School-based interventions are effective, but are they efficient?

By Dr. Jessica K Edwards

School-based interventions (SBIs) are effective for preventing and treating common medico-psychological problems and disorders in pupils, according to data from a practitioner review published in the Journal of Child Psychology and Psychiatry. The comprehensive systematic review, compiled by Frank W. Paulus, Susanne Ohmann and Christian Popow, investigated the types of SBI being utilized, their effectiveness and the practical implications of providing SBIs to affected school children. Here, the authors discuss their main findings.

Children and young people spend a large proportion of their time in a school setting, where complex levels of social interaction occur between teachers, staff and peers. Consequently, a diverse range of social, cognitive and emotional skills are required and are honed in this environment: some children thrive and others can be at risk of developing mental health problems. Reports suggest that up to 25% of students display notable mental health problems during their school years, yet, of these an estimated 70-80% receive no mental health support. Consequently many have proposed that schools could intervene and implement relevant programmes to improve the mental health of their students. However, as Paulus and colleagues report, SBIs are relatively unpopular among the various involved parties, since little is known about their effectiveness.

"There is a structural lack of medical and nursing staff in the schools; teachers often feel less responsible for the medico-psychological problems of their pupils and try to solve such problems with educational measures and by informing the parents about problems at school", explains Paulus.

Paulus, F. W., Ohmann, S. & Popow, C. Practitioner Review: School-based interventions in child mental health. (2016) J Child Psychol and Psychiatr 57:1337-1359. doi:10.1111/jcpp.12584.

"Furthermore, there is a general lack of information about the effectiveness of SBIs and a gap between existing effective SBIs and efficient and sustainable implementation in the school context. This scenario motivated us to compile our review".

The researchers performed their systematic literature search across five online databases for articles relating to SBIs published between 1993 and 2015. From the extracted data, they aimed to address the following main research questions: what practitioner-relevant, effective, research-based SBIs have been developed for common, school-relevant medico-psychological problems; what programs for what disorders have large effect sizes; and who would be able to implement SBIs and what would be the prerequisites?

Paulus et al. found that SBIs are being used for numerous mental health problems, including conduct disorder, depression, anxiety, substance use, depression, autism spectrum disorder and post traumatic stress disorder. The various programmes typically fall into one of three categories: universal (Tier I), selective (Tier II) or indicated (Tier III) interventions.

 Tier I SBIs mostly include school-based competence enhancement programs, which can be broadly applied and require no need to screen "at risk" students. These SBIs are generally considered effective by targeting multiple risk factors simultaneously, but they may not provide sufficient specification, or duration or be effective towards the most "at risk" group. Examples of such SBIs highlighted in the review include programmes for social and emotional learning or universal interventions against externalizing behavior.

Tier II SBIs include selected interventions for those at risk of a mental health problem; one effective intervention within this category is "gatekeeper training" for those with suicidal thoughts. Finally, Tier III programmes are suitable for those with symptoms of mental disorder who do not meet the full diagnostic criteria. Those who have failed to improve with Tier I or II interventions are also candidates for Tier III programs.

Overall, the researchers concluded that SBIs are generally effective at preventing and treating common mental health problems in adolescents: many SBIs had a moderate-to-high effect size. Specifically, the effect sizes for Tier II and Tier III interventions are larger than those for Tier I interventions. They found that SBIs have the potential not only to "reduce mental health problems and problem behaviors of students but also reduce the risk of negative consequences later in adulthood, such as unemployment, drug-abuse, or delinquency". They also consider that SBIs may reduce the number of early school leavers, and may improve pupils´ academic performance. The alliance and communication between pupils, teachers, and parents and the collaboration of the various disciplines when confronted with academic or behavioral school problems (including school-psychologists, counselors and school nurses) may also be improved. Importantly, the data suggest that SBIs can be administered by regular school staff once they are sufficiently trained, which has cost-saving implications.

Paulus also proposes that SBIs have a positive effect on teaching staff by reducing teacher anxiety improving the classroom and general school climate and supporting teachers who can feel left-alone to handle "problem children". Other benefits of SBIs include reducing therapeutic costs for children, parents and teachers; promoting student engagement and creativity; and improving the alliance and communication between pupils, teachers, and parents.

In considering the limitations of SBIs, Paulus and colleagues break these down into numerous categories. Their first is the individual limitations of teachers and practitioners (their personality and motivation), pupils (as not all personal problems are amenable to SBIs) and parents (some of whom are not willing to engage with SBIs). The second category outlines the structural limitations of school and/or home systems, such as curriculum-based versus optional SBIs, different school opinions on SBIs, and support for teachers in implementing an SBI. Their third category addresses organizational limitations: well-organized coordinators are needed for monitoring the effectiveness of SBIs, a sufficient amount of time is required by the staff and the student and an appropriate space and level of resource are required to implement the SBI. Other limiting factors discussed by the researchers include training requirements; the transfer of research-based programs into the daily routine; and confounding and uncontrolled variables that may limit the study of effectiveness (like medication or other concurrent therapeutic interventions).

A key finding of the review was that longitudinal comparative studies are urgently needed to evaluate the long-term effects of SBIs. "We were also surprised to find no gold standard for implementing SBIs", says Paulus. "There are less SBIs available for preventing and treating internalizing disorders compared to externalizing disorders, and there is a lack of programs for adolescent attention deficit hyperactivity disorder and conduct disorder despite these being very common, impairing, and generally undertreated conditions". The researchers also found that for an SBI to be implemented effectively, an in-house organizational structure needs to be created. They highlighted that the important role of key opinion leader teachers (who are consulted when a student is struggling) in supporting classroom teachers, is generally neglected. It was also concluded that "booster sessions" are necessary to sustain the long-term effects of SBIs.

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