

## Depression in young people: what causes it and can we prevent it?

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THE NEED TO SHIFT common and modifiable risk and protective factors in favourable directions in order to prevent mental health problems is recognised in the public health approach embraced by *beyondblue: the national depression initiative*.<sup>1</sup> This approach may target individual factors, but usually aims to influence broader social determinants, specifically the settings in which people spend their time. As a recent child and adolescent survey demonstrated, depression has its peak incidence in mid-to-late adolescence.<sup>2</sup> Although there are undoubtedly major opportunities for prevention and early intervention right across the life cycle, a focus on young people within the school environment is relevant. The introduction of evidence-driven, developmentally appropriate programs that have been designed to promote positive school environments and teach life skills can potentially decrease prevalence, reduce severity, and delay the onset of depression.<sup>3</sup>

As the causes of depression are complex, the identification of modifiable risk and protective factors, and understanding the processes through which they operate, is crucial. A protective factor may affect risk, either directly by operating on the antecedent risk factor itself, or indirectly by affecting the strength of the relationship between the risk factor and the development of depression.<sup>4</sup>

There has been a concerted effort in both health and education sectors to promote mental health and emotional wellbeing, reduce the incidence of depression in young Australians, and enhance the quality of care received. The education sector is overwhelmed with a choice of programs that target a broad range of risk-taking behaviours and poor health outcomes, including drug and alcohol use, early sexual activity, conduct disorders, depression and suicide. These programs, each between six and eight weeks long, are educationally based, or they promote resilience by teaching life skills, such as problem-solving, leadership, optimism, and communication. Anecdotal evidence suggests that schools struggle when faced with the task of choosing appropriate programs.

### What causes depression?

The adversity young people experience increases dramatically during mid-to-late adolescence, especially for girls.<sup>5-7</sup>

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### ABSTRACT

- Cumulative adverse experiences, including negative life events and early childhood adversity, together with parental depression and/or non-supportive school or familial environments, place young people at risk for developing depression.
- Enhanced life skills and supportive school and family environments can mediate the effect of stressful life events.
- Programs that enhance the school environment are associated with improved behaviour and wellbeing.
- Interventions that teach cognitive skills are associated with a short-term reduction in depressive symptoms.
- Current evidence suggests that for an intervention to be sustainable it must encompass multiple components across several levels: classroom, curriculum, whole school, and the school–community interface.
- Teaching interpersonal skills, including cognitive and problem-solving skills, should be coupled with the promotion of positive school and family environments to prevent depression in young people.

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Poor interpersonal skills, coupled with negative thought processes, can create difficulties for adolescents negotiating changing relationships with peers and families, searching for autonomy while trying to fit in, and simultaneously trying to succeed in a competitive academic and social environment.<sup>8</sup> Cumulative adverse life events can lead directly to depression, poor academic achievement and increased risk-taking behaviour. Depressing life events can include exposure to family or community violence,<sup>9,10</sup> chronic poverty,<sup>11</sup> child physical and sexual abuse,<sup>12,13</sup> bereavement,<sup>14,15</sup> or parental divorce or separation.<sup>16</sup>

Life events involving loss are specifically associated with depression.<sup>17</sup> Two explanations have been advanced. The first suggests that there may be a direct association between adversity and the onset of depression. Early adversity sensitises individuals to the effects of subsequent life stress,<sup>18</sup> and depressed individuals are at greater risk of experiencing more stressors, which in turn lead to increased levels of depression.<sup>19,20</sup>

The second explanation aims to delineate the mechanisms that intervene between negative life events and depression to explain why many young people who experience adversity do not develop depression.<sup>21</sup>

Individual cognitive characteristics can influence a person's interpretation of negative life events. One theory is that individuals predisposed to depression perceive adverse experiences using "negative cognitive schemata" (stable memory structures that guide information processing). Following a

negative life event, such as a relationship breakdown, an individual might describe him- or herself as inadequate, the world as unfair, and the future as hopeless.<sup>22-29</sup>

The “learned helplessness” theory of depression<sup>30</sup> proposes that individuals are susceptible to depression because they have pessimistic attribution to neutral events. For example, during a basketball game a player might miss a shot. If they have a pessimistic attributional style, they may believe they missed the shot because they are hopeless. They have attributed this event to a cause that is internal (self-referent), stable (a personality characteristic), and global (likely to affect other situations). In contrast, a player who explains the missed goal as a result of being distracted attributes the failure to a cause that is external, unstable, and specific. Research indicates that a pessimistic attributional style interacts with subsequent negative life events to predict ensuing increases in depressed mood. In general, these findings are applicable to both males and females.<sup>31-33</sup>

Parental depression is a risk factor for adolescent depression. Children with a depressed parent are four times more likely to develop an affective disorder; they have a 40% chance of experiencing depression by age 20 years, and a 60% chance by age 25 years. Maternal depression is associated with depression in young people after controlling for other factors, including socioeconomic status.<sup>34-36</sup> A history of parental depression also increases the risk of recurring depression<sup>37</sup> and suicide attempts<sup>38</sup> in adulthood. Prospective studies indicate that maternal depression may affect girls more significantly than boys.<sup>39-42</sup> Parental psychopathology has strong support as a risk factor, but it is unclear whether this risk is mediated through a biological vulnerability,<sup>35,43</sup> the effects of poor parenting caused by that psychopathology,<sup>34,40,43-45</sup> or the transmission of attitudes and values which predispose an individual to later psychiatric disorder.<sup>45,46</sup>

Low self-esteem is often flagged as a predictor of adolescent depression. This claim is supported by longitudinal research which shows that children who perceive themselves as academically, socially, or physically incompetent are more vulnerable to subsequent depression than are children who perceive themselves as competent.<sup>47,48</sup> Such beliefs develop during middle childhood and early adolescence, and arise from evaluations children receive from their peers, teachers or parents,<sup>49</sup> and from the experience of negative events.<sup>48,50</sup> Moderating influences which affect negative beliefs may not emerge until late adolescence or young adulthood.<sup>48,51,52</sup>

Social-skills deficits are associated with concurrent depression and with a wide range of other psychological problems, both in adults and in children.<sup>53</sup> Recent prospective studies have shown that negative perceptions about social competence, self-efficacy or peer acceptance predict symptoms of depression.<sup>54,55</sup> In contrast, high self-perceived social competence acts as a protective factor in young people who are at increased risk of depression as a result of negative life events or parental psychopathology.<sup>56,57</sup>

School is an important arena for social and emotional development; however, it can also be a source of negative life events. Poor academic achievement and beliefs about academic ability, coupled with depression, result in poor school engagement, enhanced perceptions of school-related stress,

and increased problem behaviours.<sup>54,58</sup> Children aged 5–9 years whom teachers believe are unpopular and who are rejected or neglected by their peers are more likely to become depressed during adolescence.<sup>14,59,60</sup> Recurrent bullying or victimisation in Year 8 predicts symptoms of depression and anxiety in Year 9, especially for girls.<sup>61</sup>

In short, adversity and deprivation are risk factors for depression, either directly or because they engender the negative and pessimistic thinking that turns surmountable negative happenings into the defeats that produce depression.

### Can we prevent depression by improving the school environment?

Although there is no evidence that a nurturing school environment prevents depression, one of the primary aims of any prevention program is to reduce known and modifiable risk factors. It is equally important to increase protective factors that reduce the likelihood of poor outcomes in the presence of risk.<sup>62</sup> Children with high intelligence, good problem-solving and social skills,<sup>56,63,64</sup> high self-esteem, a sense of control and positive expectations for the future<sup>57,65,66</sup> are less likely than others to become depressed when environmental risk factors are present. A positive attributional style provides protection against stressful life events.<sup>67</sup> In addition to such individual characteristics, the presence of social support plays an especially important protective role.<sup>57,68,69</sup> Such support includes good peer relations, support from teachers,<sup>70</sup> and a warm and stable relationship with at least one parent.<sup>65</sup> Children who grow up in a negative family situation are less likely to become depressed if they have a confiding relationship with at least one adult outside the family, or if they are involved in and obtain positive recognition for school or community activities outside the family.<sup>63,71,72</sup>

#### School-based programs

School-based programs generally fall under three main intervention types: universal (involving all members of a population group), selective (focusing on a subgroup at high risk), or indicated (targeting those with subclinical disturbances).<sup>4</sup> Andrews and Wilkinson<sup>73</sup> (*page S97*) list the nine randomised controlled trials (RCT) of prevention of depression in young people at risk. Five trials, all of which used cognitive approaches to strengthen the child’s interpretation of adversity, were successful. In some, the reduction of major depressive disorder approached 50%. But these were small studies — none involved a whole-school system approach.

Although not specifically designed to prevent depression, several “whole-school system” programs have shown positive results (see Box).<sup>74</sup> In practice, many school-based programs designed to promote emotional wellbeing have focused on younger children in an attempt to prevent academic failure and reduce the school drop-out rate. For example, one study evaluated a transition program for “high risk” students transferring from primary to secondary school.<sup>78</sup> Elements included the restructuring of home rooms to allow more continuity with peers, and expanding the role of home room teachers to assume advisory and

### Examples of “whole school” programs with positive results

#### Reducing bullying<sup>75</sup>

This study in Scandinavia involved a universal prevention program focusing on the whole-school climate, with subsequent benefit to school attachment and retention. The intervention targeted 11–14-year-old children and consisted of a nationwide campaign to tackle the problems of victimisation and bullying in Norwegian and Swedish schools.

Schools and families were given a folder and instruction booklet, a video on bullying and questionnaire data. The program was designed to target aggressive behaviour, poor family management, and attitudes to bullying. Information was collected from students at baseline, eight months and 20 months.

There was a 50% reduction in the reported levels of victimisation and a substantial reduction in self-reports of antisocial behaviours (vandalism, theft, truancy). Furthermore, there was a considerable increase in reports of satisfaction with school life, with increased retention rates being the best indicator. The absence of significance testing and the reliance on self-report data are notable limitations of the study.

#### Preventing antisocial behaviour<sup>76</sup>

This study in the US, targeting the social climate of the classroom, aimed to improve commitment to school, increase academic performance, and reduce peer rejection and disruptive behaviour. Teachers received initial training, followed by an average of two hours of supervision per month for the duration of the year. Randomisation occurred at the teacher level, and students identified as low achievers in Year 6 were randomised into experimental or comparison groups.

At one-year follow-up, substantial differences were noted in the strategies used by the intervention teachers. Although differences were not found on academic achievement or self-reported levels of delinquency, the number of suspensions was almost halved in the experimental group. Furthermore, there were significant gains in attachment and commitment to school.

#### Helping socially disadvantaged children<sup>77</sup>

The Cromer program in the US targeted school organisation in demoralised inner city elementary schools.

This program included the introduction of a social calendar, a parent program, visits from a multidisciplinary mental health team, and development of a more democratic and participatory system of school governance.

The intervention schools had significantly higher middle school grades, academic achievement on external tests, and self-perceived social competence.

status. The GBG had a strong effect in Year 1 in reducing aggressive behaviour and the effect was still present at Year 6, with the greatest improvement in the most aggressive males. The introduction of MLG improved achievement. Interestingly, this was accompanied by reduced reports of depressive symptoms in girls. Unfortunately, there were insufficient data to calculate effect sizes, and there is the possibility that teachers who made ratings were influenced by their participation in the program.

### Conclusion

*beyondblue* is committed to strategies that prevent or minimise the impact of depression. We have concluded that the risk factors for depression in young people lie in part in their environment, and in part in their interpretation of that environment. Previous reports on prevention show that the school environment can be made less aversive and punitive and that the cognitive and behavioural styles of at-risk children can be changed. Now that we know what to do — improve the school environment and teach cognitive skills to children at risk — we need to plan how to implement this on a national basis while sustaining some ability for ongoing evaluation. Andrews and Wilkinson (*page S97*) describe one method to evaluate the roll-out of such programs.<sup>73</sup>

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counselling roles for students. Students participating in the program reported lower levels of depression and anxiety symptoms, and fewer behavioural problems. School drop-out rates after four years were reduced by more than 50% in the intervention group.

The Mastery Learning and Good Behaviour Games (MLG and GBG, respectively) are examples of classroom-level interventions teaching skills to six- and seven-year-old students.<sup>79</sup> The MLG was introduced to promote academic achievement with the aim of preventing later depressive symptoms. The GBG was designed to prevent the development of aggressive behaviour. The project used a novel randomisation design with schools allocated to one of three groups: control, MLG or GBG. Within intervention schools, classes were randomised to intervention or control

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