

Emotional literacy programme in special schools for children with a learning disability in England: the ZF-SEND feasibility RCT

Biza Stenfert Kroese,^{1*} Gemma Unwin,¹
Richard Hastings,² Andrew Jahoda,³
Rachel McNamara,⁴ David Gillespie,⁴ Jeremy Segrott,⁵
Kate Ingarfield,⁴ Myrsini Gianatsi,⁴ Elizabeth Randell,⁴
Zoe Mather,⁶ Barbara Barrett,⁷ Poushali Ganguli,⁷
John Rose,¹ Mariam Sahle,¹ Emily Warren¹ and
Nathan Da Cruz¹

¹School of Psychology, University of Birmingham, Birmingham, UK

²CEDAR, University of Warwick, Coventry, UK

³School of Health and Wellbeing, College of Medical, Veterinary and Life Sciences, University of Glasgow, Glasgow, UK

⁴Centre for Trials Research, Cardiff University, Cardiff, UK

⁵Centre for Trials Research, DECIPHer Centre, Cardiff University, Cardiff, UK

⁶Nasen, Tamworth, UK

⁷Institute of Psychiatry, Psychology and Neuroscience, King's College London, London, UK

*Corresponding author b.stenfert-kroese@bham.ac.uk

Published December 2024

DOI: 10.3310/JTJY8001

Scientific summary

Emotional literacy programme in special schools for children with a learning disability in England: the ZF-SEND feasibility RCT

Public Health Research 2024; Vol. 12: No. 15

DOI: 10.3310/JTJY8001

NIHR Journals Library www.journalslibrary.nihr.ac.uk

Scientific summary

Background

Children with a learning disability experience a range of inequalities that put them at risk of mental health problems in adulthood. Children and young people with a learning disability experience negative life events and adversity more frequently. The construct of emotional literacy has been shown to be a distinct and moderating factor of how life stress affects mental health and well-being. Teaching emotional literacy in primary schools has been shown to be an effective way to promote positive mental health and help children cope with negative life experiences, resulting in the long term in better mental health in later life.

In mainstream schools, the Zippy's Friends (ZF) programme has been shown to be an effective way in which to improve emotional literacy, coping skills and mental health outcomes. Emotional literacy is underemphasised in the special educational needs and disabilities (SEND) curriculum and mainstream emotional literacy programmes (except ZF-SEND) do not have SEND adaptations. The National Institute for Health and Care Excellence recommends that help should be given to those most at risk of mental health problems. Lack of investment in mental health promotion in special schools has significant costs for society. There is, therefore, an identified need for SEND-adapted emotional literacy programmes in special schools.

Objectives

The objectives for this study were to:

- Assess intervention delivery, fidelity and adherence, and factors influencing implementation, mechanisms of impact and context using data from multiple sources, including teacher-completed session records, qualitative interviews and observations of ZF-SEND lessons.
- Explore how children, parents/carers and teachers experience the intervention and research participation through qualitative interviews.
- Investigate the validity and reliability of the self-report measure of mental health ('Me and my School') and its relationship with other (proxy report) measures of mental health and behaviour.
- Establish by survey what constitutes education as practice as usual (PAU) for emotional literacy in special schools for children with a learning disability.
- Undertake a nested 'study within a trial' to explore the acceptability of two different study designs: one where PAU does not come with the offer of delayed access to ZF-SEND, and one where it does.
- Review the feasibility study against predetermined progression criteria and ascertain whether progression to a large-scale randomised controlled trial is feasible.

Methods

Design

Two-arm cluster (school) randomised feasibility trial of an adapted ZF programme (ZF-SEND) delivered by teachers to children in special schools.

Setting

Special schools for children with SEND in England.

Population/inclusion

Children with a learning disability attending special schools in years 5–6 (aged 9–11 years), their teachers and parents/carers.

Exclusions

Child already receiving similar manual-based emotional literacy intervention(s). Parents/carers whose level of English language is insufficient for participation in informed consent and structured interview.

Intervention

Usual practice with ZF-SEND, delivered by teachers. ZF-SEND is a manualised classroom-based emotional literacy programme comprising six modules, each with four session plans. Sessions are adapted to different levels of comprehension. Sessions include at least two activities to explore issues relating to emotional awareness, emotional expression, problem solving and coping skills.

Comparator

Practice as usual (without ZF-SEND).

Primary outcomes

(1) Feasibility and acceptability of participation in the study (recruitment, retention and randomisation); (2) feasibility and acceptability of data collection (potential outcome measures for a large-scale trial, quality of life measurement and service use data collection) and (3) feasibility and acceptability of the intervention (fidelity, adherence, attendance, experience of delivering or receiving the intervention and intervention costs).

Secondary outcomes (baseline and 8–12 months post randomisation)

Strengths and Difficulties Questionnaire (teacher and parent/carer completed); Nisonger Child Behaviour Rating Form (teacher completed); Emotional Literacy: Assessment and Intervention (teacher and parent completed); Me and My School (pupil completed); quality of life measures (pupil and parent/carer completed); service use.

Sample**Quantitative data collection**

A total of 8 schools (5 intervention and 3 control), comprising 53 pupils.

Qualitative data collection

Eight pupils from four ZF-SEND schools, four parents/carers (two from PAU and two from ZF-SEND schools), seven class teachers (three from PAU and four from ZF-SEND schools), four members of senior leadership with management/oversight roles (two from PAU and two from ZF-SEND schools).

Randomisation

Schools were randomised following completion of pupil recruitment and baseline assessments. Schools were allocated to PAU or ZF-SEND arm using minimisation with 80% random component and balanced by size of school.

Analyses

Primary (feasibility) outcomes were estimated with their associated 95% confidence intervals (CIs). To inform a future trial, effect sizes and 95% CIs were estimated around the between-group comparisons of clinical measures (secondary outcomes) collected as part of the study. This analysis was based on the intention-to-treat principle and controlled for the clustered nature of children within schools using two-level mixed models. The qualitative process evaluation data were analysed with a framework analysis.

Results

The results of this study were impacted by the COVID-19 pandemic. It is likely that the pandemic resulted in reduced capacity and interest of schools to participate in research, higher staff and pupil absence in schools, increased pressure on school management, teachers, children and parents/carers, difficult family dynamics and poorer response rates of teachers and parents/carers. Despite this, eight schools were recruited and followed-up with acceptable rates of recruitment of pupils ($N = 53$) and 100% retention. Acceptable response rates at baseline and follow-up for teachers on the outcome measures were also achieved. Moreover, data collection from pupils was feasible and acceptable with high response rates. However, response rates for parents fell below the progression criterion.

Owing to the difficulties in recruiting schools during the COVID-19 pandemic, baseline data collection occurred later than originally planned, resulting in delayed randomisation and ZF-SEND schools starting the programme, and a shorter follow-up period of 8–12 months post randomisation. Only one school completed the programme.

Observational and interview data suggest that stakeholders found ZF-SEND feasible and acceptable, and teachers were positive and enthusiastic about the programme. However, there were problematic issues with collecting data about programme delivery on the session checklists, which means that quantitative measures of fidelity, adherence and engagement need to be interpreted with caution.

Conclusions

This study indicates that a large-scale randomised controlled trial of ZF-SEND is feasible and could provide important evidence about emotional literacy interventions for children with a learning disability provided that the study design is enhanced by: (1) approaching schools earlier in the preceding academic year, randomising schools in the summer term, providing training to teachers in the ZF-SEND arm before the summer break and again early in the autumn term; (2) refining and reducing the outcome measures; (3) embedding data collection on ZF-SEND delivery into the programme and (4) engaging more with parents/carers or, alternatively, omitting parent/carer data collection from the study design.

Trial registration

This trial is registered as ISRCTN83610691.

Funding

This award was funded by the National Institute for Health and Care Research (NIHR) Public Health Research programme (NIHR award ref: NIHR129064) and is published in full in *Public Health Research*; Vol. 12, No. 15. See the NIHR Funding and Awards website for further award information.

Public Health Research

ISSN 2050-439X (Online)

A list of Journals Library editors can be found on the [NIHR Journals Library website](#)

Public Health Research (PHR) was launched in 2013 and is indexed by Europe PMC, NCBI Bookshelf, DOAJ, INAHTA, Ulrichsweb™ (ProQuest LLC, Ann Arbor, MI, USA) and MEDLINE.

This journal is a member of and subscribes to the principles of the Committee on Publication Ethics (COPE) (www.publicationethics.org/).

Editorial contact: journals.library@nihr.ac.uk

The full PHR archive is freely available to view online at www.journalslibrary.nihr.ac.uk/phr.

Criteria for inclusion in the *Public Health Research* journal

Manuscripts are published in *Public Health Research* (PHR) if (1) they have resulted from work for the PHR programme, and (2) they are of a sufficiently high scientific quality as assessed by the reviewers and editors.

Reviews in *Public Health Research* are termed 'systematic' when the account of the search appraisal and synthesis methods (to minimise biases and random errors) would, in theory, permit the replication of the review by others.

PHR programme

The Public Health Research (PHR) programme, part of the National Institute for Health and Care Research (NIHR), is the leading UK funder of public health research, evaluating public health interventions, providing new knowledge on the benefits, costs, acceptability and wider impacts of non-NHS interventions intended to improve the health of the public and reduce inequalities in health. The scope of the programme is multi-disciplinary and broad, covering a range of interventions that improve public health.

For more information about the PHR programme please visit the website: <https://www.nihr.ac.uk/explore-nihr/funding-programmes/public-health-research.htm>

This article

The research reported in this issue of the journal was funded by the PHR programme as award number NIHR129064. The contractual start date was in March 2020. The draft manuscript began editorial review in July 2023 and was accepted for publication in March 2024. The authors have been wholly responsible for all data collection, analysis and interpretation, and for writing up their work. The PHR editors and production house have tried to ensure the accuracy of the authors' manuscript and would like to thank the reviewers for their constructive comments on the draft document. However, they do not accept liability for damages or losses arising from material published in this article.

This article presents independent research funded by the National Institute for Health and Care Research (NIHR). The views and opinions expressed by authors in this publication are those of the authors and do not necessarily reflect those of the NHS, the NIHR, the PHR programme or the Department of Health and Social Care. If there are verbatim quotations included in this publication the views and opinions expressed by the interviewees are those of the interviewees and do not necessarily reflect those of the authors, those of the NHS, the NIHR, the PHR programme or the Department of Health and Social Care.

This article was published based on current knowledge at the time and date of publication. NIHR is committed to being inclusive and will continually monitor best practice and guidance in relation to terminology and language to ensure that we remain relevant to our stakeholders.

Copyright © 2024 Stenfert Kroese et al. This work was produced by Stenfert Kroese et al. under the terms of a commissioning contract issued by the Secretary of State for Health and Social Care. This is an Open Access publication distributed under the terms of the Creative Commons Attribution CC BY 4.0 licence, which permits unrestricted use, distribution, reproduction and adaptation in any medium and for any purpose provided that it is properly attributed. See: <https://creativecommons.org/licenses/by/4.0/>. For attribution the title, original author(s), the publication source – NIHR Journals Library, and the DOI of the publication must be cited.

Published by the NIHR Journals Library (www.journalslibrary.nihr.ac.uk), produced by Newgen Digitalworks Pvt Ltd, Chennai, India (www.newgen.co).

