Title	Generic principles of effective mental health promotion
Author(s)	Barry, Margaret M.
Publication Date	2007-05
Publication Information	Barry, M. M. (2007). Generic principles of effective mental health promotion. International Journal of Mental Health Promotion, 9(2), 4-16.
Publisher	Clifford Beers Foundation
Link to publisher's version	http://www.ingentaconnect.com/content/cbf/ijmhp/2007/00000009/00000002/art00002
Item record	http://hdl.handle.net/10379/2616

Margaret M. Barry

Department of Health Promotion,
National University of Ireland, Galway

Generic Principles of Effective Mental Health Promotion

Key words: mental health promotion; evidence base; effectiveness; principles of best practice

Introduction

There is a demand for effective mental health promotion strategies which will raise the standard of mental health-promoting policy and practices world-wide. The growing international recognition of the need to promote mental

A B S T R A C T

A knowledge base is emerging on the effectiveness of mental health promotion which may be used to guide effective policy and practice. This paper considers the generic principles underpinning the practice of effective mental health promotion. Reviews of the evidence base are examined in order to identify evidence-based principles of effective practice. The characteristics of successful mental health promotion programmes and their application in practice are identified and discussed. The cross-cutting principles that guide the implementation of effective programmes are discussed, and their implications for future practice and policy developments are considered.

health as an integral part of improving population health and well-being, and to reduce the growing burden of mental health problems (WHO, 2002, 2004a, 2004b; Murray & Lopez, 1996), calls for identification and dissemination of effective and sustainable mental health promotion and prevention interventions. Progress has been made over the last decade in establishing a sound theoretical and evidence base for mental health promotion. A state-of-the-art review of evidence in this area by Jané-Llopis and colleagues (2005) concluded that mental health promotion works, there is sufficient knowledge to move evidence into practice and there are effective interventions which can be implemented successfully with diverse population groups in a range of settings. Evidence-based programmes need to be brought to scale, disseminated, adopted and implemented in various cultural, social and economic contexts (Marshall Williams *et al*, 2005; WHO, 2006). An important step in advancing mental health promotion is translating the emerging knowledge base so that the research can be used to inform effective practice and policy.

In a recently published book, Barry and Jenkins (2007) review best practice programmes and case studies from around the world, to examine how effective programme implementation can be ensured by use of research-based, theoretically grounded and culturally appropriate interventions. Bringing together a selection of documented successful programmes, Barry and Jenkins (2007) illustrate through the research evidence and the practical experience

of programme developers the key factors that make the programmes work and ensure their successful implementation. This paper draws on these findings, highlighting what we currently know about effective mental health promotion programmes and identifying the conditions that are necessary for their successful implementation. The characteristics of successful mental promotion progammes and the generic principles underpinning best practice are considered, together with their implications for future development of practice and policy.

Adopting a mental health promotion framework: generic principles of practice

The WHO reports on Promoting Mental Health: Concepts, Emerging Evidence, Practice (WHO, 2004; Herrman *et al*, 2005) and the IUHPE special issue on the evidence of mental health promotion effectiveness (Jané-Llopis *et al*, 2005) outline clearly the concepts relating to the promotion of mental health, the emerging evidence for the effectiveness of interventions, and the public health policy and practice implications. Through such publications, the rationale for mental health promotion, an understanding of its distinctive approach and the feasibility of implementing effective mental health promotion strategies are becoming more clearly established internationally. The theoretical and research base that informs the development of mental health promotion (Barry & Jenkins, 2007; WHO, 2004; Herrman *et al*, 2005; Jané-Llopis *et al*, 2005) provides some clear messages concerning the key concepts and principles that underpin best practice.

Adopting a mental health promotion framework locates mental health within a holistic definition of health, and therefore builds on the basic tenets of health promotion as outlined in the Ottawa Charter (WHO, 1986) and subsequent WHO directives. The underlying principle of this approach is that mental health is an integral part of health and is therefore of universal relevance. Health promotion is a social model of health and adopts a comprehensive approach to bringing about social changes for improved health at population level (Mittelmark *et al*, 2005). A health promotion model shifts the focus from an individual, disease prevention approach towards the health actions and wider social determinants that keep people healthy. Health promotion focuses not only on the individual, but also on groups, communities and settings where people live their lives. Adopting a settings-based approach, health promotion emphasises that health, including mental health, is created in these everyday contexts such as the home, school, workplace and community, and this is where health can be promoted.

Based on the health promotion framework, the principles of mental health promotion may be articulated as follows. Mental health promotion:

- involves the population as a whole in the context of their everyday life, rather than focusing on people at risk from specific mental disorders
- focuses on protective factors for enhancing well-being and quality of life
- addresses the social, physical and socioeconomic environments that determine the mental health of populations and individuals
- adopts complementary approaches and integrated strategies, operating from the individual to socio-environmental levels
- involves inter-sectoral action extending beyond the health sector
- is based on public participation, engagement and empowerment.

Mental health promotion may be conceptualised as an empowering, participative and collaborative process which enables people to increase control over their mental health and its determinants. An emphasis on enabling positive mental health focuses attention clearly on the principles and process of programme delivery. Based on the adoption of a health promotion framework, the key principles that underpin the implementation of mental health promotion programmes will now be examined.

Adopting a socio-ecological perspective

The inextricable link between people and their environments forms the basis of the socio-ecological approach to mental health, and provides a conceptual framework for practice.

Adopting a socio-ecological perspective on programme implementation means recognising the importance of the broader context of programme delivery, such as the socio-environmental influences on individual behaviour and attitudes. An ecological perspective highlights the interdependencies among social systems operating at different levels, for example parent–child dyad, the family system as a whole, the inter-relations among these systems and larger socio-economic influences operating at the level of the community and wider society (Bronfenbrenner, 1979). This perspective shifts the focus of mental health promotion programmes beyond an individualistic focus to consider also the influence of broader social, economic and political forces. The implications of this model are wide-ranging,

including, for example, awareness that the behaviours and attitudes of different social and cultural groups need to be understood in terms of the multiple interacting influences on their everyday circumstances. This means paying due attention to the wider structural influences on behaviour, such as the role of, for example, poverty, education, employment and how these are mediated through community and family structures.

There are many examples of mental health promotion programmes, particularly those for children and families, that illustrate how adopting a systems or ecological perspective enables interventions to address factors that influence child development and family functioning in their everyday contexts, including support from their peers, the wider community and links with external services. The ecological model underscores the importance of supportive environments and highlights the role of schools, workplaces and communities as key contexts or settings for promoting positive mental health.

Embracing an empowerment philosophy

Adopting an empowerment philosophy requires that programmes be delivered in an empowering and participatory manner, building on the strengths and skills of the programme participants. The style or manner of delivery may be just as important as what is delivered. Empowering programmes seek to engage the active participation of programme recipients and implementers in order to build on existing capacities and strengths and to enhance their sense of control over their lives. Empowerment may be defined as a social action process through which individuals, communities and organisations gain mastery over their lives in the context of changing their social and political environment to improve equity and quality of life (Rappaport, 1985; Wallerstein, 1992). Patel, Swartz and Cohen (2005) discuss how community empowerment programmes in low-income countries have a significant role to play in promoting mental health. These programmes include economic empowerment initiatives such as micro-credit schemes and community banks, literacy promotion, and policies that promote gender equality, violence reduction and crime reduction in marginalised communities. These community development programmes, based on the empowerment of the marginalised and the participation of local community leaders, provide a useful model for promoting mental health in low-income settings.

Embracing an empowerment philosophy signifies an emphasis on 'process', seeking to engage the active participation of programme users in gaining understanding, knowledge and skills that will enable them to control the

determinants of their lives as encountered in their everyday circumstances. In terms of programme delivery, this requires that programme implementers change their roles from one of 'experts', delivering programmes, to that of facilitators adopting an interactive and participative approach. As outlined by Rappaport (1990), adopting an empowerment agenda means being:

> *committed to identifying, facilitating, or creating contexts in which heretofore silent and isolated people, those who are 'outsiders' in various settings, organizations and communities, gain understanding, voice and influence over decisions that affect their lives* (p52).

Engaging in consultation and collaboration

Collaborative working is at the core of mental health promotion practice. Programmes need to be delivered in an empowering manner, with clear strategies for partnership working and participation at all stages. Implementing effective programmes requires good collaboration with key stakeholders in the community, schools, workplace or health settings. Consultation needs to begin at the earliest stage of programme development. The consultative process fosters early involvement by stakeholders, promotes greater ownership of the programme and facilitates capacity building (Everhart & Wandersman, 2000). Consultation is key to understanding how mental health is understood and dealt with in the local setting, and how the resources and capacities of the local school or community can be mobilised to implement the intervention to a high standard. Consultation therefore plays a critical role in understanding the local context and establishing readiness for programme involvement. Collaborative working ensures meaningful input and participation of key stakeholders, thereby increasing their sense of programme involvement and ownership.

> *Good collaboration both facilitates desired programme outcomes and supports the functioning and development of the people, organization and agencies committed to promoting mental health in their communities.* (Hauf & Bond, 2002 p52)

This process produces a better ecological fit for the programme, actively engages participation, supports the development of inter-sectoral structures and generally increases the chances of successful implementation and future sustainability.

Addressing inequalities

Albee and colleagues (1988) have highlighted the influence of degrading and exploitative social conditions, including poverty, poor working conditions, racism and sexism, on mental health. Patel (2005) argues that, irrespective of the average *per capita* income of a society, those at the bottom end of the social hierarchy are at greatest risk of experiencing mental health problems, and this effect appears to be most pronounced in more unequal as well as poorer societies. The existence of social inequalities in the distribution of common mental disorders such as anxiety and depression is now well documented (Fryers *et al*, 2003). Citing recent reviews of community studies from low and middle income countries, Patel (2005) highlights that most studies reported an association between the risk of depression and indicators of low education and low socio-economic status such as poor housing and low income. Melzer, Fryers and Jenkins (2004) review the evidence from nine large-scale population-based studies carried out over the last 20 years, and conclude that common mental disorders are significantly more frequent in socially disadvantaged populations.

These findings highlight the need to prioritise work with disadvantaged populations, including low-income, low-education, minority and marginalised groups. In particular, there is an urgent need to identify effective programmes that are transferable and sustainable in low-income country settings (Barry & McQueen, 2005). Patel (2005) argues that programmes aimed at empowering women and the poor, and policies which ensure gender equality and equity in economic development, are likely to play the greatest role in promoting mental health. Reviewing the impact of social and economic development policies and programmes on mental health, Patel and colleagues (2005) focus on the importance of programmes in three main areas: advocacy, empowerment and social support.

Development of community banks in low-income countries, such as that implemented by the Bangladesh Rural Advancement Committee, has been shown to lead to improved health in terms of better nutrition, improved child survival, higher educational achievement, lower rates of domestic violence, and improved well-being and psychological health (Chowdhury & Bhuiya, 2001). Arole *et al* (2005) provides an interesting account of how a community development programme which directly targets poverty, inequality and gender discrimination has led indirectly, through empowerment and increased participation of women, to significant gains in mental well-being. These development programmes, some of the best examples of which come from low-income countries, provide a useful model within which to incorporate the promotion of mental health. Mental health promotion needs to be incorporated into the wider health development and social inclusion agenda, in order that the broader determinants of poor mental health, such as poverty, social exclusion, exploitation and discrimination, can be successfully addressed.

What we know about effective mental health promotion programmes: evidence-based principles of good practice

Systematic reviews and effectiveness studies have been published which show clearly that there are many examples of effective mental health promotion programmes and initiatives which lead to a range of positive health and social outcomes (Durlak & Wells, 1997; Tilford *et al*, 1997; Hosman & Jané-Llopis, 1999; Mentality, 2003; Hosman & Jané-Llopis, 2005). The evidence to date supports the view that competence-enhancing interventions carried out in collaboration with individuals, families, schools and wider communities have the potential to bring about multiple positive outcomes in a number of health domains (Jané-Llopis & Barry, 2005). Most mental health promotion interventions have been found to have the dual effect of reducing mental health problems and disorders while also increasing competencies (Hosman & Jané-Llopis, 1999; Durlak & Wells, 1997). Jané-Llopis and colleagues (2005) draw on various sources of evidence, ranging from RCTs to case studies, and using the Ottawa Charter framework (WHO, 1986) review the evidence, in key settings, for effective health, social and economic impacts. This overview illustrates that there are a number of programmes in settings such as the home, schools, workplace, community and health services that have demonstrated their effectiveness in promoting mental health. These initiatives include early years and home visiting programmes for families at risk, parenting programmes, pre-school and school-based programmes for young people, comprehensive interventions in the workplace, and community and health service programmes.

Drawing on this knowledge base, it is important to consider what can be gleaned from the evidence that will guide implementation of effective, feasible and sustainable mental health promotion programmes across diverse population groups and settings. While the published research studies and systematic reviews tend to focus on research outcomes, it is important also to examine the process of programme development and delivery and the features of programme implementation that are necessary for positive outcomes to be produced. As well as identifying pro-

gramme-specific outcomes, there is a need to identify the generic processes that underpin effective programme planning and delivery.

There is a dearth of information in the published literature to guide practitioners in making decisions about the practical aspects of programme adoption and replication. Some exceptions to this may be found in publications such as the *Blueprints for Violence Prevention* series and related papers (Elliott, 1997; Mihalic *et al*, 2002), which provide practical descriptions of exemplary programmes in the area. These publications outline the programme components as implemented, the theoretical and research base, the organisational capacity required to ensure successful implementation and the practical experiences, including potential barriers and obstacles, that programme staff have encountered while implementing the programme across multiple sites. This practical body of knowledge has an important role to play in informing both practitioners and researchers about the circumstances and practices that enhance programme implementation and lead to successful outcomes.

Characteristics of successful programmes

Reviews of the evidence show that there are a number of evidence-based principles of effective practice that may be identified which characterise successful programmes. Jané-Llopis and Barry, 2005 identify:

- a sound theoretical and research base
- clarifying key goals and objectives
- programme provider training and support
- evaluation and high-quality research methods
- infrastructural support from management
- programme fidelity rather than re-invention
- transferability between countries and cultures.

In exploring the characteristics of successful mental health promotion programmes, Barry and Jenkins (2007) examine the implementation details of a selected sample of both model programmes and international case studies. Drawing on the research evidence and the feedback from programme developers, they identify the following characteristics of successful interventions.

- Programme development based on underpinning theory, research principles of efficacy and needs assessment of the target population and setting.
- A focused and targeted approach to programme planning, implementation and evaluation.

- Adopt a competence enhancement approach and an implementation process that is empowering, collaborative and participatory, carried out in partnerships with key stakeholders.
- Address a range of protective and risk factors.
- Employ a combination of intervention methods operating at different levels.
- Comprehensive approaches that intervene at a number of different time periods rather than once-off.
- Include provision of training and support mechanisms that will ensure high-quality implementation and sustainability.

These characteristics of successful interventions will now be outlined, together with examples of their application in practice.

Programme development based on underpinning theory, research principles of efficacy and needs assessment

When choosing evidence-based intervention strategies, alternative interventions can be considered in the light of available evaluation information and their appropriateness to the specific context of the project. In selecting specific interventions, it is useful to clarify the rationale behind the choices that are being made, whether adapting existing programmes or developing new ones, and to articulate assumptions about why a particular programme or intervention method should or should not work in the context of the project. Issues to consider include:

- the theoretical and empirical backing for the intervention approach
- whether the programme been shown to work and achieve its objectives
- evidence that the programme has been used successfully in a similar environmental context
- the availability of manuals or clearly outlined programme guidelines for implementation.

In applying an evidence-based programme to the specific context of a school or community, however, there are numerous challenges in creating readiness, developing an effective model of training, garnering contextual support, monitoring implementation and evaluating outcomes. Talking with others who have practical hands-on experience of implementing such programmes is useful, as it will provide valuable advice that is often absent from published studies and reports. The intervention needs to be clearly

defined in order that all stakeholders and implementers are clear about the purpose of the initiative and that progress toward the desired goals and objectives of the project can be assessed.

Theoretical base of effective programmes

Effective mental health promotion programmes are underpinned by sound conceptual and theoretical frameworks of human, organisational and environmental functioning which provide a coherent framework for designing, conducting and evaluating programmes. As a multidisciplinary area of practice, mental health promotion builds on the theoretical base of areas such as lifespan developmental theory, community and health psychology, social and organisational theory and the overarching socio-ecological perspective of health promotion. Effective programmes are grounded in well-established theories of human development and behaviour change. For example, as a cost-effective, intensive and comprehensive programme, the Prenatal and Infancy Home Visitation programme (Olds, 1997; Olds *et al*, 1997, 1998) is designed to support low-income, unmarried, adolescent mothers having their first child. In promoting healthy maternal and child functioning, this programme builds on the integration of theories of self-efficacy, human attachment and human ecology in building the mothers' confidence in their abilities as parents and in gaining a sense of control over their lives, supporting the formation of the mother-child relationship and emphasising the importance of the family and wider social networks for human development.

Chen's (1998) distinction between causative and prescriptive theories is a useful one in guiding our understanding of the causative mechanisms underpinning interventions and the mediating mechanisms responsible for an intervention's processes of change. This distinction may be illustrated by, for example, the JOBS depression prevention programme. The highly successful JOBS Intervention Project (Caplan *et al*, 1989; Vinokur *et al*, 1995) is designed to enhance job search skills, and incorporates several mental health promotion elements such as enhancing participants' self-esteem and sense of control, job search self-efficacy and inoculation against setbacks. The theory underlying the programme is based on models of stress and coping linked to the experience of unemployment and its consequences.

However, the developers of the JOBS programme have also sought to clarify the mechanisms underlying the intervention's change process and the relationship between the programme's operations and its effects. Vinokur & Schul (1997) and Vuori & Vinokur (2005) have examined the mediational processes or active ingredients that are triggered by participation in the intervention and, in turn, how these mechanisms influence the final outcomes. Analysis of the data identifies the mediating roles of sense of mastery and inoculation against setbacks as key to the success of the JOBS intervention. It therefore follows that the implementation and actual delivery of the programme need to support these intervening mechanisms, which are responsible for the programme's success. Clear articulation of programme theory is, therefore, important in informing both the design and the delivery of successful interventions.

Needs assessment

Successful implementation depends on accurate analysis and understanding of the local context and conditions for the programme, including wider community, social and political factors. A comprehensive needs assessment entails assessing the unique characteristics (strengths, problems, obstacles and facilitating factors) in the local context or setting where the programme will be implemented, and identifying clearly the needs of the specific population for whom the programme is intended. Conducting a comprehensive needs assessment will assist in choosing a programme that is sensitive to age, gender and culture and will have a good ecological fit with the local population and setting. As pointed out by Mihalic (2001), choosing an evidence-based programme that does not fit with the local context, even if it is carried out with fidelity, can lead to unsuccessful outcomes.

Lara (2007) provides an interesting case study of a psycho-educational intervention for low-income women in Mexico which illustrates the importance of developing and adapting a depression prevention programme to local needs and circumstances. In particular, while the programme is based on the theoretical framework of depression prevention developed by Muñoz and colleagues (1995), the programme model was adapted to ensure that the materials were gender and culture appropriate for the women who participated in the study, many of whom had low levels of literacy, and that programme delivery could be sustained through the local service support systems.

Adapting to local needs without compromising programme fidelity is clearly a challenge. Jané-Llopis and Barry (2005) point out that, although at present the evidence points to to the need for high-quality implementation with fidelity, it is important to note that proven efficacy or effectiveness is no guarantee that programmes will work similarly in different cultural or economic environments. Programmes may need to be adapted to meet the perceived ecological needs of the local context in which the pro-

gramme is being delivered. Further research is needed to identify the mechanisms and processes of programme adaptation and adoption that are possible without losing initial efficacy.

Focused approach to programme planning, implementation and evaluation

Successful implementation of a mental health promotion programme depends on good planning. This entails a number of inter-related activities, involving clear analysis of the need for the programme, identifying key target groups/programme recipients and the resources needed, understanding of social structures and values in the local context, and inter-agency and organisational involvement to build collaborative partnerships and facilitate broad level participation. There are a number of systematic guidelines and models available for the practitioner to use in planning mental health promotion programmes. For example, the Communities That Care (CTC) initiative by Hawkins and colleagues (2002) is a research-based system which aims to provide communities with a framework for focused planning, based on an assessment of their own profiles of risk and protection, and choosing and implementing effective strategies to address their unique strengths and needs. The CTC system has been applied in more than 500 communities in organising promotion of positive social development for young people and prevention of problems such as youth crime and substance abuse. Planning frameworks such as the CTC provide an effective system of training and technical assistance in involving communities in planning and implementing their own programmes.

Systematic programme evaluation needs to be part of the planning process. Programmes should be evaluated using the best research designs available, as poor designs will not be able to demonstrate positive outcomes for effective programmes. A focus is needed on research methods which will document the process, as well as the outcomes, of enabling positive mental health (Barry, 2002). Appropriate evaluation frameworks and research methodologies must be applied, building on the principles and theories of mental health promotion practice. Analytic frameworks are needed that integrate process and outcome data in a meaningful way, so that clear statements can be made about how and why programme changes have come about (Barry & McQueen, 2005). Process evaluation takes on a particularly important role in the context of multi-faceted interventions implemented with diverse target populations in complex settings. Detailed process evaluation is considered necessary to monitor implementation and to pinpoint

effective components leading to desired outcomes. Pentz *et al* (1997) outlines the use of a logic model framework in guiding implementation and evaluation of the successful community-based Midwestern Prevention Project. The evaluation logic model provides a systematic framework for intervention monitoring and feedback on project activities and impacts, which may be incorporated as an integral part of the planning and delivery of the project.

Competence enhancement approach and an implementation process that is empowering, participatory and collaborative

The competence enhancement model focuses on enhancing psychological strengths, resilience and life skills, and enabling a sense of efficacy in diverse life areas (Barry, 2001). The goal, therefore, becomes enhancing potential and promoting positive mental health and well-being rather than focusing on reducing mental disorders. Reviews of the evidence endorse a competence enhancement approach which brings a focus on promotion of resourcefulness and generic coping and life skills (Jané-Llopis *et al*, 2005; Mentality, 2003; Tilford *et al*, 1997). Competence enhancement programmes for children and adolescents focus on enhancing generic skills such as coping skills, good peer relationships, cognitive skills, problem-solving and social skills training. There are many examples of effective programmes in this area, among them:

- the Promoting Alternative Thinking Strategies (PATHS) programme (Greenberg *et al*, 2001)
- the Good Behaviour Game (Kellam *et al*, 1994)
- the Resolving Conflict Creatively programme (Aber *et al*, 1998)
- the Resourceful Adolescent programme (Shochet *et al*, 2001).

The social competence approach supports the use of interactive methodologies that embrace a more participatory approach to programme delivery. Peer-led initiatives and mentoring programmes are also recognised as potentially useful programmes in this respect.

Examples of competence enhancement programmes which employ an empowering, collaborative and participatory approach for adults include the Community Mothers programme (Johnson *et al*, 2000; Molloy, 2002) and the Widow-to-Widow peer support programme (Silverman, 1988). The Community Mothers Programme is a good example of a parenting programme with a focus on empowering first-time mothers from disadvantaged communi-

ties. The enabling and empowering approach used is identified as a critical feature of this home visiting programme, which has been found to have sustained positive effects on the child's development and the mother's mental health (Johnson *et al*, 2000). The Widow-to-Widow programme (Silverman, 1986) also facilitates empowerment through mutual support. This community peer support programme has demonstrated the benefits of a mutual support model in meeting the needs of the bereaved and reducing psychological distress in an accessible non-stigmatising community context (Silverman, 1988; Vachon *et al*, 1980).

Address a range of protective and risk factors

Mental health is determined by multiple biological, psychological, social and environmental factors which interact in complex ways (Mrazek & Haggerty, 1994). Mental health promotion focuses on those modifiable determinants, which can be altered effectively in order to promote positive mental health and reduce the likelihood of mental ill-health. At the population level they include a range of psychosocial and environmental factors including living conditions, education, income, employment, access to community resources, social support and personal competencies. These determinants translate into risk and protective factors that influence the mental health of individuals and population groups. Clusters of risk and protective factors for mental health have been identified, and there is evidence that interventions can reduce the risks and enhance the protective factors (Mrazek & Haggerty, 1994). Protective factors enhance and protect positive mental health and reduce the likelihood that a disorder will develop. Programmes that promote protective factors enhance people's capacity to cope successfully with and enjoy life, and mitigate the effects of negative life events.

Family support and parenting programmes which target multiple risk and protective factors demonstrate that, when quality programmes are implemented effectively, they lead to improvements not only in the mental health of children and their parents but also in social functioning, academic and work performance, and general health behaviour. The effects are especially evident in the most vulnerable families from disadvantaged backgrounds, and therefore investment in such initiatives is well spent and cost-effective. The most widely quoted programme, the High/Scope Perry Preschool Project (Schweinhart & Weikart, 1988; Schweinhart *et al*, 2005), is a preschool educational programme which addresses a range of protective factors that improve the academic success of low-income children and assist parents in providing the necessary supports for their children

to develop intellectually, socially and mentally. It also effectively reduces the risk that under-privileged children will become delinquent and continue a life of poverty, by improving their chances of finishing school and thus attaining greater economic and social wealth. The programme has been monitored for over 40 years (Schweinhart *et al*, 2005) and has produced impressive long-term outcomes on school grades, literacy and completion rates, improved employment and higher earnings, home ownership, crime prevention, improved marriage and family relations, and reductions in unwanted pregnancies.

Such findings indicate that, in addition to positive outcomes in academic achievement, high-quality programmes have the potential to influence a range of positive health and social outcomes. The cost-effectiveness of programmes that address clusters of risk and protective factors for a range of health and social behaviours represent sound economic investment, as they are capable of producing wider social and economic gain.

Multi-component comprehensive programmes

A number of reviews of successful interventions (Durlak & Wells, 1997; Hosman & Jané-Llopis, 1999, 2005; Jané-Llopis *et al*, 2005) point to strong evidence that high-quality comprehensive programmes that focus on people and their socialising environments produce long-lasting positive effects on mental, social and behavioural development. There is substantial evidence that comprehensive mental health promotion programmes in schools, when implemented effectively, can produce long-term benefits for young people, including emotional and social functioning and improved academic performance (Lister-Sharp *et al*, 1999; Greenberg *et al*, 2001; Wells *et al*, 2001, 2003; Harden *et al*, 2001). An overview of the evidence from systematic reviews highlights that comprehensive programmes that target multiple health outcomes in the context of a co-ordinated whole school approach are the most consistently effective strategy (Jané-Llopis *et al*, 2005). Browne and colleagues (2004) suggest that enhancement of protective factors and promotion of competencies may be more readily achievable with comprehensive multimodal initiatives.

In a systematic review of universal approaches (provided to all children) to mental health promotion in schools, Wells, Barlow and Stewart-Brown (2003) found positive evidence of effectiveness from programmes that adopted a whole-school approach, were implemented continuously for more than a year and were aimed at promotion of mental health rather than prevention of mental disorder. They also concluded that long-term interventions promoting the posi-

tive mental health of all pupils and involving changes to the school environment are likely to be more successful than brief class-based prevention programmes. Examples of successful school-based programmes developed and implemented in collaboration with families, schools and communities include the Australian MindMatters programme (Wyn *et al*, 1999) and bullying prevention programmes (Olweus *et al*, 1998).

Similarly, it is clearly recognised in workplace health promotion practice that there is a need for comprehensive interventions that employ a combination of intervention methods operating at different levels. Multi-component interventions are required that will target both individual and organisational factors that influence the complex relationship between work, stress and health. Organisation-wide approaches are most effective in reducing work-related stress, and successful interventions need to include a range of elements including support for staff, enhanced job control, increased staff involvement, workload assessment, effort–reward balance, role clarity and policies that tackle bullying and harassment (Stansfeld *et al*, 2000; Williams *et al*, 1998). Comprehensive ecological approaches, combining individual and organisation-level interventions, are more likely to bring about sustained benefits.

Quality implementation support system

Adopting a best practice programme does not in itself guarantee success. There is a need for attention to good implementation, including adequate resources such as funding, staff skills, training, supervision and the organisational support needed to implement the programme to a high quality in the local setting. Current research indicates that implementation is often variable and imperfect in field settings and that the level of implementation influences outcomes (Durlak, 1998; Domitrovich & Greenberg, 2000). Barry and colleagues (2005) provide an overview of the strategies that can be used to improve overall implementation of mental health promotion programmes in the various stages of programme pre-adoption, delivery and sustainability.

The importance of a supportive implementation system in ensuring successful programme implementation and replication is underscored by the literature on a range of model programmes (Mihalic *et al*, 2002; Barry & Jenkins, 2007). The implementation system includes such factors as:

- the characteristics of the implementers and participants and the nature of their relationship
- the quality of training and support
- facilitatory and inhibitory factors in the local context,

including readiness, mobilisation of support, ecological fit of the programme, cultural sensitivity and the extent of participation and collaboration with key stakeholders
- the nature of the implementing organisation
- the quality of the linkages between the organisation and the broader community (Chen, 1998).

The level and extent of these aspects of the implementation system should be carefully planned and documented in order to ensure the quality and sustainability of programme delivery.

Conclusions

On the basis of the evidence and the programmes reviewed, it is clear that there are a number of cross-cutting principles that will guide the implementation of effective programmes. They include:

- a socio-ecological approach to programme conceptualisation in order that programmes will seek to bring about positive change at the level of the individual, the family, the social group or community and broader society
- a social competence approach emphasising promotion of resourcefulness, generic coping skills and life competence
- theory-based interventions grounded on established theories of human functioning and social organisation
- comprehensive and sustained interventions that are not once-off but are designed to produce long-term effects
- high-quality programme delivery based on a supportive implementation system
- systematic evaluation methods of programme process, impact and outcomes that will contribute to ongoing improvement and sustainability of effective interventions
- programme sustainability built on organisational and system-level practices and policies that will ensure the long-term impact of effective, high-quality programmes.

It is clear from these prinicples that best practice needs to build on both the art and the science of mental health promotion. Evidence-based practice calls for creativity, imagination and skill on the part of practitioners in translating the theory and research into effective planning and programme implementation. Best available evidence needs to be translated so that the factors critical to ensuring implementation of successful programmes are identified. There now exist a range of mental health programmes that have

met high scientific standards in demonstrating their efficacy and effectiveness. These programmes and their practice methods need to be brought to scale so that they are at a coverage, scope and intensity that can make a critical difference. In addition, the generic processes underpinning effective practice need to be documented and disseminated. Guidelines on best practice need to be based on the findings of rigorous process and outcomes studies and on the knowledge of practitioners and programme implementers.

As we look to the future, we need to ensure that we build on the best available evidence to inform effective practice and policy making. For the evidence to be applicable in the field, it must be accessible, relevant, contextualised and usable by practitioners and policy makers (Barry *et al*, in press). In translating the evidence, we need more attention to the translational process, so that a bridge of communication can be formed in bringing the evidence base to life for policy makers and practitioners. Discussions of the evidence base may often appear over-concerned with research standards and methodological criteria and somewhat removed from the more immediate concerns of practitioners and decision-makers. The evidence needs to be contextualised so that the information is used to guide critical decisions on where to invest resources in mental health promotion and which programmes to implement. Methodologies are needed for integrating the evidence into the realities of contemporary practice. This includes provision of technical assistance and capacity building, including development of training in evidence-based programme planning and evaluation.

Acknowledgement that the evidence base for mental health promotion needs to be strengthened does not detract from the challenge of promoting the application of existing evidence into good practice and effective policy making. Dissemination research and further systematic studies of programme implementation, adoption and adaptation across cultures are needed so that evidence-informed policy and practice may be generated which will guide the building of capacity for effective programme delivery. A strong evidence base is critical to the future development of the field, and equally important is ensuring that the knowledge derived from this evidence base is used to guide the development of effective, sustainable interventions that will bring about improved mental health.

Address for correspondence

Professor Margaret M. Barry, Department of Health Promotion, National University of Ireland, Galway, Ireland. Tel: +353 91 493348, email: margaret.barry@nuigalway.ie.

References

Aber, L., Jones, S., Brown, J. *et al* (1998) Resolving conflict creatively: evaluating the developmental effects of a school-based violence prevention program in neighborhood and classroom context. *Development and Psychopathology* **10** (2) 187–213.

Albee, G. W., Joffe, J.M. & Dusenbury, L.A. (Eds) (1988) *Prevention, Powerlessness, and Politics: Readings on Social Change.* London: Sage.

Arole, R., Fuller, B. & Deutschman, P. (2005) Community development as a strategy for mental health promotion: lessons from a low income country. In: H. Herrman, S. Saxena & R. Moodie (Eds) *Promoting Mental Health: Concepts, emerging evidence, practice.* A report of the World Health Organization, Department of Mental Health and Substance Abuse in collaboration with the Victorian Health Promotion Foundation and University of Melbourne,WHO, Geneva.

Barry, M.M. (2001) Promoting positive mental health: theoretical frameworks for practice. *International Journal of Mental Health Promotion* **3** (1) 25–43.

Barry, M.M. (2002) Challenges and opportunities in strengthening the evidence base for mental health promotion. *Promotion and Education* **9** (2) 44–8.

Barry, M.M., Domitrovich, C. & Lara, M.A. (2005) The implementation of mental health promotion programmes. In: E. Jané-Llopis, M. Barry, C. Hosman & V. Patel (Eds) The evidence of mental health promotion effectiveness: strategies for action. *Promotion and Education* **suppl 2** 30–6.

Barry, M.M. & Jenkins, R. (2007) *Implementing Mental Health Promotion.* Oxford: Elsevier.

Barry, M.M. & McQueen, D. (2005) The nature of evidence and its use in mental health promotion. In: H. Herrman, S. Saxena & R. Moodie (Eds) *Promoting Mental Health: Concepts, emerging evidence, practice.* A WHO Report in collaboration with the Victorian Health Promotion Foundation and the University of Melbourne. Geneva: World Health Organization. www.who.int/mental_health/evidence/MH_Promotion_Book.pdf (2 October, 2006).

Barry, M.M., Patel, V., Jané-Llopis, E., Raeburn, J. & Mittelmark, M.B. (in press) Strengthening the evidence base for mental health promotion. In: D. McQueen & C. Jones (Eds) *Global Perspectives on Health Promotion Effectiveness, Volume 1.* International Union for Health Promotion and Education. New York: Springer.

Bronfenbrenner, U. (1979) *The Ecology of Human Development: Experiments by nature and design.* Cambridge, Massachusetts: Harvard University Press.

Browne, G., Gafni, A., Roberts, J., Byrne, C. & Majumdar, B. (2004) Effective/efficient mental health programs for school-age children: a synthesis of reviews. *Social Science and Medicine* **58** 1367–84.

Caplan, R.D., Vinokur, A.D., Price, R.H. & van Ryn, M. (1989) Job seeking, reemployment, and mental health: a randomized field experiment in coping with job-loss. *Journal of Applied Psychology* **74** (5) 759–69.

Chen, H. (1998) Theory-driven evaluations. *Advances in Educational Productivity* **7** 15–34.

Chowdhury, A. & Bhuiya, A. (2001) Do poverty alleviation programs reduce inequities in health? The Bangladesh experience. In: D. Leon & G. Walt (Eds) *Poverty, Inequality and Health.* Oxford: Oxford University Press.

Domitrovich, C.E. & Greenberg, M.T. (2000) The study of implementation: current findings from effective programs that prevent mental disorders in school-aged children. *Journal of Educational and Psychological Consultation* **11** (2) 193–221.

Durlak, J.A. (1998) Why program implementation is important. *Journal of Prevention and Intervention in the Community* **17** (2) 5–18.

Durlak, J.A. & Wells, A.M. (1997) Primary prevention mental health programs for children and adolescents: a meta-analytic review. *American Journal of Community Psychology* **25** (2) 115–52.

Elliott, D. (Ed) (1997) *Blueprints for Violence Prevention Volumes 1–11.* Center for the Study and Prevention of Violence, Institute of Behavioral Science, University of Colorado, USA.

Everhart, K. & Wandersman, A. (2000) Applying comprehensive quality programming and empowerment evaluation to reduce implementation barriers. *Journal of Educational and Psychological Consultation* **11** (2) 177–91.

Fryers, T., Melzer, D. & Jenkins, R. (2003) Social inequalities and the common mental disorders: a systematic review of the evidence. *Social Psychiatry and Psychiatric Epidemiology* **38** 229–37.

Greenberg, M., Kusche, C., Cook, E. *et al* (1995) Promoting emotional competence in school-aged children: the effects of the PATHS curriculum. *Development and Psychology* **7** 117–36.

Greenberg, M.T., Domitrovich, C.E. & Bumbarger, B. (2001) The prevention of mental disorders in school-aged children: current state of the field. *Prevention and Treatment.* Online. Available: journals.apa.org/prevention/volume4/pre0040001a.html.

Harden, A., Rees, R., Shepherd, J. *et al* (2001) *Young People and Mental Health: A systematic review on barriers and facilitators*. EPPI-Centre, England. Online. Available: eppi.ioe.ac.uk. 13 October 2005.

Hauf, A.M. & Bond, L.A. (2002) Community-based collaboration in prevention and mental health promotion: benefiting from and building the resources of partnership. *International Journal of Mental Health Promotion* **4** (3) 41–54.

Hawkins, J.D., Catalano, R.F. & Arthur, M.W. (2002) Promoting science-based prevention in communities. *Addictive Behaviors* **27** (6) 951–76.

Herrman, H. & Jané-Llopis, E. (2005) Mental health promotion in public health. *Promotion and Education* **suppl 2** 42–7.

Herrman, H., Saxena, S. & Moodie, R. (Eds) (2005) *Promoting Mental Health: Concepts, emerging evidence, practice.* A WHO Report in collaboration with the Victorian Health Promotion Foundation and the University of Melbourne. Geneva: World Health Organization. www.who.int/mental_health/evidence/MH_Promotion_Book.pdf (2 October, 2006).

Hosman, C. & Jané-Llopis, E. (1999) Political challenges 2: mental health. In: *The Evidence of Health Promotion Effectiveness: Shaping public health in a new Europe*. A Report for the European Commission. International Union for Health Promotion and Education, IUHPE. Paris: Jouve Composition & Impression.

Hosman, C. & Jané-Llopis, E. (2005) The evidence of effective interventions for mental health promotion. In: H. Herrman, S. Saxena & R. Moodie (Eds) *Promoting Mental Health: Concepts, emerging evidence, practice*. A WHO Report in collaboration with the Victorian Health Promotion Foundation and the University of Melbourne. Geneva: World Health Organization. www.who.int/mental_health/evidence/MH_Promotion_Book.pdf (2 October, 2006).

Jané-Llopis, E. & Barry, M.M. (2005) What makes mental health promotion effective? *Promotion and Education* **suppl 2** 47–55.

Jané-Llopis, E., Barry, M., Hosman, C. & Patel, V. (2005) Mental health promotion works: a review. In: E. Jané-Llopis, M.M. Barry, C. Hosman & V. Patel (Eds) The evidence of mental health promotion effectiveness: strategies for action. *Promotion and Education* **suppl 2** 9–25.

Johnson, Z., Molloy, B., Scallon, E. *et al* (2000) Community Mothers Programme: seven-year follow-up of a randomised controlled trial of non-professional intervention in parenting. *Journal of Public Health Medicine* **22** (3) 337–42.

Kellam, S.G., Rebok, G.W., Ialongo, N. *et al (*1994) The course and malleability of aggressive behavior from early first grade into middle school: results of a developmental epidemiologically based preventive trial. *Journal of Child Psychology and Psychiatry* **35** 259–81.

Lara, M.A. (2007) A psycho-educational intervention for women with depressive symptoms: programme implementation in low-income settings; case study. In: M.M. Barry & R. Jenkins (2007) *Implementing Mental Health Promotion.* Oxford: Elsevier.

Lister-Sharp, D., Chapman, S., Stewart-Brown, S. & Snowden, A. (1999) Health promoting schools and health

promotion in schools: two systematic reviews. *Health Technology Assessment* **3** (22) 1–207.

Marshall-Williams, S., Saxena, S. & McQueen, D.V. (2005) The momentum for mental health promotion. *Promotion and Education* **suppl 2** 6–9.

Melzer, D., Fryers, T. & Jenkins, R. (Eds) (2004) *Social Inequalities and the Distribution of the Common Mental Disorders.* Maudsley Monograph 44. Hove and New York: Psychology Press.

Mentality (2003) *Making it effective: a guide to evidence-based mental health promotion*. Radical Mentalities Briefing Paper 1. London: Mentality.

Mihalic, S. (2001) *Assessment and Planning for Program Implementation*. Online. Available: www.colorado.edu/cspv/blueprints/newsletters/BPNewsVol 1Issue3.pdf.

Mihalic, S., Fagan, A., Irwin, K., Ballard, D. & Elliott, D. (2002) *Blueprints for Violence Prevention Replications: Factors for implementation success*. Boulder, USA: Center for the Study of Prevention of Violence, Institute of Behavioral Science, University of Colorado.

Mittelmark, M., Puska, P., O'Byrne, D. & Tang, K-C. (2005) Health promotion: a sketch of the landscape. In: H. Herrman, S. Saxena & R. Moodie (Eds) *Promoting Mental Health: Concepts, emerging evidence, practice*. A WHO Report in collaboration with the Victorian Health Promotion Foundation and the University of Melbourne. Geneva: World Health Organization. www.who.int/mental_health/evidence/MH_Promotion_Book.pdf (2 October, 2006).

Molloy, B. (2002) Still going strong: a tracer study of the Community Mothers Programme Dublin Ireland. *Early Childhood Development Practice and Reflections* **17**. The Hague: Bernard van Leer Foundation.

Muñoz, R.F., Ying, Y.W., Bernal, G. *et al* (1995) Prevention of depression with primary care patients: a randomized controlled trial. *American Journal of Community Psychology* **23** (2) 199–222.

Murray, C. J. & Lopez, A.D. (1996) The global burden of disease. *Harvard School of Public Health.* Boston: World Health Organization, World Bank.

Mrazek, P.J. & Haggerty, R.J. (Eds) (1994) *Reducing Risks for Mental Disorders: Frontiers for preventive intervention research*. Washington DC: National Academy Press.

Olds, D.L. (1997) The prenatal/early infancy project: fifteen years later. In: G.W. Albee & T.P. Gullotta (Eds) *Primary Prevention Works, Vol. 6: Issues in children's and families' lives.* London: Sage.

Olds, D.L., Eckenrode, J., Henderson, C.R. *et al* (1997) Long-term effects of home visitation on maternal life course and child abuse and neglect: fifteen year follow-up of a randomised trial. *Journal of American Medical Association* **278** (8) 637–43.

Olds, D.L., Hill, P.L., Mihalic, S.F. *et al* (1998) *Blueprints for Violence Prevention. Book seven: Prenatal and infancy home visitation by nurses*. Center for the Study and Prevention of Violence, Institute of Behavioral Science, University of Colorado, USA.

Olweus, D., Limber, S. & Mihalic, S. (1998) *Blueprints for Violence Prevention Series. Book nine: bullying prevention program.* Center for the Study and Prevention of Violence, Institute of Behavioral Science, University of Colorado, USA.

Patel V (2005) Poverty, gender and mental health promotion in a global society. In: E. Jané-Llopis, M.M. Barry, C. Hosman & V. Patel (Eds) The evidence of mental health promotion effectiveness: strategies for action. *Promotion and Education* **suppl 2** 26–9.

Patel, V., Swartz, L. & Cohen, A. (2005) The evidence for mental health promotion in developing countries. In: H. Herrman, S. Saxena & R. Moodie (Eds) *Promoting Mental Health: Concepts, emerging evidence, practice*. A WHO Report in collaboration with the Victorian Health Promotion Foundation and the University of Melbourne. Geneva: World Health Organization. www.who.int/mental_health/evidence/MH_Promotion_Book.pdf (2 October, 2006).

Pentz, M.A., Mihalic, S.F. & Grotpeter, J.K. (1997) *Blueprints for Violence Prevention. Book one: The Midwestern prevention project.* Center for the Study and Prevention of violence, Institute of Behavioral Science, University of Colorado, USA

Rappaport, J. (1985) The power of empowerment language. *Social Policy* **16** 15–21.

Rappaport, J. (1990) Research methods and the empowerment social agenda. In: P. Tolan, C. Keyes, F. Chertok *et al* (Eds) *Researching Community Psychology: Integrating theories and methodologies.* American Psychological Association, Washington DC.

Schweinhart, L.J. & Weikart, D.B. (1988) The High/Scope Perry Preschool Programme. In: R.H. Price, E.L. Cowen, R.P. Lorion *et al* (Eds) *Fourteen Ounces of Prevention: A casebook for practitioners.* American Psychological Association, Washington DC.

Schweinhart, L.J., Montie, J., Xiang, Z. *et al* (2005) Lifetime effects: the High/Scope Perry Preschool Study through age 40. *Monographs of the High/Scope Educational Research Foundation 14.* Ypsilanti, Michigan: High/Scope Press. Online. Available: www.highscope.org/Research/PerryProject/PerryAge40SumWeb.pdf 13 October 2005.

Shochet, I.M., Dadds, M.R., Holland, D. *et al* (2001) The efficacy of a universal school-based program to prevent adolescent depression. *Journal of Clinical Child Psychology* **30** (3) 303–15.

Silverman, P.R. (1988) Widow-to-widow: a mutual help program for the widowed. In: R.H. Price, E.L. Cowen, R.P. Lorion *et al* (Eds) *Fourteen Ounces of Prevention: A casebook for practitioners*. Washington DC: American Psychological Association.

Stansfeld, S., Head, J. & Marmot, M. (2000) *Work-Related Factors and the Whitehall II Study.* Suffolk: Health and Safety Executive.

Tilford, S., Delaney, F. & Vogels, M. (1997) *Effectiveness of Mental Health Promotion Interventions: A Review*. London: Health Education Authority.

Vachon, M.L., Lyall, W.A., Rodgers, J. *et al* (1980) A controlled study of self-help interventions for widows. *American Journal of Psychiatry* **137** 1380–4.

Vinokur, A.D., Price, R.H. & Schul, Y. (1995) Impact of the JOBS intervention on unemployed workers varying in risk for depression. *American Journal of Community Psychology* **23** (1) 39–74.

Vinokur, A.D. & Schul, Y. (1997) Mastery and inoculation against setbacks as active ingredients in the JOBS intervention for the unemployed. *Journal of Consulting and Clinical Psychology* **65** (5) 867–77.

Vuori, J. & Vinokur, A.D. (2005) Job search preparedness as a mediator of the effects of the Työhön Job Search Intervention on re-employment and mental health. *Journal of Organizational Behavior* **26** 1–17.

Wallerstein, N. (1992) Powerlessness, empowerment and health: implications for health promotion programs. *American Journal of Health Promotion* **6** 197–205.

Wells, J., Barlow, J. & Stewart-Brown, S. (2001) *A Systematic Review of Universal Approaches to Mental Health Promotion in Schools.* HSRU, University of Oxford.

Wells, J., Barlow, J. & Stewart-Brown, S. (2003) A systematic review of universal approaches to mental health promotion in schools. *Health Education* **103** (4) 197–220.

Williams, S., Michie, S. & Patini, S. (1998) *Improving the Health of the NHS Workforce.* London: The Nutfield Trust.

World Health Organisation (1986) *Ottawa Charter for Health Promotion*. Copenhagen: World Health Organisation.

World Health Organization (2002) *Prevention and Promotion in Mental Health.* Geneva: World Health Organization.

World Health Organization (2004a) *Promoting Mental Health: Concepts, emerging evidence, practice.* Summary Report. A report of the World Health Organization, Department of Mental Health and Substance Abuse in collaboration with the Victorian Health Promotion Foundation and the University of Melbourne. Geneva: World Health Organization. www.who.int/mental_health/evidence/en/promoting_mhh.pdf

World Health Organization (2004b) *Prevention of Mental Disorders: Effective interventions and policy options.* Summary Report. A report of the World Health Organization Department of Mental Health and Substance Abuse in collaboration with the Prevention Research Centre of the Universities of Nijmegen and Maastricht. Geneva: WHO. www.who.int/mental_health/evidence/en/prevention_of_mental_disorders_sr.pdf.

World Health Organization (2006) *Mental Health Promotion: Case Studies from Countries.* Saxena, S. & Garrison, P. (Eds) Geneva: World Health Organization. www.who.int/mental_health/evidence/en/country_case_studies.pdf.

Wyn, J., Cahill, H., Holdsworth, R. & Carson, S. (1999) MindMatters, a whole school approach to promoting mental health and well-being. *Australia and New Zealand Journal of Psychiatry* **34** 594–601.