

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# 4 Evaluating interventions

Arvin Bhana & Advaita Govender

Low and middle income countries face the largest share of the global burden of disease (McMichael et al., 2005). Given the limited economic and human resources in meeting this burden, it is vital that health promoting interventions stand up to scientific scrutiny, as well as meet the basic criteria for a successfully planned intervention. Knowledge of the *impact* of an intervention is more likely to attract further resources and this fact alone should encourage evaluation as a part of health promotion interventions. More often than not, however, evaluation is an afterthought resulting in evaluation findings that are not particularly useful to the programme or to potential donors. Scientifically credible programme evaluation as a standard practice is therefore of even greater importance in scarce-resource contexts and needs to be strongly supported and encouraged.

Health promotion of necessity involves an integrated, multidimensional approach that links together larger social, behavioural, psychological and structural factors. Consequently, evaluation methods have transformed to blend process evaluation with quantitative assessments. This chapter focuses on describing these various aspects of evaluation, conducted at different stages of an intervention programme's lifespan. It focuses particularly on issues of evaluation that arise in scarce-resource contexts, low and middle income countries, community-based risk/reduction interventions and health promotion. Health promoting intervention programmes are often adapted from other countries, giving rise to various questions about programme fidelity; such issues form part of this discussion. Finally, the chapter provides guidelines on how best to evaluate community-based interventions, as these tend to better represent applications of health promoting programmes in lived contexts.

The methodology for evaluating programmes at each of *individual, interpersonal, community* and *policy levels* is informed by two critical issues, namely: the theoretical understanding of the process of change at any one level; and the health promoting and health compromising characteristics associated with the developmental stage at each of these levels. Such an approach appropriately considers the temporal developmental and multi-level influences on mental health and behaviour necessary for effective health promotion (Breinbauer & Maddaleno, 2005). In evaluating interventions aimed at mental health promotion and the prevention of mental disorders (hereafter referred to as mental health promotion and prevention), the challenge is to be able to conduct evaluations that take account of these multiple influences.

## The importance of programme evaluation

The response of health promotion to mental health issues in scarce-resource contexts has most often been based on some *programmatic* response, especially since one-to-one interventions have long been rejected as unsustainable in such contexts. A programme is defined as any group of related, complementary activities that are implemented together in order to achieve specific, pre-determined outcomes. In formal terms, programme evaluation is the 'systematic gathering, analysis and reporting of data about a programme to assist in decision making' (Scriven, 1991, p. 1). Programmes are evaluated for several reasons: to judge their effectiveness and the impact they have on their target population, to ensure accountability to the stakeholders, to identify ways in which to improve the programme (by determining what works or not and for what reasons), and to be able to compare it with other programmes that provide the same or similar services (Van Marris & King, 2006). Evaluation is a process that establishes the 'merit, worth and value of things', and goes beyond mere data collection (Scriven, 1991, p. 1).

Successful programmes require ongoing decisions regarding optimal use of the programme's time and other resources, determining if the programme is, indeed, meeting the needs of the participants, and finding ways of improving and demonstrating the programme's effectiveness (Van Marris & King, 2006). Unfortunately, instead of programme evaluation being a central component of all intervention programmes, it suffers from inconsistent practice and poor integration. This may account, in part, for not including evaluation as part of the intervention process. The failure to incorporate evaluation in the overall management of a programme often leads to ad hoc attempts to include 'some evaluation' as an afterthought and fails to do justice to the process of evaluation (Centers for Disease Control and Prevention, 1999).

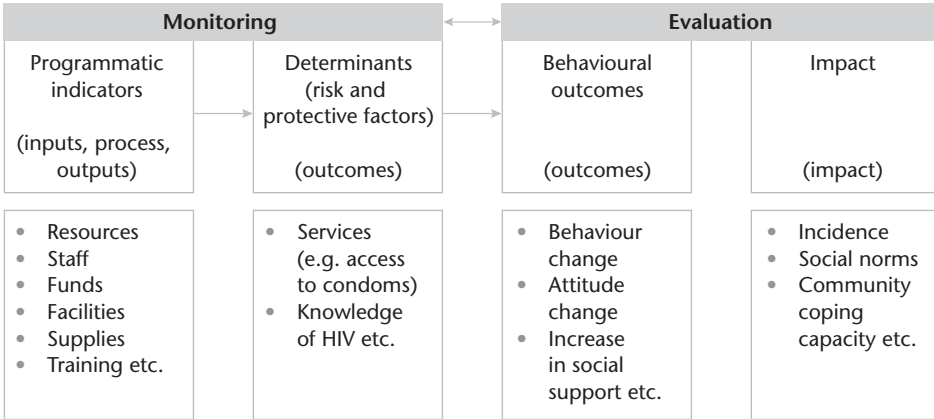
## Distinguishing between monitoring and evaluation

According to the World Health Organization (WHO, 2007), monitoring refers to the *routine* tracking of a plan, whereas evaluation refers to a *systematic means of appraisal* to assess the value, worth or effectiveness of the policy, plan or intervention. The simplest distinction is that monitoring refers to routine, daily assessment of ongoing activities and progress; in contrast, evaluation is a collection of activities designed to determine the value or worth of a specific intervention or project. Nevertheless, they can be placed on a continuum where monitoring efforts are more closely aligned to inputs and outputs, while evaluation is primarily concerned with outcomes and impact. Placed on a continuum, monitoring and evaluation can be depicted as shown in Figure 4.1

## Necessary conditions for effective evaluation

Prior to undertaking an evaluation, certain prerequisites are desirable. An organisational structure capable of supporting the data collection and evaluation process is important. In addition, it is necessary to have well defined programme

**Figure 4.1** Distinguishing characteristics of monitoring and evaluation



goals and objectives, an identified target population, well defined activities that are implemented in the prescribed manner (i.e. as intended in the programme plan), and clearly specified programme indicators and outcomes (Van Marris & King, 2006). The reason for conducting evaluations is obvious – to assess programme effects for the local context, and to improve the programme so that it has a better fit to the local context. In terms of *when* evaluation should be carried out, planners should actually incorporate it as a central part of the programme at all stages. The plan for any programmatic intervention should as a matter of course include a section on how and at what stages the programme will be evaluated.

With regard to *how* evaluation should be done, the most basic element that is needed is a clear description of the programme, including information about its objectives and intended partners. If there are any programme objectives that are not clear, these should be clarified before the evaluation process is allowed to continue. As with all research, the evaluation should be systematically executed with close attention to ethical standards. Very often, a programme may already be in possession of information that is helpful for the evaluation process and resources should not be wasted on re-gathering this information.

Finally, in terms of *who* should conduct the evaluation, probably the most important factors are that the team members are diverse and have sufficient knowledge about the programme. Diversity ensures that multiple viewpoints come across in the evaluation report and increases the likelihood that the evaluation will be culturally sensitive. Identifying stakeholders is not only fundamental to successful evaluation but also has importance for programme implementation post-evaluation. Stakeholders are individuals and groups who have an interest in the evaluation, and may include programme staff, programme participants, funding agencies, decision-makers and other community members (Centers for Disease Control and Prevention, 1999; Van Marris & King, 2006). The advantage of collaboration with the stakeholders is that they will as a result be less suspicious and fearful of the

results the evaluator has to present. In addition, including the stakeholders may have the advantage of increasing their commitment to programme improvement, while their knowledge of the programme is likely to be enhanced by considering what is crucial for the programme to be successful. Most importantly, stakeholder inclusion increases the chances of the evaluation results actually being used (Centers for Disease Control and Prevention, 1999).

## Key characteristics of programme evaluation in developing countries

In undertaking programme evaluation in developing countries, the scientific concerns related to evaluation do not differ from any other context. What does differ is addressing the extent and range of public health issues, including mental health issues, in the context of competing and finite resources. What works, why and how are therefore critical in understanding health promoting initiatives in scarce-resource contexts.

Programme delivery is more often than not a primary concern, and important questions that would help in setting priorities for programme implementation and evaluation could be established by addressing some key questions at the beginning of the programme and revising the programme based on these questions as it is implemented (Centers for Disease Control and Prevention, 2007). These would include questions such as:

- What exactly will be evaluated?
- What features will be considered when programme performance is judged?
- What standards must be achieved before the programme is deemed 'successful'?
- What evidence will be used to indicate how the programme has performed?
- What conclusions regarding programme performance will be justifiable when comparing programme evidence with the pre-determined standards?
- How will lessons learned through the process of the evaluation be used to improve the programme?

Bryant and Bickman (1996) list four guiding principles that should be met when an evaluation is conducted:

- The intervention should be explicitly described (so that, if it is found to be effective, it can be replicated by other agencies).
- The evaluation should be guided by theory (and all hypotheses should be tested empirically, as with any other form of research).
- A multi-method, multi-informant technique should be used to obtain a rich description incorporating multiple perspectives (and will include a description of programme activities and 'agency culture').
- The criteria for assessment of quality of the intervention should also be explicitly stated (these criteria should be established beforehand).

No single evaluation will be able to evaluate every programme aspect. A good evaluation needs to make trade-offs, based on available resources, and these trade-offs need to be communicated with the stakeholders (Potvin & Richard, 2001; Rootman et al., 2001). Different evaluations of the same or even similar interventions, taken together, can contribute to a more comprehensive assessment of what makes an intervention successful. Evaluation processes have been influenced by contributions from several disciplines, including those involved in mental health (Rootman et al., 2001). The field of work will invariably influence what aspect or type of evaluation will be used and will also influence what trade-offs are made in what to study. Evaluations of other similar programmes, especially those considered to be good programmes, serve as an important source of information about what aspects to focus on in evaluation. Within health promotion, the evaluation focus involves a more integrated and multidimensional approach to health than is the case in pure medicine; and this focus is inextricably bound up with larger social, behavioural, psychological and structural factors. The approach to evaluation within health promotion reflects an integrative mixing; that is to say, qualitative process evaluations and other non-quantitative approaches are often integrated with quantitative analysis (Wynn et al., 2005).

Only thorough evaluation will determine if programmes believed via anecdote to be successful are *actually* effective. Evaluation methods that stress the importance of continual quality improvement are useful in feeding back information to stakeholders at several stages of the intervention (Nation et al., 2003). In pragmatic terms, evaluations of mental health promotion/prevention and behaviour change interventions can answer three questions about an intervention: Does it work? How well does it work? How does it work? The first question relates to whether the intervention should be continued at all, the second has implications for cost-effectiveness in that it focuses on providing the best benefits for the participants, and the last affects which aspects of the intervention should be continued or discontinued and which aspects may require adaptation (Michie & Abraham, 2004). The usefulness of evaluations often extends beyond the immediate purpose of an intervention by contributing to information in a wider field – in this case, the promotion of mental health (Goodstadt et al., 2001).

While programme evaluation will often seek to establish a link between health outcomes and programme goals, some health outcomes may arise more from capacity-building initiatives to achieve an intended health impact than from the health impact itself (Wynn et al., 2005). In scarce-resource contexts, capacity development often forms part of the delivery of the programme. These characteristics would also need to be evaluated in tandem with the programme goal – as originally stated – to determine whether the intended outcomes had arisen out of the specific intervention.

In developing countries, a needs analysis or assessment often supplants formal evaluation, although the needs analysis constitutes only the initial phases of problem determination. While *needs assessment* remains an imprecise science, using a

theoretical framework can assist in systematic data collection. To avoid duplication in scarce-resource contexts and where prevalence studies are not available, needs assessments can assist in determining the magnitude and nature of the problem, as well as what other programmes have been implemented up until that point to address the problem (Centers for Disease Control and Prevention, 1999). An allied approach is a situational analysis, which seeks to identify and prioritise problem situations affecting the target population or specific segments of the population, for example, youth problems in a community (Christofides et al., 2006).

Intervention Mapping establishes a procedure for the development of theory and evidence-based health promotion interventions, and may be especially applicable to scarce-resource contexts as it incorporates needs assessment and adaptation at the outset, accompanied by formulating a theory-based intervention (Bartholomew et al., 2001). Emerging out of health promotion theory and practice, Intervention Mapping appears to be particularly useful in promoting evaluation practices as part of programme development and implementation. Programme development in the context of Intervention Mapping involves: specifying programme objectives; selecting theory-based intervention methods and strategies; designing, organising and pre-testing the programme; specifying adoption and implementation plans; and generating an evaluation plan. These steps are described in Table 4.1, which presents an example of how Intervention Mapping could be used to adapt an existing health promotion intervention to suit the needs of a new population (i.e. new community).

**Table 4.1** Steps for Intervention Mapping: adapting a programme for a new population

Steps	Tasks
Before you start	Needs assessment <ul style="list-style-type: none"> <li>• What new cultural or other population issues are present?</li> <li>• What new environmental issues must be considered?</li> <li>• What is the community capacity for the new population?</li> </ul>
Step 1	Review behavioural outcomes <ul style="list-style-type: none"> <li>• What behavioural outcomes need to be added for the new population?</li> <li>• Which behavioural outcomes need to be deleted as inappropriate?</li> <li>• Which behavioural outcomes need to be deleted or adapted as impractical?</li> </ul>
Step 2	Specify performance objectives <ul style="list-style-type: none"> <li>• Which performance objectives should be deleted as irrelevant?</li> <li>• Given the new or revised behavioural outcomes:               <ul style="list-style-type: none"> <li>• What performance objectives need to be added?</li> <li>• What performance objectives need to be revised?</li> </ul> </li> </ul>
Step 3	Specify determinants <ul style="list-style-type: none"> <li>• What determinants were used in devising the original programme?</li> <li>• What is the supporting evidence for those determinants?</li> <li>• Does the evidence indicate the determinants are relevant to the new population?</li> <li>• Which determinants should be deleted or revised?</li> <li>• What determinants need to be added for the new population?</li> <li>• What determinants need to be added for the new performance objectives?</li> </ul>

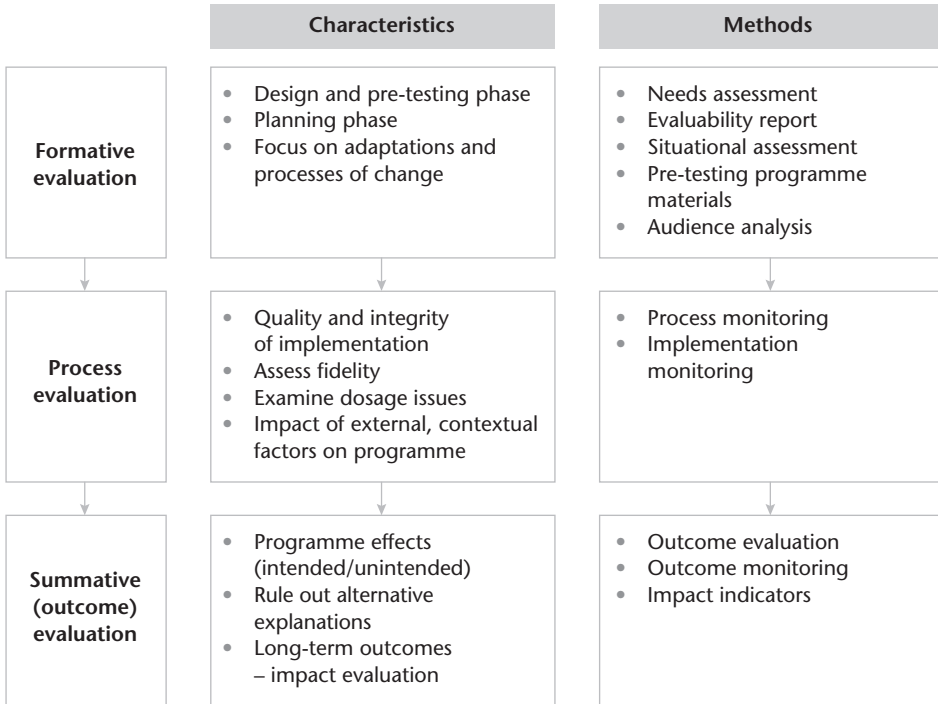
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Table 4.1 contd.

Steps	Tasks
Step 4	<p>Develop proximal programme objectives</p> <ul style="list-style-type: none"> <li>• For each determinant of each performance objective: What are the learning objectives of the existing programme?</li> <li>• Given the changes in determinants and performance objectives: What learning objectives should be deleted? What learning objectives should be revised? What learning objectives should be added?</li> </ul>
Step 5	<p>Identifying theoretical foundation</p> <ul style="list-style-type: none"> <li>• What behavioural theory is associated with each determinant in the original programme?</li> <li>• Which of these theories is relevant to the new population?</li> <li>• Which of these theories is appropriate for the new determinants?</li> <li>• What part of the theoretical foundation should be discarded?</li> <li>• What should be added to the theoretical foundation of the revised programme?</li> </ul>
Step 6	<p>Selecting methods and strategies</p> <ul style="list-style-type: none"> <li>• Are the methods and strategies of the original programme effective for the new population?</li> <li>• Are they feasible given the new study design?</li> <li>• Are they practical given the new community context?</li> <li>• Given that methods and strategies are specific to learning objectives: Which methods or strategies should be deleted? Which methods and strategies should be revised?</li> <li>• Looking at the new learning objectives and the relevant theories: Which methods can be expanded to cover new learning objectives? What new intervention methods or strategies need to be added?</li> </ul>
Step 7	<p>Developing programme content</p> <ul style="list-style-type: none"> <li>• Comparing the content of the original intervention with the revised learning objectives: Which learning objectives are well covered by existing content? Which learning objectives are partially addressed by existing content? Which learning objectives require new content?</li> <li>• Looking at the programme content: What content should remain the same? What content should be adapted or deleted? What content should be added?</li> </ul>
Step 8	<p>Adoption and implementation</p> <ul style="list-style-type: none"> <li>• Is the new population comparable to that targeted by the original intervention?</li> <li>• If not, how does this affect the ability to replicate the intervention with fidelity?</li> <li>• Does the new community context present new practical or logistical issues?</li> <li>• If so, how must adoption and implementation be adapted?</li> </ul>
Step 9	<p>Evaluation</p> <ul style="list-style-type: none"> <li>• What is the evaluation model required for this population and setting?</li> <li>• Are the original indicators and measures the most relevant and useful for the new community context, population, behavioural outcomes, and performance objectives?</li> <li>• If not, what new indicators and measures of impact variables are needed?</li> <li>• What are the appropriate process measures for this population and setting?</li> </ul>

Source: Tortolero et al. (2005, pp. 289–290)

**Figure 4.2** Conceptual framework for evaluating health promotion projects in scarce-resource contexts



As evident from Figure 4.2, there are three main categories of programme evaluation, each of which builds upon the work of the other two. While the flow of evaluation proceeds from *formative* to *process* to *summative* – corresponding to the life of a social programme – formative and process evaluation are often employed at various points in the course of evaluating a programme.

*Formative evaluation* focuses mainly on programmes that are under development. It is conducted during the planning phase of a programme and involves all relevant stakeholders to ensure that the programme is developed according to stakeholder needs. Formative evaluation is typically undertaken during the design and pre-testing of programmes to guide the design of the intervention and to judge the appropriateness of programmes while the programme activities are actually still ongoing (Rossi et al., 2004). It should only be conducted after a comprehensive review of available information, to avoid collecting information that already exists in the organisation and to be able to identify the research gaps (UNAIDS, 2007). Formative evaluation includes such elements as needs assessments, evaluability assessments, programme logic models, pre-testing programme materials, audience analysis and evaluability assessments (Van Marris & King, 2006). (An evaluability assessment focuses on whether the programme is able to be evaluated; this type of assessment can include a description of the programme model, a consideration of

how well defined that model actually is and identification of the stakeholders' ability to use the results produced by the evaluation.)

In scarce-resource contexts, it is more than likely that health promotion programmes will be adapted from other countries, rather than newly created. Since needs and circumstances are likely to differ from the context of the original programme, formative evaluations may provide important baseline information against which to compare the effects of the intervention. Further, such evaluations are important to inform the adaptation of interventions for local contexts.

Thus, while programme interventions developed in one country cannot simply be transferred across countries without making suitable adaptations (Bhana et al., 2004; Hohmann & Shear, 2002), any adaptation should proceed on a careful and systematic basis. Backer (2001) provides guidelines on balancing adaptation against developing new programmes or elements of new programmes (as both adaptation of existing and creation of new elements are essential in implementing an intervention effectively):

- Identify and understand the theory that underlies the programme.
- Locate or conduct a core component analysis (to decide what the key features of the programme are) and the levels of intervention at which the programme is targeted.
- Assess the fidelity/adaptation concerns for each site at which the programme will be implemented (considering the particular cultural issues of each).
- Consult with the programme developers when necessary.
- Consult with the organisation or community that will be implementing the programme.
- Develop the overall implementation plan.

If these steps are followed, the essential elements of the programme are less likely to be lost when it is adapted.

Mathews et al. (1995) undertook a quantitative survey of secondary school students' knowledge, attitudes and behaviour, followed by a series of focus groups as part of formative research on HIV/AIDS education amongst secondary school students. The quantitative findings were used to develop a series of lessons with the assistance of teachers using focus groups and free attitude surveys, which were conducted throughout this process to better understand teachers' understanding of sexuality and HIV/AIDS education. This version was then piloted in the classroom to obtain teachers', students' and researchers' evaluations through interviews and questionnaires.

Another example of the use of formative evaluation to assist adaptation is the CHAMP (Collaborative HIV/AIDS Adolescent Mental Health Programme), described in Chapter 5 of this volume.

The second in the three main categories of evaluation (see Figure 4.2), *process evaluation*, assesses fidelity (i.e. how closely the delivered intervention resembles

the original design), as well as ways in which programme implementation could be improved. If a programme is unsuccessful in producing an intervention effect, process evaluation is useful in determining the cause of this failure. The questions addressed as part of this procedure generally focus on the 'amount' or 'dosage' of the programme being delivered, as well as the fidelity thereof. Process evaluation can also provide insight into external, contextual factors (i.e. cultural, socio-political, legal and economic contexts) that affect the effectiveness of a programme in some way (UNAIDS, 2007). Further, it can include explanations of why programmes are delivered in the way they are, and determine if and to what degree the methods and strategies for delivery are appropriate.

A process evaluation focuses on a programme that is in progress and as such uses *process monitoring*. Process monitoring is the regular gathering of information on all programme aspects in order to monitor how activities are progressing; it provides information for planning and feedback on progress. Monitoring should ideally begin when the programme does. As indicated earlier, monitoring tends to be a daily progress evaluation. It explores the programme's procedures and tasks and includes elements such as tracking the quantity and description of the people reached and affected by the programme, and the quantity and the type of services, as well as a discussion of how the services are provided. It also includes a description of what actually occurs as a function of programme activities and, very importantly, a description of the quality of the services. It focuses on the implementation of a programme and generally uses qualitative methods to describe programme activities, but may also include some quantitative methods. Process monitoring typically occurs within the first two years of the programme's implementation (Van Marris & King, 2006).

Process *evaluations* are generally conducted at strategic intervals, taking into account the lifespan of a programme, and during which data from interviews, focus groups and direct observation are available frequently enough for corrections to be made while the programme continues. Sometimes process evaluation is used to inform the design of an outcome evaluation or to 'fill out' quantitative data (UNAIDS, 2007). Qualitative methods used in conjunction with quantitative outcome measures may be especially helpful in understanding programme intervention outcomes, particularly if the intervention programme failed to show the desired changes. While each of the data collection methods has limitations in its own right, their combined and complementary use helps to overcome any individual limitations. From this perspective, there is no single hierarchy of research methods, and knowledge is gained by sequential use of complementary research methods.

Both process monitoring and process evaluation are often seen as the most important type of 'monitoring and evaluation', as they aid in identifying those aspects of the programme that are successful (and must therefore continue), as well as those defects that need to be corrected (UNAIDS, 2007).

Ahmed et al. (2006) undertook a process evaluation of a health promotion intervention, a 6-day teacher training programme for HIV/AIDS prevention. The

training curriculum was developed following the findings of a situational analysis related to teachers' and principals' feelings and attitudes towards sex education in the education system. The curriculum was based on a systematic approach to theory and evidence-based health promotion programme design, using Intervention Mapping. The programme is part of a multinational collaboration aimed at developing sexual and reproductive health curricula for schools, called the South Africa Tanzania programme (SATZ). At the end of the programme, teachers were expected to have the requisite knowledge and skills to teach a 16-lesson curriculum to Grade 8 students. The teachers were evaluated at four times over a 6-month period, using questionnaires. Evaluations occurred prior to training, on completion of training and on completion of each of two refresher trainings. In addition, participant observation was utilised to evaluate the content and process of the SATZ teacher training. While the programme was successful in giving teachers knowledge and skills to teach sex education, this unfortunately did not transfer to the classroom. The process evaluation used in this study was important to understanding that the failure of transfer was related to various factors, including insufficient time, and poor literacy levels amongst students to fully benefit from an academic curriculum, as well as teacher-related factors such as high attrition rates. (See Chapter 5 of this volume for more on the SATZ programme.)

*A summative (or outcome or effect) evaluation* (see Figure 4.2) focuses on programmes that are already under way or have been completed. It investigates programme effects (both intended and unintended). In its most thorough form, the process will be very complex in its attempts to rule out alternative explanations for an observed result. Outcomes assessed can be short term or long term, with an assessment of long-term outcomes sometimes referred to as an impact evaluation. A summative evaluation could include an assessment of changes in the attitudes, knowledge or behaviour of participants; a change in mortality or morbidity rates; and policy changes that were effected (Van Marris & King, 2006). It should ideally involve experimental or quasi-experimental designs (described below), which identify differences in programme outcomes, both with and without the intervention. This will generally involve a comparison between the group that received the intervention (experimental group) and one that did not (control or comparison group).

Outcome (effect) evaluations, in particular, assist strategic programme planning and inform capacity-building plans, as well as influencing programme staffing plans and funding efforts. They can also influence policy decisions and procedures at a wider level, such as at government level. In order to be effective, the results of outcome evaluations must be integrated with other monitoring activities, especially process evaluations, so that external agencies can see not only what was effective, but also what procedures were followed in order to achieve that effectiveness (UNAIDS, 2007).

An outcome evaluation is concerned with assessing if (and by how much) programme services achieve their intended outcomes. It aims to judge whether the changes observed in the target group can correctly be attributed to the intervention. It generally describes the scope of the programme and gives some indication of what

would occur in the population, were the intervention not present (UNAIDS, 2007). Outcome monitoring, like process monitoring, involves tracking variables adopted as indicators of intended programme outcomes (UNAIDS, 2007), and can be helpful in judging if outcomes have been attained.

The function of this type of evaluation is to enable the evaluator to answer two questions: How do indicators of the desired programme effects compare, before and after the implementation of the intervention? and Can changes observed in the targets be ascribed to the intervention? The first question requires a design in which evaluators are able to measure programme outcomes both before and after the programme has been implemented. Sometimes, more than one follow up is needed to monitor how long it takes for changes to occur or for how long changes are sustained. Objectives are defined, namely, measurable outcomes that lead to the achievement of a goal. Activities are actions that are taken in order to achieve the outcomes. Outputs are the services that are delivered by the programme. Activities are known as implementation (process) objectives, not outcome objectives; they explain what the programme will provide. *Outcome* objectives, on the other hand, explain what will happen as a result of these efforts. Each outcome objective should have clearly defined indicators that, when measured, will reveal if the desired goal has been attained (Van Marris & King, 2006).

It is important to ensure that the treatment and control or comparison groups are able to be compared on all aspects that are salient in the evaluation. While experimental methods, such as the randomised control trial (described below), are better at determining cause and effect situations, they are often not possible given cost and contextual constraints. In such instances, quasi-experimental designs may be used. The most significant threat in using non-experimental designs is selection bias or the absence of an equivalent control group (see example below). However, by using randomisation, and a pre-post intervention design with an equivalent control or comparison group and by using complex statistics, some of these issues can be minimised. Nevertheless, evaluators must expect the groups not to be equal and must assume that they cannot begin to know all the dimensions on which the groups differ.

Lara et al. (2003) describe the outcome results of two levels of intervention in women of low income with depressive symptoms in a study that represents the many challenges of field trials. The effectiveness of two levels of intervention was evaluated using a comparison design, for a group condition and a minimum individual condition, with assessment carried out prior to treatment, post-treatment and in a follow-up session four months later, in Mexican women with and without a DSM-III-R (*Diagnostic and Statistical Manual of Mental Disorders*, American Psychiatric Association, 1987) diagnosis of a current depressive episode. The group intervention comprised six 2-hour weekly group sessions, compared to a single, 20-minute individual orientation session, and was delivered by skilled professionals in both instances. The results showed that both interventions were associated with a significant reduction in depressive symptoms at each of the post-treatment stages.

The lack of difference between the two treatments was ascribed in part to the finding that the individual level intervention extended up to an hour at the initial assessment and was then reinforced by the follow-up interviews. It would appear that just having someone listen to them created enough impetus for improvement in symptoms levels amongst the participants and may be an important intervention in itself. Unfortunately, the absence of a control or comparison group makes it difficult to reject the influence of spontaneous remission and other treatment-setting influences.

## Evaluation methodologies

A randomised control trial represents the 'gold standard' in programme evaluation. It is an analytical *experiment* and not simply descriptive in nature. The process involves comparing groups – one of which has received the treatment and at least one of which has not. The participants are randomly assigned to the treatment and control groups. This randomisation allows the researcher to ascribe any differences observed between the groups to the intervention.

Jewkes et al. (2006) conducted a study in South Africa using this design. An HIV/AIDS prevention intervention was administered to 35 rural villages in the Eastern Cape, while a further 35 communities received a drastically reduced version of the programme. The intervention was deemed effective because the experimental group reported more favourable outcomes than the control group at two points of follow up (one year and two years after the intervention, respectively). The communities were randomly selected into either condition, and contamination was controlled for by ensuring that an intervention village was at least 10 km away from a non-intervention one.

Another type of experiment is to compare two groups that received two *different* programmes, to assess which programme design is better at achieving the desired change. This experimental design is generally more difficult to implement and also quite costly, which is why its use is limited in practical settings. The most robust experimental designs are those in which the evaluators have absolute control over external influencing factors. In addition, the generalisability of such studies to other settings must be called in to question (Van Marris & King, 2006).

Contrasted with the experimental designs discussed above are *quasi-experimental designs*. Using this approach, the researcher is able to decide who will be measured and when, but cannot assign participants to the programme or comparison groups randomly. The most common type of quasi-experimental design is the 'treated-group, untreated-group pre-test post-test design' – the controlled before and after study, or CBA (Gilbody & Whitty, 2002). The responses of both the programme and comparison groups are measured before and after the intervention. The disadvantage with quasi-experimental designs such as this is that any differences that are observed can be caused by factors other than the intervention. However, this method is more readily used than the randomised control trial due to the relative

ease of implementation and the decreased cost. The most important aspect of non-randomised designs is being able to anticipate and control for all threats to validity.

Quasi-experimental designs enjoy the advantage of being more applicable in the 'real world' than their experimental counterparts. In addition, the findings that they produce may be more generalisable than the contained findings in control trials. The key with quasi-experimental designs is to control for as many confounding factors as possible. However, there is always the potential for unknown confounding variables to affect the findings, which probably makes the randomised control trial deserving of the title of 'gold standard' (Gilbody & Whitty, 2002).

A quasi-experimental design was employed by Visser (2007) in an HIV/AIDS prevention intervention making use of peer educators. The sample fell into either the experimental or comparison group and both groups were assessed before the programme, and after the programme had been implemented (18 months later). The evaluation involved routine collection of information about the activities and characteristics of the programme to assess its effectiveness. Both process and outcome evaluations were conducted. (This latter part encompassed the quasi-experimental design). The intervention was deemed effective, based on the differential effects found between the groups, but the groups were not similar when the research began, so differences could be due to factors other than the intervention.

Another quasi-experimental method, which does not enjoy much coverage, is an 'interrupted time series' design, whereby the same group is observed multiple times – before and after intervention, over time. This, of course, would be less expensive than the other methods, as only one group is needed and that group is already involved in the assessment. However, this approach does not account for other factors such as the effect of history (aside from maturational trends), which could affect outcomes of interest. Cook and Campbell (1979) suggest three possible ways of overcoming this: include a control or comparison group in the time series; measure other plausible variables over the same time to show their influence; or conduct an interrupted time series with switching replications, in which two non-equivalent groups each receives the intervention at different times so that when one group receives the intervention, the other serves as a control or comparison.

A further quasi-experimental method is 'outcomes' research, which involves a form of secondary examination of already-existing participant data; this information has already been collected by programmes or organisations as part of routine operations. Typically, research of this kind compares competing interventions that attempt to achieve outcomes in their own way. The advantage that such an approach enjoys is that it allows the assessment of large databases, it looks at real world situations, and participants do not need to participate any more than they already have. Further, the groups under study would be more heterogeneous than those traditionally found in experimental studies, making the results more generalisable. In addition, the fact of increased numbers being studied does add to the degree of statistical power, and it is also quicker to conduct the research. However, such an approach is bound to be expensive, and it is difficult to control for confounding variables

given that different interventions and methods are being assessed. Moreover, the routine (administrative) data collected by the programmes are often not penetrative enough to allow substantive conclusions to be drawn (Gilbody et al., 2007). Barry and McQueen (2005) believe that, besides quantitative approaches, more creative approaches using qualitative methods (e.g. case studies) could also be used.

Factors that need to be considered when choosing a method are resources, sample size and the questions under investigation. Ultimately, it is up to the researcher to determine what the best research design is, based on a programme's particular situation.

## Challenges in evaluation

### Issues of programme fidelity

'Intervention fidelity' refers to the degree to which a match is achieved between an intervention as it was intended to be implemented and the intervention as it was actually delivered under real world conditions. In reality, fidelity is a concern that applies to any intervention that seeks to apply an established intervention with a population different from the original population. Fidelity is a broad term that may deal with features of an intervention other than content or the way in which the intervention is implemented (Hill et al., 2007). Questions of fidelity generally pertain to process evaluations because they deal with the way in which a programme was implemented. One possible way of dealing with fidelity issues is to separate core elements of programmes from key characteristics; core elements are critical features of an intervention's intent and design considered responsible for its effectiveness, while key characteristics are the crucial activities and methods of delivery that can be tailored to the unique context of the population (Glossary, 2000). For a programme to be successfully implemented, the core elements must be implemented with fidelity.

### Fidelity and theory

The content of evidence-based programmes is developed using theory that has obviously been tested over a range of studies. The theory underlying programme content is expected to link to programme outcomes (Ahmed et al., 2006). In other words, programme developers design a programme in a certain way and choose specific content based on theoretical understandings that are understood to result in certain outcomes. Therefore, a departure from the intended programme content may have unintended effects on programme outcomes (Hill et al., 2007).

### Fidelity and measurement

For some types of behaviours, issues of measurement and methodology are complicated and require the evaluator to find a scientific basis for their measurement. Literature reviews must be conducted in search of existing tools that can measure the current performance objectives. In cases where there is no such instrument, a new one may need to be developed. It is important to make sure that the items on the evaluation

represent all domains of objectives and that no sections are under-represented or forgotten once weak items have been eliminated from the questionnaire. In contexts that are culturally diverse and different from the one for which the instrument was originally developed, it would be advisable to adapt the instrument so that it is applicable to all members of the target population, taking care that it does not lose any of its validity or reliability. Measurement issues, however, extend beyond instruments and often decisions have to be made about *when* to measure programme effects. Confidence in the ability of a programme to influence outcomes is determined to some extent by when programme effects are measured; effects found by measuring 6 to 12 months after the programme has ended inspire greater confidence in the programme than an approach that attempts to measure effects immediately upon programme completion. It is also important to distinguish between proximal and distal outcomes. For example, a programme may measure symptom reduction as an immediate outcome but other, more distal effects such as the emotional well-being of the family may require measurement over a longer period.

#### From efficacy to effectiveness

Hoagwood et al. (2001) lambast the assumption that once efficacy studies have been conducted (i.e. generally using controlled experimental and quasi-experimental designs) the intervention is ready to be used in other settings. The circumstances under which research into an intervention is conducted differ greatly from the 'everyday' circumstances under which the intervention will be implemented in practice. These differences suggest that any treatments that undergo these trials need to be adapted to 'fit' the dissemination or implementation conditions. Conversely, the practice settings (i.e. the community) may need to adapt in order to accommodate the best form of the programme, as judged by a control trial.

August et al. (2006) argue that programme fidelity is essential to ensure sustainability of a programme. Once programmes leave the care of the scientific developers and transfer to 'ownership' by communities or other organisations, they become bound by the rules of these new service providers. The new 'rules' may pertain to culture, individual population needs or the evolving climate. If the programme is to remain the same, when the planning and initial implementation are being effected, developers should establish strategies for collaboration and transfer of ownership of the intervention to ensure fidelity. These issues are discussed in detail in Chapter 5 of this volume.

Hill et al. (2007) found that the most often cited reason by facilitators for deviations from the intended programme was a lack of time to implement the programme as it was meant to be delivered. First, the target population is more likely to be heterogeneous, which means that the programme will not be implemented as 'smoothly'. Second, the pre- and post-test evaluations may take up programme time, resulting in the time available for normal programme activities being shortened. Finally, facilitators have less experience with the programme material than the planners do, meaning that they use up some programme time familiarising

themselves with the intervention. The study by Hill et al. (2007) showed that almost all programme facilitators surveyed believe that fidelity is an important aspect of implementation but, at the same time, most adapt interventions to suit the current situation, thereby violating fidelity. The significance of these adaptations in terms of programme effects is often not reported.

Potvin and Richard (2001) go further by explaining that the settings for which experimental and quasi-experimental designs were intended are far removed from those in which community programmes are situated. Unlike with experimental designs, where control over most extraneous variables is possible, with quasi-experimental designs, there is less control over many potential extraneous variables, even when comparison groups are used. To control these variables, a programme may be simplified to the detriment of its efficacy with the new population. Due to this very gap, research cannot overlook the fact that a community programme may, in fact, be effective, despite the fact that an evaluator may not be able to find empirical evidence to support this claim. Barry and McQueen (2005) concur, stating that just because there may not be 'evidence', as shown by scientific outcome measures, does not mean that there is no good practice. Potvin and Richard (2001) claim that controlled trials can be ineffective in evaluating community interventions, and thus alternative methods for assessment – for example, systematic observation – should be encouraged. However, they do acknowledge that such systematic observation will be based on circumstantial evidence, and that only when there is greater convergence of this evidence can scientific conclusions be drawn.

In describing the various forms of evaluation, linear characterisations of programme evaluation come unstuck when programmes are taken out of controlled research settings and applied to real world settings. Efficacy-testing involves assessing whether an intervention works when implemented under an optimal 'research-based' approach, at which time very rigorous methods are used. Effectiveness testing, on the other hand, determines whether the intervention works when implemented under generally less than optimal – or real world – conditions. This is the more pragmatic approach (UNAIDS, 2007). The effectiveness of a programme may initially be assessed using process evaluation – to ensure fidelity and implementation; and then subsequently assessed using outcome monitoring and outcome evaluation.

In collaboration with the Society for Prevention Research, Flay et al. (2005) list the standards that must be met for a programme to be considered efficacious and/or effective. First, the standard for efficacy is that the programme will have been tested in a minimum of two rigorous trials that:

- studied defined samples from defined populations;
- made use of psychometrically reliable measures and sound data collection techniques;
- analysed the data with sound statistical techniques;
- showed consistent positive effects, without significant negative effects; and
- reported at least one significant result at a long-term follow up.

Second, to be considered effective, an intervention must not only meet all of the above standards for efficacy, but must also:

- provide manuals, training and technical support that will allow other entities to implement the intervention;
- have been evaluated under real world circumstances, using sound measurement of the intervention and the target group;
- indicate the practical significance of outcome effects; and
- demonstrate to whom the results are generalisable.

Third, to be considered ready for dissemination, the intervention must not only meet all of the above standards for efficacy and effectiveness but must, in addition, make available:

- evidence of the ability to go to scale;
- clear information on the costs involved; and
- monitoring and evaluation tools so that other organisations that adopt the intervention can assess how well it works in their environments.

Many programmes are able to demonstrate programme efficacy under controlled conditions. Programme effectiveness is more difficult to demonstrate, yet constitutes a more important domain of intervention, especially in scarce-resource contexts. The degree to which outcomes are affected by departures from fidelity is a matter to consider when programmes – including mental health promotion and prevention programmes – move from being research-based efficacy trials to community-based implementations. More and more, programmes designated as ‘model’ or ‘best practice’ programmes, whose efficacy has been demonstrated through the use of randomised control trials, have not been evaluated under real life implementation conditions (Hill, et al., 2007). Fidelity is difficult to assess on a continual basis in programmes disseminated under real life conditions, especially programmes implemented in multiple locations and with different implementers. This is especially true of those interventions that are driven by a community or any other group of non-academic or non-scientific implementers. The reasons for this are obvious – potential deviations are numerous, so one cannot tell how many there are and how regularly they occur. More importantly, it is difficult to tell which deviations are the most significant in terms of impact on programme outcomes. In addition, the self-report data from programme staff on the adaptations they have made are not ideal, but observation may not be feasible on an ongoing basis. There is very little research that asks facilitators what changes they have made and their reasons for doing so (Hill et al., 2007).

## Evaluating community-based programmes

Evaluating community-based programmes is a particular challenge for researchers. The reasons for this lie mainly in the level of complexity of community-based programmes and the fact that the socio-political and policy contexts cannot

be ignored. The biggest methodological problem when evaluating community-based interventions is the creation of suitable control groups as demanded by the methodology of randomised control trials. In these evaluations, communities (not individuals) need to be the units of analysis. Obviously, though, this brings its own set of problems – assessing multiple communities is expensive, finding multiple suitable communities may not be feasible, and groups may object to being excluded from the experimental group. Hence, using the community as the unit of analysis must be justifiable; for example, when it is not possible to deliver the intervention to individuals. The intervention itself must also be piloted appropriately beforehand so that an ineffective intervention is not allowed to run its course, at great expense (Sanson-Fisher et al., 1996).

Add to this the ever-developing nature of the intervention (based on the ever-changing nature of the population), and the problem becomes more complicated (Rootman et al., 2001). Further, it can be considered unethical to have a comparison group, as it is sometimes difficult to justify administering an intervention to one group but not another (Flay & Collins, 2005; Rootman et al., 2001). This may be especially true for low and middle income countries, where the need for large-scale interventions is more critical. Potvin and Richard (2001) indicate that no ‘magic bullet’ exists for evaluating community trials. Instead, design issues have to be predicated on an examination of the characteristics of the community and the evaluation questions that have to be answered. Barry and McQueen (2005) argue that given the diversity of practice, it is premature to establish a hierarchy of types of evidence suitable for evaluation designs. The Centers for Disease Control and Prevention (2007) take the view that evaluation does not necessarily have to follow an academic research model concerned with testing hypotheses or with trying to establish control groups. This is seldom realistic in public health practice. Instead, they suggest that a more realistic model for public health practice is to focus on the context in which people work and to examine participant data over time, using simple statistics. The way to be accountable and to improve the programme is to frame performance and change in terms of behavioural and environmental outcomes and then assess whether the programme objectives have been met.

## Conclusion

Ultimately, the purpose of monitoring and evaluation is to ensure that interventions are evidence based, so that limited resources in scarce-resource contexts can be used with maximum efficiency to the benefit of the recipients/partners of the programme. The fact that monitoring and evaluation has been slow to develop, particularly in developing contexts, does not minimise the importance of this goal of programmes – including mental health promotion and prevention programmes. ‘If we keep doing what we have been doing, we are going to keep on getting what we have been getting’ (Wandersman et al., 2008, p. 171). While the standards of evaluation are well known, it is less clear how these should be applied to community contexts or even in adapting programmes to real world situations.

It is evident that programme evaluation must be incorporated into any context where programmes are developed, adapted and implemented and, as has been emphasised repeatedly, particularly in scarce-resource contexts. However, training on its own is inadequate and *coaching* or *assisting with on-site implementation* would appear to be especially important to contexts where the general skills base of practitioners is low (Wandersman et al., 2008). Incorporating technical support for programme evaluation from the outset into programme planning, adaptation and implementation would go a long way towards ensuring that programme evaluation forms part of the basis of maximising benefits to participants.

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# 5 From science to service

Inge Petersen

Given the limited economic and human resources available to meet the overall disease burden in low and middle income countries (LMICs), it is vital that interventions to promote mental health and prevent mental disorders (hereafter, referred to as mental health promotion and prevention) be shown to be efficacious and effective, so that limited resources are used wisely and efficiently to ensure superior outcomes for service users. In the first instance, this requires programme evaluation (as discussed in Chapter 4 of this volume).

This chapter is concerned with the challenge of disseminating evidence-based mental health promotion and prevention interventions so that the benefits of such interventions can reach the vast majority of the population in LMICs. While the challenge of dissemination in rich-resource contexts is great (Glasgow et al., 2003; Schoenwald & Hoagwood, 2001), as can be expected, it is even greater in scarce-resource contexts. In the latter, widespread poverty and associated risk influences for mental health problems, as well as scarce and overstretched resources, exacerbate the challenge. Notwithstanding this, there are universal lessons for successful dissemination that can be applied in these contexts. This chapter draws on these lessons, as well as on experiences of how resource constraints have been dealt with in scarce-resource contexts.

Simmons and Shiffman (2007) identify three different types of dissemination:

- Horizontal, where interventions are replicated or expanded to increase their reach or to service different beneficiaries.
- Diversification, where new interventions are added to existing innovations.
- Vertical or political scaling up, where innovations are introduced into existing institutions, with systems and structures being adapted to accommodate them.

In the face of overstretched public sector services, the horizontal approach is often adopted in LMICs, whereby donor funded NGOs stimulate and finance interventions. Under this model, long-term sustainability is dependant on continued donor funding. Further, while many local and international NGOs hope that interventions can over time be handed over to local control, these efforts are often hampered by a lack of local funding for materials, as well as by participants who may have become accustomed to outside payment (Chopra & Ford, 2005). In the face of these constraints, vertical scaling up, whereby programmes are institutionalised within public sector service systems, is, wherever possible, the preferred approach.

In this chapter, an organisational approach to diffusion of innovation theory is used to understand how dissemination can best be facilitated within the vertical

scaling up approach (Bartholomew et al., 2001; McKleroy et al., 2006; Schoenwald & Hoagwood, 2001; Simmons & Shiffman, 2007). Further, the role of systems-strengthening policy research in this process is discussed.

## **Diffusion of innovation**

Rogers (1995), a leading scholar of diffusion theory, defines diffusion as the process by which an innovation, which can be a new idea, technology, programme or practice, is adopted and diffused through a social system, over time, using channels of communication. Rogers (1995) does not make a distinction between 'diffusion', which is generally understood as the unplanned and spontaneous spread of ideas, and 'dissemination', which is understood to be more directed and planned, whereas other scholars do (Schoenwald & Hoagwood, 2001). In this chapter, we are principally concerned with the latter.

Applying diffusion of innovation theory to programme dissemination and uptake is broadly understood to comprise three stages:

- Adoption of a programme, which involves awareness of the programme, awareness of the need for the programme, and the decision to adopt the programme to meet the unmet need.
- Effective implementation of a programme, which requires sufficient fidelity and programme completeness (Bartholomew et al., 2000). Fidelity refers to the degree to which the methods and strategies used in the implementation of the programme are true to the original programme. Completeness refers to the degree to which all the components of the programme are delivered (Rossi et al., 1999).
- Sustainability, which involves maintaining programme implementation through institutionalising or routinising the programme into the routine activities of an organisation (Bartholomew et al., 2000).

## **Facilitating adoption, implementation and sustainability**

There are largely three key lessons – drawn from the literature within health promotion, and mental health and HIV behavioural prevention – for promoting ease of adoption, implementation and sustainability by an uptake agency/institution (Eke et al. 2006; Glasgow et al.; Schoenwald & Hoagwood, 2001). These three key lessons – each of which is further discussed in some detail below – are as follows:

- Ensuring compatibility or 'goodness of fit' of the programme within the context in which it is being disseminated.
- Ensuring participation and collaboration of potential uptake agencies and participants.
- Developing intervention support packages.

## Ensuring 'goodness of fit'

Several dimensions should be considered in the adoption and adaptation process to ensure achievement of this first key lesson: compatibility or 'goodness of fit'. These dimensions include the following, which are further discussed below: intervention characteristics; characteristics of those delivering the programme; characteristics of participants; service delivery characteristics; and organisational and service system characteristics (of the service delivery agency) (Schoenwald & Hoagwood, 2001).

### Intervention characteristics

By 'intervention characteristics' is meant the nature of the actual intervention. Issues that would need to be considered include credibility, the appropriateness of the theoretical underpinnings of the intervention, similarity of the intervention to the prevailing practice for addressing the identified problem/s, and acceptability of the intervention by the target population. In LMICs, in particular, special attention needs to be paid to the appropriateness of the theoretical underpinnings of the intervention for the context, as well as the cultural fit between the intervention and the target population, given that most health promotion theories have been developed for application in high income contexts. For example, many health promotion theories have a bias towards facilitating behavioural change using individual, cognitive-based approaches, which may not be appropriate in more collectivist societies, where collective identities and structural factors constrain individual choice (Airhihenbuwa & Obregon, 2000). Further, programmes need to be sensitive to cultural, social representations and practices to ensure cultural compatibility.

In order for an intervention to be credible, there needs to be sound evidence demonstrating its effectiveness (Simmons & Shiffman, 2007). Further to this, the core elements driving efficacy of an intervention should be identified before transfer (Kelly et al., 2000). This is to allow programme tailoring or adaptation to be done in a way that promotes those aspects of the intervention that are most central to producing the desired results (Simmons & Shiffman, 2007). Process evaluation (covered in Chapter 4 of this volume) is important, to develop an understanding of the key elements of the programme that are responsible for the outcomes achieved.

The adaptation of the Collaborative HIV/AIDS Adolescent Mental Health Programme (CHAMP) for low income black South African families (CHAMP SA) (Bhana et al., 2004; Petersen et al., 2006) provides an example of how intervention characteristics of the original programme, developed in the USA for inner city low income populations, were adapted to ensure compatibility with local, South African conditions, in relation to both the theoretical underpinnings of the programme and the programme content (see box – Adaptation of the Collaborative HIV/AIDS Adolescent Mental Health Programme).

#### ADAPTATION OF THE COLLABORATIVE HIV/AIDS ADOLESCENT MENTAL HEALTH PROGRAMME FOR LOW INCOME BLACK SOUTH AFRICAN FAMILIES

The Collaborative HIV/AIDS Adolescent Mental Health Programme (CHAMP) is a developmentally timed family intervention targeting pre-adolescent children and their caregivers, with the view to strengthening caregiver–child connectedness and communication, as well as active caregiver monitoring and control, which have been found to serve as protective factors against risk behaviour in adolescents (e.g. Resnik et al., 1997).

Adaptation of the intervention characteristics of the original programme was informed at the outset by a focused ethnographic study, which identified several key issues that were hindering effective parenting in low income, scarce-resourced black South African communities (Paruk et al., 2005). These issues included: disempowerment of caregivers to adequately protect their children against risk influences, especially HIV/AIDS; erosion of traditional norms and social practices associated with protective parenting, which previously served to educate and exert social controls; and lack of trust and investment in community networks central to facilitating community parenting and informal social control.

Additional topics, such as child and caregiver rights and responsibilities, were added to the original US-based programme. Given poor educational levels of caregivers in South Africa, as well as sensitivity about the discussion of topics of a sexual nature, an open-ended, participatory cartoon narrative was developed in consultation with community stakeholders to introduce each topic. Participants were required to close the narrative through discussion exercises promoting critical awareness and renegotiation of social representations and practices, with the cartoons containing anxiety through providing distance from the actual topic. Further, homework tasks and information were provided through take-home booklets to consolidate the sessions. Formative and process evaluation, using focus groups at the beginning of each session about the previous session, was used in the pilot study to understand the processes involved in changes in behaviour, as well as ensure authenticity and usefulness of the cartoon storyline, and the appropriateness and usefulness of the exercises and homework tasks. Several adaptations to the characters, storyline and tasks were made to ensure cultural compatibility. Further, the group tasks were found appropriate to the cultural context, in that they promoted the collective renegotiation of the identities and practices of caregivers as a group, as opposed to focusing only on individual level change (Petersen et al., 2006).

The programme was delivered on weekends to multiple family groups accessed via primary schools, using trained parent facilitators who were selected from amongst parents who had attended the programme. The training of facilitators was intensive, involving a week-long training workshop, as well as weekly training and debriefing sessions before each session.

The outcomes of an efficacy trial involving 488 families over a 3-year period (2003–06) showed positive effects with regard to outcomes previously found to mediate risk behaviour in adolescents. These include improved parent–child communication about sensitive topics, improved parental monitoring and control, and strengthened primary social networks for caregivers (Bell et al., 2008).

Following completion of the efficacy trial, CHAMP SA established itself as a non-profit organisation and raised donor funds to disseminate the programme to the participating schools.

### Characteristics of those delivering the programme

This dimension of the adaptation process to ensure goodness of fit refers to the nature of the people identified to deliver the programme (Simmons & Shiffman, 2007). Do they have the implementation capacity? For example, are they mental health practitioners, non-mental health practitioners or non-professional community people? What is the extent of their training? This information is important to determine the level and extent of training, support and monitoring that would be required to ensure fidelity. Further, motivation to deliver the intervention would need to be assessed (Simmons & Shiffman, 2007). Schoenwald and Hoagwood (2001) also suggest that service providers are more likely to support the programme if it is similar to their prevailing practice.

These issues are particularly pertinent to mental health promotion and prevention work in scarce-resource contexts, where there is a scarcity of mental health practitioners and where the role and functions of mental health practitioners have largely been defined along treatment and rehabilitative lines. Many LMICs have adopted the model of integrating mental health care into primary health care as a mechanism for facilitating access to mental health care. This approach requires task shifting where general health practitioners such as primary health care nurses and doctors, as well as trained non-professional community-based workers deliver mental health care. In high income countries, there is strong evidence of the benefits of integration of treatment-oriented services into primary health care (Atun et al., 2008). For example, a systematic review of studies found that integrating the treatment of depression into primary health care leads to improved acute and long-term outcomes, as well as being cost-effective (Atun et al., 2008). There are, however, few studies that have demonstrated the efficacy of integrated primary mental health care in LMICs (Flisher et al., 2007). On the contrary, the efficiency and effectiveness of integrated services have been found to be hampered in contexts where there is a shortage of resources and overstretched primary health care systems, as well as where the services to be integrated are complex and differ from the routine tasks of primary health care personnel (Atun et al., 2008).

Further, given that mental health is a multisectoral concern, mental health promotion and prevention programmes are equally going to have to rely on non-mental health personnel from other sectors such as teachers and community development workers to deliver programmes.

Barriers to uptake of mental health programmes by both mental health and non-mental health workers are likely to include structural and financial barriers to service delivery, lack of support, lack of role definition, work overload and stigma.

With regard to support, while the use of non-mental health workers – such as general health care workers, teachers and community-based workers – is commonplace in scarce-resource contexts, research in these contexts has shown that such programmes should not be implemented in isolation from adequate training and support of both a technical and emotional nature from mental health specialists

(Binedell, 1991; Petersen, 2000; Saraceno et al., 2007; Swartz, 1998). In the first instance, emotional labour accompanying mental health interventions can often result in unmanageable feelings, which if uncontained can result in burnout (Van den Berg, 2002) or avoidance of dealing with mental health problems (Petersen, 2000). Second, these personnel often live and work in the same community as their clients and programme recipients, rendering them particularly vulnerable to boundary problems. The lack of geographic distance increases the chances of their being called upon to assist at any time (Binedell, 1991). Further, given the relationship between poverty and mental health, they may also be called upon to assist with material needs in a context where they themselves are impoverished. This issue is particularly pertinent to community-based workers, who are often volunteers or very poorly paid (Binedell, 1991).

The need for support structures to provide technical and emotional support, as well as assist in boundary setting, is of the utmost importance if such interventions are to be successful. This requires that the roles of mental health specialists in these scarce-resource contexts expand beyond clinical care to include training, and supervisory and support functions. Further, as discussed in Chapter 1 of this volume, it is imperative that mental health interventions are part of broader, multisectoral interventions aimed at poverty alleviation and development.

With regard to role definition and work overload, adding mental health interventions to the roles and functions of personnel who are already stretched to capacity may also interfere with the fidelity of interventions. The further removed a new intervention is from the traditional roles and functions of a practitioner, the more resistant they are likely to be to adopting the innovation (Schoenwald & Hoagwood, 2001). This would apply equally to mental health practitioners and non-mental health workers in LMICs. With respect to mental health practitioners, as discussed, they have generally been trained to deliver clinical treatment and rehabilitative-oriented interventions. Promotion and prevention interventions require an orientation towards this approach, as well as additional training to equip practitioners to implement promotion/prevention interventions. Further, task shifting requires orientation and training to equip mental health specialists to play the coordinating, supervisory and support roles required of them.

Similarly, non-mental health workers such as nurses, teachers and community-based workers, whose roles and workloads have not historically included mental health promotion/prevention work, may be resistant to engaging in such activities. In addition to training and support, they may need to be motivated to participate in the delivery of such programmes. Orientation and training programmes, additional staff, revised appraisal systems and organisational restructuring to support the implementation of mental health promotion and prevention programmes may be necessary as motivational tools.

In the absence of such interventions, fidelity of a programme is likely to be compromised. For example, school-based programmes often rely on teachers to implement them. Resistance on the part of teachers to delivering a programme may

emerge as a result of their not regarding delivery of the programme as one of their functions; the programme being seen to add to their workload; lack of skills and/or support; and negative attitudes towards or stigmatisation of the issue being addressed by the programme. In fact, the role played by stigma in resistance to implementing an intervention cannot be overlooked when working in the arena of mental health issues; stigmatisation of people with mental health problems is still rife in scarce-resource contexts. Further, many behavioural health promotion interventions in scarce-resource contexts are concerned with preventing and controlling the spread of HIV/AIDS, which is also associated with a high degree of stigma.

The process evaluation of the South Africa Tanzania (SATZ) risk-reduction programme in South Africa for school-going youth illustrates how some of these issues compromised the success of the programme in achieving the desired outcomes (see box – South Africa Tanzania programme).

#### Characteristics of participants

This dimension of the adaptation process to ensure goodness of fit refers to the demographic characteristics of the programme participants, such as age, gender, socio-economic status and educational level, as well as community and family context, ethnicity and cultural identification, nature of the problem, and needs from the perspective of the participants. Transporting a programme requires an assessment of the goodness of fit of a programme for the target population in relation to all these factors and adaptation of the programme accordingly. Programmes need to be adapted to match the perceived needs on the part of the participants. This includes paying attention to issues such as cultural appropriateness, as well as whether the programme is appropriate for the age and educational level of the participants. The use of a cartoon narrative in the adapted CHAMP SA programme provides an example of how the original programme was adapted to meet both the low educational levels of the participants and sensitivities around the discussion of sexual issues (see box – Adaptation of the Collaborative HIV/AIDS Adolescent Mental Health Programme).

#### Service delivery characteristics

This dimension of adaptation refers to issues such as the length and frequency of sessions, physical location and time of the sessions, and payment characteristics. Payment of stipends for participants to attend interventions under research conditions is a common practice in efficacy trials. This, however, is mostly not possible under 'real world' service delivery conditions. Further, in scarce-resource contexts, while research participants may be happy to give up time to attend a programme when being paid a stipend, they may not be able to attend as frequently if the programme interferes with income-generating activities and other chores. Times, venue and frequency of sessions may need to adapt to these real world conditions.

## SOUTH AFRICA TANZANIA PROGRAMME

The South Africa Tanzania (SATZ) programme is a manualised, school-based HIV prevention programme aimed at delaying sexual debut and promoting condom use amongst school-going youth. In the South African site in Cape Town, the programme was delivered to Grade 8 students by teachers trained in the delivery of the programme. A cluster randomised design was used involving 13 control and 13 experimental schools. The programme was designed to be delivered by life orientation teachers during the life orientation teaching period over the course of six months.

The outcome evaluation of the programme showed that the programme was not effective in either delaying sexual debut or increasing condom use compared to the control condition (Mukoma, 2006). Process evaluation revealed a number of reasons for these poor outcome results. The most compelling reason was that optimal fidelity in the implementation of the programme was not maintained across all the implementation schools. There were a number of issues that emerged as compromising implementation fidelity.

In the first instance, although teachers were trained to deliver the programme, some still felt uncomfortable and incompetent to deliver some of the material, especially that relating to condom use, which led to selective teaching of the material (Mukoma, 2006). This reinforces the need for adequate orientation and buy-in of programme content by programme implementers. This may require that training programmes dedicate time for self-reflection and clarification of values on the part of facilitators, in addition to focusing on programme content and delivery issues.

Second, some of the teachers expressed discomfort with the participatory method of teaching required by the programme. Even though outcome-based education, which utilises participatory methods, was introduced by the Department of Education in South Africa in 2002, many teachers did not feel competent with this teaching method, as teacher training in South Africa has been historically based on traditional, didactic information-giving methods. Further, some of the teaching methods – for example, the use of role plays and small group work – were reportedly not practical due to time constraints (Mukoma, 2006). These findings reaffirm the need for intervention methods to be similar to prevailing practices, the need for orientation and training in both content and delivery methods, and the need for alignment of programmes to institutional realities.

Third, a lack of organisational support for the programme and life orientation, as a whole, was noted. Life orientation as a subject had a low status in the educational system in South Africa at the time of the study. It was not an examinable subject and life orientation periods were often used for other activities when extra time was needed. Further, there was little support or respect for the work done by life orientation teachers, resulting in a high staff turnover (Mukoma, 2006). These findings highlight the importance of organisational or service system restructuring to support interventions. In this instance, making life orientation an examinable subject would immediately raise the importance of both the subject and the teachers who teach it.

In the dissemination of the CHAMP SA programme to the control schools (see box – Adaptation of the Collaborative HIV/AIDS Adolescent Mental Health Programme), post the efficacy trial, it was found that while participants were prepared to attend 10 sessions in the efficacy trial where they were paid a stipend, this was not the case under real world conditions where a stipend was not paid. They were, however, more inclined to attend five sessions. As a result, the number of sessions was reduced through collapsing sessions, thereby changing the service delivery characteristics to meet the real world conditions.

### Organisational and service system characteristics

This dimension of the adaptation process refers to the vision, mission and goals of the service delivery agency, how the service delivery system is organised, managed and financed, policies affecting personnel (such as compensation and appraisal management), and organisational culture and climate.

Adapting organisational and service system characteristics to support programme delivery is crucial for sustainability. As mentioned under the section on characteristics of those delivering the programme, organisational and service system characteristics play an important role in motivating personnel tasked with implementing a programme to deliver it with fidelity.

This is particularly important in scarce-resource contexts, where mental health is often not a priority. As mentioned before, simply adding the delivery of a programme to the existing responsibilities of personnel may be seen as adding to their workload and may thus result in a negative attitude towards the programme. Structural reorganisation to support delivery of a programme may be required. This may include the need to ensure supervision, mentorship and referral systems. Further, redefinition of roles, job descriptions and performance appraisal systems to include mental health promotion and prevention work may be necessary. This is well illustrated by the SATZ programme, where the fidelity of implementation of the programme was compromised by a lack of organisational support and recognition of the importance of life orientation as a school subject, as well as a lack of support for the teachers involved in teaching the subject (see box – South Africa Tanzania programme).

In addition, organisational climate is an important variable impacting on the effectiveness of programmes in real world conditions. In scarce-resource contexts, the effectiveness of school-based interventions may be hampered by an unsupportive and disorganised school environment.

### **Ensuring participation and collaboration of potential uptake agencies and participants**

The second of the three key lessons is participation of all stakeholders during the research phase, including participants and potential uptake agencies. This is essential for instilling ownership of a programme by the community and other stakeholders, as well as facilitating ease of transfer from research to adoption, implementation and

sustainability (Eke et al., 2006; Hamdallah et al., 2006). To this end, the establishment of collaborative research boards during the research phase is important. All constituencies involved in the research phase, as well as future potential adopters, should be members. This includes researchers; the targeted research community, representing end users of the programme; and other stakeholders who may potentially adopt and deliver the intervention, such as health, education or social welfare government departments, NGOs and CBOs.

This approach would facilitate the adaptation process (discussed above), both from the participants' perspectives and from the uptake agency's perspective. Participants play a valuable role in ensuring 'goodness of fit' between the intervention characteristics and service delivery characteristics. Poor student involvement in the development of the SATZ school-based intervention (see box – South Africa Tanzania programme) emerged as one of the factors that compromised successful outcome effects of the programme (Mukoma, 2006). Further, the collaboration of uptake agencies is central for ensuring the capacity of the transfer agency to sustain implementation of a transferred programme. This would include determining what is needed in relation to training and support of service deliverers, as well as organisational restructuring to support the delivery of the service.

In relation to resources, grant funding – particularly in efficacy trials – may provide for resources and expertise that the service agency does not have. Given scarce resources within LMICs, these additional resources during efficacy trials are very attractive to both service providers and researchers. Caution should, however, be exercised in developing an intervention solely on grant-funded resources as this is likely to render sustainability post the research phase more difficult. Thus, wherever possible, programme implementation should strive, from the outset, to use existing resources that are sustainable over time as opposed to introducing new resources that are not sustainable under real world conditions, given the resource constraints of LMICs. The CHAMP SA programme (see box – Adaptation of the Collaborative HIV/AIDS Adolescent Mental Health Programme) introduced new resources in the form of parent facilitators to deliver the programme. While this worked during the research phase, when grant funding provided money to pay these facilitators, this model became more difficult to sustain in the dissemination of the programme, given the need for sustained donor funding, as well as the high turnover of facilitators and the continual need for retraining. Long-term sustainability may have been easier to achieve if an existing cadre of community-based workers had been utilised during the research phase, with the programme becoming routinised as part of their responsibilities.

Resources are, thus, critical issues that require addressing before the grant funding for the research phase is terminated. Ensuring sustainability and fidelity requires that agency/institutional staff be trained by the initial developers and implementers of the programme, during the research phase, to coordinate and deliver programmes. Further, where additional resources are required, this issue should be addressed with the uptake agency/institution early in the programme to prevent interruptions in the transfer process.

## Developing intervention support packages

The third of the three key lessons is the development of intervention support packages to assist agencies/institutions in the adoption, implementation and sustainability of interventions; this is essential for ensuring fidelity and capacity for sustainability of programmes, and should comprise both training materials (e.g. manuals) and maintenance materials (technical assistance guides or ‘toolkits’), as well as the actual programme. Material for the actual programme should include implementation manuals, as well as support materials such as videos, workbooks and so on (Eke et al., 2006; Hamdallah et al., 2006). The CHAMP SA programme (see box – Adaptation of the Collaborative HIV/AIDS Adolescent Mental Health Programme) provides an example of such an approach, where detailed training manuals for facilitators, as well as facilitators’ manuals and workbooks for families, were developed.

Further, careful documentation of the implementation process outlining the challenges and how these were overcome is important information to collect to pass on to the uptake agency/institution. Similarly, during effectiveness studies, careful documentation of barriers to uptake and delivery and how these are overcome under real world conditions will assist in the dissemination phase. In addition, modifications that are made to accommodate problems encountered in the delivery of the programme as a normal service, and the impact of such modifications on fidelity and effectiveness, need to be documented (Eke et al., 2006; Hamdallah et al., 2006).

## Systems-strengthening policy research

As is evident from the previous section, vertical or political scaling up, where innovative programmes are institutionalised into existing service delivery systems, requires that systems, structures and policies be adapted to accommodate them. Given that mental health promotion and prevention has, historically, not been part of service delivery models in most LMICs, in addition to the need for evidence-based models, there is a need for systems-strengthening policy research to assess the resource, training and infrastructural requirements for facilitating the delivery of mental health promotion and prevention programmes. Health systems research has been defined as ‘the production of knowledge and applications to improve how societies organize themselves to achieve health goals. It includes how they plan, manage and finance activities to improve health, as well as the roles, perspectives and interests of different actors in this effort’ (Baris, 1998, cited in Mills et al., 2004, p. 2). Health systems research includes research on health policies and health services. Given the multisectoral nature of mental health promotion and prevention, such systems-strengthening policy research would be required to span multiple sectors.

An example of systems-strengthening policy research that incorporates mental health promotion and prevention, as part of the agenda for developing service delivery systems and policies to increase access to appropriate mental health care in LMICs, is provided by the Mental Health and Poverty Project (MHaPP). It is a

#### MENTAL HEALTH AND POVERTY PROJECT

The Mental Health and Poverty Project (MHaPP) study site in South Africa is a rural district in northern KwaZulu-Natal, which is typical of other similar districts in relation to the socio-demographic profile of the population, as well as public mental health services. A situational analysis of mental health services in this district was conducted, with a view to assessing progress in the processes of deinstitutionalisation and integration of mental health into primary health care (including mental health promotion and prevention), as contained in the national policy guidelines for mental health in South Africa (Petersen et al., 2009).

This situational analysis revealed the following with regard to systems-strengthening needs at the district level in South Africa. Mental health services in the study site had not progressed much beyond emergency management and treatment of psychiatric patients, as well as ongoing symptom management of patients with chronic psychiatric conditions. In relation to mental health service resources available in the district, the number of psychiatrists and psychologists fell far below the recommended norms set for LMICs. While the situation with regard to psychiatric nurses available was less dire, they were, however, not always used for mental health, being used as stop gaps for general nursing shortages. Further, these specialist resources performed largely clinical care, which runs counter to the recommendation that, in LMICs, the role of specialist mental health resources be expanded to include training, supervision and support to general health care personnel and community-based workers (Saraceno et al., 2007). In addition, the study found that primary health care nurses (who were supposed to provide mental health care at the primary level) were comfortable with providing symptom management for patients with chronic stabilised mental disorders; however, the provision of other mental health services, including management of common mental disorders and mental health promotion and prevention, was seen as an additional burden, which they had neither the time, skills nor supervisory support to undertake (Petersen et al., 2009).

Recommendations specific to mental health promotion and prevention interventions, which are central to comprehensive integrated primary mental health care, included the following (Petersen et al., 2009):

- The establishment of a multisectoral forum for mental health at district level to facilitate greater intersectoral collaboration.
- Greater use of trained community-based workers across the sectors to deliver mental health promotion and prevention programmes.
- Additional specialist mental health resources, specifically 'mental health counsellors', at primary health care level who could initiate and play a training, supervisory and supportive role to these community-based workers, as well as provide a referral service for more common mental disorders.

collaborative project in four countries in Africa (Ghana, South Africa, Uganda and Zambia), which aims to break the cycle of poverty and mental ill-health through mental health policy development and implementation (Flisher et al., 2007). A central feature of the project is that in each country site, researchers collaborate with government-appointed officials concerned with mental health policy development and implementation, to facilitate ease of uptake of recommendations with respect to policy, as well as institutionalisation of models of service delivery.

See the box, Mental Health and Poverty Project, which provides a description of the systems-strengthening needs that this project identified at the district level in South Africa. This case study highlights the importance of understanding the resource and organisational implications of introducing mental health promotion and prevention interventions as part of the service package within LMICs. In the absence of such considerations of issues that affect goodness of fit, as already discussed, fidelity of mental health promotion and prevention interventions is likely to be compromised by resistance if imposed on existing, overstretched service delivery systems, where these services have not traditionally been part of a service package provided.

## Conclusion

While there is a great need for more evidence-based research projects to demonstrate the efficacy of mental health promotion and prevention programmes in LMICs, there is an equally great need for these projects to be disseminated in a manner that ensures their sustainability and effectiveness. Otherwise, much research funding, time and effort devoted to adapting, developing and evaluating such interventions will come to naught.

Moving science to service remains, however, an enormous challenge in scarce-resource contexts. Dissemination theory and lessons from successes and failures of dissemination attempts, globally, suggest that this issue needs to be considered at the outset of any mental health promotion and prevention research project. Diffusion of innovation theory suggests that, in particular, the key elements of contextual compatibility, participation of key stakeholders, and the development of intervention support packages and ongoing support structures need to be foregrounded in the adaptation and development of interventions. Further, systems-strengthening policy research needs to accompany evidence-based intervention research, so as to ensure service delivery systems within institutional structures that allow for scaling up in a sustainable way.

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**Part 2**

**Mental health promotion and the prevention of mental disorders across the lifespan**





# 6 Early childhood

Linda Richter, Andrew Dawes & Julia de Kadt

The principal aim of this chapter is to provide an overview of effective interventions aimed at the prevention of mental disorders and reduction of risk in early childhood, to promote child and adult well-being in scarce-resource contexts. The focus is on preschool children, that is, children under 5 years of age. Major risks to child mental health in this period are outlined and, as in other chapters, examples of interventions at the individual, interpersonal, community and policy levels are presented.

As indicated in Chapter 1, this volume has a wide purview, covering the promotion of mental health across the lifespan and prevention of mental ill-health and behavioural problems, as well as prevention of diagnosable psychiatric and psychological disorders (hereafter referred to as mental health promotion and prevention). Chapter 1 also firmly places this range of issues within the contexts of poverty and underdevelopment in low and middle income countries (LMICs), and emphasises the importance of human capital development.

While it is true that mental and behavioural health generally receive little attention in social development initiatives, this does not apply to early child development to the same extent. The integrity of physical and mental well-being in early childhood is generally accepted as a matter of importance for national and global human capital development. This is illustrated by the fact that child survival, physical growth and enrolment in primary education are key indicators of socio-economic development – as, for example, in monitoring progress towards the Millennium Development Goals. Early child development is also considered important because much of the loss of life, health and human potential attributable to this age range is preventable (Black et al., 2003; Grantham-McGregor et al., 2007; Victora et al., 2008). Increasingly a range of actors, from policy-makers to those implementing programmes on the ground, are becoming aware of the crucial importance of early interventions to ensure a good start in life and, as far as possible, to prevent later morbidity and loss of human potential. Implementation, expansion of initiatives to a large scale, and universal access to early child development services and support, however, lag considerably behind appreciation of their importance.

Recognising the loss to national development that is associated with a poor early start for children, for more than a decade the World Bank has emphasised the importance of early child development (Young, 2002). The Bank has supported a number of evaluations of early interventions in developing countries (Alderman, 2007; Britto et al., 2007) and has made early child development programmes a condition in several country loans. A number of international agencies, such as the United Nations International Children's Fund (UNICEF), the World Health Organization (WHO)

and the Bernard van Leer Foundation in the Hague, have played a major role in highlighting the importance of a healthy start in life, as well as of a nurturant and stimulating early environment to lay the platform for later psychological, social and physical development (Richter, 2004; UNICEF, 2006).

In this chapter, we point to some ways in which evidence and appropriate evaluation can strengthen delivery of early childhood programmes and impact on child mental health. In order to provide a context, we begin with some reflections on the nature of early development.

## The early childhood period

The age reference for this chapter is infancy and the preschool period, generally up to the age of 5 years. In absolute terms, this is a very short time. However, relative to change across the lifespan, this is the period of the most dynamic transformation in human development (Shonkoff & Phillips, 2000). In addition, we now know how disproportionately developments in this period influence later growth and stature, physical and mental health, cognitive functioning and education, emotional reactivity and social behaviour. Poverty, disadvantage, undernutrition, lack of stimulation and neglect in early childhood have been demonstrated to have particularly long-term determining effects on health and well-being in adolescence, adulthood and old age (Anda et al., 2006; Desjarlais et al., 1995; Grantham-McGregor et al., 2007; Victora et al., 2008).

While associations between physical and mental health can be demonstrated throughout the lifespan (Prince et al., 2007; Ray, 2004), physical and mental health are virtually indistinguishable in early childhood. This is due to the relatively undifferentiated nature of both physical and mental functions in young children, and the fact that their self-regulation, including of physical and emotional states, is still evolving. Brain and biological development in the early years is experience-based, which influences neurophysiological processes and pathways being laid down in synaptic formations in the brain. These pathways establish the parameters of basic emotional, language, motor and cognitive competencies (Mustard, 2007).

The term 'experience-based' highlights the fact that, while neurological development is given its basic form by the child's pan-human and individual genetic characteristics (Scarr, 1992), child development does not occur in a vacuum. Rather, the child's emerging capacities elicit, respond to and are shaped by properties of the child's developmental niche (Super & Harkness, 1986). The environment in which the child develops is both physical and social, and includes resources required for development such as food, stimulation, nurturance and attachment, all of which are guided by cultural scripts for child development that pertain in the specific contexts in which children grow and are socialised (Ogbu, 1988).

There is considerable variation around the world regarding what adults consider to be desirable milestones and outcomes in early childhood. What people believe to be good for advancing children's health and well-being shapes how they treat their

young, and the learning opportunities they provide are determined by what is valued and what is perceived to be needed in a particular socio-cultural setting (Ogbu, 1981). A 'good' child in one society may be intellectually precocious and questioning. In another, a respectful child who does what they are told is valued. What is thought to be caring behaviour by an adult also varies from context to context, though certain constructs, such as warmth, may be universal (MacDonald, 1992). The nature and quality of certain early developmental outcomes may therefore vary somewhat, depending on the local setting (Sigel et al., 1992).

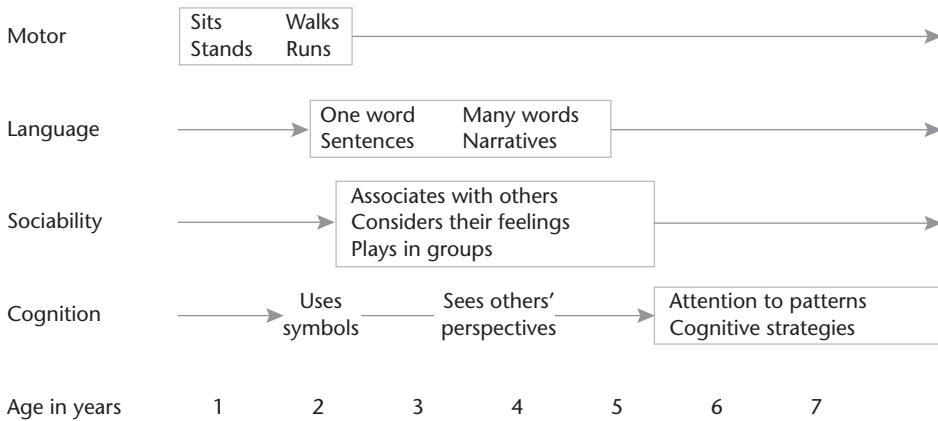
Through the processes of neurological maturity and socialisation that occur in relation to the material and social environment, children in all cultures become increasingly able to regulate their behaviour. Regulation refers to the physiological, emotional and behavioural processes of alleviating one's own discomfort and distress, controlling one's emotions and modulating one's activities. Even young infants can relieve distress through simple behaviours such as closing their eyes, non-nutritive sucking and body rubbing. These mechanisms become more sophisticated during development and enable young children to refrain from hitting someone else when angry, or screaming uncontrollably when they are unhappy (Fox, 1994; Kopp, 1989; Masten, 2001). Regulatory capacity has a range of positive implications for improved attention, concentration and emotional control – all of which assist the child to benefit from learning opportunities and to engage cooperatively with others. For this reason, deficits and delays in regulation compromise later developments (Kopp, 1989).

The preceding account should not be read as suggesting that the child is passive in these processes. It has long been known that this is decidedly not the case (Bell, 1974). From conception, children shape their environments, including the behaviour of their caregivers (Bell, 1974). For example, a child who kicks vigorously in the womb may be anticipated by the parents to be self-willed. A child who is easily soothed may make one mother feel confident and relaxed, but another fretful because her child is not as active and demanding as she expects. Development, particularly in the early years, is a function of ongoing cycles of child–caregiver transactions that weave together the fabric of psychological functions, including the mental health of the young child (Sameroff et al., 1993, 2004).

As illustrated in Figure 6.1, it is also necessary to bear in mind that early development is uneven, with different functional domains showing developmental spurts during different periods of time. It follows therefore that, as children mature with age, they are differentially sensitive to varying sources of influence. While this may appear obvious, policy-makers and programme implementation staff need to appreciate the particular sensitivities and capacities of children at different stages of their maturation so that interventions are developmentally appropriate.

Across this age period a range of risks to mental health may be identified. We signal some of the key periods, and causative and contextual factors, in the sections that follow. It is tempting to point to single risk factors as having particular importance with respect to defined behavioural and emotional outcomes. Genetic influences

**Figure 6.1** Examples of the uneven pace of development with rapid progress at different times in different domains



notwithstanding, studies in rich-resource countries indicate that the best predictor of early problem behaviours is the *cumulative risk* experienced by a child rather than any specific individual factors on their own. Evidence from longitudinal studies shows that single risk factors, operating for short periods of time, do not as a general rule pose a major threat to children’s development or their adolescent or adult adjustment (Haggerty et al., 1996). Risk seldom occurs alone, and the additive effects of several risk factors lead to a greater probability of poor outcomes in physical, intellectual and socio-emotional development (Seifer et al., 1996). Under some conditions, risks cluster together to affect a number of early outcomes (such as anxiety and aggression amongst young children) (Sameroff, 2005; Sameroff et al., 1982). Among these are cumulative disadvantages, including frequent changes in residence, single parenthood in the context of poverty, low maternal education, poor parent mental health and conflictual family relationships. Many of these conditions are endemic in poor communities, including those in LMICs. These conditions, continuing uninterrupted for much of early childhood, are at the core of what places children at increased risk for psychological problems (Richter, 2003; Rutter, 1994).

Studies throughout the world show that poverty, and stressors associated with poverty, is a significant predictor of negative psychological outcomes (Aber, Bennett et al., 1997; Richter, 1994, 1999). Major risks for poor children associated with poverty include low birth weight, stunting, micronutrient deficiencies, low levels of intellectual and socio-emotional stimulation, parental depression, harsh punishment and interpersonal violence (Walker, Wachs et al., 2007).

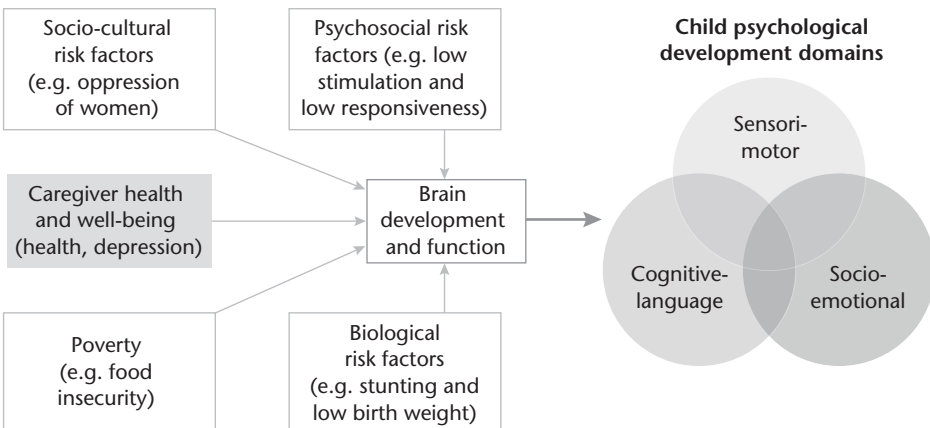
Sources of risk and protection for early childhood mental health thus emanate from the child’s biological and psychological make-up, as well as from their developmental and material context (Dawes et al., 1997; WHO, 2005). The manner in which risks interact to influence child outcomes is illustrated in Figure 6.2 (adapted from

Walker, Wachs et al., 2007). We have added caregiver health and well-being as a critical mediator of a range of early childhood outcomes, including emotional development and mental health (Richter, 1994, 1999). For many children who live in destitution, the context of their early care is compromised by stresses associated with poverty, ill-health, separation from caregivers, maltreatment and violence. The context of care for young children is the *primary source* of both wellness and vulnerability. Caregivers living in areas with high levels of social disorganisation and low levels of social support have consistently been found to be at higher risk for child maltreatment and neglect (Coulton & Korbin, 2007; Coulton et al., 1999).

In sub-Saharan Africa, HIV and AIDS are having a significant impact on caregiving capacities (Brandt et al., 2006; Bray & Brandt, 2007; Richter et al., 2004). In addition, studies from south east Asia (Black et al., 2007) and South Africa, amongst other countries, indicate that maternal depression is a risk factor for compromised infant health and psychological development (Cooper et al., 1999; Tomlinson et al., 2006). When caregiver health and well-being are compromised, the capacity to care for young children suffers, and child outcomes including health, nutritional status, psychological development and mental health are affected (Richter, 2004; Richter & Grieve, 1991).

Interventions designed to reduce risks and promote positive mental health amongst young children need to address various elements in this complex chain of determination, with the caregiver being the central mediator of the child's experience during infancy and early childhood. In the remainder of this chapter, we focus on development in early childhood and the mediating role of caregivers. We then move on to discuss developmentally appropriate interventions to promote positive mental health.

**Figure 6.2** A conceptual model of how risk factors affect early childhood psychological development



Source: Adapted from Walker, Wachs et al. (2007)

## Prenatal development and infancy

During infancy, the most critical sources of influence are the intrauterine environment, the birth process, the neonatal period, and the early care environment. The latter comprises the relationship between child and caregivers that is so critical in shaping the child's attachment system. During this stage, parental mental states impact on both the attachment relationship and the child's nutritional and learning environment (Tomlinson et al., 2005).

The earliest foundations of child mental health and well-being are prenatal, and it is the mother who provides the child's environment during pregnancy. Independent of the child's genetic predispositions, the mother's health and well-being has an important bearing on foetal development. The pregnant mother's environment and behaviours have the potential to expose the developing foetus to a number of toxins with long-term implications for the child's mental and physical health, such as those found in cigarette smoke and alcohol. Alcohol use in pregnancy is associated with a permanent defect, foetal alcohol syndrome (FAS). Affected babies have characteristic facial anomalies, as well as a range of cognitive and social deficits. In adulthood, children with FAS have been shown to be more likely to have mental ill-health and to abuse substances (Abel & Sokol, 1987). South Africa has the highest recorded rate of FAS in the world. While the rate is lower than 1 child per 1 000 in the United States, some 88 out of every 1 000 children in the Western Cape are born with FAS (Viljoen et al., 2005).

Prenatal nutritional deficiencies also have implications for children's mental health and well-being, and are associated with serious mental disorders due to disrupted brain development. Physiological malfunctions may lead to neurons being diverted from their intended destinations, leaving areas of the brain incorrectly wired, which is theorised to be a fundamental cause of serious mental illness. There was, for example, an increased risk of schizophrenia amongst children born during the Dutch famine towards the end of the Second World War (1944–45), as well as during the Chinese famine between 1959 and 1961 (Brown & Susser, 2008). Prenatal (maternal) and early childhood malnutrition also play a role in the aetiology of aggression in early childhood (Jiangong et al., 2004; Neugebauer et al., 1999).

The process of birth can hold risks for the infant. Anoxia is associated with brain malfunction, causing a range of mental and physical disabilities of varying severity. Children born with disabling conditions have a much better prognosis in environments that provide compensatory experience. For this reason, the seriousness of these disabilities for later functioning varies with the quality of the child's care environment, and the subsequent timing and intensity of interventions to support the child's development (Knobloch & Pasamanick, 1960; Sameroff & Chandler, 1975).

In the first two years of life, developmental disabilities become evident in delays in motor milestones, such as walking; in sensory abilities, such as hearing and vision; and in language and mental development. Emotional, behavioural and

social difficulties also begin to emerge, although many cluster around particular developmental periods and most subsequently dissipate with time. For example, many young children become oppositional in their second year of life, but much of their seemingly difficult behaviour is an enactment of their new-found autonomy in movement, communication and actions with respect to objects. A South African study found that 48 per cent of parents rated their 2-year-old children as difficult to manage, a figure that declined to 23 per cent by the time the child was 5 years old. In a similar fashion, the emergence of fears and habits clusters around the period 4–5 years of age (Richter et al., 2000).

One of the most important developments during early infancy is the growing attachment relationship between child and caregiver. Attachment refers to the formation of a primary relationship that emerges out of recurrent emotional and social exchanges between the baby and the caregiver (Ainsworth, 1979; Waters & Cummings, 2000). Sensitivity and responsivity in infant–adult interactions are believed to be the critical factors for a child to form a secure attachment to a caregiver (Ainsworth, 1993). The nature of attachment, whether secure or insecure, has been shown to relate to a range of cognitive, social, emotional and regulatory behaviours throughout childhood and into adulthood. Children with secure attachments have been found to have more positive socio-emotional competence, and better cognitive functioning and physical and mental health, than children with insecure attachments (Ranson & Urichuk, 2008). A comprehensive review indicates that appropriate interventions are effective at improving parental responsiveness, resulting in better child health and development (Eshel et al., 2006).

Caregiver well-being impacts on the development of a secure attachment relationship. Care for young children is driven by parental motivations, such as the desire to be a good mother, preventing one's child from coming to harm, and the like. Parental emotional and motivational states are also strong determinants of sensitive responsiveness in interactions with young children (Richter, 2004). Stress, including the ongoing hardships and unpredictability associated with poverty, can disrupt parenting and fragment the attention a caregiver gives a young child (Richter, 1994). Depression, in both mothers and fathers, is associated with disturbed parent–child interactions, including adult insensitivity and intrusiveness, and child withdrawal (Cooper & Murray, 1998; Ramchandani et al., 2005). Follow-up studies indicate that the adverse effects of maternal depression on children may persist well into childhood and early adolescence in the form of behavioural disorders, anxiety, depression and attentional problems (Galler et al., 2000). Parental depression is a significant public health problem in LMICs and factors commonly associated with the disorder include severe negative life events, early childhood adversity, low perceived and actual social support, and lack of social capital (Harris, 2001).

The most extreme forms of attachment disturbance occur amongst infants reared with little stable and affectionate care, such as occurs in institutional environments and orphanages. Following early descriptions of children dying under these circumstances, John Bowlby's (1952) writings on maternal deprivation conclude

that the formation of an ongoing, warm primary relationship is as crucial to a child's survival and healthy development as the provision of food, child care, stimulation, behavioural guidance and control. In institutional care, the routines, staff turnover, disproportionate caregiver to child ratio and routinised rather than responsive nature of children's care, cause frequent and repeated disruptions in attachments (Dozier & Bick, 2007). There is consistent evidence showing that the rate of emotional, social, behavioural and educational problems found in children who have experienced institutional care at a young age is substantially higher than in the general population (Rutter, 2000). Recent studies of adoptees from Eastern Europe to the US and Canada suggest that deficits and delays tend to be irreversible, an outcome hypothesised to be based in altered brain circuitry (Nelson, 2007), which manifests in a wide range of psychological and social disturbances (Chisholm, 1998; Rutter et al. 1992).

### The preschool period

Many children in LMICs enrol in school late, which extends the age range of children not yet in school (Chisholm, 2007). Nonetheless, for present purposes, the preschool period covers the years from 3–5 years of age. For a variety of reasons, including lack of provision, or provision restricted to the private sector with high cost to parents, only very small numbers of children in LMICs are enrolled in or attend some form of early childhood programme. For example, in South Africa in 2000 (the latest figures available), only about 16 per cent of 3- to 5-year-olds attended a preschool (Biersteker & Dawes, 2008). Larger numbers of children, especially in urban areas, are in some other form of informal care, either in or out of the home, while their mothers are at work.

During the preschool period, the influence of the material and socio-cultural environments on the child's psychological development becomes increasingly evident. Nonetheless, the primary influences in this period are still in the child's home. External and more distal influences on the family are principally mediated by the proximal relationships children have with family members, and their day-to-day experiences at home (Bronfenbrenner, 1986). A number of developmental capacities come to prominence during the preschool period, and their form is strongly influenced by opportunities presented to the child in their developmental niche, as well as by the opportunities the child is able, and enabled, to take up and use.

During this time, children are increasingly encouraged to regulate their attention, emotions, motor behaviour and cognitions, leading to greater mastery of self. A sense of 'me' emerges as a distinct identity, together with more capacity to explore and manipulate the world as a function of physical and cognitive maturation. Together with advances in language and communication, these prompt the emergence of increasingly complex forms of thought, even as the child's cognition remains relatively concrete and egocentric (Cole & Cole, 2001). Opportunities for literacy development – through exposure to reading, pictures and mediated explanations of text – are especially important during this period. As children begin

to master expressive and receptive language, this exposure encourages and enables children to acquire the literacy skills that are central to their introduction to formal schooling (Zygouris-Coe, 2001).

As they develop a greater sense of self-identity, and experience a reduction in egocentricity, children increasingly appreciate that other individuals may have different perspectives on the world from their own. This is evident in a decline in self-centred play, and a greater capacity for participating with other children in cooperative activities. Playing together builds on a motivation for cooperative action and requires both an ability to communicate at the level of peers and regulation of one's impulses. Apart from increasing the opportunities for understanding the social world and its rules (Dunn, 1988), peer and sibling activities provide further opportunities for learning, advancing cognitive development and building social competencies and mental health (Sameroff, 1991).

As indicated previously, early development is interrelated, with the various domains of development influencing one another. Emotional well-being, in particular children's sense of trust and security established in the first three years, influences their ability to explore the world and engage in collaborative and supportive ways with other people. An emerging sense of confidence, born of early experience – that one is valued – makes it more likely that the child will interact cooperatively rather than aggressively with peers, and with confidence rather than anxiety. Similarly, insecurity and anxiety interfere with a child's ability to benefit from available learning opportunities, and to form relationships with others (Donald et al., 2002).

It should be clear from the discussion thus far that emotional and cognitive development are extensively intertwined during the preschool period. A child entering school is expected to have fine motor coordination, self-regulation and the ability to cooperate with others, and to be socially appropriate, and in possession of a reasonable level of language skills and cognitive ability (Biersteker & Dawes, 2008). For these reasons, a positive emotional, cognitive and social foundation in the preschool years is essential in ensuring that a child is adequately prepared for entry into formal schooling.

When children are anxious, disruptive or withdrawn, this interferes with peer relationships, self-regulation and learning. The likelihood of poor school performance, lower self-esteem, and even disruptive, antisocial behaviour is increased (Loeber & Stouthamer-Loeber, 1998; Maas et al., 2008). In the same way, when children struggle to learn because of cognitive immaturity or for reasons of more serious learning disabilities, their relationships with other children, and even caregivers, are affected. Their experience of schooling is more likely to be negative, their sense of self is affected by failure, and they are more inclined to display signs of emotional distress and disruptive behaviour (Donald, 2007; Donald et al., 2002). Indeed, disorders of learning and emotional dysregulation are amongst the most common risk factors for school failure (Patel et al., 2008). It follows that the sources of these problems need to be dealt with when they are detected and, preferably early in the life cycle. As noted above, key sources of problems associated with school

failure and learning difficulties may include neurological deficits consequent on intrauterine insults and relational problems resulting from deficits or distortions in parental care.

While children of preschool age do not usually have sufficient independence to engage directly with community institutions, apart from those providing their care, the adults with whom they live are influenced by community level forces in an ongoing way. A number of studies have demonstrated mediated neighbourhood effects on child well-being and development (e.g. Aber, Gephart et al., 1997). Where caregivers are under the strain of poverty, are socially isolated, or have few sources of support in their neighbourhoods, the risk of harsh parenting and even maltreatment is raised (Garbarino, 1999; Garbarino & Sherman, 1980).

Children who attend preschool programmes begin to have increasing contact with people outside the family and the home; in particular, they are exposed to a wider range of activities and relationships, both with peers and educators. Given children's greater mobility at this age, this means that their exposure to both opportunities and risks increases. With respect to risks, the judgement of young children is immature and their capacity to anticipate the potentially negative consequences of actions is not well developed. For example, young children are likely to trust adults – after all, this is what they have learned to do – and this may open them to the possibility of sexual abuse both from family members and others in the neighbourhood who befriend them (Richter & Higson-Smith, 2004).

Challenging neighbourhood circumstances, such as high levels of violence, can also pose major risks to children's mental health, although the psychological sequelae are likely to vary by children's developmental level (Flisher, 2007; Osofsky, 1995; Terr, 1991). Depending on the types of violence to which a child is exposed, and its chronicity, young children may suffer an increased vulnerability to distress and psychopathology. In the preschool child, however, the impact is also mediated by a number of protective factors, such as close parental support and a child's adaptable temperament.

Children's responses to challenging events and experiences also depend on their developmental level. Their thought processes, while maturing rapidly, are still concrete and self-centred. Young children also have a propensity for magical thinking, and they remain dependent on older children and adults to help them interpret and understand events – particularly those that might be disturbing. For the preschool child in particular, self-regulatory capacity is still developing, and emotional states associated with distress may easily overwhelm their composure. This is frequently expressed in an increase in regressive behaviours such as bed-wetting, night terrors, anxiety and clinginess – all characteristic responses to distressing events amongst young children (Osofsky, 1995).

While isolated disturbing events may give rise to post-traumatic reactions in young children, it is chronic exposure – associated with the kind of civil conflict, poverty and social disorder that has characterised the post-colonial period in many LMICs – that has been found to be associated with long-term developmental

consequences, including persistent anger, feelings of hopelessness, psychic numbing and dissociation, interpersonal withdrawal and poor self-regulation (Terr, 1991). Agitation and over-activity constitute central characteristics of attention-deficit/hyperactivity disorder; this, in turn, has been repeatedly associated with poor cognitive and academic functioning, oppositional behaviour and juvenile aggression (Loeber & Stouthamer-Loeber, 1998).

In sum, in addressing and reducing risks to early child mental health, our primary goal should be to support families and caregivers to provide nurturing learning environments for young children. We must also strive to provide the best quality services affordable, to support the development of the skills children need to succeed in when they progress to formal schooling. This is particularly important for children who have had a poor start in life. We also need to ensure that when children in this age group show indications of developmental disabilities, problems with learning and emotional disorders, they and their families receive the attention they need.

### **Intervention: mental health promotion and prevention**

Patel et al. (2008) provide a list of indicators for positive child and adolescent mental health. Probably most pertinent for the preschool child is what they refer to as *a sense of belonging* (for the young child, this includes a sense of attachment to a caregiver and security in a family). Intellectual and emotional well-being are also important. Patel and colleagues identify family level indicators of characteristics of the home situation most likely to support child mental health, amongst which the most relevant for infants and preschool children are caregiver mental health, absence of violence and abuse, family cohesion, attachment, provision of opportunities for education, recreation and play, and authoritative parenting.

At the community level, sources of support for child and adolescent mental health include provision of safe and supportive environments, the quality of social and learning environments, and the 'extent to which staff at schools and day centres acknowledge and value the intellectual and temperamental individuality and uniqueness, skills and accomplishments of children and adolescents' (Patel et al., 2008, p. 317).

In the remainder of this chapter, we examine interventions at the policy, community, interpersonal and individual levels. In the case of very young children, there is no clear separation between interventions at the individual and interpersonal levels, and the most important focus for improving their well-being lies in their context of care, and their relationships with primary caregivers. Because of this, the focus of interventions is often on parents, caregivers and the child's intimate family. The individual infant or toddler would only be an appropriate subject of intervention if they were being assessed for or assisted with specific health problems or developmental delays. As the child moves towards the preschool period, individual mental health problems (for example, attention problems, hyperactivity, regressive behaviour and separation disorders) may become evident. Even in such cases, while

the child might require individual attention, it is the child's care system that mediates and is involved in efforts to facilitate the child's progress towards mental health. In addition to considering individual and interpersonal interventions together during the early years of life, a public health approach of delivering services in vulnerable communities is also suggested.

### Policy level interventions

In the first instance it is policy (and of course its effective implementation) that is the most powerful instrument for providing universal interventions for vulnerable families and their young children. As we have stressed, early childhood is a particularly critical period, and risks to biological and psychological well-being during this period compromise both child and adult outcomes.

Examples of international policy instruments to protect children's well-being include, for example, the Convention on the Rights of the Child and the African Charter on the Rights and Welfare of the Child. A specific example of an integrated strategy to address child survival, health and development during this important developmental period is provided by the joint WHO and UNICEF Integrated Management of Childhood Illness – an approach to child health and development, in both health facilities and communities, that includes counselling for breastfeeding and child development.

An example of a national policy in an LMIC that can promote early child development is South Africa's National Integrated Plan for Early Childhood Development (NIP for ECD) (Departments of Education, Health and Social Development, 2005). The NIP for ECD specifically targets the poorest and most vulnerable children, recognising that this group of children requires the most support. It emphasises a holistic approach to improving child well-being, strengthening human capital outcomes and reducing threats to healthy development (Biersteker & Kvalsvig, 2007).

The NIP for ECD has clear relevance for improving the mental health of young children, and for reducing the burden of disease later in life. For example, the policy states that

Ultimately, the integrated intersectoral ECD should:

- create environments and situations in which children, particularly vulnerable children, can learn, grow and thrive socially, emotionally, physically and cognitively;
- increase the opportunities for young children to prepare for entering formal schooling;
- provide support to adults who care for young children and the communities in which they live, in order to enhance their abilities to care for and educate these children; and
- reduce the adverse developmental effects of poverty and other forms of deprivation on children from zero to four. (Departments of Education, Health and Social Development, 2005, p. 17)

The primary locus of delivery for the policy is at local sites such as clinics and early childhood learning centres, and in homes, through a range of interventions offered by civil society organisations. Three levels of intervention are envisaged:

- The primary level is the family. The goal is to ensure ‘quality care, nutrition, hygiene, safe shelter, water provision, primary health care and many other key caregiving practices’ (Departments of Education, Health and Social Development, 2005, p. 34).
- The second level is the community. Here the goal is to provide ‘access to services at clinics, community help groups and care centres, one-stop service centres, playgroups, parental support programmes, community management of childhood illnesses, etc.’ (Departments of Education, Health and Social Development, 2005, pp. 34–35).
- The third level is that of formal services such as early childhood learning or daycare centres and preschools.

Programming for the prevention of psychological and behavioural disorders in early childhood, and for the promotion of children’s well-being, is best implemented by building on universal, centrally mandated interventions that are embedded in those services that already exist and operate in a child’s community.

### Community level interventions

Overall, programmes that have the greatest impact on child growth and development commence prenatally and extend into infancy and early childhood in a continuous chain of support (Engle et al., 2007). While the evidence emerges principally from the fields of child health and early cognitive well-being, it applies also to the mental health of young children. It follows that tackling risk factors for women and children during pregnancy must be the first step along this road.

The most efficient and effective delivery node for women affected by poverty in LMICs is the public health system. Primary health care services offer opportunities for prevention through screening of both mother and child, and for early intervention. They also offer opportunities for the detection of women at risk for ill-health, micronutrient deficiency, depression, and other conditions likely to place the child at risk pre- and post-natally. Clinics and early childhood learning centres can be sites for mental health promotion and education about children’s development such as programmes that prepare first time young parents for the tasks of child rearing that lie ahead. While such a community level intervention is delivered universally via the clinic or child care centre, the target of the intervention is the future child care behaviour of the individual mother, and the health and well-being of her child.

In many LMICs, three of the most significant risks to positive early development and later mental health commence prior to the child’s birth: maternal health and nutritional status; maternal exposure to alcohol and other teratogens;<sup>1</sup> and, especially in southern Africa, maternal HIV status – all of which can be detected, managed and referred on from the primary health care system.

Developing country studies have demonstrated the critical role that nutritional and micronutrient supplementation for nutritionally compromised women can play in enhancing child well-being. When delivered to mothers during pregnancy, and to children during their first few years, supplementation can prevent compromised growth, long-term brain damage and impaired cognition in children (Walker, Wachs et al., 2007). While nutritional and micronutrient support in pregnancy and early childhood may be classified as an individual level intervention, it is normally delivered at a community level through primary health care facilities and via home visits.

Early identification of mothers at risk for alcohol consumption is also critical, as is the early identification of FAS in pregnancy amongst at-risk mothers. Primary health care practitioners who can screen for, diagnose and manage alcohol-exposed pregnancies, play a key prevention role (Viljoen et al., 2002, 2005). Education of communities about the risks of alcohol consumption during pregnancy, and addressing norms regarding drinking in pregnancy, are community interventions that help to increase awareness of FAS.

Prevention of vertical transmission of HIV, from mother to child during pregnancy, birth and breastfeeding, is needed to eliminate the risk of child HIV infection, and the associated neurological and other disorders in infected children (Burns, 1992). Even when infants born to HIV-positive women are not infected with HIV, the virus continues to have serious implications for their development. More than 80 per cent of children born to HIV-positive women are now uninfected at birth (UNAIDS, 2008) and this number is increasing as drug prevention during pregnancy and delivery becomes more widely available. If mothers receive no treatment, most of these children will reach approximately 5 years of age before their mother dies (Nakiyingi et al., 2003). At a young age, these children will therefore suffer bereavement through the loss of their primary caregiver, and will experience psychological distress as a result (Dowdney, 2000).

In addition, uninfected children born to mothers with HIV infection are reported to have more attention, social adjustment and behavioural problems than comparison children (Esposito et al., 1999). The mechanisms for this kind of impact of maternal HIV infection on children are, as yet, unclear, and may be due to exposure to infection or antiretroviral drugs, or even the mother's own psycho-neuroimmune responses to stress. In addition, psycho-developmental effects on children are also likely to be mediated through compromised parenting and child care practices associated with maternal HIV infection (Forsyth, 2003).

The primary health care system is not limited to providing interventions targeted at pregnant women, but can also deliver services directly to young children themselves, and is a particularly appropriate site for screening young children at risk for mental health and behavioural problems. In early childhood, these problems can present as developmental delay or disability. The most common mental disorders in children under 3 years of age are related to attachment, while in the preschool period, disruptive and aggressive behavioural disorders are most common, as well as fearful behaviour such as night terrors and habits like thumbsucking. Mood disorders and

anxiety tend to become more evident towards the ages of 7–8 years (Campbell, 1995; Richter et al., 2000). However, behavioural problems in early childhood tend to be unstable and, when examined over time, many difficulties reported at one age are no longer evident at a later stage (Baillargeon et al., 2007).

As indicated, the primary health care facility and the early childhood learning centre are obvious sites for detection, management and referral for mental and behavioural problems amongst young children. While disorders amongst children are not easy to diagnose (DelCarmen-Wiggins & Carter, 2004), parental reports are important sources of information, and studies demonstrate that there is a close relationship between parents' concerns and measurably significant behavioural problems (Glascoe et al., 1991). Staff in centres can also be trained to be aware of childhood mental health problems and to make referrals (American Academy of Child and Adolescent Psychiatry, 1997).

### **Interpersonal and individual level interventions**

In resource-scarce contexts, there is a strong argument for targeted, home-based interventions to address a range of issues, from infant and young child nutrition through to early stimulation and parenting. These could be individual level interventions in the home, directed to either parents or child, or interpersonal interventions involving both child and caregivers. Referred to as two-generation programmes, such integrated approaches attempt both to improve parenting and assist parents to improve their economic position by helping to further education, facilitate entry into the workforce and the like (Duch, 2005).

At the level of the relationship between caregiver and child, maternal depression is a major problem in LMICs, estimated to affect 20–30 per cent of mothers (Rahman, 2005). As indicated previously, maternal depression can disturb the attachment relationship between the mother and her young child, and has been linked to impaired cognitive development, and behavioural and emotional problems amongst children. Apart from specific drug regimens, recent evidence supports the effectiveness of group sessions and home visits by a nurse, amongst a variety of populations of depressed women, including in low income contexts (Gjerdingen, 2003; Small & Lumley, 2007).

The Prenatal & Early Childhood Nurse Home Visitation programme (Olds et al., 1998) is recognised as a model programme for improving parenting and attachment, and for reducing the risks of child maltreatment. Extensively tested, this intervention has high intensity and long duration. Mothers are enrolled through the third trimester of pregnancy, and receive weekly, then fortnightly and monthly visits by trained nurses up until the child's second birthday. While demonstrably effective, this manualised intervention delivered by trained professionals is out of reach of most LMICs in its current form.

Recently, a less intensive home visiting intervention for women from low income families, designed to improve maternal sensitivity and infant–mother attachment, was tested in South Africa in a randomised control trial (Cooper et al., 2002).

Results showed that 15 home visits by trained non-professionals improved maternal sensitivity and reduced intrusiveness at 12 months post-intervention. At 18 months post-intervention, children exposed to the intervention were more securely attached than those in the control group (Cooper et al., 2009). Further, Rahman et al. (2008) undertook a cluster randomised control trial to assess the efficacy of using Lady Health Workers to deliver home-based individual cognitive behaviour therapy to women with maternal depression in rural Pakistan. The lay visitors were specially trained in delivering a manualised intervention, comprising one session a week in the last four weeks (i.e. the last month) of pregnancy, three sessions in the first postnatal month, and nine sessions – one per month – thereafter. Mothers in the control group received an equal number of visits in the same sequence but received only the routine service. It was found that integration of cognitive behaviour therapy into the routine work of community health workers helped reduce depression amongst prenatally depressed women by over 50 per cent compared to those in the control group.

Home visiting approaches need to be frequent and sustained over several years to have longer term benefits for children (Powell & Grantham-McGregor, 1989). Characteristics of successful home visiting programmes are described in the box – Elements of successful home visiting programmes. Whether interventions such as these can effectively be taken to scale in LMICs, though, remains to be seen.

Child maltreatment is also a serious problem at the interpersonal level, and children under three are at particular risk. An important primary prevention approach is to raise awareness about and reduce harsh discipline practices, and promote greater sensitivity by adults in interactions with young children (Gomby, 2007). Guidelines that have been shown to improve child protection in contexts of vulnerability in the normal course of service delivery are presented (see box – Guidelines for improving child protection in contexts of vulnerability).

At the individual level, as discussed previously, developing country studies have demonstrated the critical role that nutritional and micronutrient support play – both during pregnancy and in the first few years of children’s lives – to prevent long-term brain damage and impaired cognition (Walker, Wachs et al., 2007). Studies have shown that interventions can be delivered effectively both at health facilities during routine service delivery, and in the home (Grantham-McGregor et al., 2007).

#### ELEMENTS OF SUCCESSFUL HOME VISITING PROGRAMMES

- Active, engaged parental participation.
- Regular home visits, ideally weekly, over extended periods (at least a year).
- Stable, warm, supportive and uncritical relationship between participants and programme staff.
- Training and practitioner skill in working with parent/s.
- Joint interventions that involve direct activities with the child and training with the parent/s to improve language and cognitive development.

#### GUIDELINES FOR IMPROVING CHILD PROTECTION IN CONTEXTS OF VULNERABILITY

- Strengthen parenting knowledge and capacities during pregnancy, via antenatal services. Caregivers should be assisted to have a basic understanding of how children grow and develop so that their expectations are realistic, particularly in the case of infants and young children.
- Ensure that support to vulnerable populations follows through in the form of home visits for the first two years.
- Target, in particular, teen parents and first time parents; single parents with limited support; and parents with substance abuse problems.
- Be aware that low-birth-weight and preterm infants, and children with chronic illness and disabilities, are particularly vulnerable to maltreatment.
- Train people working with children to observe and respond to early warning signs of abuse and neglect, which may be detected at the clinic, early child care facility or school.
- Adopt approaches to intervention that value and support caregivers, particularly those subject to abuse and under stress, and recognise indigenous knowledge and strengths.

Further, at the individual level, but also involving caregivers, early stimulation programmes have been shown to reduce the effects of malnutrition and improve cognitive, educational deficits, as well as psychological functioning in at-risk children (Walker et al., 2005; Walker, Chang et al., 2007). Walker and colleagues implemented a nutritional supplementation and psychosocial stimulation trial for two years to stunted children aged 9–24 months in Jamaica. The stimulation intervention comprised 1-hour weekly home visits by trained community health workers to improve mother–child interaction through play. At 17–18 years, the benefits of the psychosocial stimulation programme were found to be sustained in relation to cognitive and educational achievement, as well as psychological functioning (Walker et al., 2005). Further, the stunted children who had received the stimulation intervention also reported levels of anxiety, depressive symptoms and self-esteem similar to non-stunted participants (Walker, Chang et al., 2007).

## Conclusion

As has been illustrated in this chapter, the prenatal and early childhood period of development lays the foundation for the future mental and physical health of the child, and even the adolescent and adult. Children growing up in contexts of poverty and deprivation are particularly vulnerable to cumulative risks that threaten their capacity to develop and live healthy and productive lives. Interventions to promote mental health and to mediate risk influences during this critical early developmental phase are thus crucial.

As described, a number of trials in LMICs have demonstrated that mental health promotion and prevention interventions that mediate generic risk influences for

mental and physical ill-health during early development have beneficial outcomes. Given this evidence base, in the context of overstretched service delivery systems and resource constraints that characterise many LMICs, the challenge is now how to take these interventions to scale. Unfortunately, while the importance of these interventions has been acknowledged by both international agencies and some governments in LMICs, resources are often not made available to support implementation of these policy imperatives.

It is of paramount importance to maintain advocacy efforts, to highlight the crucial role of mental health promotion interventions during pregnancy and early childhood in building human capital and breaking the intergenerational cycle of poverty and mental ill-health in LMICs.

### Note

- 1 Teratogens are external factors that have toxic effects on the developing foetus, including drugs and environmental chemicals, radiation and infections.

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# 7 Middle childhood and pre-adolescence

Arvin Bhana

Middle childhood is most often understood as the period 6–12 years of age. It is differentiated from early childhood as children develop new cognitive, emotional, and social capabilities at this age, which increases their familial and community responsibilities. The commencement of puberty is the primary distinguishing feature that separates middle childhood from adolescence. More and more, however, the social norms that determine the age grading of 6- to 12-year-olds are being obscured by trends towards earlier schooling and an earlier onset of puberty. Given this trend, a further distinction is made in the literature by referring to children between the ages of 9 and 12 as early adolescents. As pointed out in Chapter 1 of this volume, in middle childhood, children are exposed to a wider variety of influences beyond the family as they interact with other adults such as teachers and peers primarily through school systems. It is primarily through the family and school settings that protective influences occur for middle childhood.

This chapter first examines key characteristics of middle childhood, followed by a look at some of the most important mental health and risk features in this developmental age group. We then examine the array of programmatic responses to these issues, with examples of interventions aimed at mental health promotion and the prevention of mental disorders (hereafter referred to as mental health promotion and prevention) and reduction of risk in this age and developmental cohort. The dearth of empirical work on middle childhood development issues, and particularly with regard to mental health and health promotion research in low and middle income countries (LMICs), tends to make this a difficult task; but in this chapter, we proceed on the basis of common challenges faced by children in middle childhood.

## Key characteristics of middle childhood

Middle childhood and early adolescence represent key developmental stages in determining later health risks, including mental health problems (Anselmi, et al., 2008; Roeser et al., 1999). At the same time, the stage provides an opportunity for engaging in health promotion activities that reinforce positive influences to mitigate negative outcomes later in life. Adopting a developmental perspective provides an opportunity to understand the complex and primary mediating influences of the family and the school. In large part, middle childhood is a period of consolidation, extension and integration of emotions, skills, and social and personal knowledge (Collins, 1984).

The developmental progressions that take place in middle childhood are not as noticeable (and perhaps therefore underestimated or ignored or considered to be

fairly homogeneous) as those in early childhood but are nevertheless important to building self-esteem and social competence (Feinstein & Bynner, 2004; Maccoby, 1984). Changes in social cognition and competence assist children to develop a sense of mastery and build self-esteem. Indeed, although infancy and toddlerhood (early childhood) provide a basis for critical aspects of later coping, the child's more intricate cognitive processes, coping and regulation skills come about with the neuro-cognitive maturation in the frontal lobes of the brain that begins in the middle childhood years. Although many linguistic and cognitive processes are developing, higher level cognitive processes are crucial to healthy growth, and deficiencies in this regard are related to poor outcomes; for example, poor emotional regulation and behavioural performance, including aggression, delinquency, depression and attention disorders (Greenberg, 2006).

While the successful regulation of emotion may be partly due to secure attachment relationships in early childhood, children's emotional security does not necessarily remain stable over the childhood years. Parenting style and disciplinary measures have repercussions for the child's autonomy and psychological and emotional well-being. Parental psychopathology obviously has adverse effects on children's emotional and cognitive development. Socio-economic factors render parents vulnerable to depression and also destabilise parent-child relationships, as well as the relationship between the parents themselves. The state of the caregiver relationship affects the child's psychological development – naturally, conflict and/or lack of communication have a negative impact on the child. This, in turn, puts children at risk for mental health problems. Relationships between siblings also become more important when there is disruption to the family structure, functioning and cohesion (Harold & Hay, 2005).

It is between the school and family settings that the development of a healthy self-concept is formulated. From the viewpoint of the child, creating a dynamic self-concept requires integrating their own self-perception with other peoples' perceptions of them. Four key characteristics of middle childhood mark the period as particularly important in shaping a child's self-concept. At this stage, most children begin to have extensive contact with external society and they must come to terms with both their own needs and those of others (e.g. parents, teachers and friends) in their social environments. Second, they are better able to empathise with others and consider others' perspectives. Third, as a result, they become sensitive to the views of others and to social, rather than material, reinforcements. Finally, their concepts and skills continue to grow at a rapid rate. They acquire a range of intellectual, social, artistic and athletic abilities, which provide new areas for self-definition (Markus & Nurius, 1984).

## **Risks to mental health in middle childhood**

Even a cursory look at the range of mental health problems experienced by middle childhood children would indicate the untold difficulties that externalising and internalising disorders create for children themselves, parents, teachers and society

as a whole (Denham, 2007; Denham, et al., 2000). ('Externalising' and 'internalising' are broad-band descriptors and used as shorthand to describe various emotional and behavioural problems, including aggression, delinquency, depression and attention disorders.) While there is more research on the problems experienced during primary or elementary school, these are often predictors of the continuity of such problems and psychopathology into middle childhood and later in life (Izard, 2002; Robins & Rutter, 1990). Feinstein and Bynner (2004) found that cognitive development in middle childhood is a critical element of a generally successful life and were able to predict social exclusion outcomes such as socio-economic status, mental health (depression) and problem behaviours (criminality, smoking) at age 30 from ages 5–10 years. In an examination of the continuity of behavioural and emotional problems from preschool years to pre-adolescence in an LMIC, Anselmi et al. (2008) found that behavioural and emotional problems, particularly externalising behaviour, persisted. Insecure attachment to parents or parents being emotionally unavailable to their children will likely result in children finding it difficult to foster and maintain peer relationships at school (Hootman et al., 2003).

While most children with low to moderate levels of aggression experience a decline in such behaviour with age, a small group express aggression that is consistently above the norm and that places them at risk for adjustment difficulties in middle childhood and adolescence (Campbell et al., 2006). Children with these sorts of externalising behaviour problems are more vulnerable to academic failure, peer rejection, within-family conflict, conflict in the school environment, delinquency and, often, adult criminal behaviour (Olson et al., 2000).

Anxiety, aggression and antisocial behaviour also heighten the vulnerability to substance abuse. During middle childhood, the combined factors of aggression and shyness are especially strong as predictors for early-onset substance use (Kumpfer et al., 2002). Dishion et al. (1999) found that onset of alcohol and marijuana use in boys aged 10–16 had three significant predictors: poor parental discipline, deviant peer association, and antisocial behaviour. Antisocial behaviour from 9–10 years was the most powerful predictor of marijuana and alcohol use in the adolescent risk period (15–16 years). Boys in the study who indicated risk at multiple levels (e.g. family, peer, school and individual) were acutely susceptible to early and chronic use of addictive substances during adolescence. Similarly, diagnosis of antisocial personality, substance abuse and depression amongst adults is related to attention-deficit/hyperactivity disorder (ADHD) (Spencer et al., 2007). In fact, because of high co-morbidity between ADHD and other disorders, a specific treatment response is elusive. However, all of these poor outcomes appear to be related to a number of early predictors of aggression and poor relationships with peers.

While attention disorders have a strong neurobiological basis, given the poor emotional regulation associated with explosive, unpredictable and oppositional behaviour, a large part of the management of disorders such as ADHD is related to the social skills required to manage the social interactions that such children have with their peers (Saunders & Chambers, 1996).

## Parenting and mental health risks

Much of the basis for the development of interpersonal competence is related to parental attachment and parenting practices. For instance, children who are securely attached are also more socially engaged than children with insecure attachments. The latter have been found to be less liked by peers and teachers and perceived to be more aggressive, less competent and have more behavioural problems (Cohn, 1990), including in adolescence (Allen et al., 2002).

In addition, teachers, peers, coaches and others outside the family exert different types and degrees of control or influence over the child in middle childhood (Maccoby, 1984). Parents' social networks influence their children's friendships, and secure attachments between children and their mothers promote positive peer relationships (together with a positive self-concept), especially in middle childhood (Harold & Hay, 2005). Parents influence their children's peer experiences by playing a significant role in peer choices, steering them towards some and away from others (Collins et al., 2000).

Kumpfer and Alvarado (2003) hypothesise that it is strong family units that are the key to prevention of problem behaviour in youth. Although peers are the main influences in the initiation of problem behaviour, it is parents that have a significant impact on their children's health behaviour. Given that research shows fewer adverse outcomes for children who experience parental monitoring, this model seems to be a good one to follow. Dishion and McMahon (1998) argue that prevention research needs to expand to encompass interventions that support parental monitoring, along with other crucial aspects of the parenting process.

Poor parental monitoring during the middle childhood phase can be an important factor in children joining a deviant peer group in early adolescence, even after controlling for prior peer rejection and antisocial behaviour. Lack of parental monitoring has been found to be associated with risky behaviour in young children, leading to accidental injury, antisocial behaviour in childhood, and delinquent behaviour and substance use in adolescence. This correlation has been replicated in diverse samples and using different measurement techniques (Dishion & McMahon, 1998; Kumpfer et al., 2002). The beginning of school, however, involves a large shift in the nature of parental monitoring; school is the second universal context in which monitoring takes place and parental monitoring becomes more distal (Breinbauer & Maddaleno, 2005; Epps & Smith, 1984; Maccoby, 1984). Academic and social successes at school become relevant in terms of subsequent parental monitoring. Parents may also make use of community activity and peer groups for monitoring (Dishion & McMahon, 1998).

## Parenting and culture

While it is true that there is no consensus as to whether parenting behaviour that influences child and adolescent mental health is best considered as categorical parenting styles – that is, authoritative and authoritarian parenting (Baumrind, 1991)

– or as independent continuous dimensions – such as psychological and behaviour control – there is consistency in the literature that parenting behaviour is related to mental health outcomes for children (Caron et al., 2006). What is increasingly evident is that while the relation between parenting behaviour and mental health outcomes is complex, warmth and psychological and behaviour control by parents are important to positive mental health outcomes for children (Caron, et al., 2006).

For the development of socially responsible behaviour, Baumrind (1991) has noted better outcomes for authoritative parenting styles. While the constellation of authoritative and authoritarian parenting styles is widely recognised as operating in Western contexts, little is known about how these dimensions express themselves in other contexts, and expressly in LMICs. It would appear that cultural contexts that emphasise communal values over individual values may in fact be poorly aligned with these concepts. A review of studies involving African American families with low incomes produced equivocal findings (McWayne et al., 2008). Similar inconsistencies have been noted regarding the effects of parenting style in other cultures and societies. Specifically, parenting styles and individuation in Western cultures differ from those in collectivist societies, which will likely place greater emphasis on those elements that encourage communal values in some instances and individual elements at other times (Dwairy & Menshar, 2006). Authoritative parenting promotes autonomy and independence within Western cultural contexts, but in collectivist cultures, self-assertion is negatively valued, with greater emphasis being placed on interconnectedness and interdependence (Rudy et al., 1999).

Regardless of these variations, the consensus is that the values that children acquire are centrally mediated by the family. Nevertheless, contemporary views of socialisation have moved away from earlier, deterministic ideas around socialisation that depicted parents as ‘moulding’ children to society and point instead towards the multiple roles that parents occupy in relation to socialising their children (Collins et al., 2000).

## Peer influences and mental health risk

As discussed previously, support from peers increases in importance as children mature and as more sophisticated interpersonal interactions are needed in order to maintain these friendships. These means of interaction include more intimacy, self-disclosure and emotional support. Children and adolescents value the companionship, support and approval of their friends – often, they value this more highly than the same support from their families. Pedersen et al. (2007) found that while both rejection and friendships are predicted by earlier behavioural problems, early peer rejection appears to prohibit the development of close reciprocal friendships during middle childhood – a critical period for friendship formation – and this has implications for internalising, though not externalising, problems in early adolescence. Gender differences in the quality of these relationships may also be correlated with gender differences in depression. The gender differences observable in childhood and adolescent depression may, in fact, be accounted for

by girls' heightened vulnerability to adverse interpersonal life events – they tend to react more negatively than boys do to stressful events (Jenkins et al., 2002). In their study of adolescent depression and gender differences and the impact of relationship quality, they found that 12-year-olds of both genders who reported higher levels of intimate support from their parents, had lower levels of depression. Also, those who reported higher levels of parental conflict reported higher levels of depression. In terms of the gender differences, parental conflict was a stronger predictor of depression for girls than for boys (Jenkins et al., 2002).

## Social and school connectedness

Because children in middle childhood become more self-aware and aware of others' reaction to them, as well as forming new extra-familial relationships, issues of inclusion, acceptance and approval become more salient. However, schools can also be places for social exclusion, non-acceptance and disapproval, potentially leading to academic lack of interest and emotional disengagement (Goodenow, 1993a). School connectedness is defined by Goodenow (1993b) as 'The extent to which children feel personally accepted, respected, included, and supported by others in the school environment' (p. 80). School connectedness, in addition to family connectedness, has emerged as a key area of mental health promotion. It has also been found to be associated with students' sense of belonging and self-esteem, internal regulation of emotions, attitudes towards school, motivation and achievement (Schochet et al., 2006).

In a project called the Gatehouse Project, Bond et al. (2004, 2007) examined the associations between social relationships and school engagement in early secondary school, and indices of mental health, substance use and educational achievement two to four years later. The best outcomes were amongst those who had both good school and social connectedness. Those who only had good social connectedness but low school connectedness were at greater risk for anxiety and depressive symptoms, regular smoking, drinking alcohol and using marijuana in later years. There was a greater likelihood of dropping out of school for those who had low social connectedness or low school connectedness, or both.

## Resilience and mental health risk

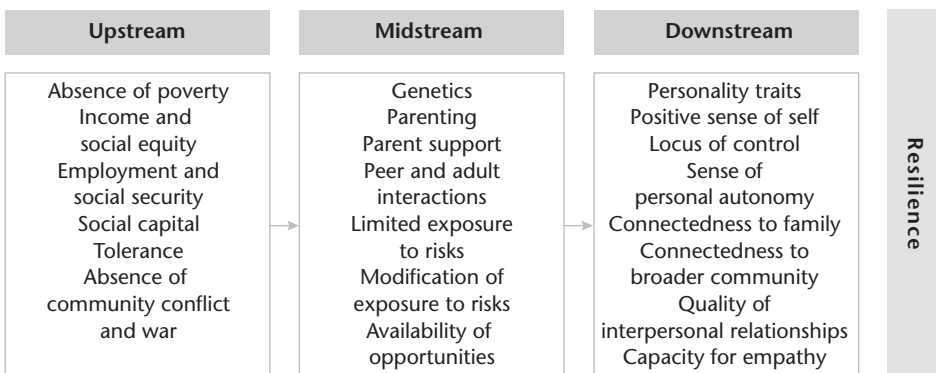
In addition to the important neurobiological and psychosocial influences referred to above, reference is made to the development of a range of adaptive responses, which assists in coping with adverse contexts. In LMICs, the most important health promotion strategy is to enhance the ability of the individual, family and/or community to prevent, minimise or overcome the damaging effect of adversity on children and adolescents (Alperstein & Raman, 2003). A key construct in this context is that of resilience, which refers to a dynamic process whereby children display a positive adaptation in the face of adverse or traumatic experiences (Luthar & Cicchetti, 2000). In this context, adversity, which is also referred to as risk, includes various negative life circumstances known to be associated with adjustment

difficulties that contribute to poor mental health – such as an unsafe neighbourhood, or living in an environment that is not conducive to learning, or being exposed to high levels of domestic conflict or community violence. Positive adaptation, on the other hand, typically refers to behaviourally manifested social competence or successfully meeting a stage-specific developmental task, for example, good academic performance and positive relationships with classmates and teachers in middle childhood. Successful adaptation, however, does not have to adhere to these ‘typical indices’ – sometimes the absence of emotional or behavioural maladjustment in the context of severe life adversities is adequate to qualify as an instance of resilience, and may be a more logical outcome than good academic grades at school (Luthar & Cicchetti, 2000).

The importance of *resilience* to poverty contexts is not necessarily only to understand the impact on psychiatric symptomatology in children who live in poverty (which is a well established link); that a significant number of children who live in poor economic settings in LMICs are resilient in the face of such adversity may provide clues for effective programmes for mental health promotion and prevention (Buckner et al., 2003). Alperstein and Raman (2003) emphasise the importance of understanding resilience in relation to risk and protective influences operating at the level of the child, the family and the community or other settings (e.g. the school, in the context of middle childhood). While risk may certainly be examined as increasing the likelihood that a disorder will develop or that an existing condition will be exacerbated, as discussed in Chapter 1 of this volume, a competency-enhancement approach to resilience focuses on strengthening the protective influences for children in the context of risk.

Figure 7.1 provides a graphic depiction of upstream, midstream and downstream characteristics of risk and protective influences – showing how risk and protective influences interact at multiple levels to encourage and enhance emotionally resilient children and communities or settings from an ecological perspective.

**Figure 7.1** Determinants of resilience – an ecological perspective



Source: Alperstein & Raman (2003, p. 270)

While it may be argued that resilience is a poor substitute for actual treatment and services, Bell (2001) points out that resilience provides an opportunity to enhance individual coping mechanisms, as well as encouraging supportive family and community relationships.

## Major interventions

Following a review of 34 prevention programmes, Greenberg et al. (2000) pointed to the following important conclusions with regard to mental health prevention interventions for children, which are supported by others (e.g. Luthar & Cicchetti, 2007):

- Short-term preventive interventions with at-risk groups produce limited benefits at best, while multi-year programmes are likely to promote enduring benefits.
- Preventive interventions targeted at developmentally appropriate risk and protective factors may effectively be delivered throughout childhood.
- Preventive interventions are better targeted at risk and protective factors than at categorical problem behaviours.
- Interventions should aim to influence multiple domains that include the individual, institutions and the environment of the individual.
- No single programme is able to prevent multiple, high risk behaviours.
- It is important to integrate the prevention programme with other community care systems to ensure sustainability for the prevention programme.

To the above points should be added that all interventions must have a strong theoretical basis.

The child in middle childhood is part of a complex system of influences that range from the relationships enjoyed within the home and family, to peers, to the school environment. Very few health promotion and prevention programmes that are targeted at middle childhood focus only on the child; within the context of LMICs, this would be a wasteful use of resources and is in keeping with the principles of effective prevention outlined above. It is truly lamentable that promotion and prevention interventions in general are seldom targeted at middle childhood and that in LMICs such interventions are virtually non-existent. Serendipitously, if somewhat ironically, with the scourge of HIV and AIDS and its clear association of sexual risk amongst youth in sub-Saharan Africa, there is renewed interest in implementing prevention programmes that target pre-adolescent youth through family and school systems.

## Individual level interventions

While biomedical interventions constitute an important part of ensuring an adequate response to mental health problems associated with middle childhood (in managing and controlling aggressive behaviour or disorders of attention), the focus of the present discussion tends to look at broader systems of individual level

intervention, as these are inevitably more critical to impacting on a wider swathe of vulnerable children, especially in an LMIC context.

From a socio-psychological viewpoint, children's behaviour can, in fact, be controlled and regulated by their own needs, desires, goals, knowledge, skills and expectations. These are referred to as self-system forces. At the same time, behaviour can be regulated by what other people need, desire, know and expect for them, which are known as social-system forces. Co-regulation is the coordination and interdependence of these personal and external forces. This reciprocal regulation can be seen as the goal of socialisation. As children mature and are socialised, their needs, desires, goals, knowledge, skills and expectations begin to overlap or become the same as those of society (Markus & Nurius, 1984).

Spence (2003) used a multimodal *Social Skills Training* model (7–18 years) to increase the performance of specific social skills associated with a range of emotional and behavioural and developmental disorders. Behavioural social skills' training typically includes modelling, role playing and behaviour rehearsal to increase appropriate response strategies. Social perception skills training seeks to correct interpretation of social cues from others and in various social contexts. Self-monitoring, self-regulation and self-reinforcement, contingency management, relaxation training and cognitive restructuring are added techniques. However, as useful as these are in dealing with individual level health promotion change, the skills practice involved tends to be limited to clinic training sessions, and is insufficient to produce long-lasting and substantial improvement in school, family and other social settings. Unless attempts are made to integrate the range of affective, cognitive and behavioural skills to diverse social contexts such as a peer and school environment, the relative success of this integration (reflected in a child's social competence and interpersonal problem-solving capacity) is likely to be inadequate (Spence, 2003).

Zippy's Friends (also described in Chapter 2 of this volume) is a school-based mental health and emotional well-being programme developed specifically for children aged 5–7 years, to help children cope with everyday adversities and negative life events. (The programme is now distributed by a non-profit organisation, Partnership for Children.) While the health promoting intervention focuses on preschool and primary/elementary school children, it may provide a useful basis for developing interventions for middle childhood in LMICs because of its wide adaptation in developed and developing countries. In fact, it was designed to be universal. Zippy's Friends (Mishara & Ystgaard, 2006; Monkeviciene et al., 2006) is broadly based on the theoretical work of Lazarus and Folkman on coping, and on the fundamental premise that promoting socio-emotional competencies is an effective way to reduce aggressive and disruptive behaviour problems, as well as to enhance the social adjustment of children. By extending coping skills, especially those related to help-seeking and in turn accepting help from others, the programme teaches children lifelong coping skills.

The programme typically runs for 24 weeks with one 45-minute session a week, and is typically delivered by a teacher who received two days of training and supervision during the course of the programme. The programme is divided into six modules:

feelings; communication; making and breaking relationships; conflict resolution; dealing with change and loss; and coping. Zippy's Friends assists children in coping with everyday difficulties by focusing on their feelings and exploring ways of dealing with these feelings, and assisting them to find their own solutions to a problem. An important characteristic of the programme is that children are encouraged to help other children with their problems, thereby emphasising the importance of talking to others when feeling sad or angry, as well as affirming the child's ability to both receive and provide support to others. Evaluation studies have shown that the programme can be implemented with minimal support and that receiving the programme showed the use of more positive coping skills; further, the problems of externalising and hyperactivity decreased in comparison to a control group (Mishara & Ystgaard, 2006; Monkevicienė et al., 2006).

### Interpersonal level interventions

If co-regulation is to be successful, it must be a cooperative process – there must be clear communication and understanding at the interpersonal level, between the parent and the child. Parents must undertake three tasks during the period of middle childhood and pre-adolescence: they must monitor, guide and support their child at a distance; they must make effective use of the times when direct contact *does* occur (i.e. reinforcing good behaviour and punishing the bad); and they must continue to foster in their child the abilities that will allow them to monitor their own behaviour to adopt acceptable standards of good and bad behaviour (Maccoby, 1984).

Effective parent and family programmes are those that incorporate strategies that seek to improve family relations, communication and parental monitoring (Kumpfer & Alvarado, 2003). Dishion and McMahon (1998) propose a prevention intervention by parents that includes parental monitoring. They list three connected aspects of parenting that are important in terms of prevention: motivation (representing the parents' social-cognitive framework, including norms, values and goals); parental monitoring (parents' tracking and structuring of the child's activities and environment); and behaviour management (shaping the child's behaviour through the use of reinforcement, limit setting, negotiation and incentives). Critical to all of these is the parent-child relationship – a positive relationship between parents and children increases parents' motivation to monitor their children and to use healthy behaviour management practices. Home is the initial context for assessment of monitoring in early childhood.

Parental monitoring involves paying attention to and tracking a child's whereabouts and activities. Research shows that parental monitoring is relevant to the safety of young children and the development of childhood antisocial behaviour and substance use. It is also associated with *positive* dimensions of children's adjustment in middle childhood, including self-esteem and academic achievement. It is a factor that is considered as a changeable risk and/or protective factor and is an easy and logical target for intervention. In addition, within behaviour-based interventions, monitoring is fundamental to the behaviour change process (Dishion & McMahon, 1998).

The Collaborative HIV/AIDS Adolescent Mental Health Programme in South Africa (CHAMP SA), also described in Chapter 5 of this volume, is a family-based intervention that was adapted, from the original US-based programme, for the South African context. It targets pre-adolescents and their families, with the aim of specifically strengthening protective factors within the family context. Vital to the programme adaptation process was the identification of risk elements, which included caregivers' sense of disempowerment to influence their children in positive ways because of the (over-) emphasis on child rights, without a similar emphasis on parent rights; parents' own poor levels of education and their inadequate knowledge of the factors promoting HIV and AIDS; as well as low levels of trust amongst community members, which reduced supportive networks on which community members could draw to facilitate social control and community parenting (Paruk et al., 2005). By focusing on addressing these elements, caregivers developed a new-found sense of confidence in parenting their children, as well as increased support networks, which made it possible for them to establish monitoring of the children without recourse to punitive parenting styles (Bell et al., 2008).

### Multi-level interventions

Multi-level interventions typically impact on multiple dimensions of individual and institutional characteristics, namely, the relationships between children and parents, children and schools, and schools and communities. Hence, it is perhaps best to consider such interventions as not only influencing interpersonal outcomes, but also outcomes at the level of home, school and community. They constitute the best promise for intervention for middle childhood and early adolescence and are described in some detail.

Schools are important for influencing middle childhood mental health risks, especially since they provide accessible and relatively stable sites in which to locate interventions (Bond et al., 2007; Murray & Greenberg, 2000). This is especially significant for LMICs, with limited resources, and schools provide some of the best opportunities for mental health promotion and prevention activities.

An early example of a model for prevention of adolescent health risk behaviour by focusing on risk and protective factors amongst middle school children is provided by Hawkins et al. (1999). The Seattle Social Development Project is a comprehensive, universal prevention programme that addresses multiple risk and protective factors across both the individual and ecological domains (individual, school and family). Hawkins et al. (1999) theorised the relationship between the individual and the school, using the social development model. A basic premise of the model is that a strong social relationship to one's school is protective against behaviours that violate socially accepted standards, with attachment and commitment as constituent elements of this social bond. The theory posits that when social groups produce strong associations of attachment and commitment and promote clear standards of behaviour, then these groups increase behaviour that is consistent with these standards.

Hawkins et al. (1999) explicitly focused on persistent aggressive behaviour in early elementary school and school grades 1–6 (a 6-year intervention period), academic failure, poor management practices and unclear rules (at the level of the school), and poor monitoring and inconsistent or harsh discipline on the part of parents. The intervention targeted violent and non-violent crime, substance use, sexual activity, pregnancy, school bonding, school achievement, repetition of grades and school dropout, and other school, disciplinary-related behaviour.

A package of interventions was developed for teachers, parents and children (see Table 7.1). The teacher training elements included classroom management; the training of children focused on developing their social and emotional skills through teaching interpersonal problem-solving skills, as well as refusal skills; and the parent training included behaviour management skills and academic support skills. In countries such as South Africa, where the ability of parents to assist children with their school work may be limited, area-based initiatives that comprise small learning groups initiated by the school or educational NGOs may be created to assist parents.

The more recent work by Bond et al. (2007) with regard to the Gatehouse Project makes explicit the relationship between mental health outcomes and constructs such as social connectedness and school connectedness, with the latter identified as an important protective factor against substance use. Their research also reveals that the relationship between social connectedness and school connectedness is complex, with good social connectedness together with low school connectedness not being protective for depressive symptoms. In LMICs, these relationships are likely to be even more profound, given the impact of a wide range of negative environmental influences. Nevertheless, these relationships need to be specifically tested in LMICs.

On reflecting upon the processes involved in implementing the Gatehouse Project, Glover and Butler (2004) believe that engaging successfully with schools requires a number of steps, including:

- careful framing of the health problem (schools may have their own views of a problem and there may be competing issues);
- engaging members of the school community (who are diverse, and this entails a process of building trust);
- creating change structures and mechanisms with the school (i.e. leadership to encourage multiple levels of ownership and for long-term sustainability);
- making sense of local data (i.e. gathering data from the school population on perceptions of school social and learning environments; developing a critical analysis of current school practices);
- formulating practical solutions (using collaborative learning culture instead of positioning this as yet another project); and
- stimulating professional renewal and growth.

These steps are indeed difficult and require considerable effort to implement but would appear to provide a solid basis for health promoting change.

**Table 7.1** Seattle Social Development Project interventions

**Interventions**

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**Teacher training**

Proactive classroom management

- Establish consistent and clear classroom expectations and routines.
- Give clear, explicit instructions for behaviour.
- Reward desirable student behaviour and efforts to comply.
- Use methods to keep minor classroom disruptions from interrupting instruction.

Interactive teaching

- Assess and activate foundation knowledge before teaching.
- Teach to explicit learning objectives.
- Model skills to be learned.
- Frequently monitor student comprehension as material is presented.
- Reteach material when necessary.

Cooperative learning

- Involve small teams of different ability levels and backgrounds as learning partners.
  - Provide recognition to teams for academic improvement of individual members over past performance.
- 

**Child social and emotional skill development**

Interpersonal problem-solving skills

- Communication;
- Decision-making;
- Negotiation;
- Conflict resolution.

Refusal skills

- Recognise social influences to engage in problem behaviours.
  - Identify consequences of problem behaviours.
  - Generate and suggest alternatives.
  - Invite peer/s to join in alternatives.
- 

**Parent training**

Behaviour management skills

- Identify desirable and undesirable child behaviours.
- Teach expectations for behaviour.
- Provide consistent positive reinforcement for desired behaviours.
- Provide consistent and moderate consequences for undesired behaviours.

Academic support skills

- Initiate conversation with teachers about children's learning.
- Help children develop reading and mathematics skills.
- Create a home environment supportive of learning.

Skills to reduce drug use

- Establish a family policy on drug use.
  - Practise refusal skills with children.
  - Use self-control skills to reduce family conflict.
  - Create new opportunities in the family for children to contribute and learn.
- 

Source: Hawkins et al. (1999, p. 231)

The Child Development Project (CDP) is another project that aims to help schools become 'caring communities of learners' (Battistich et al., 2000). The CDP's way of creating this caring community of learners is to incorporate four aspects into its programme:

- Building relationships that are warm, supportive and stable so that children feel valued. Support from teachers and peers promotes bonding with the school – an important protective factor to prevent adverse outcomes.
- Attending to not just the academic but also social and ethical dimensions of learning.
- Encouraging teaching and learning where students can explore, problem-solve and construct meaning for themselves, taking responsibility and thinking independently.
- Emphasising both intrinsic motivation to learn and the values and norms of the school community.

The CDP tackles prevention at three levels – in the classroom, school-wide, and through a family involvement component. The first component (classroom) has three major aspects: cooperative learning (which helps students bond with each other and develop behaviour that is consistent with the school's ethical and moral codes, in addition to successfully completing their own work); a literature-based language and arts programme (which accommodates diversity and encourages students to think about relevant cultural, social and ethical issues); and 'developmental discipline' (which helps students develop an internal drive to behave responsibly). The school-wide activities are designed to build a caring community by involving teachers, students, parents and even extended family in a series of activities that are non-competitive and inclusive. Finally, the family activities are related to classroom learning that students continue at home with caregivers. The family involvement component promotes communication between students and their parents, fosters a link between the home and school experiences, and helps students learn about and understand the family's beliefs and culture (Battistich et al., 2000).

Recently, multifaceted interventions (involving both individuals and their families) that consider the influence of parental mental health (depression) on families have received renewed attention (Luthar & Cicchetti, 2007). Beardslee and Podorefsky (1988) targeted parents with depression because of the well known association that almost 50 per cent of their children are themselves at high risk for depression by the end of adolescence. A critical self-protective factor was high self-understanding amongst children. The results showed that families in this clinician-led intervention reported significant gains on several hypothesised vulnerability and protective factors, even eight months after the intervention. While this was a clinician-led intervention, it does indicate that, in some cases and if resources are available, clinical strategies that target multiple systems can have significant mental health benefits for entire families.

## Conclusion

Even a cursory examination of the literature on middle childhood and early adolescence will show that the work is uneven both in quality and extent of available information. While the division of human development into age categories is arbitrary, it does help distinguish significant continuities with other age periods. Middle childhood reflects a time of gradual consolidation and extension of abilities marked by cognitive and emotional shifts. Children who show evidence of adjustment problems, usually involving internalising and externalising difficulties, are likely to benefit from early intervention in schools, aimed at enhancing self-regulatory and social skills. The general finding that interventions at any development age, not only in early childhood, have significant benefits should provide sufficient motivation to develop intervention strategies for children, based on the needs of particular communities.

In LMICs, many poor communities would benefit from interventions in the early years. These gains are more likely to be enhanced if similar programmes are targeted at middle childhood and early adolescent children. A number of strategies could be used. As a start, increasing the mental health competencies of staff involved in providing services to children and families is likely to be beneficial, as has been noted elsewhere (Luthar & Cicchetti, 2007). Better management of schools would assist significantly in helping to provide children with a safe environment within which to learn and to grow socially, emotionally and cognitively. Strengthening mental health promotion responses by including schools and communities also has the potential of strengthening enabling governance structures within dysfunctional school environments. More ambitious strategies would seek to ensure greater efforts to develop a child and adolescent mental health system that synergises the prevention and treatment efforts of various government departments responsible for child welfare, as has been suggested for South Africa.

Given the growing numbers of children who have been affected by HIV and AIDS, the concerns related to health promotion efforts in middle childhood and early adolescence may be as important as the current focus on adolescence in mitigating the impact of HIV and AIDS. The dearth of research on middle childhood, especially in LMICs, as a developmental focus and consequently as a focus of health promotion, is a concern that needs to be addressed because the evidence increasingly points to continuities in behaviour between the periods of early childhood, middle childhood and pre-adolescence.

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# 8 Adolescence

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In this chapter, we consider the promotion of mental health and the prevention of mental health and behavioural problems in scarce-resource contexts with a focus on adolescents. The World Health Organization (WHO) defines adolescence as the second decade of life, between the ages of 10 and 20 years (WHO, 2005). Others define adolescence as commencing with the onset of puberty, and ending with the adoption of adult roles such as marriage or employment. Although there is disagreement about precisely how adolescence should be defined, adolescence is not a culture-specific phenomenon. Indeed, a stage corresponding to adolescence has been identified in hundreds of cultural settings (Richter, 2006).

Further, the importance of this stage has been receiving increasing recognition. Much of this importance derives from the crucial developmental tasks that are addressed during adolescence. These include the acquisition of the learning skills that are necessary for higher education or work, psychological autonomy, forming close friendships with those of the same and opposite genders, and developing a sense of self-identity (Cicchetti & Rogosch, 2002). Clearly, the extent to which these tasks are successfully negotiated has implications for the health of the individual and also the public.

We commence this chapter with an outline of the public health significance of mental health and risk behaviour amongst adolescents. Thereafter we address interventions to address these issues by presenting some general guidelines for the development of adolescent mental health promotion and primary prevention programmes (hereafter referred to as mental health promotion and prevention) and giving examples of existing interventions at the individual, interpersonal, community and policy levels. We then discuss some critical issues in the evaluation of promotion and prevention interventions amongst adolescents and conclude with four specific and attainable recommendations for moving forward.

## **Public health significance of mental health and risk behaviour amongst adolescents**

There are two extremes that characterise public and professional discourses around the health of adolescents. On the one hand, adolescents are perceived of as being generally healthy, with minimal need for health services or other interventions. On the other, they are perceived of as being moody and oppositional, continually engaging in risk behaviours such as sexual promiscuity and drug abuse, and at the mercy of 'raging hormones' against which they can offer little resistance. As

any consideration of the adolescents with whom one comes into contact either professionally or personally confirms, the reality lies between these two extremes.

As far as mental health is concerned, studies in the developed and developing world concur that somewhere in the region of 15 per cent of adolescents suffer from psychiatric disorders. Table 8.1 summarises the prevalence rates of psychiatric disorders as documented in recent studies in developing countries that used locally validated, psychiatric epidemiological instruments and that provided diagnoses based on one of the major nosological systems. The importance of these rates is amplified when considering that these disorders are not trivial episodes that occur in the context of normal stresses of adolescence. Indeed, they are accompanied by considerable impairment in the interpersonal or academic domain. Further, they are accompanied by stigma that attaches to the adolescents themselves, their families and friends. Not only can such stigma serve as an impediment to receiving services that may reduce the suffering and impairment associated with the disorder, but it may exacerbate the disorder, resulting in a self-perpetuating, negative cycle.

Psychiatric disorders are, generally speaking, not specific to certain cultural groups. Specifically, there is increasing evidence that the circumstances in many low and middle income countries, of which poverty is the most pertinent, serve as risk factors for psychiatric disorders. Attention-deficit/hyperactivity disorder (ADHD) is the most common psychiatric disorder in children and adolescents, and has received the most research attention. There is good evidence that it exists in a range of countries, in which it has a similar course, correlates, factor structure, response to treatment, and genetic predispositions. One can confidently conclude that it occurs universally in human beings, irrespective of cultural setting (Flisher et al., 2007). Similar conclusions in all probability pertain to other disorders. This is not to say that culture is not important. Indeed, the contrary is the case. It is relevant in terms of aspects such as help-seeking behaviour, the social response to an adolescent suffering from a mental disorder, choice of interventions, and the longitudinal course of a disorder.

**Table 8.1** Selected studies from developing countries of the prevalence of psychiatric disorders in populations including adolescents

Setting	Urban/rural	Community/school	Sample size	Age (years)	Prevalence (%)
Ethiopia	Rural	Community	3 001	5–15	18
South Africa	Urban	Community	500	6–16	15
Brazil	Rural	Community	1 251	7–14	13
India (Bangalore)	–	Community	2 064	0–16	13
India (Kerala)	–	Community	1 403	8–12	9
Brazil	Urban	School	1 700	4–17	7
Puerto Rico	–	Community	1 886	7–14	7

Source: Adapted from Patel et al. (2008)

The effects of psychiatric disorders in adolescence are not confined to the adolescent phase. Rather, there is increasing evidence that psychiatric disorders that develop during adolescence persist into adulthood. Specifically, 'looking back', 75 per cent of all adults with psychiatric disorders had an age of onset of 24 years or less; 50 per cent had an age of onset of 14 years or less; and 25 per cent had an age of onset of 7 years or less. Conversely, 'looking forward', depressed adolescents are at 2–7 times increased odds of being depressed as adults; about a third of children or adolescents with a major depressive disorder will later develop bipolar disorder; and two-thirds of those with ADHD have impairment related to ADHD persist into adulthood (Flisher et al., 2008). There is thus good reason to think that interventions to prevent the emergence of disorders in adolescence, or that reduce the duration or intensity of their course, will have a beneficial effect on the adult outcomes of such disorders. However, this proposition has not yet been tested. Even if it turns out that the adult outcomes of adolescent disorders are not affected, it would still be worthwhile to address the disorders in adolescence to reduce suffering, curtail the adverse, short-term consequences of disorders (such as school dropout), and prevent the emergence of co-morbid disorders, as well as nurture health and well-being.

Mental health of adolescents is also relevant for risk behaviour, which represents a major public health challenge in adolescence. According to the *World Development Report 2007*, more than half the youth in many countries are sexually active, and the proportion initiating sex before the age of 15 years is increasing (World Bank, 2007). Fewer than half of those who are sexually active use condoms. Power imbalances within relationships are important factors to consider when trying to understand these high rates of unsafe sexual behaviour. Jejeebhoy and Bott (2003) report that data from demographic and health surveys indicate that more than 10 per cent of adolescents aged 15–19 years reported transactional sex in the four weeks prior to the survey, and in sub-Saharan Africa, sex with older men is widely accepted amongst adolescent girls (Luke, 2003). Another important domain of risk behaviour is substance use, of which alcohol use is of particular concern. In Europe, in excess of 60 per cent of adolescents report alcohol use, of whom 10–30 per cent engage in binge drinking (Hibbell et al., 2000). Data from low income countries are scarce and generally of poor quality. However, there is evidence that between 10 and 15 per cent of adolescents in countries such as Chile, Ghana, Kenya and Zambia abuse alcohol (Blum & Nelson-Mmari, 2004), while the proportion of male Grade 11 students who reported binge drinking in the two weeks prior to the survey was 36.5 per cent and 53.3 per cent in Cape Town and Durban respectively (Parry et al., 2004). Tobacco use is one of the most important preventable causes of death. While tobacco use has been declining in high income countries, the opposite has occurred in low and middle income countries. A review of 52 studies addressing tobacco use by youth in 15 sub-Saharan African countries found that the rates were highest in South Africa, with a lifetime rate of 28.8 per cent in one study involving high school students in Cape Town (Townsend et al., 2006). Rates in other countries included 13.6 per cent in Burkina Faso, 10.3 per cent in Ghana and 10.5 per cent in Kenya, with the rates being less than 2 per cent in Zimbabwe and Nigeria. The most commonly used illegal

drug is marijuana, with 15 per cent of youth in Chile and Mexico, and 40 per cent in Brazil, using this drug on a regular basis (Blum & Nelson-Mmari, 2004). Finally, adolescents can be both victims and perpetrators of violence. The *World Report on Violence and Health* cites studies that document that about a third of students report having been involved with physical fighting, and amongst school-aged children in 27 countries, the majority of 13-year-olds had engaged in bullying at least some of the time (Krug et al., 2002).

There is good evidence for an association between mental ill-health and such risk behaviours, although the direction of causality is not always clear. In the case of substance use, mental ill-health can cause the substance abuse; or can be a consequence of the substance use; or each can be independently caused by other factors. This association makes clear that any attempts to address mental ill-health in adolescence without also addressing risk behaviour are unlikely to be maximally effective, and vice versa.

The above discussion has focused on psychiatric disorders and risk behaviour. However, it is important to bear in mind that the majority of adolescents do not suffer from psychiatric disorders, and do not engage in negative risk behaviours to an extent that justifies intervention. It is important not to attribute signs of mental ill-health or risk behaviour to the developmental stage of adolescence. By so doing, one can overlook individuals who do indeed suffer from psychiatric disorders or engage in excessive risk behaviour, thereby denying them access to services from which they would benefit.

Further, a focus on psychiatric disorder or risk behaviour can detract from the positive aspects of mental health. In other words, there is the danger that mental health is considered to be the absence of mental ill-health, as opposed to a set of positive attributes. Several attempts have been made to identify these positive attributes, which include emotional self-regulation; optimism; prosocial values; a sense of purpose; trusting relationships with peers, parents and other adults; social awareness; responsible decision-making; and clear and positive identity (Commission on Positive Youth Development, 2005). This is relevant for the distinction between mental ill-health prevention and mental health promotion. The former aims to reduce the extent of disorder, while the latter aims to increase the extent of mental health.

However, as discussed in Chapter 1 of this volume, although the differences between mental health promotion and prevention of mental ill-health/disorders are conceptually distinct, in practice, these two approaches can be blurred (Barnes, 1998). A mental health promotion intervention, for example, can reduce the incidence of ill-health. The Healthwise intervention (described in greater detail below) is a health promotion intervention focusing on the development of social skills and the enhancement of capacity to use leisure time more appropriately. However, the programme was found to have effects on the incidence of substance use. Specifically, amongst those exposed to the intervention, there was less of an increase in the proportion who had used alcohol, or used it heavily, in the previous

month; and also less of an increase in the proportion that used tobacco in the previous month or were heavy smokers (Smith et al., 2008).

## Building strong programmes

There are three parts to this section. We begin by presenting some general guidelines for the development of adolescent mental health promotion and prevention programmes. Thereafter, we introduce a number of established promotion and prevention programmes at the individual, interpersonal, community and policy levels. Finally, we briefly discuss issues related to programme evaluation and effectiveness.

### General guidelines

In this section, we provide some general suggestions to inform the development of adolescent mental health promotion and prevention programmes in scarce-resource contexts. This information is not suggesting that practitioners should of necessity develop new programmes; rather, this framework is useful in building an understanding of programmes such that existing ones can be adapted and improved for implementation in new contexts. Although many of the factors discussed are applicable across the lifespan, they have particular salience for adolescents.

In order to develop, implement and sustain effective mental health promotion and prevention programmes for adolescents, it is imperative to consider the dynamic and complex contexts in which adolescents live, and in which the intervention will be implemented. Specifically, the developmental and socio-cultural contexts are addressed in this discussion.

Developmentally, adolescence is both an exciting and challenging time as adolescents experience major biological, cognitive, social and psychological changes while trying to construct a mature self-concept and assert their autonomy. As they undergo physical maturation, adolescents face the task of accepting their changing bodies and assuming more responsibility in caring for their health. Cognitively, adolescents develop the capacity to think and reason about abstract objects, concepts and events beyond what is concretely represented in their immediate physical world. Such cognitive capacities expand adolescents' understanding of the world in which they live and help them to negotiate their way through complex terrain. These developing abilities impact on adolescent decision-making, particularly as adolescents begin to become more independent. However, these cognitive facilities take some time to develop and adolescents may benefit from learning decision-making skills and perspective-taking skills in order to facilitate positive choices. Socially, adolescents face the developmental task of achieving emotional independence from their primary caregivers (usually parents) and building new and more mature relationships with peers of both sexes. Although parents retain some influence over their adolescent children, peers become significantly more influential, impacting on adolescents' self-concept, behaviour and other choices in various life domains. These relationships can either be an asset or an additional risk factor and it can be

confusing for adolescents to balance these various influences with their own desire and need for independence. This drive for independence reflects a fundamental task of adolescence that intersects all life domains. Often, this desire manifests in adolescents wanting to make their own decisions instead of being told what to do or how to do it, as they were during childhood. During adolescence, individuals also begin to build their own set of values to guide their behaviour; ideally, these values facilitate socially responsible behaviour. Various life experiences influence these values in many ways; thus, although adolescence is a time of individuation, it is equally a time of establishing more connections with people and groups outside of the family unit, which has been the primary domain during childhood. While managing these personal changes and developmental tasks, adolescents are also faced with increasing socio-cultural demands as they become more independent and take on new roles in various domains. Indeed, the socio-cultural environment plays a significant role in adolescents' development, health and behaviour.

Many adolescents in scarce-resource contexts develop in the midst of stressors, including displacement, poor nutrition, soldiering, prostitution, HIV/AIDS, substance abuse and various forms of conflict, violence and abuse (Remschmidt et al., 2007). Adolescent mental health interventions should consider to what extent adolescents are exposed to these or other socio-cultural stressors in order to include them on the mental health promotion and prevention agenda. Adolescents in scarce-resource contexts may be faced with much adversity that needs to be addressed. However, it is equally important to celebrate individual and group achievements and triumphs. Facilitators and practitioners are urged to consider and define what is optimal in terms of the skills and capacities they want to develop, being careful not to mirror social inequities such as oppressive gender roles, racial/ethnic discrimination, health and disability stigmas, and religious animosities. Mental health promotion and prevention programmes for adolescents and the facilitators of these interventions have the potential to make a fundamental difference for adolescents and, indeed, the community, as these youth become leaders.

As is evident in considering the developmental and socio-cultural contexts, adolescents possess and are exposed to a variety of both protective and risk factors. Factors that undermine optimal mental health include socio-economic deprivation, violence, family disruption and psychopathology, early childhood trauma (both physical and psychological), difficult temperament and intellectual impairment (Patel et al., 2008). However, these risk factors are not the only targets for interventions and it may not be possible to eradicate them; therefore, it is vital to balance programmes with attention to protective influences. Such factors may include adequate educational opportunities, sensitive and authoritative parenting, positive adult role models, supportive relationships, good physical health, optimistic attitude and psychological autonomy (Commission on Positive Youth Development, 2005; Jessor et al., 2003; Patel et al., 2008). Although individuals may have a unique composition of such factors and each of the factors may have different impacts on individuals, mental health promotion and prevention interventions need to understand which factors to strengthen and which issues to target in order to minimise or eliminate vulnerabilities.

There is a need for feasible programmes that address both risk and protective factors, and that are developmentally appropriate and socio-culturally sensitive, such that they deal with contemporary adolescent issues in ways that engage adolescents and pre-empt oppositional or indifferent responses. Although most adolescents know that certain behaviours are unhealthy or unsafe, many still choose to engage in them; therefore, knowledge is not enough and didactic-only programmes are unlikely to most effectively address this knowledge-behaviour gap (Breinbauer & Maddaleno, 2005). Moreover, reductionistic approaches directing adolescents to simply refuse or choose alternatives to risky behaviour are not effective (Moore & Zaff, 2002). Instead, it is essential to develop an affective or emotional sense of purpose in order to create and then direct desire, which organises thinking, intentions and finally, behaviour (Breinbauer & Maddaleno, 2005).

Interventions can be significantly strengthened by taking a multisectoral approach. As discussed in Chapter 4 of this volume, initial planning involves a situational analysis of the developmental and socio-cultural contexts, including the current social, educational and legislative institutions and policies, as well as the risk and protective factors, in order to gain an understanding of the milieu in which the programme is to be situated. Once a programme has been designed, implementation is a dynamic phase of ongoing, multi-method monitoring and evaluation, and redesign, as this process becomes a continuous feedback loop (Breinbauer & Maddaleno, 2005). In order to best increase the likelihood of programme success, it is important to engage a diverse group of representatives from multiple sectors, including adolescents, families, teachers, researchers and mental health professionals, community leaders, and legislators at all stages of planning, design, implementation and evaluation (Breinbauer & Maddaleno, 2005). This multisectoral involvement will not only strengthen the programme, but is also likely to increase motivation of the adolescents themselves, as well as encourage continued involvement from a wide range of people and organisations at several levels to support adolescent mental health and well-being.

### **Established intervention programmes**

Several researchers and organisations have provided models for adolescent mental health programme development. Following the competency-enhancement ecological systemic perspective described in Chapter 1 of this volume, this section discusses specific interventions for adolescents within four levels of influence: individual, interpersonal, community and policy. Adolescents are particularly open to influence during their transition to adulthood; therefore, it is important that social influences at all levels are harnessed to support and promote their mental health and well-being. Although parents are the primary socialisation agents during childhood, during adolescence, parents share their influence with several others, including peers, teachers, religious leaders and the media. The separate influence of any socialisation agent depends on individuals; thus a multi-level approach encompassing several types of these socialisation agents is ideal.

### Individual level

Interventions at the individual level aim to create behaviour change within individual adolescents by developing their creativity and general life skills (Patel et al., 2008). Such skills include decision-making, constructive problem-solving and conflict resolution, creative and critical thinking, effective communication, respectful interpersonal relations, self-awareness, empathy, appropriate coping and stress management, assertiveness, the capacity to establish positive goals and take action to pursue them, and flexibility to adapt to various situations and challenges encountered in daily living (Mangrulkar et al., 2001; Patel et al., 2008). Life skills programmes would be considered individual level interventions and they have been linked to positive mental health outcomes and development (Mangrulkar et al., 2001; Patel et al., 2008; Zaff et al., 2002). These programmes intend to build individuals' assets and promote positive health and life functioning outcomes amongst youth. Life skills programmes can take many forms and include a variety of topics and skills. In South Africa, the Department of Education has mandated the inclusion of life orientation classes in the national curriculum, with skill building in the health promotion, social development, personal development, physical development and career orientation domains. Schools have some autonomy to choose specific content for these domains that best addresses the most relevant issues of their school population.

One example of an individual level intervention is the Healthwise intervention (Smith et al., 2008), which has been developed, implemented and evaluated in Cape Town, South Africa. This is a comprehensive, 2-year school-based intervention promoting positive leisure-time behaviours and fewer risk behaviours. The skill-building component aims to develop adolescents' assets by teaching skills, including decision-making, affect management and conflict resolution, as well as constructive ways to overcome boredom, effectively avoid peer pressure to engage in risk behaviours, and link up with supportive community resources, in order to help adolescents take responsibility for their behaviours. Although the focus of the programme is primarily on individual behaviour change, there is a strong community level aspect to this programme, particularly in creating opportunities within the community for adolescents to become engaged with and connected to other people and organisations. This component is a response to the proposition that the multiple levels of influence, as well as the protective factors within these levels, are interconnected (see Chapters 1 and 2, this volume), meaning that an intervention at one level or on one protective factor is likely to have ripple effects throughout the system, eventually reaching the individual. Preliminary efficacy findings of the Healthwise programme suggest that the intervention has been successful in terms of increasing delay of first intercourse in new relationships and reducing use of alcohol and tobacco (Smith et al., 2008). This programme addresses characteristics that predict behaviour according to the theory of planned behaviour (Ajzen, 1991) and the three areas of influence on health-related behaviour as posited by the theory of triadic influence (Flay & Petraitis, 1994) (intrapersonal domain, beliefs and attitudes, and making choices about complying with normative behaviour. For more information see Chapter 2 of this volume). Through the skill-building component, Healthwise builds individuals' assets, and

through the community engagement component, it builds their resources; together, the assets and resources help to reduce the impact of risks that adolescents face, as well as enhance their competencies for improved health outcomes.

Another example of an individual level intervention is Ishraq (WHO, 2007). Ishraq, meaning 'enlightenment', was developed in Egypt specifically to improve the life opportunities of rural, out-of-school girls aged 11–15 years. The intervention focuses on building individuals' assets by increasing functional literacy, providing recreational opportunities, teaching life skills, including health-specific practices, and encouraging social mobility. Although primarily focused on empowering individual girls, there are strong parent, community and policy components that aim to positively influence social gender norms that restrict girls' opportunities, to introduce girl-friendly policies and opportunities, and to develop positive attitudes in families and communities towards educating and supporting girls. These components aim to build resources that promote adolescent health and well-being. Overall, the programme targets theoretically influential spheres (see discussion of the theory of triadic influence and theory of planned behaviour in Chapter 2, this volume): the intrapersonal domain is targeted by building individual assets in various areas; beliefs and attitudes amongst adolescents, as well as those of parents and community members, are addressed through modules about social gender norms; and finally, social normative behaviour is challenged by empowering adolescents and parents to make healthy behavioural choices and begin to reject unhealthy social norms. The pilot phase, Ishraq 1, showed considerable success, including improved literacy, strengthened social skills and self-efficacy, increased positive health practices, and decreased support for discriminatory gender norms (e.g. early marriage and female genital cutting). At the family and community levels, outcomes included enhanced support for a broadening of girls' life opportunities, creation of safe public spaces for girls in particular to support their learning and recreation, parents' participation in awareness meetings to discuss issues specific to girls' development, and increased rights of citizenship granted to girls (e.g. issuance of birth certificates, health cards and identity cards). Currently the intervention is being scaled up as Ishraq 2 and also includes education for boys to build life skills and address discriminatory gender norms.

### Interpersonal level

Interpersonal level interventions target adolescents' interpersonal environment such as through family or parent-focused programmes, or peer role models and supportive peer groups, to encourage positive relationships with peers, caregivers and other community members. As noted earlier in this chapter and in previous chapters (see Chapters 1 and 2, this volume), during adolescence, relationships are vital as adolescents broaden their social connections beyond their families. Therefore, the interpersonal level is a particularly powerful arena for adolescent mental health promotion and prevention interventions (Moore & Zaff, 2002). These interventions can help adolescents build positive relationships with parents, peers, siblings, teachers and mentors, and with other family members or community

leaders, and these relationships are often both a protective and promotive factor for adolescent mental health. The discussion of the importance of parenting in children and adolescents' mental health was begun in Chapter 2 and it bears repetition here. Although peers become very important influences during adolescence, parents still play a significant role in adolescents' health and well-being. Thus, parents are vital to adolescent mental health promotion interventions (WHO, 2007); and programmes that focus on teaching positive parenting skills that are supportive and loving, offer monitoring and consistent discipline, foster open communication and promote youth autonomy, are beneficial to adolescent mental health and well-being (Hatcher & Scarpa, 2002; Zaff et al., 2002). In addition, mutual respect and parent modelling of appropriate behaviour are important within parent-adolescent relationships (Zaff et al., 2002). Not only are interpersonal level interventions informed by the developmental perspective discussed above, but Bandura's (1986) social cognitive theory (discussed in Chapter 2 of this volume) suggests that interpersonal relationships affect health-related behaviour and thus would be an important point of intervention to promote adolescents' health and well-being.

There are a number of examples of interventions at the interpersonal level that have been implemented in developing countries. *Familias Fuertes* (Strong Families) Love and Limits (WHO, 2007) is a comprehensive, multisectoral programme supported by the Pan American Health Organization and has been implemented in El Salvador with much success. Consequently, it has been adopted in several Latin American countries. Consistent with social cognitive theory (Bandura, 1986), this programme intervenes at the level of family, particularly focusing on the parent-child relationship in order to effect change in adolescents' health and well-being. The overall goal of the programme is to promote adolescents' health and well-being by fostering positive individual and familial orientations to the future; improve familial relationships; increase positive parenting skills; strengthen adolescents' communication, decision-making and stress management skills; and implement community plans that support adolescent health and development. By strengthening assets and resources within families and of the family unit, this programme is turning families into a protective factor for adolescents' health. According to the protective factor model (Zimmerman & Arunkumar, 1994; discussed in Chapter 2 of this volume), the protective factor of positive familial relationships and pro-health attitudes helps to ameliorate the effects of risk factors, as well as interact with other protective factors to enhance positive outcomes. In the *Familias Fuertes* programme, adolescents and parents go through interactive intervention curricula, which teach them relevant skills and information, ending with the encouragement for them to become active in the community to continue to build and promote adolescent health and well-being. Outcomes have included improved parent and adolescent communication skills, increased utilisation of positive parenting skills, and improved affect and anger management in parents. In addition, adolescents have experienced positive changes in support, time spent in positive family activities, and family relations, and decreased substance use, pregnancy and sexually transmitted infections (WHO, 2007). Future plans for *Familias Fuertes* include wider dissemination of multimedia training and

intervention materials, creation of a common forum or network for facilitators to support one another, centralised information and resources for facilitators, and continued evaluation and analysis of the project.

Expressions (WHO, 2007) is a comprehensive life skills education and school mental health programme based on the WHO Framework for School Mental Health Programmes. This intervention was developed in India with the support of the Child Development and Adolescent Health Centre and the Vidya Sagar Institute of Mental Health and Neurosciences. Similar to Familias Fuertes, this programme intervenes at the level of social relationships that adolescents may have, aiming to make them protective factors in adolescents' lives. The Expressions programme aims to create individual, family and community awareness of adolescent psychosocial issues, build adolescent life skills, and encourage dialogue between students, teachers and parents focused on adolescent health issues and solutions. As such, the programme aims to strengthen the social networks of adolescents in order to promote their health and well-being, as encouraged by social network theories (Bartholomew et al., 2000; see Chapter 2, this volume). Interactive workshops providing information and teaching skills are conducted separately for parents and adolescents. Youth groups are co-facilitated by peer educators. School mental health policies are adopted in schools, with specific time set aside in the curriculum to address adolescent mental health promotion and prevention. Adolescents experiencing significant distress or exhibiting significant problems with regard to behaviour are referred to mental health professionals for further assessment and treatment. Unfortunately, no evaluation data are available for this intervention at this time.

The AMKENI Project (WHO, 2007) in Kenya is supported by several international organisations in partnership with various local organisations. The programme aims to engage parents to promote health within their families, particularly concerning adolescent sexual and reproductive health. Further, the programme taps into local cultural practices such as 'barazas' (community meetings) and uses peer educators or community leaders to facilitate the interventions. Through the Peer Family Project, dialogues are encouraged with specific attention to family roles, relationships and communication on health-related issues and how the family members would support one another to promote health and well-being across all domains of health. Families visit one another and participate in community activities to spread awareness and information about adolescent health issues and potential positive solutions. Through these methods, families learn communication and problem-solving skills, as well as gaining an understanding and knowledge of resources for sexual and reproductive health and building a network through which families in the community support one another in health promotion. By empowering families to promote skills and dialogue in the community, the programme is broadened to include large groups who are able to engage in solution-focused discussions about adolescent sexual and reproductive health. Similar to the other programmes mentioned in this section, the AMKENI Project is consistent with social support theories (Bartholomew et al., 2000; see Chapter 2, this volume) in that it intervenes at the interpersonal level to build strong social networks, particularly through families, in order to promote adolescent

health. In evaluations, participant families reported stronger family relationships, increased communication, greater community support networks, increased health-seeking behaviours, a more supportive environment for adolescents, and greater gender equality in families. Further, families took the initiative to broaden topics to include discussions of gender-based violence and alcohol consumption.

Other examples of interventions at the interpersonal level include: the Nyeri Youth Health Project (WHO, 2007) also in Kenya, which aims to promote adolescent sexual and reproductive health through education about relevant issues, increase parent-adolescent communication about these issues, and increase health behaviours in adolescents and families; the School-based Parents' Education and Awareness (SPEA) Project (WHO, 2007) in Bhutan, which aims to build parents' understanding and parenting skills in dealing with adolescent issues through psycho-education provided by teachers and parent support groups; and Big Brothers/Big Sisters ([www.bbbsi.org](http://www.bbbsi.org)) in many countries – including scarce-resource contexts such as Bermuda, Bulgaria and South Africa – which is based on the premise that positive youth development is promoted through a positive relationship with an adult role model where child and adolescent safety is the primary concern.

### Community level

At the community level, interventions endeavour to change adolescents' community environment through, for example, school level programmes, opportunities and facilities for positive extracurricular or service involvement, positive media, youth programmes in religious institutions or other agencies, and an overall supportive atmosphere encouraging adolescent well-being. In addition, interventions at this level may provide developmentally appropriate access to information, resources and opportunities, for recreation, well-being, dynamic skill building and employment (Breinbauer & Maddaleno, 2005). Multiple safe and supportive places of belonging help adolescents develop and maintain their well-being and become engaged with the community instead of being isolated (Kutash et al., 2006). Mutually respectful relationships amongst students, school staff, parents and community members, as well as between these groups, also support adolescent mental health and well-being (Kutash et al., 2006; Zaff et al., 2002). When youth feel worthy, secure and connected within their family and community environments, they are better able to cope with daily stressors and better able to succeed and become prosocial members of the community. Interventions at this level may also provide leadership and general opportunities, encouraging adolescents to engage in community building and community service projects (Zaff & Michelsen, 2002), as meaningful participation promotes well-being in adolescents (Oliver et al., 2006).

Although there seem to be relatively few evidence-based, community level adolescent mental health promotion and prevention programmes, there are components of several programmes and general ideas that address adolescent health at a community level. Poster campaigns in high-traffic areas have been used in Sri Lanka to promote maternal-child relations and in Chile to heighten awareness of abuse (Patel et al.,

2008). Examples of other media campaigns that have aimed to promote adolescent health include *Tsha Tsha*, which is a South African educational TV programme that promotes self-efficacy in youth and challenges unsupportive social structures (Patel et al., 2008); and *Muc Tim* and *Yeu TreI*, Vietnamese youth and adult magazines already in circulation, that added features to convey positive messages and information about adolescent sexual and reproductive health, as well as tips for parents (WHO, 2007). Such media campaigns have a theoretical basis in social capital theory (Carpiano, 2006; see Chapter 2, this volume); that is, they aim to promote adolescent health and well-being through creating awareness at the community and society levels, encouraging the growth of strong, supportive social networks that engage in formal and informal activities and organisations to promote adolescent health.

Some community level interventions use already established cultural practices or social groups to implement interventions. In the Philippines, for example, a project aimed at empowering parents of adolescents, particularly with regard to health and sexuality issues, uses the existing Parent Teacher Associations to conduct workshops that provide psycho-education about a variety of adolescent issues, including sexuality, as well as building positive parenting skills focused on increasing parent-child communication (WHO, 2007). In Uganda, the Modern Senga programme has educated Sengas, who are adults chosen by parents to mentor their adolescent children through puberty, in adolescent health promotion (WHO, 2007).

Other community level interventions utilise community spaces to house youth programmes and support groups, workshops and social gatherings, whose main agenda is to promote adolescent mental health and well-being. Programmes in Vietnam, for example, have provided educational talks and discussions open to all community members in common gathering places and created youth groups to bring together community youth in a supportive forum for discussing issues, getting accurate health information and learning health promotion skills (WHO, 2007). Such an intervention grows social consciousness about adolescent health issues in order to promote adolescent health, which is a central posit of critical consciousness theory (Campbell & McPhail, 2002; see Chapter 2, this volume).

Schools are particularly important sites and organisations to be involved with community level adolescent mental health promotion and prevention interventions. Indeed, a positive school environment is in itself a protective factor for adolescent health and well-being, building community social capital in order to encourage adolescent health as posited by social capital theory (Carpiano, 2006; see Chapter 2, this volume). School cohesion has been found to buffer adolescents' adaptive functioning from negative influences of poor family and peer relationships (Botcheva et al., 2002). A sense of belonging to the school community has been linked with less depression and social rejection, fewer school-related behavioural problems, and lower levels of school violence amongst adolescents (Anderman, 2002; Burton, 2008; Khan, 2008). In 1995, the WHO launched the Global School Health Initiative; one of the aims of this initiative is to create health promoting schools around the world.

Through collaboration with all stakeholder groups, the school implements a multi-level programme that promotes physical and mental health, and overall well-being. Programming takes place in various school domains – ranging from creating health promoting policies and building a strong community and positive relationships within and between stakeholder groups, to providing health education and services at schools to students and staff. Through such programmes that embody dignity and respect and provide opportunities for adolescents to succeed and contribute to a healthful system, schools become community leaders in health promotion and as such they can begin to change social norms.

#### Policy level

Adolescent mental health policies include plans that designate roles and responsibilities of key stakeholders in the mental health field, to provide efficient and effective mental health services through various channels, organisations, networks and individuals (Herrman et al., 2005). Policies include an overarching vision and core values at the foundation of multifaceted principles, in addition to objectives, areas for action, and strategies that specifically address mental health improvement and reduction of the burden of mental disorders amongst adolescents (Herrman et al., 2005). As such, policies should explicitly balance agendas of mental health promotion and prevention for the nation's adolescent population, addressing issues related to gender, race/ethnicity, socio-economic status and living environment, to ensure that all individuals have equal access to mental health care and promotion. In scarce-resource contexts, governments also need to bear in mind provision of basic necessities, which is the first step in adolescent mental health promotion. Further, specific to adolescent mental health, resources must be provided for various sectors in all areas of the country to provide services, training of adolescent mental health providers, and research to develop and evaluate programmes (Patel et al., 2008).

Principal areas for action that need to be addressed by adolescent mental health policy include financing; legislation and human rights; organisation of services; human resources and training; promotion, prevention, treatment and rehabilitation; essential drug procurement and distribution; advocacy; quality improvement; information systems; research and evaluation of policies and services; and intersectoral collaboration (WHO, 2005).

Programmes at the policy level are not limited to national policies and guidelines, but also encompass projects that target macro-level change with the primary agenda of addressing adolescent mental health. Policies may be implemented at the province or state level, within municipalities, villages or specific communities, or within schools or youth centres. As with programmes at the individual, interpersonal and community levels, policies and macro-level programmes need to undergo ongoing evaluation, and information from such assessments should drive revisions such that the programme is always relevant and effective.

One example of a macro-level adolescent mental health promotion and prevention programme is that of the United Nation Youth Association of Sierra Leone (UNYASL)

(WHO, 2007). UNYASL partners with individuals and organisations in multiple sectors and facilitates collaboration between them, for the purpose of implementing multi-level adolescent mental health promotion and prevention programmes. This national association provides assistance to schools, other institutions and communities to implement comprehensive programmes that educate youth and community members about a variety of adolescent health issues, with specific emphasis on sexuality, drugs, crime and human rights, in order to reduce adolescent substance use and engagement in criminal activity or other problem behaviour. This association organises seminars, workshops, symposia, conferences and public media campaigns to address adolescent health issues, as well as helping communities provide youth-focused recreational activities and resources for health services focused on adolescents and their families. In addition, UNYASL strives to represent youth perspectives and issues at both national and international levels while also creating opportunities for youth to participate in local and international affairs. Similar to the community level interventions discussed above, UNYASL actions are consistent with social capital theory (Carpiano, 2006; see Chapter 2, this volume), in that they aim to promote adolescent mental health through building individual and community social capital. Unfortunately, UNYASL has not implemented an evaluation component to their work.

Another example is provided by the work of Ebgan, Inc. (WHO, 2007). This agency aims to address gender and development issues through capacity building, network support and community development in the Cordillera region of the Philippines. By partnering with various local and national government and non-government agencies, Ebgan provides psycho-education, skill building, and encouragement for activism for children, adolescents and adults to contribute to gender equality and an end to gender-based violence. Further, this agency conducts media campaigns, community theatre performances and training, and advocates for policy reforms at the local and national levels. The theoretical principles that underlie Ebgan relate to the posits of critical consciousness theory (Campbell & McPhail, 2002; see Chapter 2, this volume). Specifically, through mass action at the community and society levels – including awareness campaigns that build a collective consciousness of gender issues – this organisation intends to ultimately affect individuals' health and well-being. This agency does not currently have the resources to perform evaluations of their projects.

### Multi-level interventions

The intervention programmes discussed above operate at a single level. However, collaborations between individuals and organisations from multiple backgrounds to create programmes that intervene at the individual, interpersonal, community and policy levels are ideal. They begin to build relationships with other people and organisations, with the common goal of promoting adolescent mental health and optimal development. They have the potential for positive effects at one level to interact synergistically with those at other levels, thus multiplying the beneficial effects of the intervention.

An example of a multi-level intervention is the Collaborative HIV Prevention and Adolescent Mental Health Programme (CHAMP) (Bell et al., 2008). This is an HIV prevention programme for adolescents that promotes resiliency in uninfected youth and their families through a community-collaborative approach. Community-wide involvement is integral to this programme, which also uses a participatory approach and a cartoon-based narrative to assist in discussion of traditionally sensitive topics such as HIV/AIDS knowledge, risk-taking at numerous levels, communication and social support. Originally developed in the USA, this programme has been adapted and implemented successfully with a group of rural black youth and their families in South Africa (Bell et al., 2008). Results from a randomised control trial in rural South Africa suggest significant effects on caregivers and youth (Bell et al., 2008). Specifically, in comparison to those in the control group, caregivers in the intervention group reported more HIV/AIDS knowledge, less HIV/AIDS-related stigma, more caregiver monitoring and family rules, increased communication comfort and frequency with sensitive topics, and strengthened primary social networks. Youth in the intervention group reported more knowledge about the transmission of HIV/AIDS and less HIV/AIDS-related stigma than those in the control group.

Other examples of multi-level interventions include:

- Mental Health in Sri Lankan Youth Project (Nastasi et al., 1998);
- MindMatters (<http://cms.curriculum.edu.au/mindmatters/index.htm>);
- Reconnecting Youth (Zaff et al., 2002);
- Gatehouse Project (Goren & Mallick, 2007); and
- Positive Action ([www.positiveaction.net](http://www.positiveaction.net)).

### **Programme evaluation and effectiveness**

Although the need for adolescent mental health promotion and prevention programmes in scarce-resource contexts is recognised, there is very little information about evidence-based programmes addressing this specific population (see Patel et al., 2008, and Remschmidt et al., 2007, for reviews). This lack of information does not reflect a lack of action with youth in scarce-resource contexts, but rather a lack of formal and published evaluations and intervention materials. Based mainly on work conducted in high income countries, a number of characteristics of successful interventions have been identified (see box – Characteristics of successful mental health interventions). Many of these characteristics have been mentioned explicitly in the various interventions described above, suggesting that these may be universal characteristics of effective interventions.

A meta-analysis was conducted with 117 prevention programmes for youth (with normal range functioning), targeting individual change, parent training and school environment modification, and implemented mainly in schools by a variety of facilitators (Durlak & Wells, 1997). Results of that review suggested that the majority of prevention interventions achieved significant positive outcomes immediately after the intervention and these effects were maintained at follow up several months

## CHARACTERISTICS OF SUCCESSFUL MENTAL HEALTH INTERVENTIONS

Drawing on Breinbauer and Maddaleno (2005), Kutash et al. (2006) and Remschmidt et al. (2007), we can list characteristics of successful mental health interventions:

- The programme is based on specific theories.
- The programme is comprehensive:
  - Addresses several risk and protective factors, balancing prevention and mental health promotion approaches.
  - Increases knowledge and builds specific skills applicable in various situations.
  - Involves active collaboration between several sectors, including adolescents, families, schools, communities and policy-makers throughout the planning, development, implementation and evaluation stages.
  - Includes multiple components within the programme such as adolescent-only groups, parent programmes, family activities, school-based modules, and community engagement opportunities.
- The programme incorporates positive role models or mentors to model and engage adolescents in supportive relationships with their caregivers, peers, teachers, community leaders or other authority figures.
- The programme is socio-culturally sensitive and relevant:
  - Reflects local prosocial norms, values and beliefs without colluding with systems of discrimination and oppression.
  - Addresses contemporary adolescent issues.
- The programme uses interactive, collaborative methods of delivery:
  - Uses various types of developmentally appropriate methods to convey information, build skills and address issues to engage adolescents and promote behaviour change beyond the intervention setting.
- The programme is structured for ease of implementation and to facilitate fidelity to the model, while still being flexible, adaptable to unexpected issues and generalisable to other populations and contexts.
- There is consistent implementation, ideally across sectors, and adequate dosage (length and intensity of sessions, the whole programme and booster sessions).
- The programme is appropriately timed in terms of developmental stage, fitting in to adolescent, family, school, and community schedules and lifestyles, and ideally before significant distress or problem behaviour has manifested.
- The programme uses ongoing, multi-method evaluation to ensure ongoing quality improvement, sustainability and generalisability.
- There is an emphasis on adequate structural support:
  - Respected and trusted staff are carefully selected, trained, supervised and supported to implement specific interventions of the programme. These staff members are not necessarily mental health professionals, and programme implementation does not need to be their sole role in the community.
  - Other staff and community leaders are aware of the programme and support it by promoting the same goals and offering structural support as they can.
  - Manuals for facilitators and programme leaders and newsletters for organisations, families and community members may be helpful in terms of treatment fidelity and encouraging multiple sectors to support and become actively involved in the programme.

later (Durlak & Wells, 1997). These outcomes included a reduction in problems, increased competencies, and improved functioning in multiple domains, including internalising and externalising symptoms and academic performance (Durlak & Wells, 1997). Moreover, there appeared to be a very low likelihood of negative effects following prevention programmes (Durlak & Wells, 1997). These results are certainly encouraging, both in terms of the general effectiveness of adolescent mental health interventions and of the benefits of such interventions to adolescents who may not be in distress or exhibiting significant behavioural problems. Although none of the interventions included in the meta-analysis were conducted in developing countries, it is certainly reasonable to assume that they would be effective in such contexts. A more recent review was conducted by Flament et al. (2007), who focused on evidence for programmes that promote mental health or prevent the occurrence of mental disorders in infants, children and adolescents. Of the 47 programmes included in the review, 45 reported results supporting programme efficacy, of which 27 reported both negative and positive results. Three studies reported that there were no positive results attributable to the intervention. However, only one intervention was implemented in a low or middle income country; specifically, the Penn Prevention Program (which aims to prevent anxiety and depression, using cognitive behavioural interventions) has been shown to be effective in China (Gillham & Reivich, 1999).

Risk behaviour is an important component of mental health, particularly during adolescence. Health promotion and prevention programmes should bear this component of health in mind. Several prevention interventions have focused on particular groups of risk behaviour such as sexual risk behaviour, youth violence and substance use. Unfortunately, and perhaps not surprisingly, there are very few evaluated risk behaviour prevention interventions in scarce-resource contexts (Harker et al., 2008; Kaaya et al., 2002; Ross et al., 2006). However, such interventions are being implemented, although with a primary focus on prevention or risk reduction rather than on health promotion or strengthening protective factors.

Rigorous evaluations have been conducted on various youth risk behaviour prevention interventions in developed countries. Some common principles have been identified following these evaluations. Specifically, researchers have found that fear and 'tough treatment' programmes do not seem to be effective in preventing or reducing risk behaviours amongst youth (NIH, 2004; Robertson et al., 2003). Developing skills and competencies across multiple domains through interactive approaches that address both risk and protective factors seems to be most successful in reducing risk behaviours amongst youth (NIH, 2004; Robertson et al., 2003). Such programmes are particularly helpful at key transition times during youths' lives such as the move from primary or elementary to secondary school, and booster sessions are often necessary to maintain the positive effects of the original programme (Robertson et al., 2003). As noted throughout this chapter, multi-level interventions are ideal for prevention of risk behaviours and promotion of healthy living (Robertson et al., 2003). Of the few sexual risk prevention programmes, often under the name of HIV prevention interventions, that have been evaluated in sub-Saharan Africa, the results have indicated positive effects on knowledge, attitudes and the

amount of communication about sexuality issues (Kaaya et al., 2002). However, there is much diversity in terms of the intervention content and method, the populations receiving the intervention, and the evaluation methods, which makes a review of such interventions very difficult (Kaaya et al., 2002). A WHO report on youth HIV prevention programmes in scarce-resource contexts notes that such interventions can be behavioural (usually individual level), biomedical (usually individual level) or social (interpersonal or community level) (Ross et al., 2006). Successful behavioural interventions have used a small group cognitive behavioural approach that includes some combination of psycho-education, personal counselling and skill building (Ross et al., 2006). Biomedical interventions are still being developed to expand preventive interventions rather than treatment only. Some successful biomedical programmes include careful management of blood donors, and the use of antiretrovirals for post-exposure prophylaxis and prevention of mother-to-child transmission (Ross et al., 2006). Successful social level programmes have included regulation of condom use in the sex industry in Thailand and economic empowerment of women to promote gender equity in South Africa (Ross et al., 2006).

To sum up, there is substantial evidence of the benefits of prevention and promotion interventions in developed countries, but almost no evidence from scarce-resource contexts. Against this background, we recommend that interventions that have been shown to be effective in rich-resource contexts be considered for scaling up elsewhere (after appropriate adaptation), and that they be evaluated in such new settings. In the spirit of multisectoral teamwork that we are promoting, this lack of scientific evidence calls for further collaboration between intervention facilitators and for partnerships between these facilitators and researchers. Indeed, this situation is not one to be lamented because it offers countless opportunities for innovation and new alliances, allowing for all those concerned to contribute to solutions.

## Conclusion

In conclusion, mental health promotion and prevention projects for adolescents in scarce-resource contexts should be theory-driven, comprehensive programmes tailored to engage adolescents, include youth from all sectors of society, explicitly promote resilience in a gender- and culture-sensitive manner, and actively integrate multiple sectors at the interpersonal, community and policy levels (Flisher & Gerein, 2008; Nastasi et al., 1998). As noted throughout this chapter, building resilience in adolescents will not only facilitate optimal development and health, but will also decrease risk factors and potentially prevent mental ill-health in many adolescents (Commission on Positive Youth Development, 2005). Thus, this approach is applicable to a mixed population of adolescents, including those with few vulnerabilities or no experience of symptoms or diagnosed mental health disorders, as well as those at high risk for or currently exhibiting behavioural problems or mental ill-health. However, it should be borne in mind that during the course of an intervention it may become apparent that more specialised mental intervention is necessary for a particular adolescent, either through detection

occurring in the context of the intervention or (rarely) the intervention eliciting negative consequences. It is important for practitioners to carefully monitor the adolescents in such programmes in order to ensure that such adolescents receive the necessary support or intervention.

Adolescent mental health promotion and prevention interventions are too important to be left to mental health professionals alone. Indeed, the numerous intersecting risk and protective factors that influence adolescents at the four levels mentioned above render it essential that mental health practitioners seek collaborations across several sectors, if interventions are to be maximally effective. For example, the expertise of teachers and curriculum development experts is essential when developing school-based interventions; community level interventions in which media are central are unlikely to have the necessary impact without media experts; and it is impossible to develop legislation without the involvement of lawyers and political scientists. Most importantly, interventions to which adolescents themselves have not contributed are unlikely to be appropriate in terms of the contemporary adolescent language and culture in the target subgroup, and thus less likely to be effective.

There is an urgent need to ensure that health promotion and prevention interventions are subject to efficacy and effectiveness evaluations that are methodologically seamless. Indeed, one could argue that it is unethical to seek funding for and disseminate interventions that have not been found to demonstrate the desired outcomes in such evaluations. Conversely, once a programme has been found to be effective, it is unethical not to disseminate it, so that other adolescents can derive the same benefit that their counterparts who participated in the evaluation derived. Herrman et al. (2005) have identified a number of factors that maximise the chances of successful programme dissemination (see box – Successful programme dissemination).

We propose four strategies that may increase the number and improve the quality of mental health promotion and prevention interventions. First, there needs to be a greater number of collaborative partnerships between scientists and practitioners, and between stakeholders at each level. The former will ensure higher quality, both of interventions and evaluation of such interventions. The latter will ensure more consistent interventions across levels, and allow for greater synergies between interventions at different levels. Second, there needs to be increased accessibility of interventions, including the intervention materials, so that they can be applied in new contexts after they have been appropriately modified for adaptation. Evaluations in such new contexts may result in improvements that will be applicable to the context in which the intervention was originally developed. Third, we need to find ways of using existing settings more creatively – setting such as schools, community centres, health facilities and leisure resources. Not only are there obvious economic reasons for this, but the primary functions of such settings may be enhanced. A programme to reduce unsafe sexual behaviour and substance use, for example, may have collateral benefits for school retention. An intervention for the early detection of sexually transmitted infections that is based at a health facility may result in

#### SUCCESSFUL PROGRAMME DISSEMINATION

Herrman et al. (2005) set out the following factors that maximise the chances of successful programme dissemination:

- The programme has been found to be effective.
- Consumers, funders and decision-makers are involved in programme development.
- The host organisation provides real or in-kind support from the outset.
- The potential to generate additional funds is high.
- The host organisation is 'mature', stable and resourceful.
- The programme and host organisation have compatible missions.
- The programme is not a separate unit; rather, its policies, procedures and responsibilities are integrated into the organisation.
- Someone in authority (other than the programme director) is a champion of the programme at high levels within the organisation.
- The programme has few 'rival providers' that would benefit from the programme discontinuing.
- The host organisation has a history of innovation.
- The value and mission of the programme fit well with the broader community.
- The programme has community champions who would decry its discontinuation.
- Other organisations are copying the innovations of the programme.
- The programme is compatible with the socio-cultural value system of the host or adopter.
- The programme is flexible for use in various settings.
- The programme is easily changed (in case something doesn't work) and fits well with other programmes.
- The programme offers a distinct advantage relevant to current practices.
- The programme is simple, cost efficient and risk-minimal.
- The programme addresses a community need and is adapted to local conditions.

increased detection of other health conditions as a result of adolescents becoming more comfortable in attending the health facility. Finally, an untapped resource is adolescents who have participated in an intervention. They should be invited to contribute to interventions, as recruiters, programme deliverers, role models or peer educators. The positive outcomes that they experienced will convey hope and optimism to their peers who have not yet received the intervention in question, thus synergistically amplifying the programme benefits.

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# 9 Adulthood

Leslie Swartz & Helen Herrman

The concept of 'adulthood' as a developmental stage distinct from 'adolescence' and 'old age', is as problematic as are the concepts of 'middle childhood' and 'adolescence' discussed earlier in this volume. Concepts of human development are culturally loaded. Consider, for example, the US Surgeon General's report on mental health, which states:

Adulthood is a time for achieving productive vocations and for sustaining close relationships at home and in the community. These aspirations are readily attainable for adults who are mentally healthy. And they are within reach for adults who have mental disorders, thanks to major strides in diagnosis, treatment, and service delivery. (US Department of Health and Human Services, 1999, p. 225)

It is not a criticism of the Surgeon General's report to point out how culturally limited this definition is – indeed, the report discusses cultural issues in some detail. However, for a book such as this one – which focuses on mental health promotion and the prevention of mental disorders (hereafter referred to as mental health promotion and prevention) in scarce-resource contexts – it is instructive to note at the outset just how far much of the world's 'adult' populations (and other populations) call into question the extent to which we can accept the above definition of adulthood as standard, from which other definitions may deviate. Here is a non-exhaustive list of the ways in which we must question the paragraph above if we are to think about mental health and adulthood globally:

- Many adults throughout the world will never have formal employment and will thus not achieve 'productive vocations' in the narrow sense of the term. The exclusion from formal economic life may be as a result of society-wide issues. For example, in 2004, 63.8 per cent of people in Zambia were living on less than US\$1 a day (MDG Monitor, 2007), and in 2005, 31.5 per cent of black African South Africans were unemployed (PCAS, 2006, p. 28). If definitions of mental health are tied in with ideas about 'achieving productive vocations' there is some danger of having a rather useless, circular definition: many people will never achieve productive vocations – does this mean that by definition these people will never be mentally healthy?
- There are barriers to participation in many vocations on the basis of membership of social categories. It is not by accident, for example, that one of the Millennium Development Goals is to promote gender equality and empower women – many women worldwide are excluded from participation in many aspects of social life, including the formal economy. Other groups of people,

such as disabled people (and not only people with mental disorders) are far less likely to be employed than are the general population.

- The goal of ‘sustaining close relationships’ may be relatively unattainable for many women who are subject to abuse and violence. Unprecedented migration globally, with many refugees and internally displaced people, also disrupts sustainability of close relationships.
- Climate change and extreme weather, which may differentially affect poorer countries, may also, on a very large scale, interrupt productive livelihoods and relationships.

From this non-exhaustive list, we can see how the very definition of what constitutes adult life and its attainability for the ‘mentally healthy’ population needs to be questioned if we are looking at adulthood globally. We also know that some of the functions associated with adulthood in conventional definitions may be performed by people in other age groups; for example, in the context of the HIV/AIDS epidemic in sub-Saharan Africa, both children and the elderly now perform parenting roles and are primary breadwinners for families.

In summary, when we think about what it means to be an adult in the context of mental health, we need to keep in mind that definitions and experiences vary widely. The extent to which differing roles and experiences may impact on mental health in scarce-resource contexts is not yet fully understood, but as we shall see in the rest of the chapter, evidence on this issue is beginning to emerge.

## Mental health in adults in scarce-resource contexts

As Patel (2007) notes, the *Global Burden of Disease and Risk Factors* report (Lopez et al., 2006) shows that there is a high burden of mental disorders in low and middle income countries. For example, neuropsychiatric disorders (which include unipolar depressive disorder, bipolar disorder, schizophrenia, epilepsy, substance abuse disorders, dementia, anxiety disorders, intellectual disability, and some neurological conditions), account for 9.8 per cent of the total disease burden in low and middle income countries (Patel, 2007, 83). It is widely accepted, furthermore, that there is a close link between social factors and mental health problems in these countries, though the evidence for this link is sometimes not as strong as we would like, and more research needs to be done.

One area in which there is the best evidence for burden of mental disorders in low and middle income countries is that of maternal mood disorder and its relationship to a range of child outcomes. As the literature on child mental health issues is discussed in a separate chapter of this volume, this will not be discussed in any detail here, but it is important to note some features of this literature. First, gender issues appear to have an influence on women’s mental health throughout the world. In a report on interviews with 24 097 women aged 15–49 years in 10 countries from the World Health Organization (WHO) multi-country study on women’s health and domestic violence against women, Ellsberg et al. (2008) found that women who reported

experiencing intimate partner violence were more likely to report emotional distress, self-harm, and health problems more generally. Further, as Cook and Bewley (2008) note, violence against women can begin or escalate during pregnancy, and there is likely to be similar increased risk of mental health problems during this period. Second, in South Asia, maternal mental disorder has been found to be associated with impaired infant growth (Patel et al., 2004), and though these findings have not been replicated in South Africa (Tomlinson et al., 2006), they provide a strong basis for arguing that maternal mental health should be considered as a key component of maternal and child health programmes (Rahman et al., 2008). If we take these two strands of research together, we can see that mental health promotion interventions such as programmes that reduce the likelihood of violence against women, may impact on maternal mental health, which may in turn have an effect on child health outcomes. Further, it may be the case that men who abuse alcohol and other drugs may be more likely than others to be perpetrators of intimate partner violence (Dunkle et al., 2006). We do not as yet have studies that show a cascade of effects from, for example, a substance abuse prevention programme for men, through reduction of violence against women, to improved maternal health and better child nutrition outcomes, but it is not too early for us to be thinking about such possibilities.

There is, in summary, a good emerging argument that intervening in a preventive way with adult mental health problems may have knock-on effects throughout the lifespan. Although, for reasons of convenience, we separate interventions according to particular topics and age ranges, we need to recognise that there are always potential links between different topics. In addition, given the central role of parenting in child development, interventions with adults – even interventions that do not focus specifically on parenting itself – always need to be considered when we think of promoting mental health for children and adults.

There is a similar argument to be made in another direction as well. We know from the burgeoning field of developmental psychopathology that many adult mental disorders and mental health problems have their roots in earlier life experiences. As mentioned in Chapter 8 of this volume, for example, 25 per cent of adult mental disorders begin at age 7 or younger, and half of adult disorders can be traced back to adolescence. One of the key challenges for work on prevention of serious mental disorders in adulthood is tracing the pathways of risk as far back as prenatal influences, and even to genetic influences (McLellan et al., 2008). So we have to take a long-term view, and one that does not arbitrarily argue that in order to prevent disorders and promote mental health in adults, we need to focus our work only on adults. Paternal age, maternal nutrition, and exposure to infection and chemicals during pregnancy, for example, may all have an effect on whether a person develops schizophrenia in adolescence or early adulthood (Bresnahan & Susser, 2007; Brown et al., 2002; McLellan et al., 2008). Further, when we start looking throughout the lifespan, from conception to old age, very complex chains of influence may exist; and, it has been suggested, some mental health and health interventions that may have benefits in childhood may possibly have negative consequences when followed up into adulthood (Bresnahan & Susser, 2007).

What we know in terms of long-term risk factors for mental disorders in adulthood and long-term predictors of mental health in adulthood remains rather limited, though new data are emerging every year. As we learn more about the field, it is increasingly likely that best practice, in terms of optimising mental health in adults, will include a range of short-term and long-term interventions, including interventions that begin before birth and even before conception, with genetic counselling as one modality. The rest of this chapter, however, focuses on intervention approaches that are both of a more short-term nature and focus on adulthood itself as a time for intervention; selected examples with particular reference to work in scarce-resource contexts are discussed.

## **Examples of intervention approaches**

### **Economic empowerment**

Because of the interrelationships between poverty and mental disorder, an obvious place to start with thinking about how to prevent mental disorders and promote mental health is with addressing issues of poverty. Chowdhury and Bhuiya (2001), working in Bangladesh, found that a combined approach to providing health care and education, as well as rural development opportunities, improved outcomes on a range of mental health-related variables, including lower rates of interpersonal violence and improved psychological well-being.

One of the difficulties with linking interventions aimed at addressing poverty to mental health outcomes is that the chain of causality between the economic interventions and mental health outcomes is long and complex (Gupta et al., 2008). In the HIV/AIDS field, similarly, though it is generally true internationally to say that poverty is associated with the spread of HIV, it may be the case that interventions that may improve the relative wealth of certain groups in impoverished communities could paradoxically increase HIV risk (Fenton, 2004). People with expendable income in poor communities may be more able to pay for sex, for example, and women who have access to funds on a small scale may be resented by men, and may become more rather than less vulnerable to gender-based violence, including sexual violence.

An interesting intervention using microfinance as a central feature of the intervention seems to have had an impact on mental health (see box – A combined microfinance and women's empowerment intervention).

### **Community development and increased participation**

Economic empowerment can be one component of broader community development initiatives that aim to improve mental health of communities and individuals. We know rather less than we should about the impact of community development programmes on mental health status, partly because community mental health programmes often do not conceptualise their work in terms of mental health and therefore do not measure direct mental health outcomes (Herrman & Swartz, 2007).

A COMBINED MICROFINANCE AND WOMEN'S EMPOWERMENT INTERVENTION:  
THE IMAGE STUDY

The IMAGE (Intervention with Microfinance for AIDS and Gender Equality) study, based in the rural Limpopo Province in South Africa (Kim et al., 2007; Pronyk et al., 2008), recognised the importance of structural factors such as widespread poverty and a migrant labour system in the spread of HIV/AIDS. The authors conducted a randomised controlled trial in which the intervention combined microfinance with gender empowerment training for young women, using existing networks of community members and leaders to support women in their relationships with intimate partners. The design of the study was complex and multi-levelled, but the authors found a significant improvement on a number of qualitatively and quantitatively assessed measures, including reductions in levels of intimate partner violence and improved household well-being, both important issues of concern for those interested in mental health. Though the intervention did not have an impact on HIV incidence (Pronyk et al., 2006), there appeared to be many benefits in terms of health and mental health behaviours, and there are suggestions that such an intervention may hold lessons for the development of social capital and mutual helping networks in communities.

Patel et al. (2005) suggest that social mobilisation may be important for mental health in scarce-resource contexts but note the paucity of research evidence. Arole et al. (2005) describe in some detail a community development programme in rural India, which they argue contributes to improved mental health. They describe strategies used to diminish isolation associated with poverty in the context of globalisation, and suggest that farmers' and women's clubs, for example, may help people work together not only for economic survival, but also for community support and mental health.

A qualitative study of rural women's mental health in India (Kermode et al., 2007) suggests that although affordable and accessible treatments for mental disorders are essential worldwide, much can be gained from building community participation around mental health issues in scarce-resource contexts, and that these efforts may reduce the burden of mental disorders in such settings. Kermode's team subsequently ran a peer facilitated participatory action group for women who had been widowed due to HIV, which their male partners had contracted through intravenous drug use. Kermode et al. (2008) found that the participatory action group had a significant impact on the women's mental health status, their quality of life and their experience of somatic symptoms.

Addressing the issue of suicide, which appears to be on the increase in low and middle income countries, Jacob (2008) suggests that in order to deal with high suicide rates it may be preferable to focus on policies, including macroeconomic policies, that deal with issues of impoverishment and alienation, rather than looking solely at individual level suicide prevention initiatives. This approach finds support in recent work in India (Maselko & Patel, 2008), which found that suicide attempts amongst women in that country were predicted by both physical and mental illness, and also by recent hunger and exposure to violence; and the authors suggest a

multipronged approach, which includes poverty relief, reduction of violence, and improved treatment of mental and physical disorders (Maselko & Patel, 2008).

### **Prevention of relapse of serious mental disorders**

One of the key ways in which mental disorders become burdensome to individuals, families and communities is not through the first episode of the disorder, but through the relapsing pattern of mental disorder in some cases. Indeed, a misperception exists that all serious mental disorders are necessarily chronic and that all people who experience a first episode of a severe mental illness will experience a long and deteriorating course of disorder. Although it is true that there is a great burden associated with serious mental disorder in many cases, there is now very good evidence that a combination of drug therapies and psychosocial interventions can help greatly; many people with serious mental disorders are not hospitalised and live very fulfilled and productive lives. Further, the recovery movement in schizophrenia and other mental disorders suggests that we need an approach to mental disorders that assumes that recovery is indeed possible (Davidson et al., 2008; Silverstein & Bellack, 2008).

An influential approach to understanding relapse in serious mental disorders and schizophrenia in particular is that which depends on the concept of 'expressed emotion' (Kuipers et al., 2002). A long series of studies conducted in a number of countries show that interventions to reduce critical comments, hostility and overinvolvement on the part of family members of people with schizophrenia (and a number of other disorders) lead to improvement in the course of mental disorders, and to a reduction in relapse rates – especially when these interventions are combined with appropriate pharmacotherapy. We know that mental disorders may be expressed differently across cultures, and that there may be very different emotional styles of interaction between people with mental disorders and their families in different societies (Jenkins & Barrett, 2003). There may be particular cultural requirements that differ across societies; for example, some societies may value independence as a social goal, while others focus more on interdependence and interconnectedness. Nevertheless, the concept of expressed emotion has proven quite robust cross-culturally, and excellent results have been reported in family interventions focusing on expressed emotion, in India, for example (Leff et al., 1990).

Contemporary ideas on recovery from mental disorders have widened the net of interventions from medication and family interventions to include interventions that involve the use of peer support. Interventions have also become more focused on the relationship between the person with the disorder and the treatment team, and also on more direct engagement with the nature and content of delusions and hallucinations (Silverstein & Bellack, 2008).

An important new direction in the mental health promotion and prevention field deals with the prevention of serious mental disorders. There is now evidence both that early intervention with persons with schizophrenia helps limit chronicity of the condition and that intensive intervention during prodromal stages may serve

to delay onset of full-blown symptoms (Yung et al., 2007). There are some ethical concerns about identifying persons at risk for a serious mental disorder and then treating them in the absence of full-blown disorder, but there is an emerging body of evidence supportive of detection and treatment in early and prodromal phases (Bechdolf et al., 2006). Much of the new work on early intervention and prevention in serious mental disorders has yet to be replicated in scarce-resource contexts, but many of the strategies being researched link strongly with other traditions in mental health promotion and show great promise. Among these strategies are vocational interventions (keeping people with serious mental disorders in a supported work stream) (Killackey et al., 2008), and 'befriending' interventions, which aim to increase supportive actions from clinicians (Jackson et al., 2008). Interestingly, the impact of befriending may be as good in the longer term as that of a form of cognitive behaviour therapy. If these results are replicated, they may suggest possibilities for mental health promotion and prevention activities delivered by nonprofessionals, which may be easier to implement in scarce-resource contexts.

### **Lifestyle, substance use and mental health promotion**

Throughout this book and this chapter, we have seen the interrelationships between mental health, social connectedness and physical health. It is important for those interested in mental health to consider whether activities designed to enhance physical health also have mental health benefits. The poverty theorist and economist, Max-Neef (1989), talks of the importance of what he terms 'synergistic satisfiers' to address human needs; and if we can find interventions that have positive impacts, on a range of dimensions, on human experience, this is to be welcomed. Though the effects of exercise on promoting physical health and preventing what are termed 'diseases of lifestyle' are well established, we have rather less systematic evidence regarding the mental health benefits. A recent review of the impact of physical exercise on the course and outcome of depressive disorder suggests that there may well be benefits but that we do not yet have sufficient high quality evidence to state conclusively what the effects are, particularly in the longer term (Daley, 2008). In a review of a range of studies, all observational intervention studies, Teychenne et al. (2008) concluded that physical activity was associated with a decreased likelihood of developing later depression. However, the intensity of the physical activity was measured differently across studies and there are contradictory findings regarding the amount and intensity of physical activity that seems to be optimal.

Physical activity is also commonly used in substance use treatment regimens (Weinstock et al., 2008), and it has been suggested that physical activities and sports may help develop alternative lifestyles to those involving substance abuse, in both adolescents and adults (Swartz et al., 2002). Clearly, it is not possible to consider mental health issues without also considering questions of substance abuse. An increasingly popular approach to behaviour change and to adherence to treatments and lifestyle changes is that of motivational interviewing, which was developed in the context of substance abuse treatment. Motivational interviewing involves a directive

approach, to assist clients to change behavioural intentions and behaviours. A recent meta-analysis (Hettema et al., 2005) suggests that motivational interviewing may be effective across a range of domains and may have greater effects in ethnic minority clients. One of the attractions of motivational interviewing for mental health work in scarce-resource contexts is that it is a brief intervention, which is fairly easy to teach and learn.

Another approach to mental health promotion that is as yet relatively underexplored, and may become increasingly important as Internet connectivity in scarce-resource contexts improves, is that of computer-delivered interventions. Such interventions assume a basic level of literacy and computer literacy but offer many opportunities for innovative use of virtual reality and other techniques. Even in relatively poor communities in some parts of the world, there has been a strong penetration of social networking sites, and convergence between cellular telephone and Internet technologies offers possibilities, with the remarkably rapid spread of cellular telephones in many very poor countries and contexts. A recent meta-analysis of 75 randomised controlled trials of interventions aimed at health promotion and behavioural risk reduction showed improvements in a range of health-related behaviours, including improvements in the areas of substance abuse and safer sex behaviours (Portnoy et al. 2008).

Although not commonly considered in discussions of mental health promotion, it is important in this section briefly to note that people with serious mental disorders have much worse physical health than do people without, and that they also have higher mortality rates (including from non-suicide causes) (Leucht et al., 2007). It is essential, therefore, that health promotion activities are available for people with serious mental disorders. In this regard, it is worth noting that rates of smoking are far higher in people with serious mental disorders than in the general population, an issue that challenges managers of care facilities for these patients (Kager et al., 2000). There is now an increasing body of knowledge that shows that lifestyle and health promotion programmes can be successfully implemented with people with serious mental disorders (Chafetz et al., 2008). Of particular concern in the sub-Saharan African context, is the question of HIV risk amongst people with serious mental disorders (Collins, 2006). The question of how best to conduct HIV prevention activities with people experiencing serious mental disorders is not yet settled (Berkman et al., 2007), but this remains an area that merits concerted attention.

## Conclusion

The examples mentioned above do not cover the entire spectrum of mental health promotion and prevention activities amongst adults, but they give some flavour of the trends in the literature. Table 9.1 provides a schematic overview of some suggestions for interventions at various levels.

**Table 9.1** Schematic overview of possible mental health promotion strategies for adults

Level	Promoting lifelong physical health	Managing disability, and limiting relapse	Developing economic sustainability	Building community and personal empowerment	Supporting parenting and caregiving
Individual	Provide regular screening for diseases of lifestyle; promote healthy living.	Provide community-based services for people with mental disorders, especially early interventions.	Develop economic skills and encourage full participation in the economy.	Provide assertiveness and personal development skills in appropriate cultural context.	Offer support to caregivers and parents to maintain their mental health.
Interpersonal		Support families in provision of care; train and support families.	Promote intra-family cash transfers and joint family living arrangements.	Support mutual support networks and initiatives.	Support family and caregiver networks.
Community	Focus on tobacco control, diet, exercise, and sexual and reproductive health (including HIV/AIDS prevention and healthy lifestyles for people living with HIV).	Reduce stigma and maximise workplace participation; use media to improve public perceptions.	Embed microfinance and skills training initiatives in mental health promotion activities.	Encourage communities to organise around social and well-being issues; develop mental health literacy.	Create awareness of family responsibilities and promote gender equality (much care work is done by women).
Policy	Integrate mental health policy into general health policy.	Develop policies that support community-based care and move beyond institution-focused treatment.	Incentivise businesses to use local skills and to give preference to providers that have mental health plans in place.	Raise funds to support community development; ensure mental health is on the agenda for all development projects.	Develop gender-friendly and caregiver-friendly policies, allowing for integration of caregiver roles with other occupations and reducing social isolation.

What unites many of these approaches to mental health promotion and prevention is that they require us to think broadly about what constitutes mental health and also about *how people live their lives*. For, if we are interested in improving mental health in communities, we need to understand not only about disorders in themselves, but also about how people live their lives; and occupation, which refers to the things people do every day, is a useful approach in this regard (Watson & Swartz, 2004).

Mental health promotion needs to be understood within everyday contexts – and good projects are not necessarily those that are obvious, but rather those that mesh well with and add value to what people are doing already.

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# 10 Older people

Martin J. Prince

Discussion of the mental health of 'older people' most often focuses on those aged 65 years and over – that is, above the most frequent, statutory retirement age in Western nations. This is evidently a somewhat arbitrary and culture-specific definition. Neuropsychiatric disorders collectively account for 13.5 per cent of the global burden of disease, and 27.5 per cent of that attributable to non-communicable diseases (NCDs) (Prince, Patel et al., 2007). The proportionate burden of neuropsychiatric disorders amongst those aged 60 years or over is smaller – with 7.4 per cent of the global burden of disease and 8.3 per cent of that arising from NCDs. While the prevalence of dementia rises sharply in later life, doubling with every 5-year increase in age, that of depression is, perhaps, a little lower than amongst younger adults. Relatively few people with chronic severe psychosis survive into old age. However, mental ill-health in later life poses particular challenges for public health. Health profiles amongst older people, particularly the oldest old, are somewhat distinct, with mental ill-health often complicated by co-morbidity with chronic physical and cognitive disorders. This combination is particularly strongly associated with disability and dependency. Beyond the challenges of living with chronic disease and disability, further obstacles to the maintenance of good mental health into late life include retirement (loss of occupational role, status and income) and a shrinking social network (loss of spouse, siblings and friends through bereavement).

Older people, and their health and social welfare, have for too long been under-prioritised in global public health policy. This is now changing with increasing recognition, over the past 20 years, of their growing importance in low and middle income countries (LMICs) (Kalache, 1991). Demographic ageing is proceeding more rapidly than first anticipated in all world regions, particularly China, India and Latin America (UN, 2003). The proportion of older people increases as mortality falls and life expectancy increases. Population growth slows as fertility declines to replacement levels. In the 30 years up to 2020, the oldest sector of the population will have increased by 200 per cent in LMICs as compared to 68 per cent in the developed world (Murray & Lopez, 1996). By 2020, two-thirds of all those over 60 will be living in developing countries (Prince, 1997). In the accompanying health transition, NCDs assume a progressively greater significance in LMICs. NCDs are already the leading cause of death in all world regions, apart from sub-Saharan Africa. Of the 35 million deaths in 2005 from NCDs, 80 per cent were in LMICs (Fuster & Voute, 2005). This is partly because most of the world's older people live in these regions. However, changing lifestyles and patterns of risk exposure also contribute.

The structure of this chapter is as follows: first there is a focus on research evidence on the epidemiology of depression and dementia, the two most common mental

health problems associated with ageing, with the largest public health and societal impact. Thereafter follows a review of theoretical understandings of what constitutes positive mental health in older people, and how it may best be promoted. Finally, the chapter makes proposals, based upon evidence, for some opportunities for mental health promotion, with examples where possible of implementation.

## Epidemiology of late-life mental disorders

### Late-life depression

'Depression', as a diagnosis applied in clinical settings, generally requires persistent and pervasive low mood and/or loss of pleasure, accompanied by other characteristic symptoms (including guilt, and sleep and appetite disturbance), sufficient to cause significant distress and disability. However, mood states do not fall naturally into discrete categories, but instead represent a spectrum from normality through increasing degrees of morbidity. As with any 'cut-off' applied to an underlying continuum (e.g. hypertension), the prevalence of the disorder depends substantially on the threshold that is selected. Severe depressive disorders have a high individual impact on those affected, but are rare. Milder syndromes have a lower individual impact but, given their higher prevalence, may have a substantially greater public health impact.

### Prevalence

The prevalence of late-life depression has been extensively studied and summarised in two systematic reviews of research in developed countries in the European, North America and Asia Pacific regions (Beekman et al., 1999; Djernes, 2006). The main influence on prevalence is the criterion used to make the diagnosis (Beekman, 1996). According to rigorous research diagnostic criteria such as the *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV)* (American Psychiatric Association, 2000), major depression, and the *International Classification of Diseases, Tenth Edition (ICD-10)* (WHO, 2009), depressive episode, late-life depression is uncommon, with a weighted mean prevalence of only 1.8 per cent; when all those with clinically relevant symptoms are included, the weighted mean prevalence rises to 13.3 per cent (Beekman, 1996). The relative lack of epidemiological data from LMICs is particularly striking; in the abovementioned two systematic reviews, all of the 34 publications covering the period 1989–96 and the 122 papers covering the period 1993–2004 described research carried out in high income countries. More recently, two publications report an exceptionally high prevalence of DSM-IV major depression in Nigeria (7.1%) (Gureje et al., 2007) and of ICD-10 depressive episode in Brazil (19.2%) (Costa et al., 2007). In both settings, depression was associated with high levels of social disability and impaired quality of life. More research is needed to determine if these findings are typical of less developed regions in general.

### Socio-demographic correlates

The few studies to have assessed prevalence of depressive disorders across the adult age range suggest an increase from young to mid-adult age groups, followed by a fall in prevalence for older people within a decade of the retirement age (Evans et al., 2003; Weissman et al., 1988). However, studies that have focused upon depressive symptoms and broader depressive syndromes indicate either an increase in their frequency (Prince et al., 1999) or stability with increasing age (Tannock & Katona, 1995). The exclusion, in some diagnostic criteria, of symptoms thought to be attributable to bereavement and physical illness may account in part for the apparent lower prevalence of depressive disorders in older people. In European studies, the prevalence of late-life depression is consistently higher in women compared to men (Castro-Costa et al., 2007; Prince et al., 1999). This finding was replicated in Brazil (Coata et al., 2007), but not in Nigeria (Gureje et al., 2007). The gender difference is generally smaller than that found in mid-life. The effect of gender is consistently modified by marital status, with marriage being protective for men but associated with higher risk amongst women. A similar interaction between marital status and gender has also been reported for mortality and subjective health.

There have been many reports from cross-sectional community surveys, from a variety of cultures, of associations between late-life depression and disadvantage with respect to educational level, occupational social class and income (Djernes, 2006). These are highly correlated variables, and it is difficult to determine the effect of one independent of the others. The effects may be mediated by poor physical health. The possibility of reverse causality also needs to be considered – those whose adult life has been scarred by depression may experience lifelong occupational and economic disadvantage.

### Risk factors

To date there have been no prospective studies of potential aetiological factors for late-life depression in LMICs. There have, however, been a large number of well designed cohort studies carried out in Europe and North America, the findings from which have been subject to systematic review (Cole & Dendukuri, 2003; Djernes, 2006) and quantitative meta-analysis (Cole & Dendukuri, 2003). There is strong and fairly consistent evidence to support an increased risk for incident depression associated with female gender, disability, prior depression, bereavement and sleep disturbance. Disability is probably the most salient of these factors. Prospective studies in older adults have consistently indicated a very strong association between disability at baseline and the subsequent onset of depression (Beekman et al., 1995; Kennedy et al., 1990; Phifer & Murrell, 1986; Prince et al., 1998; Schoevers et al., 2000). In one of these studies (Prince et al., 1998), the population attributable fraction was as high as 0.69. In general, the level of disability associated with a health condition, rather than the nature of the pathology, mediates the risk for depression (Broe et al., 1998; Ormel et al., 1997; Prince et al., 1998). Stroke may be an exception as some studies show persistence of associations with depression after adjustment for disability (Stewart

et al., 2001). Three population-based studies have suggested an interaction between disability and social support, with the strongest effect of disability in those with the least social support (Beekman et al., 1997; Prince et al., 1998; Schoevers et al., 2000). However, there is also strong evidence for causal pathways leading from depression to the progression or emergence of disability (Bruce, 2002; Penninx et al., 2000).

### Social support and social networks

One of the more consistent findings from previous research is the apparent salience of contact with friends – in particular, intimate, confiding relationships – to mood and morale in older people. While older people typically receive instrumental support from their spouse and relatives, they value friends for the companionship and emotional support they can provide. In the longitudinal Gospel Oak study, no contact with friends was the only social support variable prospectively associated with the onset of depression (Prince et al., 1998). The social environment for older people is affected by the ageing process. Social networks deteriorate with increasing age consequent upon bereavement. Social engagement, such as visiting friends, is impaired in those with disability. Women typically have more supportive and extensive networks of friends than men. Married older men cite their wife as their main confidant, whereas women more often cite a friend outside the home.

### Dementia

Dementia is a syndrome characterised by a catastrophic progressive global deterioration in intellectual function (including memory, language, praxis and reasoning), and represents one of the major causes of disability in late life. Alzheimer's disease (AD) is the most common pathology, accounting for one half to three-quarters of cases. Dementia can also be caused by strokes ('vascular dementia') and can accompany other brain disorders such as Parkinson's disease. There is a wide variety of rarer causes. It is thought likely that the brain changes underlying AD develop over a period of at least 10–20 years, before symptoms become noticeable. Dementia is conventionally defined when cognitive decline affects a person's ability to carry out important routine activities. Criteria for prodromal syndromes, for example, 'mild cognitive impairment', have been proposed, with a view to exploring interventions to delay or prevent dementia in individuals at high risk of progression.

### Prevalence

Dementia is largely a disease of older persons; only 2 per cent of cases are to be found in those aged under 65 years. After this the prevalence doubles with every 5-year increment in age. The EURODEM meta-analysis of European population-based studies from the 1990s used data from 11 studies carried out in 8 European countries (Lobo et al., 2000). Prevalence was consistent across sites; the pooled prevalence for males and females is shown in Table 10.1.

**Table 10.1** Incidence and prevalence of dementia from the EURODEM meta-analysis for European studies

Age groups	Annual incidence per 100		Prevalence (%)	
	Males	Females	Males	Females
60–64	0.2	0.2	0.4	0.4
65–69	0.2	0.3	1.6	1.0
70–74	0.6	0.5	2.9	3.1
75–79	1.4	1.8	5.6	6.0
80–84	2.8	3.4	11.0	12.6
85–89	3.9	5.4	12.8	20.2
90+	4.0	8.2	22.1	30.8

Source: Adapted from Lobo et al. (2000) and Fratiglioni et al. (2000)

In LMICs, there is more uncertainty as to the frequency of dementia, with few studies and widely varying estimates (10/66 Dementia Research Group, 2000). Again, early-onset cases are rare, although this may be changing in those world regions where HIV/AIDS is endemic. Prevalence of dementia is generally somewhat lower than in developed countries (10/66 Dementia Research Group, 2000), strikingly so in some studies (Chandra et al., 1998; Hendrie et al., 1995). In 2005, an expert consensus panel, reviewing all available evidence, confirmed this trend (Ferri et al., 2005), which seemed not to be explained by differences in survival (Chandra et al., 2001; Hendrie et al., 2001). The 10/66 Dementia Research Group's prevalence studies in Latin America, India and China suggest that the prevalence of dementia may have been underestimated in the least developed regions, particularly when the DSM-IV diagnostic criteria were applied, because of the difficulties in establishing the criterion of social or occupational impairment (Rodriguez et al., 2008). Differences in levels of exposure to environmental risk factors may also have contributed, with low levels of cardiovascular risk (Hendrie et al., 2004) and hypolipidaemia (Breteler et al., 1998; Chandra & Pandav, 1998) in some developing countries suggested as explanations. Other potential risk exposures will be more prevalent in LMICs, for example, anaemia associated with AD in rural India (Pandav et al., 2004). High infant mortality may contribute to population differences in dementia frequency; constitutional and genetic factors that confer survival advantage in early years may protect against neurodegeneration or delay its clinical manifestations. It seems plausible that as patterns of morbidity and mortality converge with those of the developed West, then dementia prevalence in LMICs will do likewise (McGee & Brayne, 1998). Studies of secular trends in Sweden, 1947–52 (Rorsman et al., 1986) and in the US, 1975–80 (Kokmen et al., 1988) suggested no change in the prevalence of dementia over time; however, it is possible that age-specific prevalence of dementia in developed countries might fall in the future because of reduced incidence linked to improvements in cardiovascular health, or rise due to reduction in mortality amongst those with dementia.

It has been recently estimated (based upon systematic review of prevalence data and expert consensus) that 24.2 million people live with dementia worldwide, with 4.6 million new cases annually (Ferri et al., 2005) – similar to the annual global incidence of non-fatal stroke (WHO, 2004). Most people with dementia live in LMICs: 60 per cent in 2001 and expected to rise to 71 per cent by 2040. Numbers will double every 20 years to over 80 million by 2040. Increases to 2040 will be much sharper in developing (300%) than developed regions (100%). Growth in Latin America will exceed that in any other world region (WHO, 2004).

### Incidence

The annual incidence rates reported in the EURODEM meta-analysis (Fratiglioni et al., 2000) are roughly one quarter of the point prevalence (Table 10.1), suggesting an average disease duration (from onset to death) of four years. Clinical studies have suggested a duration of five to seven years from diagnosis. A recent meta-analysis (Jorm & Jolley, 1998) of the age-specific incidence of all dementias was based on data from 23 published studies. The incidence of both dementia and AD rose exponentially up to 90 years, with no sign of levelling off. The incidence rates for vascular dementia varied greatly from study to study, but the trend was also for an exponential rise with age. While there was no sex difference in dementia incidence, for the oldest old the incidence of AD was higher in women, and for the younger old the incidence of vascular dementia was higher in men.

### Aetiology

The rare early-onset form of AD is highly heritable, and single gene mutations at one of three loci (Beta amyloid precursor protein, presenilin1 and presenilin2) account for the majority of cases. Late-onset AD is a multifactorial disorder. The apolipoprotein E (apoE) gene polymorphisms account for up to 50 per cent of the population attributable fraction, the e4 allele being enriched amongst AD cases (Nalbantoglu et al., 1994; Saunders et al., 1993). However, low concordance rates amongst monozygotic twins suggest a substantial environmental influence (Breitner et al., 1995). Evidence from cross-sectional and case-control studies suggest associations between AD and limited education (Ott et al., 1995), and AD and head injury (Mayeux et al., 1995; Mortimer et al., 1991), which, however, are only partly supported by prospective studies (Stern et al., 1994). Depression is a risk factor in short-term prospective studies, but this may be because depression is an early presenting symptom, rather than depression being a cause of dementia (Devanand et al., 1996).

### Dementia, cardiovascular risk factors and cardiovascular disease

The health transition currently under way in many LMICs will see an epidemic of cardiovascular disease (CVD). Latin America exemplifies the third stage of health transition. As life expectancy improves, and high fat diets, cigarette smoking and sedentary lifestyles become more common, so CVDs have maximum public health salience – more so than in stage 2 regions (China and India), where risk exposure is

not yet so elevated, than in stage 4 regions (Europe), where public health measures have led to reduced exposure to cardiovascular risk factors (CVRF) (Yusuf et al., 2001). This is a matter of concern with respect to dementia in LMICs, given that research from developed countries suggests that vascular disease predisposes to AD as well as to vascular dementia (Hofman et al., 1997). While there has been no research to date on associations with dementia in LMICs, the INTERHEART cross-national case-control study suggests that risk factors for coronary heart disease operate equivalently in all world regions, including Latin America and China (Yusuf et al., 2004).

Despite occasional negative findings from large prospective studies (Bursi et al., 2006; Yip et al., 2006), the accumulated evidence for a causal role for CVRF and CVD in the aetiology of dementia and AD is very strong. In short (Juan et al., 2004; Luchsinger et al., 2005; Ott et al., 1998) and longer latency (Tyas et al., 2003; Whitmer et al., 2005) incidence studies, smoking increases the risk for AD. Diabetes is also a risk factor (Ott et al., 1999), and in longer term cohort studies, midlife hypertension (Kivipelto et al., 2001; Skoog et al., 1996) and hypercholesterolaemia (Kivipelto et al., 2001) are associated with AD onset in later life. Aggregated cardiovascular risk indices incorporating hypertension, diabetes, hypercholesterolaemia and smoking incrementally increase risk for dementia incidence, whether exposure is measured in midlife (Whitmer et al., 2005) or a few years before dementia onset (Luchsinger et al., 2005). Recent studies report associations between metabolic syndrome and incident cognitive decline (Yaffe et al., 2004), and between insulin resistance and impaired executive function (Abbatecola et al., 2004). This has led to the hypothesis that atherosclerosis and AD are convergent disease processes (Casserly & Topol, 2004), with some common pathophysiological and aetiologic factors (APOE e4 polymorphism, hypercholesterolaemia, hypertension, hyperhomocysteinaemia, diabetes, metabolic syndrome, smoking, systemic inflammation, increased fat intake and obesity).

### Nutritional factors

In LMICs, dietary deficiencies, particularly of micronutrients, are widespread and strongly linked to poverty. Deficiencies of folate and vitamin B12 are of particular interest, given their consequences: anaemia, neuropathy, hyperhomocysteinaemia (Selhub et al., 1993), and increased risk of stroke and ischemic heart disease (Robinson et al., 1998). Vitamin B12 deficiency is strikingly prevalent (> 40%) across Latin America (Allen, 2004; Arnaud et al., 2001; Garcia-Casal et al., 2005), linked to gastrointestinal infections and diets deficient in meat and dairy produce (Allen, 2004). Folate deficiency is endemic in those living in poverty (Garcia-Casal et al., 2005), and after economic crisis (Arnaud et al., 2001). Diets deficient in legumes may have contributed. Micronutrient deficiency is probably more prevalent amongst older people but there are few data on this age group (Allen, 2004). Research on micronutrients and dementia in developed countries has focused upon antioxidants (Luchsinger & Mayeux, 2004), with less attention paid to deficiencies in vitamin B12 and folate, which result in hyperhomocysteinaemia – there have only been four small incidence studies (Crystal et al., 1994; Ravaglia et al., 2005; Seshadri et al., 2002;

Wang et al., 2001), all underpowered and with inconsistent findings. Two out of three studies testing for an effect of folate were positive (Ravaglia et al., 2005; Wang et al., 2001), in one case independent of homocysteine (Ravaglia et al., 2005). B12 was associated in only one out of four studies (Wang et al., 2001).

Iodine deficiency has also been a major public health problem in most Latin American countries (Pretell et al., 2004). Iodised salt is now generally available but iodine content of salt is poorly regulated (Pretell et al., 2004). The prevalence of sub-clinical hypothyroidism was found to be as high as 16.1 per cent in post-menopausal Brazilian women (Petri Nahas et al., 2005). Overt hypothyroidism is a potentially reversible cause of dementia. Sub-clinical hypothyroidism (raised thyroid-stimulating hormone levels with normal thyroxine) is more prevalent, affecting up to 20 per cent of older people in developed countries. It is associated with elevated total cholesterol and progression to overt hypothyroid disease, and possibly also CVD (Surks et al., 2004). It was strongly associated with risk for dementia in one cross-sectional study (Ganguli et al., 1996). Conversely, a small incidence study reported a strong association with sub-clinical hyperthyroidism (low thyroid-stimulating hormone) (Kalmijn et al., 2000).

Reports from cohort studies of protective effects of non-steroidal anti-inflammatory drugs, hormone replacement therapy (HRT) and cholesterol-lowering therapies are being investigated in randomised controlled trials. The randomised controlled trial of HRT in post-menopausal women indicated, against expectation, that it raised rather than lowered the incidence of dementia. Although underpowered, subsequent analyses of data on dementia outcomes showed that women randomised to HRT had nearly double the risk of going on to develop dementia in the short follow-up period (Shumaker et al., 2004).

## Theoretical models and mental health in older people

The promotion of mental health in late life requires an understanding of positive mental health and its determinants, and approaches by which these may be influenced. The concept of mental health in older people has been extensively discussed as part of the wider context of successful ageing. Blazer (2002) detects some convergence of opinion. Beyond the absence of mental, cognitive and behavioural impairments, there are a number of attitudinal styles and coping stratagems which, it is proposed, are likely to be adaptive when facing what might otherwise be termed the vicissitudes of ageing. Blazer characterises these as representing 'self-efficacy'. Thus, Gatz and Zarit (1999) suggest the need not only to maintain control over one's life, but also to adopt a changing view of life, preserving a sense of control in the face of age-related limitations. At one level, this involves simple acceptance of that which cannot be changed – Valliant's 'mature defences' (2002) include the deployment of humour and suppression (stoicism). However, Baltes and Baltes (1990) propose a more active role for the older person in 'selecting, optimising and compensating', that is, compensating for limitations by recognising and selecting more promising avenues to happiness and productivity. There is at least some empirical evidence to

validate these models – for example, accommodative coping (adjusting one's goals to take constraints into account) is favoured over assimilative coping (actively seeking to solve and overcome problems) with increasing age, and is more highly correlated with optimism (Brandtstadter & Renner, 1990). In the Dutch Longitudinal Aging Study Amsterdam (LASA) cohort study, mastery protected against the incidence of depression (Smits et al., 2008). It is important to recognise that these North American and northern European theoretical models may not generalise to other cultures. Indeed, the implicit focus on utility, efficacy and productivity sounds suspiciously culture-bound. The same may hold for individualised concepts such as having a sense of identity, autonomy, mastery, realising one's potential, and having a sense of meaning and purpose in life (Jahoda, 1958). For more traditional cultures, which prioritise society, community and family over self, Vaillant's emphasis upon altruism and generativity (unselfishly guiding the next generation), becoming a keeper of meaning (preserving and handing down the culture) and possessing a spiritual sense and integrated world view may be more relevant (Vaillant, 2002). There is clearly a need for more research into both healthy ageing and positive mental health in LMICs.

Before considering the potential for mental health promotion in LMICs, it is first necessary to acknowledge some important limitations:

- Epidemiological research into mental and cognitive disorders in late life is not well developed in LMICs. Data on the prevalence of depression and other common mental disorders are very limited. There is currently no information from LMICs on the risk factors for either dementia or depression; while findings from developed countries may generalise to LMICs to some extent, some exposures (for example, nutritional deficiency), that are rare in developed countries but common in LMICs, may have an increased salience.
- While mental health promotion amongst older people has been advocated in North America (Blazer, 2002; Chapman & Perry, 2008; Sorocco & McCallum, 2006; Whyte & Rovner, 2006), Europe (Smits et al., 2006, 2008) and Australia (Bird & Parslow, 2002), few concrete proposals have been advanced. Those that have tend to focus upon targeted prevention in high risk groups (Blazer, 2002; Smits et al., 2006, 2008; Whyte & Rovner, 2006;), or upon strategies to improve the detection and treatment of depression (Chapman & Perry, 2008; Sorocco & McCallum, 2006). The authors of the one attempt to devise a whole-population mental health promotion strategy acknowledge the lack of empirical evidence to support their proposals (Bird & Parslow, 2002). There have been no attempts to implement or evaluate mental health promotion strategies specifically for older people.
- Concepts of positive mental health and successful ageing are unlikely to be universal, but have yet to be investigated in equivalent depth in all regions and cultures.
- There are no accounts of mental health promotion activities targeted at older people in LMICs.

## Opportunities for mental health promotion

What follows is, of necessity, highly speculative. Nevertheless, it is anchored as far as possible to existing evidence, albeit that this may be stretched to the limits of generalisability, or beyond. Five activities are highlighted, and are now considered in turn, with examples where appropriate:

- Promoting lifelong physical health.
- Managing disability, and reducing its impact on participation.
- Ensuring social protection in old age.
- Ensuring access to age-appropriate health care.
- Empowering older people.

See also Table 10.2, which provides a schematic overview of possible strategies under the five activities or themes and at the different levels (individual, interpersonal, community and policy).

### Promoting lifelong physical health

The links between physical and mental health are protean; within populations and health systems, improvements in the one will be difficult to achieve without due attention being given to the other (Prince, Patel et al., 2007). Currently, efforts to prevent and control the coming epidemic of cardiovascular and other chronic NCDs in LMICs are in their infancy (Epping-Jordan et al., 2005). Advocated measures include the implementation of tobacco-free policies, taxation of tobacco products, comprehensive bans on advertising of tobacco products, salt reduction through voluntary agreements with the food industry, and combination drug therapy for individuals at high risk of CVD (Epping-Jordan et al., 2005). The detection and control of hypertension, hyperlipidaemia, diabetes and metabolic syndrome is poorly implemented by overstretched primary health care services that struggle to cope with the double burden of historic priorities (maternal, child and communicable diseases) and the rising tide of chronic disease in adults. Health systems are not trained, equipped or structured to deal with the latter. Given the strong evidence for CVD and CVRF as risk factors for dementia, the success or otherwise of these initiatives should in principle have an important effect on the future prevalence and incidence of dementia in LMICs (Ferri et al., 2006). Against this, though, is the disappointing evidence from prevention trials. One trial of antihypertensive agents has reported a protective effect on dementia (Forette et al., 1998), but four others did not find effects on cognitive function in primary analyses (Lithell et al., 2003; Prince et al., 1996; Starr et al., 1996; Tzourio et al., 2003). Three large trials of cholesterol-lowering agents have also failed to find effects on cognitive function (Heart Protection Study Collaborative Group, 2002; Santanello et al., 1997).

Improvements in physical health are also the most effective way to reduce the population burden of disability amongst older adults. The longitudinal Americans' Changing Lives (ACL) study (House et al., 2005), indicates that compression of

**Table 10.2** Schematic overview of possible mental health promotion strategies for older people

Level	Promoting lifelong physical health	Managing disability, and reducing its impact	Ensuring social protection	Ensuring access to age-appropriate health care	Empowering older people
Individual	Detect and control CVRF.	Provide community-based rehabilitation for chronic disease and disability.		Provide preventive interventions for those at high risk of late-life depression.	
Interpersonal		Support families in provision of long-term care.	Promote intra-family cash transfers and joint family living arrangements.		Strengthen older people's networks.
Community	Emphasise tobacco control, diet and exercise.	Reduce barriers to participation.		Organise mental health literacy campaigns, targeting older people.	Emphasise inter-generational solidarity, and older people as a resource (e.g. school-based programmes).
Policy	Develop policies for the prevention, early detection, treatment and control of CVRF.	Develop policies for long-term care – eligibility and financing.	Advocate for introduction of universal, non-means tested social pensions.	Reform primary and secondary care services around a chronic care framework.	Advocate for an older person's policy lens.

morbidity (the preservation of health and functioning into late old age) is an achievable public health objective, albeit that this effect is concentrated amongst the most educated and affluent members of society. Secular reductions in the prevalence of chronic disease, disability and dependency should, all things being equal, translate into reductions in the prevalence of depressive disorders in older people.

**Managing disability, and reducing its impact on participation**

Disability impacts mainly upon older people, who are particularly likely to have multiple physical, mental and cognitive disorders. Demographic ageing, and the health transition, will inevitably mean large increases in numbers of older people in coming years. An adequate response to these challenges will require the following:

- Policies to prevent disability through the control of chronic diseases (see above).

- Policies to limit disability through more active, community-based rehabilitation.
- Policies to mitigate the effects of disability upon participation.
- Policies to manage disability through universal access to long-term care.

Such measures are already strongly advocated through international agreements. The Madrid International Plan of Action on Ageing (UN, 2002, para. 90) calls for the maintenance of maximum function, and the fullest possible societal participation, of older persons with disabilities. The UN Convention on the Rights of Persons with Disabilities (2006, Article 1) requires governments ‘to promote, protect and ensure the full and equal enjoyment of all human rights and fundamental freedoms by all persons with disabilities, and to promote respect for their inherent dignity’. It enshrines participation, income and access to health care as basic rights for all disabled people. In the longitudinal Gospel Oak study, it was handicap (participation restriction) rather than disability or impairment that most strongly and independently predicted the onset of depression (Prince et al., 1998). While reduction in disability may be difficult, reducing its impact on full and active participation in society and the life of the community might be a more achievable objective. Compensatory pensions and benefits, anti-discrimination laws, environmental modifications and accessible transport all have a part to play.

The World Health Organization (WHO) report on long-term care policy (WHO, 2000) notes wide variation in the responsibilities of individuals, families and the state, but considers that each community could and should determine transparently the types and levels of assistance needed by older people and their caregivers, and the eligibility for and financing of long-term care support. In practice, LMIC governments typically eschew involvement in providing or financing long-term care (Prince, Livingston et al., 2007), and few if any have comprehensive policies and plans. Using epidemiological data to promote understanding of the societal costs of disability and the relative contributions of different chronic diseases should inform prioritisation – and a shift towards primary prevention and better long-term care provision for those with disability.

### **Ensuring social protection in old age**

The Madrid International Plan of Action on Ageing (UN, 2002, paras 48 and 53) calls for reduction of poverty amongst older people and sufficient income for all older persons, particularly disadvantaged groups. This call is specifically supported by the UN Charter of Human Rights and the UN Convention on the Rights of Persons with Disabilities, and is also a key Millennium Development Goal. Social protection in old age depends upon a complex interaction of health, living arrangements, family support, sources and levels of income. In LMICs, family support is neither ubiquitous nor comprehensive. Recently published preliminary data from the 10/66 Dementia Research Group population-based surveys in Latin America, India and China (Prince et al., 2008) show that in most study centres around 5 per cent of older people have no children, with a lower percentage in China and higher in the

Dominican Republic (13%), Peru (10%) and Cuba (15%). A further 5–10 per cent of participants have no children living within 50 miles. Those living alone (3–12% by centre) or only with a spouse (16–49%) were also potentially vulnerable. Intra-family cash transfers were an important source of income in those centres with low pension coverage (Dominican Republic, India, rural China and rural Mexico). While they were targeted at those without pensions, not living with children, the physically ill, and users of health services, they were also inequitable, in that wealthier households were more likely to benefit. In centres with high pension coverage (Cuba, Peru, Venezuela and urban China), most older people were retired and family cash transfers were both unnecessary and uncommon. In centres with low pension coverage, a significant minority continued to work and 25 per cent or more were reliant on family cash transfers; food insecurity (an important index of absolute poverty – going hungry because of lack of money to buy food) was reported by a substantial minority.

Some LMIC governments have sought to encourage or coerce families to shoulder their responsibility for the financial support for and care of older parents (Prince, Livingston et al., 2007). For example, the Indian parliament passed a law in 2007 requiring children to support their parents, with those who fail to do so facing a 3-month prison term with no right of appeal. The legislation states, ‘old age has become a major social challenge and there is need to give more attention to care and protection of older persons. Many older persons . . . are now forced to spend their twilight years all alone and are exposed to emotional neglect and lack of physical and financial support’. At the time, the social justice minister, Meira Kumar, said, ‘This bill is in response to the concerns expressed by many members over the fate of the elderly. With the joint family system withering away, the elderly are being abandoned. This has been done deliberately as they (the children) have a lot of resources which the old people do not have.’ The legislation also provides for the state to set up old age homes that the minister said should be the ‘last resort for the poor and the childless’. While such stop-gap policies are understandable in the context of the very real social problem identified by Indian lawmakers, they seem destined to fail in the longer term. Inexorable trends towards more internal and international migration, declining fertility, higher levels of education, and increased participation of women in the workforce will, inevitably, reduce the availability and willingness of children (principally daughters and daughters-in-law) to care (Prince, Livingston et al., 2007).

More sustainable poverty reduction strategies include universal non-contributory social pensions (the focus of a campaign run by HelpAge International – [www.helpage.org/Researchandpolicy/Socialprotection](http://www.helpage.org/Researchandpolicy/Socialprotection)), targeted disability pensions and caregiver benefits. For older people in developing countries ‘dependency anxiety’ (Cohen, 1995; Patel & Prince, 2001; Vatuk, 1990) – not wanting to be a burden on relatives, fearing inadequate support, and therefore wishing to maintain independence from the family – is a key motivating principle. Social pensions address these concerns directly, providing insurance against the risks that older people face, including uncertainty over how long they will live, how long they will remain healthy, whether they can count upon the support of others if they need

it, and how long they can earn an income. Social pensions play a significant role in alleviating chronic poverty in that they can support whole families; older people's pensions provide 37 per cent of Brazilian household income, and living with an older person in receipt of a pension is seen to be a key to family financial stability (Garcez-Leme et al., 2005). Having a pensioner in the family reduces the risk of the household becoming poor by 21 per cent (Institute of Development and Policy Management/HelpAge International, 2003). Older people consistently invest the money they have in income-generating activities and the health and education of dependants; in rural Brazil, pensions are strongly associated with increased school enrolment, particularly of teenage girls (Gorman, 2004). Most importantly, pensions serve to reinforce reciprocal family ties, changing the perspective from one in which older people are seen as a dependent drain upon household resources to one in which they can be properly valued for both their non-economic and economic contributions. Dependent older people would be particularly likely to benefit – informal care would be bolstered and formal/paid care would be more affordable.

### **Ensuring access to age-appropriate health care**

The Madrid International Plan of Action on Ageing (UN, 2002, para. 74) calls for the elimination of social and economic inequalities in access to health care and the development of primary and secondary health care and long-term care to meet the needs of older persons (paras 75–77). The achievement of this objective would be likely to have important benefits for mental health of older people.

Mental health interventions are amongst the most efficacious in biomedicine (Eisenberg, 1999). Unfortunately the evidence base for interventions in LMICs is very limited (Patel et al., 2007) and needs urgently to be expanded (Chisholm, 2007). This is particularly true of interventions for older people. There have been no trials of the treatment of late-life depression in LMICs, and only two trials of caregiver interventions for dementia, in Thailand (Senanarong et al., 2004) and India (Dias et al., 2008). Nevertheless, there is a robust evidence base from Cochrane systematic reviews for the efficacy of all commonly used classes of antidepressant drugs against placebo in the treatment of late-life depression (Wilson et al., 2001), from a number of trials conducted in developed countries. Tricyclic and selective serotonin reuptake inhibitor antidepressants seem to be similarly effective, but with some evidence for greater withdrawal due to side effects in those randomised to tricyclics (Mottram et al., 2006). However, the evidence base for psychotherapeutic interventions is much smaller, with only modest evidence for efficacy of cognitive behaviour therapy (Wilson et al., 2008). For dementia, psychosocial interventions for caregivers (Brodaty, Green et al., 2003), behavioural management strategies (Brodaty, Draper et al., 2003; Livingston et al., 2005), nurse-led collaborative care (Callahan et al., 2006) and (more equivocally) the cholinesterase inhibitor drugs (Farlow, 2002) have all been shown to be at least moderately effective. Our limitation is more in having the resources or systems to deliver effective interventions to those who might benefit, both in the community and in care homes (Aylward et al., 2003; Layard, 2006). This is most marked in developing countries, where there are very few psychiatrists or other mental health professionals (Tannock & Katona, 1995).

Despite the evidence, in most health systems worldwide, late-life depression is under-detected and undertreated. This is part of a wider failing by primary health care services in LMICs to address the needs of older people with dementia, mental disorders and other chronic diseases (Dias et al., 2004; Patel & Prince, 2001; Prince, Livingston et al., 2005; Shaji et al., 2002), as they focus on acute ‘treatable’ conditions and are entirely clinic-based. There is a need for training in the basic medical curriculum regarding diagnostic and needs-based assessments, and a paradigm shift beyond the current preoccupation with simple curative interventions to encompass long-term support and chronic disease management. Given the frailty of many older people with chronic health conditions, there is also a need for outreach care, assessing and managing patients in their own homes. The WHO has proposed an alternative, feasible, generalisable care framework (Innovative Care for Chronic Conditions – ICCC) (Epping-Jordan et al., 2004) focusing upon the need for:

- a dialogue to build consensus and political commitment for change;
- a paradigm shift towards extended, regular health care contact;
- an integrated, multisectoral approach;
- centring care on both patients and families;
- supporting patients in the community; and
- an emphasis on prevention.

Although the initial focus for ICCC was the prevention and control of chronic physical diseases – stroke, heart disease, diabetes and arthritis – the framework, if implemented, is likely to be of great benefit to the promotion of mental health (McEvoy & Barnes, 2007). While training of community health staff can be promoted through changes to the medical and nursing school curricula, sustainable reorientation/reorganisation of basic services for older people will need new government policy. In the ICCC, high risk groups are screened, and a stepped-care approach is used to deliver interventions. The framework is horizontal rather than vertical with respect to health conditions and their management – co-morbid pathology is assessed and treated in an integral, holistic manner. The multi-site randomised controlled trial of the IMPACT programme, in the USA, provides strong evidence that the embedding of the management of late-life depression within such structures can be associated with particularly large and cost-effective benefits (Unutzer et al., 2002). Nearly 2 000 older people with dysthymia or major depression were randomised to the IMPACT programme or usual care. The IMPACT programme included 12 months’ support from a team, including a depression care manager, primary care physician and psychiatrist, and offered education, behavioural activation, and antidepressant or brief problem-solving psychotherapy. Forty-five per cent of the intervention group had more than 50 per cent reduction in depression symptoms, compared with 19 per cent in the control condition; other benefits included improvements in functioning and quality of life. Long-term benefits, in continuation of antidepressant treatment, depressive symptoms, physical functioning, quality of life, self efficacy and satisfaction with care persisted for up to two years, and for one year after the intervention was withdrawn (Hunkeler et al., 2006). There may also be scope, within

primary care, for primary prevention, by using screening to target those at high risk for depression. Given the importance of chronic diseases to risk for onset of late-life depression, this approach can fit neatly within a chronic disease care framework. A research group from the Netherlands has identified three risk indicators as being of particular interest for high risk prevention: experiencing functional limitations, sub-syndromal depression, and having a small social network (Smits et al., 2006). The concentration of very high risk (a relative risk of 4.5) amongst a relatively small number of older persons with these three exposures (11.7%) meant that the population attributable fraction (and potential for prevention) was high (32.3%), while the numbers needed to treat to prevent each case of depression was low (four). A prevention trial to test the potential for prevention using this strategy has recently been completed.

Efforts to increase demand for mental health services must go hand in hand with health system and service reform, so that help-seeking is met with a supply of better prepared, more responsive services, such as those proposed in the WHO ICCO. Research from Australia suggests that low mental health literacy, prominent amongst older people, may be a barrier to help-seeking. Older people were less likely to recognise depression vignettes, and had less faith in the effectiveness of professional help, antidepressant medication and counselling (Farrer et al., 2008; Fisher & Goldney, 2003). A trial in Australia of a multifaceted intervention in residential care, which included a component of depression-related health education and promotion, together with training of general practitioners and caregivers in the detection and management of depression, and collaborative shared care between primary care physicians and specialists, showed promising results (Llewellyn-Jones et al., 1999, 2001).

### Empowering older people

Blazer's suggestion that self-efficacy underpins many models of successful ageing and positive mental health was not supported by any proposed initiatives that might feasibly be applied at population level to increase this desirable trait amongst older people (Blazer, 2002). Older people tend to be marginalised and disempowered, even in cultures where the duty of respect towards elders is traditionally emphasised. The stigma and discrimination associated with mental disorders merely serves to accentuate disenfranchisement. The Madrid International Plan of Action on Ageing (UN, 2002) calls for

changes in attitudes, policies and practices at all levels in all sectors so that the enormous potential of ageing in the twenty-first century may be fulfilled. Many older persons do age with security and dignity, and also empower themselves to participate within their families and communities. The aim of the International Plan of Action is to ensure that persons everywhere are able to age with security and dignity and to continue to participate in their societies as citizens with full rights. (UN, 2002)

How, in practice, might such aims be achieved?

- Universal non-means tested pensions for all older persons, as a basic right, would provide fundamental security against indigence, foster independence and, crucially, raise the status of older people within their families and communities. Implementation of such programmes has proved feasible in countries such as Bolivia, Brazil and South Africa, with widespread societal benefits (as argued earlier – see Ensuring social protection in old age).
- Networks and organisations of older people strengthen capacity for advocacy, giving a voice to those most affected. This potential has been largely realised in developed countries (for example, the American Association of Retired People – [www.aarp.org](http://www.aarp.org) – had a turnover in 2007 of over US\$1 billion, of which US\$61 million was spent in support of advocacy). On a smaller scale, HelpAge International is supporting groups of older people in Bangladesh, Bolivia, Jamaica, Kenya and Tanzania to monitor their governments' implementation of the Madrid International Plan of Action on Ageing (UN, 2002). The groups of older people analysed local and national policy; in all five countries, they chose to monitor access to health and income-security entitlements. By gathering evidence of gaps in provision, and presenting it to local and district authorities, they are starting to influence budgets and government action. There may be additional health benefits linked to such activities; several studies have found that older people who are more active, whether cognitively, socially or physically, have a lower risk of cognitive decline or dementia (Wang et al., 2002).
- Governments need to recognise existing organisations and consult with them routinely on matters of policy affecting older people. New policies too often have unintended negative consequences for marginalised groups. A 'policy lens' should routinely be applied to all new legislation with a view to minimising any negative impacts and maximising the benefit to older people. An example of this approach is the Seniors Mental Health Policy Lens (MacCourt & Tuokko, 2005), developed in Canada with older Canadians as a tool to identify unintended negative effects of current and planned policies and to ensure that the way mental health services are defined, delivered and funded is supportive of older adults' mental health, and consistent with their perspectives and priorities.
- The Madrid International Plan of Action on Ageing (UN, 2002, para. 44) calls for a strengthening of solidarity through equity and reciprocity between generations. A failure to identify and support the needs of older people has consequences for all sectors in society, including younger people. For example, the 10/66 Dementia Research Group pilot studies in 26 LMIC centres (10/66 Dementia Research Group, 2004; Choo et al., 2003; Dias et al., 2004) indicated that children or children-in-law were generally the most frequent caregivers for people with dementia. A high proportion of people with dementia lived in multigenerational households, including young children – many of their caregivers thus having responsibility for their children, as well as their parents.

The high levels of caregiver distress and the economic strain associated with caring for a person with dementia inevitably impact on the whole family unit. Conversely, the economic benefits of social pensions for older people have been shown to 'trickle down' to the whole family. Self-interest alone would therefore argue for more intergenerational solidarity. Community solidarity can effect change through support for policies based on equity and justice – a fairer distribution of health care services, and access to effective care regardless of age. Aware communities can provide support, or at least not stigmatise and exclude those with mental health problems and those who care for them. Children are the future of the community, future caregivers of older parents and parents-in-law, and future older people. They are receptive, and easily accessed through schools. School-based awareness programmes led by older people have been advocated, and would be consistent with Vaillant's emphasis upon the centrality of altruism and generativity (unselfishly guiding the next generation) and becoming a keeper of meaning (preserving and handing down the culture) (Vaillant, 2002). Social learning theory predicts that insights gained will be passed on to other groups in society, including their peers, family members and neighbours (Rahman et al., 1998).

## Conclusion

Mental health and well-being amongst older people is indivisible from their general health and functioning, and their social welfare. It follows that the mental health promotion actions advocated in this chapter are somewhat generic in their focus. While no specific mental health promotion activities have been identified, widely supported initiatives to enhance social protection, promote general health, prevent chronic diseases, limit disability, increase participation and improve the quality and accessibility of general health care are all highly salient to improvements in mental health amongst older people living in LMICs. Aside from prevention of disease and promotion of healthy functioning, there is an urgent need to strengthen the ability of community health services to deliver evidence-based mental health care for older people. This should be done in an integrated way, within an overarching chronic disease management framework. More research is needed, into the epidemiology of late-life mental disorders (particularly their aetiology), into the effectiveness of high risk prevention strategies for late-life depression, and into interventions for depression and dementia. True mental health promotion (as opposed to disease prevention or control) activities will need to be carefully culturally nuanced – more research is required to inform their development.

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# 11 Afterword: cross-cutting issues central to mental health promotion in scarce-resource contexts

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Mental ill-health is a product of many interacting risk and protective factors in a number of domains, including genetics, family environment, nutrition, education, income, housing and social conditions. Given the interactive nature of these influences, a comprehensive, ecological systemic response to mental health promotion and the prevention of mental disorders (hereafter referred to as mental health promotion and prevention), which strives to integrate interventions at the individual, interpersonal, community and policy levels across multiple sectors, is required. As described in Chapter 1, the need for such an approach is amplified in scarce-resource contexts given the relationship between poverty and mental ill-health. At the same time, risk and protective influences vary in their impact, depending on the psychosocial developmental phase across the lifespan, and associated psychosocial developmental challenges accompanying each phase. In order to break the intergenerational cycle of poverty and mental ill-health in scarce-resource contexts, developmentally timed interventions across the lifespan are needed to mediate positive mental health outcomes through promoting resilience within the context of risk.

## Emerging evidence for mental health interventions across the lifespan in scarce-resource contexts

As described in Chapter 6 with regard to early childhood, trauma during labour, maternal depression and lack of stimulation of the child, as well as poor nutrition and exposure to toxic substances, can impact on a child's cognitive development and socio-emotional status. There is an increasing body of evidence from low and middle income countries (LMICs) demonstrating the efficacy of nutritional and micronutrient support programmes in preventing impaired cognitive development in at-risk children. There have also been a number of trials demonstrating the efficacy of treatment programmes for maternal depression, as well as programmes to increase maternal sensitivity and infant-mother attachment, using minimal resources. In the main, these programmes have utilised trained community-based workers with the support of mental health professionals. Programmes to reduce exposure to toxic substances are, however, minimal in LMICs. In particular, there is a need for programmes that can screen for, diagnose and manage alcohol-exposed pregnancies in order to prevent foetal alcohol syndrome.

When deficiencies continue through childhood, their impact is multiplicative, increasing the risk for physical and psychological disturbances in development (Tomlinson & Landman, 2007). As described in Chapter 7, during middle childhood, children develop new levels of cognitive, emotional and social functioning, which can be impeded by poor schooling and family environments. There is a paucity of evidence-based mental health promotion interventions for this developmental phase in LMICs. In contexts of poverty, where much of what a child needs in cognitive, emotional and social development terms may not be met in the home, there is a greater need for the formal school environment to play a compensatory role. Thus, school-based programmes that address the socio-emotional needs of children in addition to their academic ones are paramount in LMICs. In particular, there is a need for programmes to prevent school dropout, which has been associated with a higher rate of risk behaviour and poorer mental health outcomes later in life (Patel et al., 2008). Programmes to assist children with specific difficulties of learning, as well as with emotional problems, are important in this regard. Further, programmes to strengthen family attachments in vulnerable populations are needed so as to strengthen interpersonal relationships outside of the family, later in life.

Adolescence is typically associated with a greater likelihood of engaging in high risk experiences and behaviour that can impact negatively on a person's life course and mental health (Richter, 2006). Mental health promotion interventions during adolescence, described in Chapter 8, are particularly important in scarce-resource contexts to mediate earlier, pre-existing vulnerabilities for engaging in high risk behaviour and to compensate for a lack of interactive, stimulating and health enhancing environments, which are necessary for optimal, age-appropriate cognitive and socio-emotional development. There have been several trials in LMICs demonstrating the efficacy of life skills programmes in promoting positive mental and behavioural health outcomes. Given that negative peer influence interacts with prior vulnerabilities to promote high risk behaviour (Richter, 2006), there is, however, a need for more community level programmes – such as organised, out-of-school activities – that expose adolescents living in scarce-resource contexts to more health enhancing environments and opportunities.

The false distinction between mental health promotion, and treatment and rehabilitation, is most obvious in relation to mental health promotion in adults and older people. As already discussed, in order to promote positive child outcomes, there is a need for treatment of maternal depression, with an increasing number of evidence-based interventions from LMICs in this regard. Further, the need for research on the impact of treatment programmes for depression in older caregivers on child outcomes is worth consideration. LMICs have the greatest HIV/AIDS epidemics. South Africa, for instance, had an estimated 1 400 000 children orphaned by AIDS in 2007 (UNAIDS, 2008), with over 80 per cent of fostered children, in 2005, cared for by a grandparent or great-grandparent (Stats SA, 2006). Grandmothers in Africa have always taken care of grandchildren, but bringing up children orphaned by AIDS in the midst of an AIDS epidemic presents grandmothers with additional challenges, stretching them financially, physically and emotionally.

Chazan (2008) highlights the need for, *inter alia*, psychosocial programmes to support grandmothers in their efforts to provide foster care for children orphaned by AIDS.

The relationship between poverty, social isolation and mental ill-health in scarce-resource contexts also demands that mental health interventions in adults and older people be linked to programmes that build social capital and alleviate poverty. In this regard, there is an emerging body of evidence demonstrating the efficacy of these programmes with regard to positive mental health outcomes. While there are almost no programmes that have specifically addressed mental health promotion amongst older people, there is a great need for programmes that promote lifelong physical health and adequate nutrition, given the relationship between poor physical health and poor mental health outcomes in older people.

### **Key emerging practice issues**

In the first instance, given widespread adversity that characterises scarce-resource contexts, mental health promotion and prevention interventions need to adopt a competency-enhancement approach to promote resilience through strengthening protective factors. This demands that community engagement on the part of researchers and practitioners be participatory and culturally appropriate, as described in Chapter 3. Socio-cultural congruence and success are enhanced when communities are recruited as partners in the design, implementation and evaluation of programmes. Further, the development of community-collaborative partnership models in the delivery of public health interventions is increasingly gaining favour as the preferred option in LMICs. Empowered community members are best placed to respond appropriately to local public health concerns in a sustainable way (Nair & Campbell, 2008), and increasingly constitute an effective resource for the delivery of mental health promotion and prevention programmes in scarce-resource contexts (e.g. Bell et al., 2008).

Second, while there are many evidence-based mental health promotion and prevention programmes developed for high income contexts, there is a paucity of such interventions in LMICs. Further, where they do exist, the majority have been adapted from interventions developed for high income contexts, with very few locally developed models available. While randomised control trials are the gold standard in prevention/promotion research for documenting the effects of interventions, there are obvious logistical, capacity and financial barriers to conducting such trials in scarce-resource contexts. Evaluation approaches that better meet local needs within such resource constraints need to be promoted. These include a range of methods, described in Chapter 4, including quasi-experimental and before and after designs. It is also important to conduct process evaluations of interventions using both quantitative and qualitative approaches to enhance the quality of the evaluation. The technical expertise necessary for such activities is located in a number of disciplines, and it is important to draw on all such disciplines to ensure high quality evaluations. For example, experts in health promotion and public health are well placed to make

generic methodological contributions. However, it may also be necessary to draw on the specialist expertise of those with training in subspecialties of psychology and psychiatry; for example, in evaluating a programme involving substance use, the contributions of psychiatric subspecialists in addictionology may be useful.

Third, while programmes should be theory driven, as described in Chapter 2, it is important that the local socio-cultural context inform the adoption of particular theories. In particular, many health promotion theories are based on models of individual decision-making developed in high income contexts. While there is growing evidence that such theories are as applicable in LMICs as elsewhere (Eaton et al., 2003; Mathews et al., 2009; Schaalma et al., 2009), and notwithstanding the need for interventions to facilitate socio-cultural norms that are supportive of healthy choices across all contexts, this need is amplified in collectivist cultures. In these cultures, individual choice may be more constrained, as people's identities and associated behaviour are informed to a greater extent by the family and community unit (Airhihenbuwa & Obregon, 2000; Verdelli et al., 2003).

Fourth, the importance of uptake and dissemination of programmes in scarce-resource contexts, described in Chapter 5, cannot be understated, and raises ethical and moral concerns. Given the paucity of resources, disseminating programmes that have not been shown to be effective may result in wastage of precious resources. On the other hand, not disseminating interventions that have been shown to have good outcomes is equally problematic. This imposes a moral obligation on researchers to consider issues of uptake and dissemination at the outset of their research in scarce-resource contexts.

Finally, studies demonstrating the long-term economic benefits of mental health promotion and prevention interventions are crucial to persuade donor funders and governments to invest in these initiatives. In the context of weak and overstretched public service delivery systems, mental health interventions compete for resources with diseases such as HIV/AIDS and tuberculosis, as well as with basic educational and social service delivery priorities. Given these competing interests, countries with a lower gross domestic product (GDP) spend proportionally less on mental health than countries with a higher GDP (Saxena et al., 2006). Further, the bulk of the mental health budgets, in LMICs, is consumed by institutionalised care of psychiatric patients, with very modest allocations to prevention and promotion activities (Saraceno et al., 2007; WHO, 2005). While there are economic data from high income countries indicating the cost of mental disorder to the state (e.g. Romeo et al., 2006; Scott et al., 2001), as well as data on the economic benefits of mental health promotion programmes in relation to reduced care and treatment costs (e.g. Olds, 2002), similar data are not available in LMICs. In attempting such an exercise, it is important that mental health promotion and prevention interventions do not compete for resources for treatment and rehabilitation, as the distinction is a spurious one. Interventions in one of these aspects can have collateral benefits for other aspects. For example, if part of a treatment package for a depressed woman includes the development of social skills, the latter can be construed as a mental

health promotion intervention, in that an individual capacity is being strengthened. Conversely, a mental health promotion intervention to enhance social skills may ameliorate a depressed mood in some of those who might already be suffering from depression.

In conclusion, what is evident from this volume is that there is a growing body of evidence on how mental health promotion across the lifespan can mediate positive health outcomes for people in scarce-resource contexts. Given the potential to break the intergenerational cycle of poverty and mental ill-health and promote human and broader socio-economic development in LMICs, mental health promotion can no longer be ignored in these contexts. Placing mental health promotion on the development agenda of LMICs is a challenge that requires advocacy across multiple sectors, given competition for limited resources. Most especially, human resources in the form of early childhood development workers, teachers, youth workers, health workers, social welfare workers and community development workers will need to be harnessed. Not least to be actively involved will be mental health practitioners themselves, whose training, socialisation and job descriptions have mostly favoured remedial care and treatment over prevention and promotion. The hope is that this text can serve as a tool to assist in advocacy, training and the practice of mental health promotion and prevention in scarce-resource contexts.

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