Introduction

Attention-deficit hyperactivity disorder (ADHD) is a common condition affecting 5-7% of school-aged children. School presents challenges for many children with ADHD, which in turn can affect their teachers, parents and peers. While the effectiveness of medication is well established, its use remains controversial. Non-drug interventions demonstrate beneficial effects for both ADHD symptoms and school achievement.

Few reviews of research focus on school-based interventions. We conducted a series of systematic reviews which evaluate the effectiveness of such interventions for pupils with, or at risk of, ADHD and explore the factors informing the effective delivery of such interventions.

Reviews

<table>
<thead>
<tr>
<th>Review</th>
<th>Methodology</th>
<th>Synthesis</th>
<th>Focus</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effectiveness</td>
<td>Quantitative</td>
<td>Random-effects meta-analysis and narrative</td>
<td>The effectiveness and the cost-effectiveness of non-pharmacological interventions delivered in school settings for children with or at risk of ADHD</td>
<td>Some evidence for the beneficial effects of behavioral and neurofeedback interventions. No evidence for cost-effectiveness located.</td>
</tr>
<tr>
<td>Quantitative</td>
<td>Quantitative</td>
<td>Narrative</td>
<td>Attitudes towards school-based non-pharmacological interventions for pupils with ADHD</td>
<td>Teachers attitudes to interventions varied. Daily report cards were the only intervention for which educators consistently recorded positive attitudes.</td>
</tr>
<tr>
<td>Qualitative</td>
<td>Qualitative</td>
<td>Meta-ethnography</td>
<td>Attitudes and expectations of pupils, teachers, parents and others using ADHD interventions in school settings.</td>
<td>Teachers attitudes to interventions varied. Daily report cards were the only intervention for which educators consistently recorded positive attitudes.</td>
</tr>
<tr>
<td>Experience</td>
<td>Qualitative</td>
<td>Meta-ethnography</td>
<td>The experience of ADHD in school among pupils diagnosed with or at risk of ADHD, their teachers, parents and peers.</td>
<td>Tensions regarding the preferred format of interventions. There were mixed views about the impact of interventions.</td>
</tr>
</tbody>
</table>

Aim

This poster reports on the overarching synthesis which brings together the findings from four systematic reviews regarding school-based interventions for ADHD. This work aimed to synthesize diverse findings and generate key implications arising from this work.

Method

There are few established methods for integrating findings from quantitative and qualitative reviews. We took a dual approach of:

1) Inductively working with the qualitative review findings about the experience of ADHD interventions and of ADHD in schools more generally to summarize the important contextual factors that may influence the effectiveness of interventions;
2) Deductively working from the quantitative review findings about the effectiveness of and moderators for interventions for ADHD in schools to consider findings from the other reviews that may help provide further insight and explanation.

Results

Key contextual issues that may influence the implementation and effectiveness of interventions include the relationships of pupils with ADHD with their teachers and peers, and the stigma that may be experienced because of ADHD symptoms, diagnosis or attendance of an intervention. Factors impacting how effective interventions may be include the beliefs that teachers and pupils hold about ADHD; the relationships that pupils with ADHD have with their teachers and peers, and that parents have with teachers; and the stigma experienced because of ADHD symptoms, diagnosis or interventions.

The findings indicate that participants’ views about symptoms are not always reflected in intervention effectiveness. For instance, beneficial effects were found for inattentive symptoms even though teachers prioritize hyperactivity and impulsivity, and pupils focus on emotional self-regulation. The qualitative reviews could not explain the effectiveness reviews’ finding of beneficial effects of neurofeedback.

Further analysis highlighted the importance of psychoeducation for teachers, parents and pupils to help overcome lack of knowledge and stigma around ADHD. The relevance of building relationships between parents, teachers, pupils and peers was highlighted, as well as the importance of improving the self-concept of pupils with ADHD.

Conclusion

The particular context for a pupil with ADHD, their classroom, school and issues at the socio-political level need to be actively considered in intervention design and implementation. Pupils with ADHD, teachers, parents and other pupils tend to have different views regarding ADHD difficulties and therefore interventions that can tackle the multiple challenges that young people with ADHD face in coping with school are needed.

Interventions should be rigorously evaluated, utilising standardized research approaches. Exploration of the experience and attitudes of participants helps support the development of theory about for whom, why and how interventions might work.

When researchers have an indication that interventions work they should also measure how cost-effective these interventions are, particularly in resource-constrained school settings. Non-pharmacological interventions in schools have a critical role in the management of ADHD, and our findings provide hints that certain types of intervention may work, but we cannot yet untangle the complex contexts in which particular interventions are most effective. The challenge for cross-disciplinary research is to improve the evidence-base in order that practitioners, teachers and parents can support children with the most common neurodevelopmental disorder in the context in which they struggle the most.