Mental health promotion in high risk groups

Amanda J Sowden, Sylvia Tilford, Faith Delaney, Michelle Vogels, Simon Gilbody, Trevor A Sheldon

An important component of an effective coordinated strategy for the promotion of mental health and the primary prevention of mental distress is the identification of and effective intervention with groups of people who are at high risk of experiencing mental health problems. A large body of epidemiological research has identified several characteristics of people who are at high risk (box). 1-8

This paper summarises the findings of a recent issue of the Effective Health Care Bulletin.9 This reviewed the results of randomised controlled trials of interventions aimed at one of the high risk groups shown in the box, in people who were not diagnosed as mentally ill, or were not in receipt of mental health services, and which reported either mental health and wellbeing outcomes or measures of mental distress. This summary is based on elements of two recent systematic reviews of mental health promotion10-12 and other relevant reviews. These were updated by systematic searches from 1995 to April 1997 with the same search strategy as that used by Tilford et al.9 Few reliable economic evaluations have been carried out in this area. 13 This review does not cover other vulnerable groups such as those with physical illness or disability, children living with adults who have mental health problems, or those who have been abused. It also excludes a discussion of psychological debriefing for people who have experienced major trauma, as there is little reliable evidence that debriefing interventions improve mental health outcomes.14 15

Children

LIVING IN POVERTY
Children in socially disadvantaged communities are at higher risk of experiencing mental health problems in childhood and later life. Evaluations of social interventions aimed at improving the health and social outcomes of these children have been summarised elsewhere.16 High quality preschool and nursery education such as the Head Start and the HighScope (Perry preschool) projects have shown improvements in self esteem, motivation, and social behaviour and other educational and social outcomes.17 Social support visits to new parents to provide them with strategies for tackling child care and child rearing issues have been shown to be effective unless deficits in parental skills are accompanied by a combination of health and socioeconomic problems. A trial of support by mature lay mothers showed improvements in maternal mental health and child care.18

BEHAVIOURAL PROBLEMS (TABLE 1)
When childhood behaviours such as mood changes and expressed aggression are sufficient to cause distress to the child or others it is sometimes considered to constitute disordered behaviour. Childhood mental distress is strongly predictive of adverse mental health and social outcomes later in life and so prevention may bring long term psychiatric, social, and economic benefits.3 19

Various studies have explored the effectiveness of training parents to develop the skills necessary to deal effectively with childhood

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**Table 1: Groups at high risk of mental health problems considered in the bulletin**

**CHILDREN**
- Living in poverty
- Showing behavioural difficulties
- Within families undergoing divorce
- Within families experiencing bereavement

**ADULTS**
- Undergoing divorce or separation
- Experiencing unemployment
- High risk of depression in pregnancy
- Experiencing bereavement
- Long term carers of people who are highly dependent
behavioural problems. Interventions involving parental role playing, behavioural management, and play skills reduced attention deficit and hyperactivity symptoms as rated by teachers and parents. Similarly, a trial in Ireland found that parent training resulted in improved child behaviour, psychological symptoms, and increased parental self-confidence. A two year programme of family management training aimed at parents and social skills training for seven year old boys assessed as disruptive by teachers was highly effective at reducing various measures of behavioural and adjustment problems measured after a further three years of follow up. Individual home based training of parents in these social learning techniques may be cheaper than and as effective as office based individual and group training. This suggests that parent training programmes—for example, self administered videotape training—shown to be effective at improving parent-child interactions and behaviours in children referred for treatment for conduct disorders can also be useful in preventive settings. Two trials examined the effect of school based social skills training on socially rejected children. Both showed improvements in social skills and less social isolation. Teenage school attenders with low self esteem benefited from a cognitive behavioural

Table 1  *Children: behavioural difficulties*

<table>
<thead>
<tr>
<th>Author (year), country</th>
<th>Study details</th>
<th>Results (measures)</th>
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<tbody>
<tr>
<td>Bierman and Furman 1984</td>
<td>Participants: socially rejected 10−11 year old children with poor conversational skills; I: individual coaching; I2: group experience; I3: 11 + 12 half hour session with video feedback of social performance over a 6 week period. C: no treatment I1: (n=14); I2: (n=14); I3: (n=14) Follow up: 6 weeks after intervention</td>
<td>Individual coaching produced a sustained improvement in conversational skills (p&lt;0.001). Group experience did not. Attrition: 0% Follow up is short and long term benefit cannot be assumed</td>
</tr>
<tr>
<td>Cole and Krebschel, 1984</td>
<td>Participants: socially rejected children with academic problems (screened for by a sociometric questionnaire); I: academic skills training; I2: social skills training; I3: academic and social skills. C: no contact I1: (n=10); I2: (n=10); I3: (n=10); C: (n=10) Follow up after intervention and 1 y</td>
<td>Academic skills (I1 and I3) increased their social status (p&lt;0.01) as assessed by other children in the school (p&lt;0.05) and decreased their disruptive behaviour (p&lt;0.01) as assessed by classroom observers at 1 y after intervention Attrition: I1=30%, I2=0%, Both=10%, C=40% (at 1 y) Overall benefit found on self esteem (p&lt;0.01), irrational beliefs (p&lt;0.03), and inadequacy (p=0.002), but not for self concept Attrition: I1=77%, C=75% Power calculation performed Not evaluated yet in a clinical context</td>
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<tr>
<td>Horan 1996</td>
<td>Participants: students aged between 16 and 19 who had low self esteem I: students had to respond to 13 cognitive restructuring modules focusing on irrational beliefs for 2x50 min periods C: training in relaxation exercises through audiotapes for 2x50 min periods I: (n=28) C: (n=28) Follow up: within 1 week after intervention</td>
<td>Improved self concept for boys (p&lt;0.05) and girls (p&lt;0.02) in families with father absent: reduced trait anxiety at grade 8 (p&lt;0.05) but not grade 9 Attrition: I=13%, C=28% No long term follow up: could be applied in UK with different ethnic minorities</td>
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<td>Malgady et al 1990</td>
<td>Participants: volunteer Puerto Rican students in New York school with most severe behaviour problems (aged 12 to 15 years) I: intensive 19 week school educational programme about famous Puerto Ricans with whom participants could identify ethnically C: met in small groups to discuss current events I: (n=70); C: (n=40) Follow up: after intervention</td>
<td>Mothers’ self esteem as measured by the Rosenberg self esteem inventory had increased in the 1 group compared with the C group (p&lt;3.1, p=0.03) after intervention No results presented for I and C group comparisons at 1 y Attrition: I=8% The 3 training systems produced similar benefit: mean 8% reduction in problem behaviour compared with a 38% reduction in the C group, p&lt;0.001: these findings remained at 4 months follow up Costs: opportunity costs: I=&lt;$35.75, I=$55.00, C=$142.71; comprehensive costs (including client costs): I=&lt;$139.75, I=$189.29, C=$191.51 Attrition: I: 12% I: 13%</td>
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<tr>
<td>Mullin et al 1994</td>
<td>Participants: self referring mothers I: 10 week course to teach parents how to deal effectively with their child’s behaviour and self management skills; C: waiting list I: (n=39); C: (n=40) Follow up: after intervention and 1 y after completing the course</td>
<td>The 3 training systems produced similar benefit: mean 86% reduction in problem behaviour compared with a 38% reduction in the C group, p&lt;0.001: these findings remained at 4 months follow up</td>
</tr>
<tr>
<td>Siegert and Yates 1980</td>
<td>Participants: parents and children aged 5-15 y who showed behaviour problems I: individual in home 1 h weekly child management training for 5 weeks I2: group 1.5 h weekly child management training for 5 weeks I3: individual in office 1 h weekly child management training for 5 weeks C: delayed treatment but met weekly for 15 min with counselor I1: (n=8 parents); I2: (n=7 parents); I3: (n=7 parents); C: (n=8 parents) Follow up: 4 months</td>
<td>Intervention produced positive effects as rated by parents. At one year follow up, improvements were seen in teacher rated behaviour After intervention improvement in parenting skills assessed with video recording by raters blind to treatment was correlated with teacher rated behavioural improvements at 1 y (p&lt;0.01) Attrition: I=20%, C=23%</td>
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<tr>
<td>Strayhorn and Weidman 1989</td>
<td>Participants: children and parents from low income families, showing a behavioural or emotional problem (mean age 3 y 9 months) I: intensive package of group training, role play practice, and individual sessions - aimed to promote &quot;prosocial&quot; behaviour (average 2.5 h) C: video tape and pamphlet on parenting skills I: (n=50) C: (n=48) Follow up: after intervention and 1 y</td>
<td>No short term difference in teachers’ rating of child behaviour: mothers of the I group more likely to perceive their child as disruptive (p=0.02); this faded over the 3 years: self reported reduction in fighting and stealing in I group boys, after 3 years the % of I group held back after school or put in special classrooms and rated as highly disruptive by teachers was lower (23% vs 43%, p=0.02) Attrition: I=9%, C=10%; C=2% The beneficial effects were slow to emerge</td>
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<tr>
<td>Tremblay et al 1991</td>
<td>Participants: 7 y old white francophone boys in kindergarten in poor areas of Montreal assessed as disruptive and at risk by their teachers I: parents trained to monitor behaviour, to reinforce prosocial behaviour, and punish effectively without abuse. Social skills training was for the boys and fantasies played I: (n=46); C1: (n=42, control); C2: (n=84, placebo observation) Follow up: 3 y</td>
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intervention delivered by an interactive personal computer program in a school setting over two days.\textsuperscript{28} However, this has yet to be evaluated as a health intervention. Ethnic minority teenagers with severe behaviour problems in the United States showed modest improvements in self concept and short term reductions in anxiety after an intervention based on social learning theory in which they were exposed to positive adult role models of the same ethnic group.\textsuperscript{39}

**PARENTAL DIVORCE OR BEREAVEMENT** (TABLE 2)

Children who experience serious adverse life events such as parental separation or bereavement may experience behavioural and emotional problems.\textsuperscript{1} School based programmes for children of divorcing parents have been shown to increase mental health. The children of divorce intervention programme (CODIP) used weekly school based sessions, to communicate feelings, and provide emotional support and the skills needed to resolve interpersonal problems. Ten year olds showed greater gains in adjustment and lower anxiety than controls.\textsuperscript{30} A finding also found in less rigorous evaluations in younger children and ethnic minorities\textsuperscript{31,32} but no long term follow up has been reported. A more labour intensive intervention in 7-10 year olds showed improved skills in children’s adjustment to their circumstances, so reducing anxiety and improving their ability to deal with emotional conflict after one year.\textsuperscript{33}

Workshops for children who have experienced the death of a parent that explored issues of grief and loss and its relation to family dynamics reported improved relations between

**Table 2** Children: divorce or bereavement

<table>
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<tr>
<th>Author, country, objective</th>
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<tbody>
<tr>
<td>Pedro- Carroll and Cowen 1985\textsuperscript{10} USA</td>
<td>To assess the efficacy of a school based prevention programme for children of divorced parents</td>
<td>Participants: 4th-6th grade children of divorced parents in 4 suburban schools: I: 1 child of divorce intervention programme (CODIP): 10 weekly 1 h sessions for groups of children: affective, cognitive skills building and anger expression and control, mainly led by mental health professional; C: delayed intervention I: (n=41); C: (n=34) Follow up: 2 weeks after intervention</td>
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<tr>
<td>Stolberg and Mahler 1994\textsuperscript{11} USA</td>
<td>To compare the effects of school based intervention for children of divorced parents</td>
<td>Participants: children of separated or divorced parents from 3rd to 5th grades in 11 elementary schools: 42% with clinical diagnosis: schools were unit of randomisation I: three treatment groups with a comprehensive 14 week combination of support on special topics: skill building and skill transfer given by a trained doctoral student and school staff; two C groups I1: (n=23, support only); I2: (n=28, I + skills); I3: (n=26, I2 + skills transfer); CI: (n=23, divorce no treatment); C2: (n=26, not divorced); follow up: 1 y</td>
</tr>
<tr>
<td>Sandler et al 1992\textsuperscript{12} USA</td>
<td>To evaluate the family bereavement programme, on mental health problems in children</td>
<td>Participants: families who experienced death of I parent, within past 2 y, identified from records or referral; children aged 7-17 I: 3 grief workshop sessions to meet others in similar situation and improve parent-child nurturing led by trained family advisors; C: delayed entry I: (n=35 families); C: (n=37 families) Follow up: 6 months</td>
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**Table 3** Adults: divorce

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<tr>
<td>Bloom et al 1982\textsuperscript{13}, Bloom et al 1985\textsuperscript{14} USA</td>
<td>To evaluate a preventive programme for the newly separated</td>
<td>Participants: newly separated people from an upper middle class population, recruited by advertising and direct mailing to human service agencies and practitioners. I: the Colorado separation and divorce programme of individual counselling are trained specialists in group to provide social support and skills; C: interview I: (n=101), C: (n=79) Follow up: 4 y</td>
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**Table 4** Adults: unemployment

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<tr>
<td>Caplan et al 1989,\textsuperscript{39} Vinokur et al 1991,\textsuperscript{40} Vinokur 1995\textsuperscript{41} USA</td>
<td>To assess the impact of a job search intervention on depression among the unemployed (JOBS I) at high risk of depression (JOBS II)</td>
<td>Participants: recently unemployed people from Michigan Employment Security Commission I: JOBS I: 8x3 hour group sessions over 2 weeks of job search skill training, mutual support, insolation against setbacks given by trainers; C: self instruction materials I: (n=606); C: (n=322) Follow up: 2.5 y JOBS II: a replication stratified by risk of depression: I: 1552, 229 at high risk); C: (n=1249, 468 at high risk) Follow up: 6 months</td>
</tr>
<tr>
<td>Proudfoot et al 1997\textsuperscript{42} UK</td>
<td>To assess the effects of cognitive behavioural therapy on the long term unemployed</td>
<td>Participants: volunteer professional people unemployed for &gt;12 months I: cognitive behavioural therapy 7-3 x 3 weekly seminars C: 7x3 seminars focusing on social support I: (n=134); C: (n=110) Follow up: 3-4 months after intervention</td>
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parent and child after six months, and reduced parental reports of depression and behaviour problems in older children.28

Adults

UNDERGOING DIVORCE OR SEPARATION (TABLE 3)

The University of Colorado separation and divorce programme, a preventive programme for newly separated people with individual counseling and group study to provide support and build specific coping skills, was evaluated in volunteers in the United States.37 People reported fewer problems, better psychological adjustment, and lower levels of psychiatric symptoms, which were sustained over four years.5–6

Table 5 Adults: pregnancy

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<th>Author, country, objective</th>
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| Elliot et al 1988* | Participants: 1st and 2nd time mothers vulnerable to postnatal neurotic depression. I: 11 monthly parenthood groups run by a psychologist, and a health visitor beginning as early as possible in pregnancy to 6 months postnatal: group sessions used as a “second screen” to identify those in greater need; C: no intervention I: (n=48); C: (n=51) Follow up: 1 y Fewer women diagnosed as depressed in the first 2 postnatal months in the I group (6/48, 2 cases, 4 borderline) than in the C group (17/51, 5 cases, 12 borderline) (p<0.02): not significant in 3rd month: greater reduction in self reported anxiety and depression in first time mothers in 1 group (p<0.05)
| Lee et al 1996* | Participants: women, 6-19 weeks at the time of miscarriage, with no previous miscarriage, not under psychological care, and no intention to terminate pregnancy. To follow up of emotional adaptation in 1: 1 h session of psychological debriefing in own homes at 2 weeks after miscarriage I: (n=21); C: (n=18) Follow up: 4 months after miscarriage No significant main or intervention effects on the hospital anxiety and depression scale, the impact of events scales, and the reaction to miscarriage questionnaire Attrition: 7% overall Study was small and C group had higher levels of anxiety and depression at baseline
| Liford et al 1994* | Participants: bereaved couples (stillbirth, neonatal death, or termination due to congenital abnormality). I: extra counselling sessions for as long as needed, C: no additional counselling I: (n=35); C: (n=22) Follow up: 16-20 months after entry No significant differences in grief, anxiety, or depression as measured by the irritability depression and anxiety scale and the Texas inventory of grief scale Attrition: (I=51%); C=36% 7 out of 17 participants attended < 3 sessions
| Mueller and Major 1989* | Participants: women terminating unwanted pregnancy < 12 weeks. I: 7 min verbal presentation before abortion to reduce self blame attributions; I2: 7 min verbal presentation aimed to enhance belief of ability to cope with abortion; C: standard “counselling” before abortion I: (n=67); I2: (n=70) C: (n=95) Follow up: 3 weeks No effect at 3 weeks follow up Attrition: 73% Very brief intervention: high attrition
| Rees 1995* | Participants: women who had just given birth to their first live child I: 15 min daily tape recorded relaxation with guided imagery (physical relaxation and mental images) for 4 weeks; C: tape recording of music for 15 min every morning for 4 weeks I: (n=30); C: (n=30) Follow up: measured after intervention Traint and state anxiety and depression were lower and self esteem higher in the I group as measured by the Stait-Trait anxiety inventory (p=0.006), the Centre for Epidemiological Studies depression scale (p=0.01), and the Rosenberg self-esteem scale (p=0.002)
| Stamp et al 1995* | Participants: women at risk of postnatal depression (as detected by an antenatal screening questionnaire). I: additional special antenatal and postnatal group giving information, preparation and support; C: usual care I: (n=73); C: (n=71) Follow up: 6 and 12 weeks and 6 months postpartum No significant differences in major or minor depression (as measured by the Edinburgh postnatal depression scale) Attrition at 6 months: I: (n=18%); C: (n=14%) Further analyses carried out: analysed as intention to treat: attendance was low: 31% overall

Table 6 Adults: bereavement

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| Constantino and Bricker, 1996* | Participants: spouse survivors of completed suicides I: 90 min group psychotherapy to achieve realistic goals for 8 weeks, led by a mental health nurse: I2: 90 min promotion of the principles of socialisation, recreation, and leisure for 8 weeks led by a mental health nurse I: (n=16); I2: (n=16) Follow up: after intervention Little difference in Beck depression inventory, brief symptoms, grief experience, and the social adjustment scale Attrition: 0% Self selected, small sample sizes
| Scruby and Sloan 1989* | Participants: recently bereaved key people of cancer patients cared for on a palliative care unit I: 5 weekly bereavement nurse counselling beginning 3 weeks after the loss using Lindemann model of grief management based in the home; C: no intervention, measured at 6 points in time; C2: no intervention, measured twice, used to control for a potential learning effect I: (n=10); C1: (n=10); C2: (n=10) Follow up: 18 months No significant difference in satisfaction, frustration, or learning effect as measured by the Heimer scale of social functioning: all groups showed improvement over time Attrition: not stated Small study, intervention started rather late
| Vachon et al 1980* | Participants: widows of men aged 67 and younger who died in 1 of 7 Toronto hospitals I: letter from a “widow contact” (trained volunteer women who had resolved their own bereavement reactions) who provided emotional support and practical assistance individually and in small groups: only data gathering interview I: (n=68); C: (n=94) Follow up: 2 y Intervention achieved “landmark stage” faster: those at higher levels of initial distress were more likely to have shifted to the low distress group after 2 y than the controls (statistics not reported) Attrition: En=66%; C=50% Differential dropout of those with more problems and less support, may cause bias
Mental health promotion in high risk groups

UNEMPLOYMENT (TABLE 4)
An evaluation of a United States programme (JOBS) aimed at improving job search and problem solving skills and "inculcating" the recently unemployed against set backs, showed better mental health, motivation, and employment outcomes33,34 which were sustained over a 2.5 year follow up.35 A subsequent large randomised field study (JOBS II) confirmed that the benefit was confined to people with fewer depressive symptoms, less financial strain, and low assertiveness, as identified by a screening instrument.36

A recent United Kingdom trial has shown that group cognitive behavioural training can increase general mental health, possibly by increasing re-employment in long term unemployed professionals.40

DEPRESSION IN PREGNANCY (TABLE 5)
Postnatal depression affects between 10% and 15% of mothers and may lead to chronic mental health problems in a considerable proportion of women. This can also adversely affect the child.3 Simple self completion screening instruments have been developed to identify high risk mothers.44,45 However, these may not be sufficiently accurate for routine use.46

Interventions specifically designed to prevent postnatal depression have shown contradictory results.18,44-47,51 Trials of home based social support given to high risk (socially disadvantaged) pregnant women by midwives48 or lay mothers supported by nurse professionals49,50 strongly suggest that various forms of home support or home visiting during pregnancy can improve mental

Table 7 Adults: carers

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<thead>
<tr>
<th>Author, country, objective</th>
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<tbody>
<tr>
<td>Brodary and Gresham 198951</td>
<td>Participants: carers of people with dementia</td>
<td>Psychological morbidity (GHQ) was reduced in carers receiving I1 (p&lt;0.05) and a lower rate of patient institutionalisation.</td>
</tr>
<tr>
<td>Australia</td>
<td>I1: carers received group sessions and training in assertiveness, problem solving, education and family therapy given by psychiatric unit staff Patients received memory retraining 12: (p=0.003)</td>
<td>Attraction: I1=88%; I2=3%</td>
</tr>
<tr>
<td>To evaluate a training programme to reduce stress in carers of patients with dementia</td>
<td>I2: (n=56 days); I2: (n=32 pairs); C: (n=32 pairs) Follow up: 12 months (waiting list 18 months)</td>
<td>Limited programme detail</td>
</tr>
<tr>
<td>Mittleman et al 199544</td>
<td>Participants: primary spouse carer living with a patient with Alzheimer's disease</td>
<td>I group caregivers were less depressed (measured by the geriatric depression scale (GDS)) than the C group at 8 months (p&lt;0.05) and at 12 months follow up (p&lt;0.001)</td>
</tr>
<tr>
<td>USA</td>
<td>I1: 6 sessions of counselling and enrolment in a carer support group; C: standard assistance provided to all caregivers</td>
<td>Attrition: 16% at 12 months follow up</td>
</tr>
<tr>
<td>To examine the effects of comprehensive support programme on depression in spouse caregivers</td>
<td>I: (n=103); C: (n=103) Follow up: 4, 8 and 12 months</td>
<td>No significant differences in baseline depression scores of those not followed up</td>
</tr>
<tr>
<td>Schiebter and Myers 199445</td>
<td>Participants: middle aged children with parent carer responsibilities</td>
<td>Improvement after intervention in overall coping effectiveness as measured by the coping resources inventory for stress (CRIES) (p&lt;0.01)</td>
</tr>
<tr>
<td>USA</td>
<td>I: 4 x 2h, weekly psychosocial counselling sessions, I1 + I2: received the I in weeks 1 to 4; C1-C3: received delayed intervention during weeks 4-7</td>
<td>Attraction: after test = 0%, 3 week follow up = 72% I1 + I2</td>
</tr>
<tr>
<td>To evaluate a psychosocial intervention for adult children caring for ageing parents</td>
<td>I: (n=29); C: (n=22) Follow up: after intervention or 3 weeks after intervention</td>
<td>Multiple analyses were carried out some results may have been significant by chance</td>
</tr>
<tr>
<td>Singer et al 198957</td>
<td>Participants: parents of children with handicapping conditions I1: intensive support group with case management, access to weekly respite, assistance from community volunteers, and classes on coping skills; I2: less intensive support with case management plus respite care</td>
<td>I1 were lower after test for mothers on both depression (p&lt;0.001) and anxiety (p&lt;0.003) and for fathers only on anxiety (p&lt;0.01); this was maintained at 1 year follow up for mothers. Only 1/6 and 1/9 moved into non-anxious categories in the less intensive group: families in I group received less hours of respite care</td>
</tr>
<tr>
<td>Australia</td>
<td>Attraction: at 12 months for I1 = 18%</td>
<td>Not clear of effect of removal of volunteers at 6 months</td>
</tr>
<tr>
<td>To evaluate community based support services for families of children with developmental disabilities</td>
<td>I: were lower after test for mothers on both depression (p&lt;0.001) and anxiety (p&lt;0.003) and for fathers only on anxiety (p&lt;0.01); this was maintained at 1 year follow up for mothers. Only 1/6 and 1/9 moved into non-anxious categories in the less intensive group: families in I group received less hours of respite care</td>
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</tr>
<tr>
<td>Smukler et al 199658</td>
<td>Participants: key caregivers nominated by patients with schizophrenia seen by a community treatment team</td>
<td>No significant trend towards poorer outcomes for the I group in psychological morbidity or ability to cope as measured by the positive and negative effects scale and the ways of coping scale, or the mastery scale even though participants rated the I highly</td>
</tr>
<tr>
<td>Australia</td>
<td>I: 6 weekly 1 h counselling sessions (education and coping) with relative in the family home</td>
<td>Attraction: I1=22%; C=29%</td>
</tr>
<tr>
<td>To assess the value of counselling sessions for relatives of patients with schizophrenia</td>
<td>C: 1 h session discussing caregiving, information giving</td>
<td>More use of active behavioural coping in I group (p=0.01), and less stress and greater improvement in pressing problems (p=0.002); no changes in anxiety, use of community resources, and social support networks: longer follow up needed</td>
</tr>
<tr>
<td>Tolson et al 199259</td>
<td>Participants: spouses of frail elderly veterans</td>
<td>Wide range of marital strain, depression, anxiety in carers and patients, not differentially affected by group</td>
</tr>
<tr>
<td>USA</td>
<td>I: 8 weekly support group meetings of 2 h duration led by a social worker, giving support, education, discussion, problem solving, stress reduction; C: no routine support</td>
<td>Attrition: I7%; C=2%</td>
</tr>
<tr>
<td>An evaluation of a group programme for spouses of frail elderly veterans</td>
<td>I: (n=42); C: (n=47) Follow up: within 2 weeks after intervention</td>
<td>Low power?</td>
</tr>
<tr>
<td>Tolson et al 197570</td>
<td>Participants: spouses and patients undergoing treatment &gt; 3 months after diagnosis and with a moderate level of impairment in daily functioning (terminal phase excluded)</td>
<td>I group had immediately lower levels of anxiety than C (p&lt;0.05); this difference wore off by 3 months as the anxiety levels in the C group dropped (p&gt;0.1)</td>
</tr>
<tr>
<td>USA</td>
<td>I: 6x1 h counselling sessions for spouses and patients focusing upon support, problem solving, and coping skills; C: usual psychological support</td>
<td>Attrition: I1=39%; C=42%</td>
</tr>
<tr>
<td>To assess the effects of psychosocial support on cancer patients and their spouse caregivers</td>
<td>I: (n=44); C: (n=42) Follow up: 2 months</td>
<td>High rate of attrition</td>
</tr>
<tr>
<td>Viney et al 19958</td>
<td>Participants: mainly male voluntary AIDS caregivers with high level of tertiary education</td>
<td>I group had immediately lower levels of anxiety than C (p&lt;0.05); this difference wore off by 3 months as the anxiety levels in the C group dropped (p&gt;0.1)</td>
</tr>
<tr>
<td>Australia</td>
<td>I: counselling by 3 homosexual experienced counsellors. No standard number of sessions not length. C: no counselling.</td>
<td>Attrition: I=39%; C=42%</td>
</tr>
<tr>
<td>To evaluate the effect of personal construct modelling to support carers of people with AIDS</td>
<td>I: (n=33); C: (n=38) Follow up 3 months</td>
<td>High rate of attrition</td>
</tr>
</tbody>
</table>
wellbeing of mothers and their children.\textsuperscript{16} 52 53 Trials also indicate that continuous support for women during labour (by friends or volunteer labour companions) can reduce postnatal depression and raise self-esteem.\textsuperscript{54}

Several trials have also evaluated interventions specifically designed to reduce postnatal depression.\textsuperscript{44} 49 52 The results are contradictory. Women who experience a miscarriage (around 20\% mainly in the first three months) or a perinatal death are also at increased risk of psychological morbidity especially in the first few months. None of the three trials examining various forms of counselling or psychological debriefing, however, showed a sustained effect.\textsuperscript{55-57}

**BEREAVEMENT (TABLE 6)**

Several programmes aimed at reducing mental health problems in recently bereaved caregivers have been evaluated in randomised controlled trials. The family bereavement programme already mentioned\textsuperscript{58} showed positive effects on children and their parents. Running grief workshops (a self-help "widow to widow" programme), in which recently widowed women received support from another widow and attended small group meetings, showed accelerated achievement of landmark stages—such as starting new relations and activities. However, there were several weaknesses in the methods.\textsuperscript{59} In contrast, bereavement counseling showed no effect on quality of life, satisfaction, or frustration levels of key people of deceased cancer patients.\textsuperscript{59} A small trial failed to show any difference in depression, after receiving different models of nurse led group psychotherapy, in spouses of people who had committed suicide.\textsuperscript{60}

**LONG TERM CARERS OF HIGHLY DEPENDENT PEOPLE (TABLE 7)**

There are many publications which have evaluated ways of improving the psychological health of people who care for others who are highly dependent either because of age or physical or mental ill health. A meta-analysis looked at 20 controlled evaluations of interventions in which distress of caregivers was a principal outcome.\textsuperscript{61} A quantitative review of 15 studies (over half of which were randomised controlled trials) suggested that only two types of interventions have been shown to have any effect: individual psychosocial interventions and receipt of respite care. Group psychosocial interventions showed less effect, a finding confirmed in studies that directly compared individual and group interventions.\textsuperscript{62}

Several other experimental evaluations have been reported since this meta-analysis. Two trials show that interventions—such as carers, group sessions combined with either training in assertiveness and coping skills,\textsuperscript{63} or counselling,\textsuperscript{64} can reduce psychological morbidity in those caring for elderly people with Alzheimer's disease, at least in the short term. Also, a psychoeducational programme was found to increase the coping ability of adult children caring for aging parents.\textsuperscript{65}

A group intervention aimed at spouses of frail elderly veterans also resulted in short term improvements in coping and reduced stress.\textsuperscript{66} Intensive support with case management and respite care was shown to reduce depression and anxiety in parents of children with handicapping conditions.\textsuperscript{67}

Randomised controlled trials of counselling by itself showed no sustained effect on improving carers' mental health or reducing stress in the following areas: community based caregivers of patients with AIDS,\textsuperscript{68} family caregivers of patients admitted for schizophrenia,\textsuperscript{69} or spouses and patients undergoing treatment for cancer.\textsuperscript{70}

**Conclusions**

Individual people and groups who are at increased risk of developing mental health problems can be identified and various preventive interventions have been shown to be effective. Children showing behavioural disorders may benefit from a range of interventions including training to improve parenting skills and school based training in social skills. A variety of socially based cognitive and behavioural interventions can be used effectively in children who have had adverse life events such as parental separation, divorce, and bereavement. Specific interventions can help adults adjust to adverse life events such as job loss, bereavement, and divorce. Some psychosocial interventions aimed at promoting support and coping skills, along with respite care, can help to reduce the high levels of strain in carers. There is little evidence that generic counseling, provided by itself, is particularly effective.

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Mental health promotion in high risk groups


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