

Introduction and scope

This document summarises selected research that explores the association between social and emotional factors and children's health and learning outcomes. Such associations may be mediated in part by behaviour and school engagement.

This is not an exhaustive literature review, but is intended to promote an understanding of the value of focussing on social and emotional wellbeing in schools and pre-schools.

Assessing the evidence

There is some evidence to suggest that a comprehensive and systematic approach to social and emotional wellbeing in educational settings can contribute to improved behaviour, higher academic achievement and better health and social outcomes.

Support for this approach can be obtained by looking for correlations between measures of wellbeing or social-emotional competence (e.g. school climate, emotional intelligence) and measures of children's outcomes such as behaviour, academic achievement or health status. These may be called correlational studies.

Further support is available where results have been compared before and after a specific program or intervention and there has been an improvement in children's outcomes. Intervention studies provide stronger evidence if the participants show significant differences in comparison with a control group that has not received the program. These may be termed intervention studies.

Many studies have now been undertaken and more are underway. The results are promising, but there are some limitations that must be acknowledged. Some studies are tightly controlled and the findings may be applicable only to a certain population or in a particular context. Programs must then be further tested in more complex, real-life situations to see if they are still effective.

There are many different types of measures that can be used to assess the traits and outcomes of individuals and the characteristics of schools. School-based programs vary considerably in the way they are planned, implemented and then evaluated. This means that it can be difficult to compare results across different types of research.

Because this is a complex area of study, and it can be hard to factor in all the variables that impact upon behaviour and performance, it is difficult to prove an actual cause-and-effect relationship. However there is a growing body of international evidence and opinion to support this approach, drawn from various areas of study.

Academic outcomes and school climate

Several studies suggest that connectedness to school or satisfaction with school has some correlation with good student outcomes. Students who dislike school are more likely to experience academic difficulties, have psychosocial problems and engage in unhealthy behaviours such as substance abuse (Samdal, Nutbeam, Wold and Kannas, 1998).

Factors that promote greater satisfaction with school include: good relationships with teachers, good relationships with other students, participation in and responsibility for school life, fairness and relevance of discipline measures, effective school structures and routines, feelings of safety and security (Samdal, et al., 1998).

A similar concept is the positive school climate, which refers to the quality and character of school life as experienced by students, staff and parents (CSEE website www.csee.net). School climate is influenced by a range of factors, including values and goals, relationships in the school community, school structures and policies, teaching and learning practices. There are various approaches to measuring school climate and a number of studies have looked at correlations between school climate and student outcomes. Some research suggests that a positive school climate may be particularly important in addressing the needs of disadvantaged students (Becker and Luthar, 2002).



Rothman and McMillan (2003) investigated school climate by collecting data from 27,000 Year 9 students across 600 Australian schools. Students completed the Quality of School Life (QSL) questionnaire, a reading test and a mathematics test. Schools with higher scores on questions suggesting connectedness and positive school climate also had higher average scores on tests of reading comprehension and mathematics.

Schaps (2005) reviewed a range of studies, some looking at correlations and some considering the results of actual interventions, and concluded that building a sense of caring and community in the school is one way to foster academic success. Students who feel this sense of belonging at school tend to be more motivated and better engaged in learning. Positive connections with teachers were found to be particularly important.

Academic outcomes and social or emotional competencies

In early childhood education, children's social and emotional development has long been valued as an important indicator of academic readiness. Some researchers suggest that a systematic focus on the acquisition of social-emotional skills should be incorporated throughout all years of formal schooling (Farrell and Travers, 2005; Greenberg, et al., 2003).

Poor physical or mental health in children, including the presence of emotional or behavioural disorders, is known to be associated with poorer academic achievement (Becker and Luthar, 2002; Spernak, et al., 2006). Educational settings that promote wellbeing and are responsive to the physical and mental health needs of children are likely to be more effective in promoting positive academic outcomes.

Certain studies consider deficits in social and emotional skills, while others focus on strengths or competence. A range of measures can be used in such research, determined in part by the age and development of participants. Studies vary in terms of their use of various informants, which may include teachers, parents, children, trained observers, or more commonly a mixture of these.

Raver and Knitzer (2002), in a summary of relevant research, point out that young children who act in antisocial ways participate less frequently in classroom activities and do more poorly in early schooling than their more emotionally positive, prosocial counterparts. While this review focussed on early childhood education and school readiness, studies undertaken in the primary school years also support this premise.

Welsh, Parke, Widaman and O'Neill (2001), conducted a study of 163 children in early primary school, following them over time. Social competence was rated by other children (through developmentally appropriate tasks) and by teachers. Malecki and Elliot (2002) conducted a similar study of 139 primary school students and their teachers, although different measures were used. The findings of both studies suggested that social competence is positively correlated with academic achievement.

Another issue that has attracted considerable discussion is the concept of emotional literacy or emotional intelligence, terms that are sometimes used interchangeably in the literature and in common use. Some studies suggest a correlation between emotional intelligence and academic outcomes, while others have been unable to support such findings.

Petrides, Fredrickson and Furnham (2004) found that emotional intelligence as a trait – pertaining to personality and disposition rather than to a demonstrated skill to use emotionally-laden information – did have some correlation with academic achievement. However it seemed mainly to be important in influencing outcomes among disadvantaged and vulnerable students.

The lack of consensus in emotional intelligence studies may relate in part to the use of different approaches to its measurement and the existence of a number of sub-scales. It appears likely that some elements of emotional intelligence may be correlated with academic outcomes, but more research is needed (Barchard, 2003).

Improvements in academic outcomes

Stronger evidence is available from studies that examine the outcomes of specific programs designed to build social



and emotional competencies and/or to change the school climate. Some interventions have been associated with a change in measures of academic achievement, such as students' test scores.

For example, the Child Development Project (CDP) in the United States has been shown to have a positive impact on children's school-related attitudes and grade point averages, in comparison with others who did not participate in the program. This program focusses on both the curriculum and the school environment and was implemented in 12 United States schools over three years. Twelve other schools were used as control sites (Battistich, Schaps, Watson, Solomon and Lewis, 2004).

Some studies suggest that the benefits of such programs may extend beyond the school years. The Perry preschool program was subjected to a trial in the United States, in which preschools within a disadvantaged area were randomly assigned to the intervention or control group. Students were then followed up over several years.

At the age of 40, those who had completed the program in preschool showed significant benefits over those who had not. These included a higher level of schooling completed, a larger proportion attending university, higher employment rates and a higher average salary (Schweinhart and Weikart, 1998; Schweinhart, 2004).

CASEL. (2007) have recently conducted a review of several studies in which the programs were designed to promote the development of social and emotional competencies. Overall, students who completed the social and emotional learning programs showed improvements in their social and emotional skills, better attitudes to themselves and others, improved attitudes to school, more pro-social behaviour and improved academic achievement. A more detailed publication on this review is currently in preparation.

Behaviour

Disruptive behaviours cause significant difficulties for children, parents, teachers and schools and increase the risk of a number of negative life outcomes such as poor academic achievement, substance use, mental illness and adult anti-social behaviour (Centre for Community Child

Health, 2007). These behaviours also cause considerable stress for early childhood professionals and school staff (Greene, Beszterczey, Katzenstein, Park, and Goring, 2002).

Several programs that are designed to promote the development of social or emotional competencies have been demonstrated to improve children's skills in particular areas and to reduce the incidence of disruptive behaviour (Durlak and Wells, 1997; Greenberg, et al., 2003). The previously described Child Development Project (CDP) strengthened students' sense of community at school, improved engagement and reduced challenging behaviour (Battistich, Schaps and Wilson, 2004).

A further example is the Steps to Respect program. It was designed to enhance staff awareness and responses to bullying and aggression, as well as to develop prosocial beliefs and skills among students. Evaluation included direct observations of playground behaviour, as well as teacher reports. Positive changes were evident in terms of improved behaviour, more pro-social beliefs, more positive social interactions and less tolerance of bullying among bystanders (Frey, Hirschstein, Snell, Van Schoiack Edstrom, MacKenzie and Broderick, 2005).

Reviews of numerous studies and approaches have found that school-based programs designed to prevent disruptive behaviours can be effective. Catalano, Berglund, Ryan, Lonczak, and Hawkins (2002) reviewed twenty-five initiatives and found that programs could produce improvements in a number of social and emotional competencies, including several that have been associated with resilience. Significant changes were also reported in regard to a reduction in school misbehaviours, aggression, violence and truancy.

Again, these results may persist over the long-term, when they involve a comprehensive and sustained delivery. Students who completed the program Providing Alternative Thinking Strategies (PATHS) showed lower rates of disruptive and aggressive behaviours two years after beginning the intervention (Kam, Greenberg and Kusche, 2004).

Young people who participated in the Seattle Social Development Project were less likely than their peers to be



involved in anti-social behaviour, violence or substance use, six years after completing the program (Hawkins, Smith and Catalano, 2001). Similarly, those who had participated in the previously mentioned Perry preschool program were shown to have lower rates of teenage pregnancies and a lower level of adult criminal behaviour (Schweinhart and Weikart, 1998; Schweinhart, 2004).

Health outcomes

A number of programs that focus on social and emotional skill development have now demonstrated the potential to improve mental health. This may be indicated through strengthening competencies or protective factors (e.g. self-concept, negotiation skills and problem-solving) or through a reduction in feelings or behaviours associated with mental health difficulties, such as depression, anxiety and substance abuse.

The Aussie Optimism Program targets middle primary to lower secondary school students and focusses on optimistic thinking and social skills. This is a universal program delivered to all students, not only to those who may be at risk of social or emotional difficulties. After the transition to high school, students who had received the program had fewer symptoms relating to depression and anxiety (according to parent report) than students in a control group. There was also a lower incidence of clinical levels of depression and anxiety (Roberts, 2006).

The Friends for Life Program (Farrell and Barrett, 2007) has also been implemented in a universal format, in which teachers run several sessions with the class that focus on self-esteem, problem-solving, psychological resilience and building positive relationships with peers and adults. The program has been shown to have benefits in promoting skills associated with resilience and reducing emotional difficulties associated with anxiety and depression.

Wells, Barlow and Stewart-Brown (2003) reviewed a number of studies that had evaluated the impact of universal mental health promotion approaches delivered to all students, either involving predominantly classroom instruction or via a more comprehensive whole-school approach. They found that there was evidence that certain programs could improve mental health, as indicated on a

variety of measures such as self-concept, interpersonal communication, negotiation, and the capacity to describe or manage emotions more positively. Programs were most likely to be effective if they involved a comprehensive whole-school approach and if their implementation was sustained for more than a year.

Programs based on social and emotional skill development and school climate have also been found to be helpful in reducing the harmful use of drugs or alcohol. Schools that implemented the Child Development Project (CDP) comprehensively were able to demonstrate reductions in the problematic use of marijuana and alcohol by students (Battistich, Schaps, Watson, Solomon and Lewis, 2000).

Schaps and Solomon (2003) reviewed both correlational and intervention studies that focused on the school's social environment in an attempt to prevent student substance use. They found that such approaches can indeed be effective, possibly through increased student attachment to school and a willingness to engage with and abide by school norms and values. Important factors appeared to be a supportive school environment, a sense of community, opportunities for students to interact positively and to exert some influence on decision making or events within the school community.

As previously discussed, the benefits of participation in certain programs may persist for some years. Participants in the Seattle Social Development Project had lower levels of substance use than their peers, six years after completing the program (Hawkins, Smith and Catalano, 2001). Among males who participated in the Perry preschool program, there was also a lower incidence of drug use at age 40 in relation to marijuana, heroin and sedatives, as compared with the control group (Schweinhart and Weikart, 1998; Schweinhart, 2004).

Conclusion

There is now a considerable body of research and expert opinion that supports the value of systematic and comprehensive approaches to promoting social and emotional development and wellbeing in schools and early childhood education.



While the research does not prove a definite cause-and-effect relationship, there is enough evidence to support the premise that such approaches can be associated with improvements in children's behaviour, academic achievement and health. Promoting social and emotional development alongside cognitive development has the potential to significantly improve outcomes for children and young people, with benefits that may reach far beyond the formal years of schooling.

Sources and Links

- Barchard, K. (2003). Does emotional intelligence assist in the prediction of academic success? *Educational and Psychological Measurement*, 63(5), 840-858.
- Battistich, V., Schaps, E., & Wilson, N. (2004). Effects of an elementary school intervention on students' "connectedness" to school and social adjustment during middle school. *The Journal of Primary Prevention*, 24(3)15-24.
- Battistich, V., Schaps, E., Watson, M., Solomon, D., & Lewis, C. (2000). Effects of the child development project on students' drug use and other problem behaviours. *The Journal of Primary Prevention*, 21(1), 75-99.
- Becker, B. E., & Luthar, S. (2002). Social-emotional factors affecting achievement outcomes among disadvantaged students: closing the achievement gap. *Educational Psychologist*, 37(4), 197-214.
- CASEL. (2007). *The benefits of school-based social and emotional learning programs: Highlights from a forthcoming CASEL report*. Retrieved December 5, 2007, from: www.casel.org/downloads/metaanalysisissum.pdf
- Catalano, R. F., Berglund, M.L., Ryan, J.A.M., Lonczak, H.S., & Hawkins, D. (2002). Positive youth development in the United States: Research findings on evaluations of positive youth development programs. *Prevention and Treatment*, 5(15), 1-106.

Sources and Links

- Centre for Community Child Health. (2007). Child behaviour: Overview of the literature. Monograph 3 in A. O'Hanlon, A. Patterson and J. Parham. (Series Eds), *Promotion, Prevention and Early Intervention for Mental Health in General Practice*. Adelaide: Auseinet.
- Centre for Social and Emotional Education. (2007). *What is school climate?* Retrieved December 5, 2007 from: www.csee.net/climate/schoolclimate/
- Durlak, J., & Wells, A. (1997). Primary prevention mental health programs for children and young people: A meta-analytic review. *American Journal of Community Psychology*, 25(2), 115-152.
- Farrell, L. J., & Barrett, P. M. (2007). Prevention of childhood emotional disorders: Reducing the burden of suffering associated with anxiety and depression. *Child and Adolescent Mental Health*, 12(2), 58-65.
- Farrell, P., & Travers, T. (2005). A healthy start: Mental health promotion in early childhood settings. *Australian e-Journal for the Advancement of Mental Health*, 4(2),1-10.
- Frey, K. S., Hirschstein, M. K., Snell, J.L., Van Schoiack Edstrom, L., MacKenzie, E. P., & Broderick, C. J. (2005). Reducing playground bullying and supporting beliefs: An experimental trial of the steps to respect program. *Developmental Psychology*, 41(3), 479-491.
- Greenberg, M. T., Weissberg, R. P., O'Brien, M. U., Zins, J. E., Fredericks, L., Resnik, H., et al. (2003). Enhancing school-based prevention and youth development through coordinated social, emotional and academic learning. *American Psychologist*, 58(6-7), 466-474.
- Greene, R. W., Beszterczey, S. K., Katzenstein, T., Park, K., & Goring, J. (2002). Are students with ADHD more stressful to teach? Patterns of teacher stress in an elementary school sample. *Journal of Emotional and Behavioural Disorders*, 10(2), 79-90.



Sources and Links

- Hawkins, J. D., Smith, B. H., & Catalano, R. F. (2001). Social development and social and emotional learning: The Seattle social development project. *The CEIC Review*, 10(6), 18-19.
- Holmes, S., Slaughter, J., & Kashani, J. (2001). Risk factors in childhood that lead to the development of conduct disorder and antisocial personality disorder. *Child Psychiatry and Human Development*, 31(3), 183-193.
- Kam, C., Greenberg, M. T., & Kusche, C. A. (2004). Sustained effects of the PATHS curriculum on the social and psychological adjustment of children in special education. *Journal of Emotional and Behavioural Disorders*, 12(2), 66-73.
- Malecki, C. K., & Elliott, S. N. (2002). Children's social behaviours as predictors of academic achievement: A longitudinal analysis. *School Psychology Quarterly*, 17(1), 1-23.
- Samdal, O., Nutbeam, D., Wold, B., & Kannas, I. (1998). Achieving health and educational goals through schools - A study of the importance of the school climate and the students' satisfaction with school. *Health Education Research*, 13(3), 383-397.
- Schaps, E., & Solomon, D. (2003). The role of the school's social environment in preventing student drug use. *Journal of Primary Prevention*, 23(3), 299-328.
- Petrides, K., Fredrickson, N., & Furnham, A. (2004). The role of trait emotional intelligence in academic performance and deviant behaviour at school. *Personality and Individual Differences*, 36, 277-293.
- Raver, C., & Knitzer, J. (2002). Promoting the emotional well-being of children and families. *Ready to Enter* 3. Retrieved December 5, 2007, from: www.nccp.org/publications/pdf/text_485.pdf
- Roberts, C. (2006). Embedding mental health promotion programs in school contexts: The Aussie Optimism Program. *International Society for the Study of Behaviour Newsletter*.

Sources and Links

- Rothman, S., & McMillan, J. (2003). Research Report 36: *Influences on achievement in literacy and numeracy*. ACER Retrieved November 1, 2007, from: www.acer.edu.au/research/projects/lsey/research.html
- Schaps, E. (2005). Chapter 3 in *Getting results, developing safe and healthy kids. update 5: Student health, supportive schools and academic success*. California Department of Education. Retrieved February 5, 2008, from www.devstu.org/about/articles/html.
- Schweinhart, L. J. (2004). *Perry preschool study through age 40: Summary, conclusions, and frequently asked questions*. The High/Scope Educational Research Foundation.
- Schweinhart, L. J., & Weikart, D. B. (1998). The high/scope Perry preschool program. In R. H. Price, E. L. Cowen, R. P. Lorion & J. Ramso-McKay (Eds.), *Fourteen Ounces of Prevention: A Casebook for Practitioners*. Washington, USA: American Psychiatric Association.
- Spernak, S., Schottenbauer, M., Ramey, S., & Ramey, C. (2006). Child health and academic achievement among former head start children. *Children and Youth Services Review*, 28, 1251-1261.
- 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.
- Welsh, M., Parke, R., Widaman, K., & O'Neill, R. (2001). Linkages between children's social and academic competence: A longitudinal analysis. *Journal of School Psychology*, 39(6), 463-481.