Initiating change locally in bullying and aggression through the school environment (INCLUSIVE): a pilot randomised controlled trial

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Scientific summary

Changing bullying and aggression in the school environment

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Background

Bullying and other aggressive behaviours among young people are a major public health concern because of their short- and long-term physical and mental health harms, and associated economic costs to the NHS and other areas of government. School-based interventions that combine changes to the school environment with the promotion of social and emotional skills have been identified as a promising approach for reducing rates of aggressive behaviours and other problem behaviours in trials carried out in the USA and Australia. A restorative approach to behaviour management in schools has also been found to be appropriate for improving relationships and supporting institutional-level cultural change to foster a more positive school ethos. However, no randomised trials have been undertaken to examine the effects of interventions that adopt a whole-school restorative approach.

Intervention

The INCLUSIVE (initiating change locally in bullying and aggression through the school environment) intervention is a whole-school restorative approach to behaviour change which aims to reduce bullying and aggression (primary outcome) and promote mental and emotional well-being and other (secondary) outcomes. It is informed by Markham and Aveyard's theory of human functioning and school organisation (Markham WA, Aveyard P. A new theory of health promoting schools based on human functioning, school organisation and pedagogic practice. *Soc Sci Med* 2003;**56**:1209–20) and evidence from systematic reviews and trials in the USA and Australia. INCLUSIVE is a school-led intervention that combines changes to the school environment with the promotion of social and emotional skills and restorative practices through the formation of a school action group, involving students alongside staff (supported by an external facilitator), to review needs assessment data, determine priorities, and develop and implement an action plan for changing the school environment to improve relationships at the school and reduce aggression; whole-school staff training in restorative practices; and a new social and emotional skills curriculum for year 8 students (age 12–13 years). The intervention combines prespecified inputs, processes and outputs with the capacity for tailoring some elements to institutional needs and local ownership via decision-making by staff and students in the action group, which is informed by detailed needs assessment data reports. There is an emerging consensus that approaches that combine fidelity of core processes and components with some local adaptation are an appropriate means of delivering complex public health interventions.

Study aim, objectives and research questions

The aim of the pilot trial was to examine the feasibility and acceptability of implementing and trialling this intervention in English secondary schools. The study had three objectives.

The first objective was to assess whether prespecified feasibility and acceptability criteria were met, which were agreed with the National Institute for Health Research (NIHR) Health Technology Assessment (HTA) co-ordinating centre and deemed necessary conditions for progressing to a Phase III trial. In order to meet this objective we collected and analysed data to address the following research questions (RQs):

- RQ1: was it feasible to implement the intervention in (at least) three out of four intervention schools? (This was assessed according to the following implementation criteria: the needs assessment survey had a $\geq 80\%$ response rate; the action group met six or more times during the course of the school year and was always quorate; the action group reviewed and revised school policies; whole-school actions were a collaborative process involving staff and students from across the school; peer mediation

and/or 'buddying' schemes were reviewed and enhanced; ≥ 20 staff completed restorative practice training; restorative practices were used; and the student curriculum was delivered to year 8 students.)
- RQ2: was the intervention acceptable to a majority of school senior management team (SMT) members and a majority of action group members?
- RQ3: did randomisation occur and was this acceptable to the school SMT?
- RQ4: did (at least) three out of four schools from each of the intervention and comparison arms accept randomisation and continue to participate in the study?
- RQ5: were the student survey response rates acceptable in (at least) three out of four comparison schools?

The second objective was to explore students', school staffs' and facilitators' experiences of implementing and trialling the INCLUSIVE intervention and how these varied across the different school contexts in order to refine the intervention and trial methods. In order to meet this objective, we collected and analysed data to address the following RQs:

- RQ6: what are students', school staff members' and intervention facilitators' experiences of the intervention, particularly in terms of whether it is feasible and acceptable?
- RQ7: how successfully was each component implemented and did this vary according to school context?
- RQ8: how acceptable were the research design and data collection methods to students and staff?

The third objective was to pilot and field test potential primary, secondary and intermediate outcome measures and economic methods prior to a Phase III trial. It was not an objective of the pilot study to assess intervention effects, and nor was it powered to do so, but data were collected and analysed to address the following RQs:

- RQ9: which of the pilot indicative primary outcome measures of aggressive behaviour performs best according to completion rate, discrimination and reliability statistics?
- RQ10: was it feasible and acceptable to collect data at baseline and follow-up on pilot indicative primary (aggressive behaviour), secondary (quality of life, psychological distress, psychological well-being, health-risk behaviours, NHS use, contact with the police, truancy and school exclusion) and intermediate outcome measures (students' perception of the school environment and connection to the school)?
- RQ11: is it feasible to measure year 8 students' health utility status using the Child Health Utility 9D (CHU-9D) measure and to embed an economic evaluation within a Phase III trial?

Methods

A cluster randomised controlled pilot trial (Medical Research Council Phase II exploratory trial) was undertaken in eight secondary schools in London and south-east England with allocation to the INCLUSIVE intervention (four schools) or continuation of normal practice (four schools). In order to assess the feasibility and acceptability of delivering and trialling the intervention according to prespecified criteria (*objective 1*), we collected a range of quantitative and qualitative data via pilot surveys of year 8 students (aged 12–13 years); teachers and action group members; intervention provider checklists; semistructured interviews with school SMT members; observations of action group meetings; and documentary evidence (e.g. policy documents, etc.). To explore participants' experiences of implementing and trialling the INCLUSIVE intervention (*objective 2*), semistructured interviews with schools' SMT members, action group members and intervention providers, as well as focus groups and surveys with students and teachers, were also employed. Although the primary objective of the study was to examine feasibility and acceptability, and this trial did not aim to (and therefore was not powered to) study intervention effects, we also collected data on indicative primary, secondary and intermediate outcome measures through student baseline and follow-up surveys in order to pilot these measures and explore potential economic analysis methods (*objective 3*).

Results

The INCLUSIVE intervention was feasible to implement and acceptable to school staff and students at four secondary schools with varying levels of deprivation and a range of Ofsted ratings of school effectiveness.

The first objective of the pilot trial was to assess whether the prespecified NIHR HTA feasibility and acceptability criteria were met. All these criteria were met in full. At all four intervention schools, the needs assessment survey had an > 80% response rate (range 91–97%); an action group was formed, which met at least six times during the year and revised school policies relating to aggression and its determinants, including through whole-school actions involving staff and students from across the school; > 20 staff completed restorative practice training (range 30–75); peer mediation and/or 'buddying' schemes were reviewed and enhanced in line with restorative principles, and restorative practices were introduced (e.g. 'circle time', 'checking in/out', etc.); and the student curriculum was delivered to all year 8 students (range 7–12 hours). The intervention was acceptable to school SMT members and student and staff action group members. The intervention was also highly rated by both student and staff action group members who were surveyed (e.g. > 93% of action group members surveyed felt it was a good way to ensure students contributed to decision-making at their school). Furthermore, trial methods were acceptable to all SMT members, randomisation occurred as planned and no schools dropped out of the study, with follow-up student survey response rates of 91–94% in the intervention schools and 87–96% in comparison schools.

The second objective was to explore students', school staffs' and facilitators' experiences of implementing and trialling the INCLUSIVE intervention in order to optimise the intervention and refine evaluation methods prior to a subsequent Phase III trial. Qualitative data indicated that all intervention components were acceptable. Students consistently reported that the intervention inputs (i.e. the needs assessment survey, action group, external facilitator, staff training and curriculum components) and restorative practices were appropriate and acceptable to them. The intervention's emphasis on 'having a say' and 'having respect' was a strong source of acceptability among students. Changes enacted included new school rules that students felt were fair (and so were less likely to break), and new timetables giving students more time with their form tutors (so problems with other students could be resolved more quickly). Qualitative data also suggested student participation may be a core component in improving relationships and engagement across schools.

Among school staff, the intervention tapped into a strong desire for locally adaptable processes for improving staff–student relationships and addressing aggressive behaviour. SMT members, particularly head teachers, reported that the intervention was a good 'fit' with schools' 'core business' of improving attainment and the national policy agenda focused on improving student behaviour. Although staff reported that some 'restorative-type' approaches were already being used in their school, this intervention was highly attractive because it could provide a new framework, process and resources for embedding restorative practices more consistently and more widely across the whole school. The extent to which the intervention balanced fidelity of standard processes and key components with scope for local participation and adaptation of some elements was seen as a strength. This intervention could therefore work across different school contexts, and our evaluation suggested that feasibility and acceptability were particularly strong in more disadvantaged and challenging schools.

The later-than-planned project start (July) and the timing of the baseline surveys (September), which needed to be completed pre allocation, caused delays in launching the intervention, scheduling and delivering staff training, and other intervention outputs. School staff and intervention providers consistently reported that a longer lead-in was needed, as well as improved co-ordination of activities and a longer duration of intervention (our intention always being that the intervention would be 3 years in a subsequent Phase III trial). School leaders noted that outputs did not begin until the second term and restorative conferencing did not begin to be implemented until the summer term owing to delays in staff training. However, our qualitative data consistently reported that, rather than reflecting any intrinsic

limitations of the intervention, these delays were caused by the delayed start date and the timing of the baseline surveys in this study. There was a consensus among staff and facilitators that major impacts on behaviour were likely but only in the subsequent school year, once policies and practices had been changed, and that a 2-year intervention was the minimum needed to expect a change in the school environment. Nonetheless, teachers at intervention schools were significantly more likely to report, at follow-up, being well supported with behaviour management by both senior members of staff and others implementing consistent behaviour management techniques. Staff reported that training could be further improved through a more comprehensive pre-training audit to identify schools' needs, greater use of interactive training methods and more 'realistic' examples from similar secondary schools.

The third objective was to pilot and field test potential primary, secondary and intermediate outcome measures and economic methods prior to a Phase III trial. This involved examining measures' completion, discrimination and reliability. The Gatehouse Bullying Scale and the Edinburgh Study of Youth Transitions and Crime school misbehaviour subscale were acceptable, discriminating and reliable measures of bullying and aggression. We found significant limitations with using the Aban Aya Youth Project questions to assess youth violence in the UK context owing to limited discrimination, and the potential for 'floor effects' and limited reliability. Completion rate at follow-up was high for all three pilot outcome measures (range 91.7–94.2%). Our pilot economic analyses support the use of the CHU-9D scale with this population and the feasibility of cost–utility analysis, although this should be supplemented with a cost–consequence analysis. The study did not aim to detect intervention effects, and lacked both the statistical power and the intervention duration to be able to do so. There was no evidence of harm.

Conclusion and recommendations

This 1-year pilot is the first evaluation of a whole-school restorative intervention that aims to initiate change locally in the school environment to address bullying and aggression. The INCLUSIVE intervention is feasible and acceptable to implement and trial in British secondary schools. The intervention has a strong potential to address health inequalities because of its feasibility and acceptability in more challenging schools with more disadvantaged students. It is also a potentially scalable and sustainable intervention owing to the method of combining fidelity of processes and core outputs with adaptation of some elements to local needs. A Phase III cluster trial is required to examine the effectiveness and cost-effectiveness of the INCLUSIVE intervention over a 3-year period for reducing aggressive behaviours, promoting mental health and well-being, and reducing health inequalities. Findings from the pilot will be used to improve elements of the delivery of the intervention, particularly regarding training and timescales. The intervention's relative effectiveness in different contexts and with different population subgroups should be examined in an adequately powered study involving a wide range of schools.

Trial registration

This trial is registered as ISRCTN88527078.

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This report

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