CHILDREN'S MENTAL HEALTH RESEARCH

Quarterly

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Children's Health Policy Centre

ABOUT THE CHILDREN'S HEALTH POLICY CENTRE

We are an interdisciplinary research group in the Faculty of Health Sciences at Simon Fraser University. We aim to improve children's social and emotional health and reduce health disparities starting in childhood. To learn more about our work, please see childhealthpolicy.ca.

ABOUT THE *QUARTERLY*

The *Quarterly* provides summaries of the best available research evidence on a variety of children's mental health topics, prepared using systematic review and synthesis methods adapted from the *Cochrane Collaboration* and *Evidence-Based Mental Health*. Our goal is to improve outcomes for children by informing policy and practice. The BC Ministry of Children and Family Development funds the *Quarterly*.

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This Issue

NEXT ISSUE

Addressing physical punishment

Spanking is on the decline, but some parents still use this and other forms of physical punishment to discipline their children. We examine what the research evidence says about the impact of physical punishment on young people and about better alternatives.

How to Cite the *Quarterly*

We encourage you to share the *Quarterly* with others and we welcome its use as a reference (for example, in preparing educational materials for parents or community groups). Please cite this issue as follows:

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Adding mental health to the lesson plan

One teacher in particular I see every day, and she is just cool. We respect our different positions, but ... I can talk to her about school, friends, anything I want and it is not weird.

— Student[1]

[It's important to reinforce] the ideas of the positiveness and feeling secure at school, and certainly encouraging staff, that irrespective of what subjects they teach, they can have an influence. And it's a bit like planting a seed.

— Teacher[2]

Beyond their obvious role in ensuring children's learning, schools can play a crucial role in enhancing children's mental health.

Children and teenagers spend more than a third of their waking hours in school. As a result, these institutions have tremendous potential to influence young people's lives.[3] Beyond their obvious role in ensuring children's learning, schools can play a crucial role in enhancing children's mental health.[4] (We define *mental health* as "social and emotional well-being," not merely the absence of disorder. We also consider a wide range of *promotion*, *prevention* and *treatment* interventions when looking at children's mental health.)[5]

In fact, considerable research evidence now documents the profound impact schools can have on students' mental health. In a formative study, Rutter and colleagues tracked 1,500 British children as they progressed from primary through secondary school in the 1970s.[6] This study found significant differences in outcomes based on the schools young people attended, even after accounting for social disadvantages (including those based on social class and neighbourhood). In particular, students attending more "successful" schools — described in Table 1 — had significantly fewer behaviour problems *and* significantly higher examination scores.[6]

Correction

In our kinship foster care issue, we incorrectly identified Grandparents Raising Grandchildren (GRG) as an independent organization. In fact, GRG is a service provided by the Parent Support Services Society of BC. We regret our error.

Table 1: Characteristics of Successful Schools
Teachers* used ample rewards, praise and appreciation, e.g., they displayed students' work in the school
Teachers provided positive modelling, e.g., they began and ended lessons on time and they were readily available to meet with students
Teachers and administrators were well organized, e.g., their approaches to curriculum and discipline were established collaboratively
Teachers used effective classroom management techniques, e.g., they focused on good behaviour and swiftly addressed disruptiveness
Teachers emphasized academics, e.g., they assigned homework and monitored its completion
School environments were pleasant and comfortable, e.g., students had access to the school during breaks
Students had opportunities to participate in and take responsibility for school life, e.g., they shared duties at school assemblies and meetings
* We use "teachers" to include all those working in the classroom, as well as those holding administrative and leadership positions.

Schools continue to matter to mental health

Since the publication of this influential study, researchers have continued to document the importance of schools to mental health — across developmental stages and in different countries. Four recent studies stand out.

A nationally representative study of more than 10,000 American first graders found that classroom environments had a substantial impact on mental health.[7] In particular, children in more positive school environments (i.e., those with sufficient resources such as books and computers, and with teachers who were well respected by colleagues) had fewer social and emotional problems as well as fewer learning problems.

In addition, a nationally representative study of more than 11,000 Dutch high-schoolers found that student perceptions of school safety were strongly associated with social and emotional well-being. Specifically, students who viewed their schools as being safe experienced fewer peer problems and fewer mental health problems.[8]

Two Canadian longitudinal studies had similar results. A Quebec study that followed more than 5,000 teens showed that students attending schools with better "socio-educational" environments (i.e., those that were safe and fair and provided good learning opportunities) had significantly reduced risks of experiencing depression.[9] Similarly, an Ontario study that tracked more than 2,500 teens showed that high levels of peer and teacher support reduced the risk of experiencing depression and low self-esteem.[10]

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Options for schools

Many schools — recognizing the impact they can have on children's mental health — are implementing programs to address this aspect of students' well-being. In fact, 59% of American schools reported offering curriculum-based programs addressing social and emotional competencies.[11]

Even more importantly, schools have options for implementing mental health programs with solid evidence of success. For example, in past issues of the *Quarterly* we have highlighted many school-based programs effective at preventing anxiety, substance misuse, conduct disorder, depression and suicide attempts, as well as treating anxiety disorders. Among the specific programs featured in past issues, the story of the *FRIENDS* implementation is particularly noteworthy. Currently, all BC school districts as well as many independent and First Nations schools offer *FRIENDS*.[12] Beyond these specific programs focused on mental disorder prevention and treatment, our upcoming Review article investigates interventions designed to improve school social environments and evaluates how these might contribute to students' mental health.

Schools have options for implementing mental health programs with solid evidence of success.

Besides the good program options that exist, there is another compelling reason for schools to get involved in mental health promotion, prevention and treatment. Schools are the one venue with close-to-universal access to young people, so they offer an efficient way to reach large numbers of children and youth.[13–14] However, schools also have many other demands, including meeting young people's academic needs, which can be very diverse. Consequently, if schools are going to also address students' mental health needs, they require the supports and resources to do so effectively.[4]

How do BC students feel about their schools?

In 2013, almost 30,000 BC public school students from Grades 7 through 12 responded to a survey about their school experiences.[15] The results suggest that BC schools deserve good grades for their efforts to provide positive environments. Most students identified feeling safe (78%), happy (67%) and connected to their schools (62%).[15] Most also reported having good relationships with their teachers (72%), including feeling that their teachers cared about them (63%), and that teachers and other school staff treated them fairly (74%).[15]

The survey results also suggested that creating positive environments for students had benefits that extended beyond the schoolyard. In fact, researchers found a very strong relationship between students' level of connection to their schools and their mental health. Specifically, 94% of students who felt highly connected to their schools described being in good or excellent mental health. The comparable figure for students who were less connected was only 58%.[15]

Because of the research methods used in this survey, it cannot necessarily be assumed that the school environment caused these differences in students' mental health status, or that these findings apply to all BC children and youth. Still, these findings build on a body of research evidence showing that schools can play an important role in children's mental health.[4]

Making schools more successful

Schools are increasingly considering "social environment" factors as they try to enhance students' well-being.[16] But how well will these efforts pay off? To answer this question, we used our usual methods to conduct a comprehensive search for systematic reviews of studies evaluating programs designed to improve school social environments. We found one — by Kidger and colleagues.[16] This review examined program evaluations addressing at least one of the following variables:

- Structural features (e.g., school size)
- Relationships (e.g., between students as well as between teachers and students)
- Teaching practices (e.g., interactive techniques such as small-group work)[16]

Beyondblue and *Gatehouse* were both universal prevention programs that aimed to reduce mental health symptoms by focusing on all young people in participating schools.

These authors also required that all accepted original studies include young people between 11 and 18 years, and that the studies assess outcomes using at least one measure of student well-being.

Although the studies examined in Kidger's review used a variety of research designs, we focused only on those using randomized controlled trials (RCTs), because RCTs provide much greater certainty that any improvements result from the intervention rather than chance. (We also conducted an updated search for RCTs published since this review, but found none that met Kidger's criteria.)

As a result, we present findings from three programs that were evaluated with one high-quality RCT each: *Beyondblue*,[17–18] the *Gatehouse Project*[2, 13–14, 19–20] and *Teacher Mentoring*.[21] (Each of these RCTs also met our usual inclusion criteria; please see our methods for further details.) All three programs addressed the same social environmental variable, encouraging positive student-teacher relationships, while also addressing other variables (e.g., students' coping skills). Similarly, all three evaluations assessed at least one measure of student well-being, such as social competence, while also including other measures (e.g., of mood or behaviour or learning).

Universal prevention approaches

Beyondblue and *Gatehouse* were both universal prevention programs that aimed to reduce mental health symptoms by focusing on all young people in participating schools.[13, 18] These two programs shared many other features as well. First, both attempted to improve school social environments as a way of reducing students' depressive symptoms. (*Gatehouse* also aimed to reduce substance use.) Second, both were three-year programs delivered to Australian students, typically starting in the first year of high school. Third, both programs began by identifying specific concerns and priorities for each participating high school — through community

forums for the 25 *Beyondblue* schools and student surveys for the 12 *Gatehouse* schools. And fourth, both programs provided multiple interventions that actively involved both students and teachers.

Some of the specific interventions used in *Beyondblue* and *Gatehouse* also overlapped. For example, both programs established partnerships with community-based health professionals. Also in both, teachers delivered classroom lessons on thinking and coping strategies to promote resilience. These included 10 lessons per academic year based on cognitive-behavioural therapy (CBT) techniques — over three years for *Beyondblue* and over two years for *Gatehouse*.

Teachers delivered classroom lessons on thinking and coping strategies to promote resilience.

Targeted prevention approaches

In contrast, *Teacher Mentoring* was targeted, focusing only on students who had emotional and behavioural problems within one American high school in a socially disadvantaged community. This briefer program aimed to reduce students' emotional and behavioural challenges by improving their relationships with teachers. Participating students engaged in weekly meetings with a teacher to work on two self-selected goals over five months. Teachers provided these students with extra positive feedback as well as monthly telephone calls to discuss their school progress. Table 2 provides more information about all three programs.

Table 2: Program and Participant Characteristics

Program (Length)	Goals and Components	Participants
Universal Prevention Approaches		
Beyondblue[17–18] (3 years)	Reduce depressive symptoms by: • Sponsoring community forums to identify concerns + solutions • Building supportive school environments to improve social interactions • Improving students' access to support + professional services • Teaching students problem-solving, social skills + strategies to build resilient thinking + coping strategies during classroom lessons	4,421 students in 25 intervention high schools compared to 4,452 students in 25 control high schools across socio-economically diverse Australian communities
Gatehouse Project[2, 13–14] (3 years)	Reduce depressive symptoms + substance use by: • Identifying intervention priorities + strategies based on student surveys • Establishing team of school staff + parents to coordinate intervention • Promoting positive environments using techniques such as mentoring, peer support, bullying prevention + classroom management strategies • Training teachers on curriculum implementation + teaching strategies • Teaching students communication skills + strategies to build resilient thinking + coping strategies during classroom lessons	1,652 students in 12 intervention high schools compared to 1,971 students in 14 control high schools across socio-economically diverse Australian communities
Targeted Prevention Approaches		
Teacher Mentoring[21] (5 months)	Reduce emotional + behavioural problems by: • Conducting weekly student-teacher meetings to help students identify + achieve 1 school-related + 1 non-school-related goal • Increasing teacher praise of students • Holding monthly student-teacher phone calls to discuss school progress	33 intervention students compared to 33 controls in 1 socio-economically disadvantaged urban American high school

How did students benefit?

All three programs produced modest positive results. For *Beyondblue,* at the end of the program and at two-year follow-up, intervention teachers rated their school climates as significantly better than controls. However, intervention student ratings of their school climates and of their own social and emotional well-being did not differ significantly.[17–18]

For *Gatehouse,* at the end of the program, cigarette smoking was significantly reduced — but only for students with good school connectedness (i.e., those who were committed to school, had a sense of belonging at school, and had positive relationships with teachers and peers).[20] These particular students were significantly less likely to smoke cigarettes, or to smoke regularly, compared with students in control schools (9.5% versus 20.1% and 3.4% versus 12.6%, respectively).[20]

As well, *Gatehouse* students who did not smoke cigarettes were significantly less likely to use cannabis (weekly or more) compared with students in control schools; in fact, their odds of doing so were half those of control students.[19] (This reduced cannabis use, however, was not found among *Gatehouse* students who smoked cigarettes.) *Gatehouse* students did not experience any other gains compared with control students by the end of the program.[14, 19] Perhaps even more surprising, students in control schools reported being significantly more attached to their schools than *Gatehouse* students, a finding the authors did not explain. Table 3 summarizes the outcomes for all three programs.

All three programs produced modest positive results.

Table 3: Program Outcomes

Program (Time Frame)	Favouring Program	No Difference	Favouring Control
Beyondblue [17–18] (Both post-test + 2-year follow-up)	↑ Positive school climate (for teacher but not student ratings)	• Depressive symptoms • Coping strategies • Optimistic thinking style • Social competence • Perceived social support	None
Gatehouse Project [14, 19–20] (Post-test only)	↓ Cigarette smoking (for students with good school connectedness only) ↓ Weekly cannabis use (for non-cigarette smokers only)	• Depressive symptoms • Substance use* • Friends who use substances** • Victim of bullying • Conflicted relationships • Availability of support	↑ Attachment to school
Teacher Mentoring [21] (Post-test only)	↑ Grade point average	• Behavioural problems • Emotional problems • Social competence + school adjustment • School engagement • School absences	None

* Includes seven outcomes: any, regular + binge alcohol use, any + regular cigarette use, and any + weekly marijuana use.
** Includes three outcomes: alcohol, cigarettes + marijuana use by friends.

For *Teacher Mentoring*, intervention students achieved one notable gain. At the end of the program, their grade point averages were significantly higher than those of control students. Still, there were no statistically significant differences between intervention and control students for any other outcome.

What can we learn from these studies?

Both universal programs achieved some gains. *Beyondblue* improved high-school climates, according to teacher ratings. *Gatehouse* partially met its goal of reducing substance use — with selected groups of students reducing their use of cigarettes and cannabis. However, neither program met their primary goal of reducing depressive symptoms, despite having sample sizes that were large enough to detect even small gains.

Fidelity may have played a role in these mixed findings. For both these large-scale programs, numerous school staff had to be trained and actively involved in the delivery. To this end, *Gatehouse* evaluators identified variation in schools' readiness and resources for implementing the program, suggesting that some may have needed more support than they received.[22] These kinds of challenges provide a reminder that schools need to have adequate resources before undertaking new programs such as these.

In addition, the universal delivery of these two programs may have played a role in the limited gains achieved. Because all students in the intervention schools participated, it was inevitable that some were at low risk for experiencing depressive symptoms (or substance misuse). Consequently, these programs would have little opportunity to reduce already-low scores on measures of depression and substance use for these young people. This difficulty in producing even small effects is a well-recognized drawback of universally delivered prevention programs.[23]

The targeted *Teacher Mentoring* program, in comparison, helped disadvantaged high-school students with pre-existing emotional and behavioural problems to significantly improve their grades. By purposefully focusing on students who were experiencing challenges, *Teacher Mentoring* ensured that all participating students required the extra assistance they received. To this end, targeted programs have been recognized for their ability to efficiently deliver interventions to those most in need.[23]

Targeted programs have been recognized for their ability to efficiently deliver interventions to those most in need.

Still, given the disadvantages faced by students in *Teacher Mentoring*, the duration and intensity of the program may simply have been insufficient for it to reach its ultimate goal of improving students' emotional and behavioural well-being.[21] Many students lived in very poor neighbourhoods where they encountered frequent violence and family instability.[21] Their teachers in turn faced inadequate school resources, as well as a high number of students who struggled academically.[21] Consequently, it was meaningful that students' grades increased despite these substantial obstacles faced by both students and teachers.

Investing wisely in school programs

The modest gains achieved by the two large-scale universal prevention programs may not justify investing in *Beyondblue* and *Gatehouse* in BC — particularly given the length of these programs and the resources and staffing they required.

In contrast, *Teacher Mentoring* — the sole targeted program featured in this review — achieved a gain that many communities would want to repeat. Namely, the program effectively helped disadvantaged students significantly improve their grades, even when these young people had emotional and behavioural problems. Given that academic success is a major factor influencing social and health status throughout life, Canadian replications may be well worth the investment.[27]

Teacher Mentoring may also have particular appeal because it does not require significant new resources. Specifically, teachers were able to successfully deliver this program using a standardized manual coupled with informal biweekly meetings with the lead researcher, while also performing their regular duties.[21]

There is more positive news for schools that want to invest in mental health programs. In previous *Quarterly* issues, we identified several targeted programs that can successfully prevent mental disorders in high-school students through classroom-based interventions (rather than interventions that aimed to change the school environment). For example, the CBT-based *FRIENDS* program reduced anxiety symptoms for Australian high-school students at high risk of developing an anxiety disorder. As well, *Coping with Stress* and *Teen Talk* both prevented new cases of depression for American high-school students experiencing depressive symptoms. (The former used CBT techniques and the latter interpersonal psychotherapy.)

Teacher Mentoring *may have particular appeal because it does not require significant new resources.*

Beyond prevention, schools can also provide effective treatment for students with mental health challenges. For example, in a previous issue of the *Quarterly*, we found that teachers successfully delivered the CBT-based *Skills for Academic and Social Success* to American high-school students with social anxiety disorders. Also, school counsellors can provide effective treatments for many common mental disorders, including CBT for anxiety, substance use disorders, conduct disorder and depression. Clearly, the evidence indicates that schools have a vital role to play in the mental health of children and youth.

Do we need to start earlier?

Kidger's review provided a succinct and valuable summary of interventions for improving high-school environments. However, because the review focused on youth aged 11 years and older, it provided no information on interventions for younger children.

To address this gap, we identified two additional randomized controlled trials evaluating universal school environment interventions for elementary students. First, a bullying prevention program — *Steps to Respect* — significantly reduced bullying for students in Grades 3 to 6.[24] It achieved this by teaching teachers to create safe school environments, and by teaching students social and emotional skills for positive peer relationships.[24]

Meanwhile, an emotional-health program — *Positive Action* — significantly improved elementary-school students' sense of feeling happy with their lives *and* significantly reduced anxiety and depressive symptoms.[25] These gains were made by emphasizing a positive school-wide climate and by teaching students skills for enhancing their self-worth and their relationships with others.[25] Consistent with past research showing that interventions with young children can be particularly helpful in developing social and emotional skills, these two sets of findings suggest that efforts at improving school environments should indeed start early.[26]

Beyond prevention, schools can also provide effective treatment for students with mental health challenges.

New options for treating ADHD?

In a recent issue, we identified several effective treatments for childhood attention-deficit/hyperactivity disorder (ADHD). These included behavioural therapy and cognitive-behavioural therapy as well as three types of stimulant medication (methylphenidate, dextroamphetamine and atomoxetine). Some recently published research suggests that young people may now have another treatment option: neurofeedback.

Neurofeedback involves young people performing computer-based exercises designed to strengthen their control over brain activity.

Neurofeedback involves young people performing computer-based exercises designed to strengthen their control over brain activity (associated with alertness) and decreasing theta-wave activity (associated with drowsiness).[28–29] During training, children receive continuous feedback about how well they are paying attention, typically via a bike helmet equipped with brain wave sensors.[29–30] The exercises are designed to be game-like, including providing the child with rewards, such as earning coins from a treasure chest, when alertness is effectively maintained.[30]

Three recent randomized controlled trials (RCTs) have suggested that neurofeedback can result in significantly fewer inattention and/or hyperactivity symptoms at post-test based on the classroom observations of researchers,[30] on teacher reports[28, 30] or on parent reports.[28–30] As well, two of these RCTs assessed outcomes six months after the intervention ended and found that children receiving neurofeedback continued to have significantly fewer inattention and hyperactivity symptoms by parent report[31–32] and significantly fewer off-task behaviours by researcher classroom observations.[32] Still, because these RCTs involved small samples of children — from 41 to 104 — more research on this promising treatment is needed.

Methods

We conducted a comprehensive search to identify systematic reviews on improving children's mental health by improving school social environments. We used methods adapted from the *Cochrane Collaboration* and *Evidence-Based Mental Health* and applied the following search strategy:

Table 4: Search Strategy

Sources	• Campbell Collaboration Library, Cochrane, Medline and PsycINFO
Search Terms	• Depression, depressive symptom or disorder, affective symptoms, mood disorders, anxiety or anxiety disorder, panic disorder, stress (psychological), self-harm, self-injurious behaviour, suicide, suicide (attempted), mental health or wellbeing, emotional health or wellbeing, well adjusted, emotional literacy or intelligent, happiness or emotional distress; *and* • "Whole school", "health promoting school", hidden curriculum or school (belonging, climate, connectedness, context, culture, environment, ethos, experience, relation, relationship or safety)
Limits	• Peer-reviewed articles published in English • Child participants aged 18 years or younger • Systematic review or meta-analysis methods used

Using this approach, we identified three systematic reviews. Two team members then assessed each review, finding only one[16] that met all our inclusion criteria, detailed in Table 5.

Table 5: Inclusion Criteria for Systematic Reviews

Systematic Reviews
• School environment interventions aimed at improving emotional and/or social health • Methods clearly described, including database sources and inclusion criteria • Original studies included randomized controlled trial (RCT) methods • Study quality assessed and considered in the analysis • Magnitude of effects reported or meta-analysis conducted
Original Studies
• Clear descriptions of participant characteristics, settings and interventions • Random assignment to intervention and placebo or waitlist control groups at study outset • One or more outcomes assessed pertaining to social or emotional health • Reliability and validity of all primary outcome measures documented • Levels of statistical significance reported for primary outcome measures

Based on the above criteria, we presented findings from original studies that used RCT methods, identified through Kidger and colleagues' review (2012). In particular, this review identified three school environment interventions evaluated using RCTs. (Although *Gatehouse* was evaluated in two RCTs, the second had methodological concerns — including outcomes being assessed before the intervention ended — so we excluded it.)

To capture original studies published after Kidger's systematic review was completed, we conducted our own searches using the same search terms, but found no new RCTs that met these authors' criteria.

For more information on our research methods, please contact

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References

BC government staff can access original articles from BC's Health and Human Services Library.

1. Blum, R. (2007). *Best practices: Building blocks for enhancing school environment.* Baltimore, MD: Military Child Initiative, John Hopkins Bloomberg School of Public Health. Retrieved August 3, 2014, from http://www.jhsph.edu/research/centers-and-institutes/military-child-initiative/resources/Best_Practices_monograph.pdf
2. Bond, L., Glover, S., Godfrey, C., Butler, H., & Patton, G. C. (2001). Building capacity for system-level change in schools: Lessons from the Gatehouse Project. *Health Education and Behavior, 28,* 368–383.
3. Patton, G. C., Bond, L., Carlin, J. B., Thomas, L., Butler, H., Glover, S., et al. (2006). Promoting social inclusion in schools: A group-randomized trial of effects on student health risk behavior and well-being. *American Journal of Public Health, 96,* 1582–1587.
4. Durlak, J. A., Weissberg, R. P., Dymnicki, A. B., Taylor, R. D., & Schellinger, K. B. (2011). The impact of enhancing students' social and emotional learning: A meta-analysis of school-based universal interventions. *Child Development, 82,* 405–432.
5. Waddell, C., Shepherd, C., & McLauchlin, G. (2008). Creating mentally healthy communities, starting with children. In *Mentally healthy communities: A collection of papers* (pp. 45–58). Ottawa, ON: Canadian Institute for Health Information.
6. Rutter, M. (1980). School influences on children's behavior and development: The 1979 Kenneth Blackfan Lecture, Children's Hospital Medical Center, Boston. *Pediatrics, 65,* 208–220.
7. Milkie, M. A., & Warner, C. H. (2011). Classroom learning environments and the mental health of first grade children. *Journal of Health and Social Behavior, 52,* 4–22.
8. Nijs, M. M., Bun, C. J., Tempelaar, W. M., de Wit, N. J., Burger, H., Plevier, C. M., et al. (2014). Perceived school safety is strongly associated with adolescent mental health problems. *Community Mental Health Journal, 50,* 127–134.
9. Briere, F. N., Pascal, S., Dupere, V., & Janosz, M. (2013). School environment and adolescent depressive symptoms: A multilevel longitudinal study. *Pediatrics, 131,* e702–e708.
10. De Wit, D. J., Karioja, K., Rye, B. J., & Shain, M. (2011). Perceptions of declining classmate and teacher support following the transition to high school: Potential correlates of increasing student mental health difficulties. *Psychology in the Schools, 48,* 556–572.
11. Foster, S., Rollefson, M., Doksum, T., Noonan, D., Robinson, G., & Teich, J. (2005). *School mental health services in the United States, 2002–2003.* DHHS Pub. No. (SMA) 05-4068. Rockville, MD: Center for Mental Health Services, Substance Abuse amd Mental Health Services Administration.
12. British Columbia. Ministry of Children and Family Development. (2013). *History of FRIENDS in BC.* Retrieved September 13, 2014, from http://www.mcf.gov.bc.ca/mental _health/pdf/history_of_friends.pdf
13. Patton, G. C., Glover, S., Bond, L., Butler, H., Godfrey, C., Di Pietro, G., et al. (2000). The Gatehouse Project: A systematic approach to mental health promotion in secondary schools. *Australian and New Zealand Journal of Psychiatry, 34,* 586–593.
14. Bond, L., Patton, G., Glover, S., Carlin, J. B., Butler, H., Thomas, L., et al. (2004). The Gatehouse Project: Can a multilevel school intervention affect emotional wellbeing and health risk behaviours? *Journal of Epidemiology and Community Health, 58,* 997–1003.
15. Smith, A., Stewart, D., Poon, C., Peled, M., Saewyc, E., & McCreary Centre Society. (2014). *From Hastings Street to Haida Gwaii: Provincial results of the 2013 BC Adolescent Health Survey.* Vancouver, BC: McCreary Centre Society.
16. Kidger, J., Araya, R., Donovan, J., & Gunnell, D. (2012). The effect of the school environment on the emotional health of adolescents: A systematic review. *Pediatrics, 129,* 925–949.
17. Sawyer, M. G., Harchak, T. F., Spence, S. H., Bond, L., Graetz, B., Kay, D., et al. (2010). School-based prevention of depression: A 2-year follow-up of a randomized controlled trial of the *beyondblue* schools research initiative. *Journal of Adolescent Health, 47,* 297–304.

18. Sawyer, M. G., Pfeiffer, S., Spence, S. H., Bond, L., Graetz, B., Kay, D., et al. (2010). School-based prevention of depression: A randomised controlled study of the *beyondblue* schools research initiative. *Journal of Child Psychology and Psychiatry, 51,* 199–209.
19. Bond, L., Thomas, L., Coffey, C., Glover, S., Butler, H., Carlin, J. B., et al. (2004). Long-term impact of the Gatehouse Project on cannabis use of 16-year-olds in Australia. *Journal of School Health, 74,* 23–29.
20. Bond, L., Butler, H., Thomas, L., Carlin, J., Glover, S., Bowes, G., et al. (2007). Social and school connectedness in early secondary school as predictors of late teenage substance use, mental health, and academic outcomes. *Journal of Adolescent Health, 40,* 357.e9–357.e18.
21. Murray, C., & Malmgren, K. (2005). Implementing a teacher-student relationship program in a high-poverty urban school: Effects on social, emotional, and academic adjustment and lessons learned. *Journal of School Psychology, 43,* 137–152.
22. Patton, G., Bond, L., Butler, H., & Glover, S. (2003). Changing schools, changing health? Design and implementation of the Gatehouse Project. *Journal of Adolescent Health, 33,* 231–239.
23. Offord, D. R., Kraemer, H. C., Kazdin, A. E., Jensen, P. S., & Harrington, R. (1998). Lowering the burden of suffering from child psychiatric disorder: Trade-offs among clinical, targeted, and universal interventions. *Journal of the American Academy of Child and Adolescent Psychiatry, 37,* 686–694.
24. Frey, K. S., Hirschstein, M. K., Snell, J. L., Edstrom, L. V., 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,* 479–490.
25. Lewis, K. M., DuBois, D. L., Bavarian, N., Acock, A., Silverthorn, N., Day, J., et al. (2013). Effects of Positive Action on the emotional health of urban youth: A cluster-randomized trial. *Journal of Adolescent Health, 53,* 706–711.
26. Weare, K., & Nind, M. (2011). Mental health promotion and problem prevention in schools: What does the evidence say? *Health Promotion International, 26* (Suppl. 1), i29–i69.
27. Murray, N. G., Low, B. J., Hollis, C., Cross, A. W., & Davis, S. M. (2007). Coordinated school health programs and academic achievement: A systematic review of the literature. *Journal of School Health, 77,* 589–600.
28. Gevensleben, H., Holl, B., Albrecht, B., Vogel, C., Schlamp, D., Kratz, O., et al. (2009). Is neurofeedback an efficacious treatment for ADHD? A randomised controlled clinical trial. *Journal of Child Psychology and Psychiatry, 50,* 780–789.
29. Steiner, N. J., Sheldrick, R. C., Gotthelf, D., & Perrin, E. C. (2011). Computer-based attention training in the schools for children with attention deficit/hyperactivity disorder: A preliminary trial. *Clinical Pediatrics, 50,* 615–622.
30. Steiner, N. J., Frenette, E. C., Rene, K. M., Brennan, R. T., & Perrin, E. C. (2014a). Neurofeedback and cognitive attention training for children with attention-deficit hyperactivity disorder in schools. *Journal of Developmental and Behavioral Pediatrics, 35,* 18–27.
31. Gevensleben, H., Holl, B., Albrecht, B., Schlamp, D., Kratz, O., Studer, P., et al. (2010). Neurofeedback training in children with ADHD: 6-month follow-up of a randomised controlled trial. *European Child and Adolescent Psychiatry, 19,* 715–724.
32. Steiner, N. J., Frenette, E. C., Rene, K. M., Brennan, R. T., & Perrin, E. C. (2014b). In-school neurofeedback training for ADHD: Sustained improvements from a randomized control trial. *Pediatrics, 133,* 483–492.

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