

**Evaluating institutions - Centre for Evidence and Implementation (CEI),
Centre for Youth Impact (CYI), and Bryson Purdon Social Research (BPSR)**

Principal investigator - Jane Lewis, CEI

Project title	Working title: Testing multi-site trials - mentoring
Developer (institution)	This is an evaluation of mentoring services currently in delivery. A broad practice model will be developed by the evaluators with the delivery settings.
Evaluators (institutions)	Centre for Evidence and Implementation (CEI), Centre for Youth Impact (CYI), and Bryson Purdon Social Research (BPSR)
Principal investigator	Jane Lewis
Study plan authors	Jane Lewis, Dr Stephanie Smith, Bethia McNeil, Mary McKaskill, Dr Susan Purdon, Caroline Bryson
Evaluation settings	10-20 youth agencies will be selected as evaluation settings in the first phase of the project
Target group	Primarily targeting 10-14 year olds (with flexibility to extend to 17 years) facing disadvantage and/or risk related to serious youth violence
Number of participants	Feasibility trial n=c.100 Pilot trial n=500-1000

Study plan version history

Version	Date	Reason for revision
1.0 [original]	6 th August 2021	n/a
2.0	2 nd September 2021	Revisions in response to YEF feedback
3.0	5 th October 2021	Revisions in response to YEF reviewer feedback

Intervention

Background

The aim of the study is to test methods for undertaking randomised controlled trials across multiple youth service sites, and to do so focused on an exemplar promising practice that has not been formulated as a manualised programme.

Firstly, the project will test whether it is possible to support a group of youth organisations to work together in a randomised control trial. This will involve understanding the capacity and support needs of youth organisations to carry out recruitment of young people, randomisation and data collection as required for the trial, and testing strategies to support them in this work.

Secondly, the project will test how to work with a group of youth organisations to develop and deliver a shared model of practice, with the core components described. This will involve agreeing the 'core' and 'flexible' components of the practice, understanding the capacity and support needs of organisations, and testing strategies to support delivery.

If successful, the project would generate important learning about how to undertake multi-site trials with youth organisations and about how to undertake trials of non-manualised practices. This will help to address imbalances in the existing evidence base, which more fully reflects evidence about manualised programmes and the work of larger and often public sector agencies.

Mentoring has been selected as the focus for the study. Mentoring is a very common feature of youth provision, as both a stand-alone intervention and an element of broader service offers. It is relatively well-understood by the sector, in terms of practices and approaches. Its use has increased during the Covid pandemic. There is consistent evidence of its effectiveness, including from several systematic reviews and meta-analyses^{i ii iii} which have found a modest impact across a range of youth outcomes (including education, social, health, cognitive and psychological outcomes).

In terms of what works, for whom and how, a recent meta-analysis^{iv} of 70 studies of youth mentoring suggests larger effect sizes for programmes which include a greater proportion of young males, services which employ a larger percentage of male mentors or those with a helping professional background (e.g., social worker, counsellor, psychotherapist), and initiatives designed with shorter meeting times. The authors also identified a positive impact of data collection practices on youth outcomes, including evaluations that relied on questionnaires and that included children and young people's voices.

There are diverse forms of mentoring, and some evidence about quality considerations^{v vi vii viii} but the evidence equally suggests that different forms can be effective^{ix x}. This makes it appropriate for a core components approach incorporating some variation, rather than evidence pointing to a single optimal model.

We will recruit up to 20 Delivery Partner Organisations (DPOs) to the study. Ten will take part only in the development work and feasibility study, and all 20 DPOs will take part in the pilot trial. We will work intensively with the feasibility study DPOs to develop and test the trial processes. The DPOs that join the trial at the pilot stage will allow us to test the feasibility of running a trial in DPOs to a design that has been already developed.

Evidence reviews

We will conduct a rapid review of the literature on designing and implementing multi-site trials, focussing on issues around set-up, management and analysis. The relevant literature is likely to include both academic journals and non-peer reviewed reports, together with trial protocols and guidance for practitioners involved in trials.

We will also undertake a rapid review of the literature (academic, practice-focused and grey) on mentoring practice, models and impacts. The review will initially target systematic reviews and meta-analyses, and empirically supported quality and practice frameworks. We will also make use of the evidence gathered for mentoring interventions as part of YEF's evidence gap maps¹ and the recent YEF Toolkit review focusing on mentoring², which collated evidence from three systematic reviews of mentoring. Our rapid review will focus particularly on core components, the main areas of variation (e.g., paid vs volunteer, duration and intensity, structure/focus), and key quality dimensions (current evidence^{xi xii} highlights e.g., mentor recruitment, screening, training and support; matching; relationship-building and preparation for case closure), as well as unpicking the evidence around potential harmful effects if mentoring is not well implemented.

Developing the shared mentoring practice model

This study aims to test the feasibility of a multi-site trial approach to evaluating mentoring practice with young people at risk of involvement in serious youth violence. As such, we are specifying the 'intervention' in a broad sense, so that we can work with DPOs to develop and deliver a shared model of mentoring practice rather than a tightly specified or manualised programme. We will not be testing a single model across multiple sites, nor will be expecting

¹ https://youthendowmentfund.org.uk/wp-content/uploads/2021/05/YEF-map_10052021-1.html

² <https://res.cloudinary.com/yef/images/v1625825790/cdn/Mentoring-Technical-Report/Mentoring-Technical-Report.pdf>

to ‘select’ one model of mentoring from those offered by DPOs and ‘scale’ it across all DPOs. DPOs will be expected to modify their existing services so that there is consistency in core aspects of approach and delivery, but with some variation outside of these core components. This will involve agreeing the ‘core’ and ‘flexible’ components of mentoring at the onset.

Core components will include a specific set of criteria, such as the duration of the mentoring relationship, frequency of sessions, and supervision and support for mentors (see Table 1 for examples of core criteria and their rationale for inclusion). Flexible components may include the specific strategies, such as supporting young people to set and monitor progress towards goals, which are more likely to vary depending on the context and young people’s wants and needs.

For the purpose of this evaluation, the mentoring practice must meet the following characteristics:

Table 1 Confirmed characteristics of mentoring practice and rationale for inclusion

Mentoring practice characteristic	Rationale for inclusion
Mentoring <i>intentionally</i> targets socio-emotional learning (SEL) intermediate outcomes alongside outcomes relating to risk of involvement in crime and serious youth violence	In accordance with literature for successful mentoring programmes
Mentoring is one-to-one rather than group based	In accordance with literature for successful mentoring programmes
Mentors are adults rather than peers, and are paid members of staff rather than volunteers	Paid mentors are required as this minimises the variability in practice. Volunteers are likely to work with very few mentees and may not stay with the organisation for the duration of the trials. We are confident that we will receive sufficient applications from organisations that use paid mentors and recognise that they may use the funding to employ said mentor.
Mentoring is voluntary on the part of the mentee: we will exclude mandated mentoring (e.g. a court-ordered criminal justice intervention)	Court mandated mentoring may be required to fulfil certain requirements that are not adaptable to the trial practice model.

Mentoring practice characteristic	Rationale for inclusion
Minimum of three months duration and minimum intensity (to be agreed during practice development)	In accordance with literature for successful mentoring programmes
Meet minimum requirements for key quality dimensions which we will set, e.g., mentor selection, training and support; matching; preparation for closure	In good quality mentoring programmes, young people understand the boundaries of the relationship. Young people are given clear expectations about the length of mentoring and are prepared for it to come to an end. If the closure of a programme or relationship is managed poorly, it can be potentially harmful. We will not consider mentoring programmes if there is evidence that their approach to mentoring has the potential to cause harm.
Focused <i>primarily</i> on 10 - 14 year olds facing disadvantage and/or risk (widely defined) related to serious youth violence, but with the potential to extend the age range to 17	In line with YEF charitable aims

Prior to commencing the feasibility pilot, we will work with DPOs to collectively agree a practice model that aligns with Steps 1-3 of EIF's 10 Steps for Evaluation Success³. A key focus of creating a blueprint for the shared practice will be agreeing with DPOs which provision design and practice elements are core and which are flexible, as well as a process for monitoring fidelity to the practice model. We anticipate some variation in how the DPOs apply the practice model in their settings, but this variation will be explored and monitored in line with the articulation of core and flex in the theory of change.

The approach to developing the shared practice model will be practice-led and evidence-informed, rather than based solely on the literature. It is not our intention to curate the most 'evidence-based' programme to roll out either. The practice model design process will have three main phases:

- 1) Firstly, the process will begin with DPOs describing their approach to mentoring in their EOIs in as much detail as possible so that we can understand which practice

³ <https://www.eif.org.uk/resource/10-steps-for-evaluation-success>

elements appear frequently and less frequently across organisations' mentoring models, and where there is already similarity/difference. This information will be collated into a practice framework spreadsheet to help us map out and start building the model. We also want to understand the rationale for approaches which will help all of us co-design the shared model based on a collective understanding of what makes high quality mentoring.

- 2) Secondly, we will draft a theory of change, drawing on data from the rapid evidence review and application forms. This will be confirmed in collaboration with the DPOs.
- 3) The ToC will then be developed into a logic model so that all assumptions, contextual conditions for success, and resources required are clearly articulated.

In addition to establishing a shared practice model across partners, this will also enable the Centre for Youth Impact to anticipate what supports DPOs may require in order to be successful in the study.

Objectives and research questions

The two key objectives of the study are:

- 1) Assess the feasibility of engaging small community-based youth organisations in multi-site trials, including the level of support, resources required and factors affecting success
- 2) Assess the feasibility of delivering and evaluating mentoring using a core components framework to define the practice model

These objectives map on to the following specific research questions:

- 1) What is the feasibility of engaging DPOs in a multi-site trial?
- 2) How feasible is it to successfully run a multi-site trial with the selected DPOs?
- 3) What is the feasibility of developing and delivering a trial-able practice model?
- 4) Is it appropriate to proceed from feasibility to a larger pilot trial?

Methods

Phase 1 – Recruitment of delivery partner organisations

We will seek to recruit up to 20 DPOs to participate in the study. This will be done through open recruitment, with outreach targeted at potentially aligned organisations directly. Recruitment will be focused on registered charities and social enterprises working with children and young people in England and Wales. We aim to recruit DPOs that have prior mentoring experience from a range of contexts and settings (e.g., education, criminal justice, and work with girls and young women). We do not intend to restrict recruitment to DPOs operating in the criminal justice sector as this is likely to exclude/overlook the upstream interventions that are best aligned to the strategic focus of YEF and runs the risk of failing to engage the local grassroots organisations that are of interest.

Our approach to recruitment is summarised below. The criteria have been chosen to ensure that the DPOs can meet the demands of taking part in an RCT. We will very clearly communicate the requirements of and parameters for the project in order to orient potential interest towards those organisations that are best aligned with the study. We will communicate clearly that we are not recruiting DPOs to deliver a grant funded programme, but to participate in a research project. Funding provided is to enable DPOs to fully participate in the study.

We are particularly focused on those who would not otherwise have the financial resource or ability to recruit sufficient numbers of young people to do rigorous impact evaluation on their own. We will be looking for youth organisation who demonstrate that they have both the capacity and commitment to participate in the trial.

Although we will not pre-specify the geographical spread of organisations, we will be mindful in recruitment to select organisations from across England and Wales. Organisations will be prioritised when they demonstrate understanding of the trial and the capacity to recruit young people and collect good quality data for analysis.

To be included, DPOs will need to demonstrate the following via the EOI and/or at interview:

DPO capacity requirements

- Track record in mentoring featuring identified core practice elements⁴.
- Individual DPOs (not partnerships).
- Able to engage minimum numbers of mentees in the timescale required. We require a minimum of 10 cases (5 per arm) in the feasibility trial and a minimum of 50 (25 per arm) in the pilot trial per DPO. This is aligned to the proposed structure of funding,

⁴ As the timetable does not allow for the establishment of new services.

which will support the equivalent one of full-time mentor, with a case load of 20-25 young people.

- Evidence of previous data collection - collecting routine user and engagement data at a minimum, and ideally feedback and outcomes data as well.

Commitment to the trial

- Willingness to engage in an RCT with a wait-list design.
- Capacity for involvement in the development of the practice model and trial processes (for selection for the feasibility trial stage)
- Capacity for gathering robust data, including willingness to collect data on self-reported offending behaviour.
- Strong relationships with communities most affected by serious youth violence (responding to the under-representation in grant making and evaluation of organisations led by communities with lived experience of serious youth violence). The organisation needs to be established and trusted within their community and have a reputation for delivering mentoring, with evidence of strong relationships with local referral partners.
- Senior leadership commitment to the project.

Recruitment approach

We will issue an open call for expressions of interest (EOIs) using an online submission form in September 2021. This will be a single call covering both the feasibility and pilot phases – see below.

We will work through the CYI's Regional Networks to recruit delivery partners, supported by the Centre's wider partnerships across the statutory and voluntary youth sector and funder community. We will work with the YEF and its funder collaborators (for example, BBC Children in Need) to identify potential organisations/networks of interest for outreach.

We will produce accessible and relevant communications that will be housed on the CYI's website and disseminated through all partners' social media and newsletters. Interested organisations will have an opportunity to submit clarification questions, and we will hold two webinars.

Communications produced and disseminated during recruitment will include:

- A detailed briefing sheet for interested youth organisations outlining the aims and structure of the project, time commitments (see Figure 1 below), key dates, and FAQs
- Expression of Interest (EoI) Guidance including a pre-EoI checklist, questions asked on the form, and guidance for responding to those questions to ensure that we are provided with the information we need to assess expressions of interest
- The EoI form for interested applicants to complete and apply
- Collated responses to submitted clarification questions

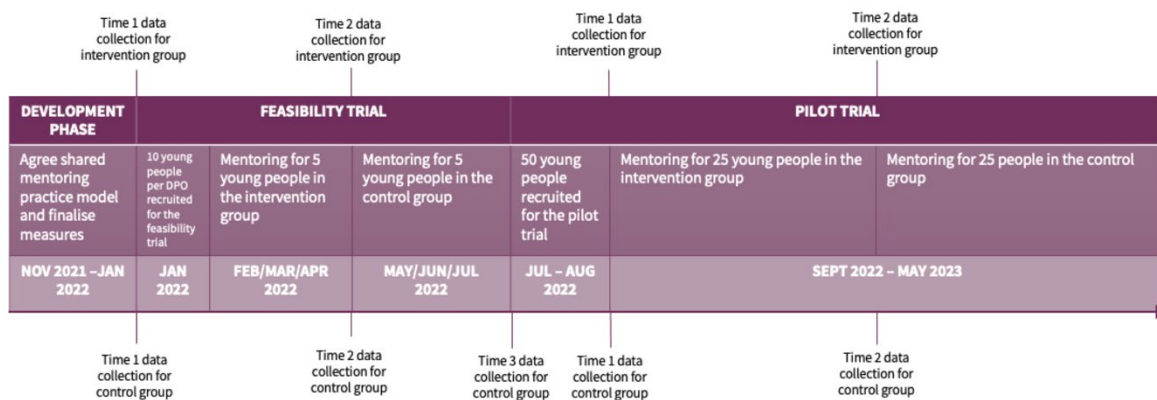


Figure 1 Time commitments for the DPOs

Appraisal, selection and due diligence

We will appraise EOIs and interview those shortlisted. Shortlisted EOIs will include a demonstrable eagerness to take part in the trials and an understanding of what that entails from an organisational perspective specifically, capacity demand, data gathering and implications of a shared impact evaluation); a strong reputation for mentoring within their communities; confidence to recruit sufficient young people for the trials; clear articulation of mentoring provision, and ability/willingness to adapt practice to align to the shared model; and stable funding and delivery context that will support engagement with the trial for the duration.

In order to ensure we can select 20 successful DPOs, we will seek to shortlist 30. We will develop an appraisal framework and seek feedback from YEF to ensure it is aligned with its due diligence/grant management processes. DPOs will be selected and restricted grant contracts will be issued in November.

Due diligence checks will be carried out in stages. We will first review organisations' legal status, credentials, governance, and financial status. Checks at this stage will include:

- The leadership and governance of the organisation via publicly available information (e.g. organisation's website, the Charity Commission)
- Know Your Customer and Anti-Money Laundering checks
- Review of the finances of the organisation to ensure sustainability for the duration of the trial (we will ask that applicants provide their last published accounts and an annual budget with their EoI)
- Checking that they have a safeguarding policy and how long this has been in place (asked on the Expression of Interest form)

Shortlisted DPOs will be invited to an interview that should include both senior leadership and delivery staff. These interviews will assess organisations' understanding of and commitment to the trial, as well as to do further checks into their safeguarding procedures, for example, working through a relevant practice example, discussing how frequently their policy is reviewed and how staff are trained.

Prior to issuing grants, we will check references with previous funders and any referral partners critical to the success of delivery⁵.

Number of DPOs

We intend to recruit DPOs for both the feasibility trial and the pilot trial in one round in order to make most efficient use of resources and maximise communication opportunities. We anticipate that most feasibility trial DPOs will proceed to the pilot trial. We will engage all 20 DPOs in the refinement of the practice model through workshops led by the Centre for Youth Impact. At least 10 of the DPOs will deliver mentoring and collect data for the feasibility trial, and we will plan for all 20 to take part in the in the pilot trial, but recognise that some DPOs may not be able to proceed.

It will be important that the 10 DPOs that take part in the feasibility study are representative of the total group of DPOs. Diversity factors that will be considered for this include turnover, footprint (i.e. scale of delivery/geographical reach), profile of beneficiaries (gender, ethnicity etc), type of organisation (i.e. charity or social enterprise), and BAME and female leadership.

⁵ These latter checks will be agreed in close collaboration with YEF in order to align with existing due diligence processes.

Furthermore, the selection of 10 organisations for the feasibility study will be decided based on their readiness to engage and recruit participants at the beginning of 2022.

Extending numbers for the pilot trial means that:

- Development work is undertaken with a modest number of DPOs which allows for meaningful collaboration and can focus on those with capacity to fully participate in this phase.
- We allow for some feasibility pilot DPOs not proceeding.
- We test whether the trial approaches are feasible for DPOs that were not delivering mentoring and collecting data as part of the feasibility study – crucial for understanding whether this approach to multi-site trials is feasible for wider use.
- The pilot trial will be sufficiently large for sub-group analysis.

We will frame DPOs' engagement as participation in a research study rather than a conventional grant-funded relationship, and set very clear deliverables for individual DPOs, including agreeing activities and delivery numbers with each DPO at the start of the feasibility phase. DPOs will draw down grant funding in advance (payment in arrears is particularly challenging for smaller organisations), each payment contingent on the full delivery of the preceding phase. We will work with YEF to agree options for DPOs to exit should they be unable to meet expectations. The requirements of the study may prove too challenging for some organisations. This, in itself, is valuable learning – and if so, they will be supported to 'exit well' and given the opportunity to share their reflections of the process to enable further learning. We will also ensure that DPOs are provided with significant support from a named member of the research team from CYI so that we can build close working relationships and maintain an ongoing perspective on DPOs' capacity to engage.

Refining the practice model and supporting implementation and trial processes

An initial practice model will be developed by the evaluation team. We will work with DPOs to refine and finalise it and to identify core and adaptable components, and key fidelity criteria that will be monitored. We will also refine the theory of change with DPOs. Based on these, we will develop a suite of written and video-based resources to support implementation of the practice model and of the trial arrangements.

Our approach will include in-depth work to build DPO capacity for the trial, including diagnostics, implementation planning support, improvement frameworks and coaching models.

We will deliver a series of sessions and webinars on the model itself and its delivery, including an educational briefing on RCTs and evaluation. These sessions will:

- Offer a space for peer coaching to build a supportive learning community that shares accountability for the success of the trial.
- Ensure that the identified core components reflect how mentoring practice 'looks and feels' in reality.
- Enable us to identify in advance potential challenges with fidelity to the practice model and intervene appropriately.

We will also work with the DPOs to refine the trial arrangements, and provide in depth support, alongside written resources and webinars, to address:

- How to explain the trial to eligible young people and their parents/carers and collect informed consent; the procedures for young people who do not wish to take part. We will co-develop materials including information sheets and consent forms with DPO managers, mentors and young people. We will draw on our extensive experience, as well as the wider methodological literature, of the practicalities and ethics around encouraging the participation – including longitudinal participation - of young people in research.
- The procedures for randomisation. The randomisation process will be managed centrally via the online portal created for data collection and based on block randomisation. The allocation per individual will be made immediately available to DPOs via the online system, once they enter the young person's baseline data. We will support the DPOs as much as needed to understand and adhere to the randomisation. Randomisation is done in blocks to avoid the possibility that a DPO receives several consecutive intervention or control cases and ensure a 50:50 allocation overall.
- Data collection arrangements: We will work closely with DPOs to help them build the outcomes survey into their regular work with young people and support them closely to ensure consistency and quality in data collection across the mentee survey, post-session feedback and administrative data. We will pay particular attention to challenges in data collection from the control group young people and from those who terminate mentoring early. Central to this will be embedding into our briefings of DPOs and information for young people the crucial role that these young people play in the trial.

- Data sharing: we will provide data sharing agreements.

Phase 2 Feasibility trial

Overview

We plan to run the feasibility stage as a dress-rehearsal for the pilot trial, including randomisation (a key strategy that will need to be tested) and baseline and follow-up data collection (although with a shorter follow-up period).

We will run the trial with a wait-list design and will set this out clearly to DPOs in the recruitment as clarity about this will be key to their decision-making. Due to the wait-list control, we will specify that DPOs exclude young people facing immediate risk or crisis, or for whom being on a waiting list would be potentially harmful – but otherwise it will be the DPOs' responsibility to determine the threshold of cases that they put forward for the trial, knowing that there is a 50/50 chance of a young person receiving mentoring right away. Our expectation is that a wait-list design will be acceptable to DPOs, whereas a trial where the control group can never receive mentoring will not be, except in instances where the demand for mentoring outstrips supply. Were we to try and recruit DPOs where this demand/supply ratio arises, the pool from which we could recruit would narrow. We will, however, discuss with DPOs what their thoughts would be about alternative options for a future multi-site trial control group, including comparison interventions, and whether a non-wait-list would be feasible and acceptable in other evaluations.

The length of wait until mentoring for participants in the control group will be equal to the length of the mentoring provision i.e., at least 12 weeks. Once a DPO has recruited 3-4 young people, they will all be assigned to either the intervention or control group, with at least one assigned to the former. This is to prevent DPOs from having too many or too few cases, especially at the start of the project.

DPOs are likely to provide other services as well as mentoring, and the trial is therefore effectively a comparison between mentoring plus other youth provision, versus other youth provision excluding mentoring. We will also explore with each individual DPO any particular challenges to this distinction within their service, particularly relating to other 1:1 support such as counselling or coaching interventions. We will discuss when and how mentoring is delivered in their services, e.g., is it delivered at the same time as other provisions, with adherence to the randomisation in mind? We will agree in consultation with the DPOs whether any other 1:1 support provision would need to be excluded from the control arm

during the wait-list period, e.g., counselling, or coaching interventions, as their core components may have too much overlap with those of mentoring. It may not be possible to avoid aspects of the mentoring model being used in other 1:1 interactions entirely, and we cannot deprive the control group of that support by excluding all 1:1 interactions with their youth workers. We will collect information about the non-mentoring services used by both arms.

Recruitment of young people

Young people will be recruited to the feasibility trial by DPOs, following their usual processes (with the addition of explanations of the trial and randomisation). We will provide DPOs with resources and training to support their recruitment of young people and how to respond to any questions that parents/carers and/or young people may have during the consenting process. At the point when they are enrolled, young people will be asked to consent to participation in both mentoring and the trial (randomisation and data collection). Parent/carer consent will also be required. We have set up a dedicated study email address – trials@youthimpact.uk, where parents/carers can reach out to the evaluators should they want to discuss anything before signing the parental consent form.

Support for trial processes

Once the feasibility trial has started, we will keep in regular contact with each organisation to help them in the running of the trial and the delivery of the practice model. We anticipate that sites will need particular support around data collection, as set out above. In practice this will involve talking to sites on a regular basis to identify any problems they are experiencing – which might range from technical problems, through to problems with recruitment or engagement of young people. We will work with each organisation to address the problems – with any general learning that might be useful to other sites being disseminated.

We are aware of potential competition between DPOs and will pre-empt it by agreeing rules of engagement at the time of selection. The risk is also reduced as the focus is on the feasibility of the research rather than mentoring outcomes.

Implementation evaluation

An implementation evaluation will be included in the feasibility trial and pilot trial, focused on assessing the feasibility of multi-site trials and of delivery of a practice model. It will be informed by the Consolidated Framework for Implementation Research (CFIR)^{xiii} a widely used and validated framework which identifies the determinants of effective implementation. Examples of the questions to be posed in the implementation interviews are listed below.

These questions will be assessed by triangulating qualitative information from both the mentee and mentor interviews.

- **Feasibility of intervention:** How feasible is the practice model? What barriers and enablers were encountered in working to the practice model, how were these addressed, and what does it imply for the pilot trial?
- **Feasibility of trial arrangements:** How feasible are the requirements for recruitment, consents, randomisation and data collection? What barriers and enablers were encountered, how were these addressed, and what does it imply for the pilot trial?
- **Quality/fidelity:** Has the mentoring practice model been delivered as intended and as per the specified core components? What adaptations are made and why?
- **Acceptability of intervention:** Is the model viewed as acceptable and an improvement on services as usual by the delivery partners, and is it acceptable to young people?
- **Acceptability of trial arrangements:** Are the trial arrangements viewed as acceptable by DPO staff and by young people?
- **Appropriateness:** Is the practice model viewed as a good fit with service culture, usual ways of working, and the needs of the young people?
- **Differentiation:** How does it differ from mentoring approach/es previously used by DPOs?
- **Implementation strategies:** What did it take to set up the trial arrangements? What implementation strategies were used to establish the practice model, train and support mentors and reach young people?

In addition, we will undertake full debriefing with feasibility trial DPOs at the end of the feasibility trial (likely a combination of individual and collective discussions) to inform recommendations about whether to proceed to a pilot trial and necessary modification of the trial and delivery arrangements. We will similarly debrief DPOs after the pilot trial.

Phase 3 – Progression to the Pilot trial

At the end of the feasibility stage, we will make a recommendation to YEF on whether to progress to the pilot stage, using the same design or with modifications. If the decision is

taken to proceed, a trial protocol will be produced and published, alongside a statistical analysis plan specifying the research questions and planned analysis in further detail.

We expect the ten DPOs involved in the feasibility trial to continue to the pilot trial, but that the group will be expanded with up to ten additional DPOs. These new organisations will allow for a test of running a multi-site trial within DPOs using a design that has been already developed.

We expect there to be an ongoing need for a high level of support for the participating organisations during the pilot stage, but especially for the DPOs that join after the feasibility study. This will be monitored and logged.

The pilot trial will address a similar set of questions about running the RCT as the feasibility stage, reflecting the fact that with larger numbers and more DPOs (some new to the project), different problems may arise. The pilot trial will also explore:

- How well do DPOs new to the pilot manage the run the trial? How much extra support do they need relative to the organisations taking part in the feasibility stage?
- Is there a need for ongoing support throughout the trial, and if so, what is the nature and scale of that support? What are the implications of this for evaluators and trial managers taking forward similar studies in future?

Overview of data collection and measures

Data collection during the two stages (feasibility and pilot) will involve a combination of different methods. We have summarised the methods in Table 2 below and presented alongside the research questions in Table 3.

Table 2 Research methods - brief overview

Method	Purpose/s	Feasibility trial	Pilot trial
Programme administrative data	Monitor implementation Grant payment KPIs	Online data collection	Online data collection
Online survey of intervention and control group⁶	Measure SEL outcomes	Baseline (n=c.100) and follow-up (n=c 75)	Baseline (n=500-1000) and follow-up (n=375-1000)
Online survey of mentors	Assess feasibility, acceptability and appropriateness Implementation	All mentors	All mentors
Brief post-session feedback by mentees	Fidelity	Online survey, monthly, n=50	Online survey, monthly, n=500
In-depth interviews⁷ with DPO managers	Feasibility of trial and intervention Implementation	One interview per DPO, n=10	One interview with feasibility trial DPOs and two with those joining at pilot trial, n=40
In-depth interviews with mentors	Feasibility of trial and intervention Implementation	1-2 mentors per DPO, n=15	1-2 mentors per DPO, n=30
In-depth interviews with mentees	Feasibility, acceptability and appropriateness of intervention	1-2 mentees per DPO, n=15	1-2 mentees per DPO, n=30

1) Programme administrative data: we will ask DPOs to systematically collect key delivery information (to inform conclusions on feasibility and support grant payments), e.g., the number of young people approached to take part, the number consenting, attendance, mentor background, training and supervision, number of

⁶ We will make arrangements for face-to-face completion if necessary.

⁷ Interviews will be conducted by telephone or Zoom, or face-to-face with young people where this is their preference

sessions and duration/timescale. We will also ask DPOs to log what other services were accessed by young people in both the intervention and control arms.

The evaluation team will also systematically log the support provided to DPOs to participate in the trial, to capture the nature of support needs and activities, burden on the evaluation team, and an estimate of time and costs incurred by DPOs.

2) Survey of young people (intervention and control group): this will be an online survey of all participants, based on the selected validated measures, with arrangements for face-to-face completion if necessary. Based on assumptions about starting sample sizes and attrition, we estimate this will yield 100 responses at baseline and 75 at two month follow up in the feasibility trial, and 500-1000 at baseline and 375-1000 at three-five month follow-up in the pilot trial, depending on the number of DPOs involved at the pilot stage. The aim, of course, during the feasibility stage will be to identify strategies that the DPOs can use to minimise attrition, so these are very crude estimates⁸, but do align with previous meta-analyses which show attrition rates as typically less than 15%^{xiv,xv}.

The selected outcome measures for young people will use a consistent set of validated scales, based on mentee self-report. A core set of measures will be decided by the evaluation team, appropriate to DPO contexts and the practice model, prior to the start of the feasibility study. In order to minimise burden and attrition, we will be conscious to streamline the number of measures chosen in total. We will consider:

- The Strengths and Difficulties Questionnaire^{xvi}
- Review of Personal Effectiveness and Locus of Control (ROPELOC)^{xvii}
- Life Effectiveness Questionnaire^{xviii}
- National Citizen Service evaluation scale^{xix}
- Youth Report of SEL Skill (YRSS) scale which includes six domains of SEL functioning (emotion management; empathy; teamwork; responsibility; initiative; problem solving)

We will also consider the fit of Problem Behaviour Frequency Scale and Self-Reported Delinquency Scale which are YEF's preferred scales (to standardise outcomes where possible across YEF trials and to include measures predictive of youth violence). We will assess the appropriateness and acceptability of these scale within the context of

⁸ We are not aware of any established minimums in terms of attrition, Meta-analyses of longitudinal research show wide ranging attrition rates, but typically less than 15%, and as little as 1% for well supported participants which supports our estimates.

DPOs' work and intended outcomes, particularly to ensure that potentially intrusive questions about 'problem' behaviours do not adversely affect participation and data completion, as well as to assess fit with the trial timescales and data collection methods.

- 3) Survey of mentors:** online survey of all mentors involved in feasibility and pilot trial (number to be determined) to assess feasibility and acceptability of trial arrangements and of the mentoring model, and fidelity.

We will agree key quality/ fidelity criteria relating to core components as we develop the mentoring model: pragmatic measures will be developed and tested in the feasibility trial. We will consider both mentor self-report and mentee feedback, e.g., the Youth Engagement Survey^{xx}, and the Search Institute's Developmental Relationships Framework^{xxi}.

- 4) Brief post-session feedback by mentees:** to monitor fidelity and acceptability of the mentoring model. Feedback will be collected via a monthly online survey, and we will aim to gather data from all mentees. The survey will be very short and focused, measuring views on 3-4 key fidelity aspects.
- 5) In-depth interviews with DPOs managers / mentors / mentees:** to assess the feasibility of the trial arrangements, the mentoring model and support needs. We will collate feedback on successful approaches to recruiting and building rapport with young people, including specific questions about the percentage of young people who take part and which factors facilitated and prevented participation.

As part of assessment of the feasibility of multiple DPOs working to a common practice model, we will also use and, if necessary, refine pragmatic validated measures of feasibility, acceptability and appropriateness^{xxii xxiii} of the mentoring practice. We will also log the support needs and strategies required.

For DPOs involved in both the feasibility and pilot trials, this will involve one DPO manager interview at each trial. For DPOs involved in the pilot trial only, this will involve two interviews. For interviews with mentors and mentees, we will aim to include 10-15 mentors and 15 mentees in the feasibility trial and both 30 mentors and 30 mentees in the pilot trial. In-depth Interviews will be conducted by telephone or e-platform, or face-to-face with young people where this is their preference.

- 6) **Debriefing sessions with DPOs after feasibility and pilot trials:** mode and number to be decided. DPOs will also be asked to debrief young people on the trial arrangements.

Table 3 Mapping research questions to measures

Research theme	Research questions	Indicators/measures	Data collection tools
1) Feasibility of recruitment	<ul style="list-style-type: none"> • What is the feasibility of engaging DPOs in a multi-site trial? 	<ul style="list-style-type: none"> • Number of submissions meeting eligibility criteria • Outreach and appraisal strategies required to engage DPOs in a multi-site trial 	<ul style="list-style-type: none"> • Programme administrative data • In-depth interviews with DPO managers • De-brief
2) Feasibility of running an RCT	<ul style="list-style-type: none"> • How feasible is it to successfully run a multi-site trial with the selected DPOs? 	<ul style="list-style-type: none"> • Percentage of young people participating and strategies required to improve take-up • Adherence to randomisation, evidence of contamination • Extent of completion of outcomes data and strategies needed to improve • Acceptability of trial arrangements to DPO staff and young people • Support required by DPOs to run trial • Other services accessed by treatment and control groups 	<ul style="list-style-type: none"> • Programme administrative data • In-depth interviews with DPO managers, mentors and mentees • Survey of young people • De-brief
3) Feasibility of delivery	<ul style="list-style-type: none"> • What is the feasibility of developing and delivering a trial-able practice model? 	<ul style="list-style-type: none"> • Support required by mentors and organisations to deliver the practice model • Barriers and enablers to working to the practice model • Adherence to core components • Differentiation from mentoring-as-usual 	<ul style="list-style-type: none"> • Programme administrative data • Survey of mentors • Post-session feedback • In-depth interviews with DPO managers, mentors, and mentees • De-brief

Research theme	Research questions	Indicators/measures	Data collection tools
		<ul style="list-style-type: none"> • Adaptations made • Acceptability of the model to DPOs and young people • Rate of take-up by young people 	
4) Proceeding to a pilot trial	<ul style="list-style-type: none"> • Is it appropriate to proceed from feasibility to a larger pilot trial? 	<ul style="list-style-type: none"> • Changes to the trial arrangements, practice model, and support strategies needed 	<ul style="list-style-type: none"> • Analysis across all data sets

Success criteria and/or targets

At both the feasibility and pilot stages, we will judge the trial to have been a success if at least 75% of the DPOs deliver the RCT as intended within their organisations. The targets for 'deliver as intended' are:

- The minimum recruitment targets for the trial are met;
- Baseline data is collected on all those recruited⁹;
- Follow-up data is collected on at least 75% of those randomised for each arm of the trial;
- There is evidence that the DPOs have made efforts to collect outcome data on all those in the trial, including those in the intervention arm who do not complete the intervention;
- There is no evidence of contamination, with all those assigned to the control group being held on the wait list until outcome data collection is complete.

If the feasibility stage trial does not meet these targets, we may still make a recommendation to progress to the pilot stage, as long as there is a reasonable expectation that any major barriers encountered at the feasibility stage can be addressed.

Data analysis

Analysis of the feasibility trial outcomes data

We expect the feasibility trial to give a sample of around 38 young people per arm with both baseline and follow-up data. This will be sufficient to give an indication of the size of impacts that will be observed in the pilot trial, and that information will be used when setting out a detailed statistical analysis plan for the pilot trial data. Our analysis plan for the pilot trial will include a tentative exploration of contextual differences which may account for variation across sites, but we recognise that the sample of DPOs is small and so we will be limited in what we can do and infer here.

As part of the outcomes data analysis, we will also consider the level and type of involvement with non-mentoring services, which will likely vary across participants and DPOs. This information will be considered as part of the analysis to understand the relative impact of mentoring on outcomes, as contamination could potentially reduce the estimates of effectiveness.

The data from the feasibility study will also be used to assess the quality of the data collected. That is, whether young people complete all sections of the questionnaire, whether their answers are consistent across questions, whether and where 'don't know' categories are selected, and so on. If problems are identified this may lead to edits to the data collection tools for the pilot stage. Unfortunately, the timetable is too short to conduct formal analysis

⁹ Baseline data should be collected prior to randomisation, and thus should be a condition of entering the trial

on the feasibility data at multiple time-points, but the study team will keep a close eye on incoming data and make adaptations if needed.

Administrative and implementation data

Programme administrative and implementation data will be analysed descriptively to inform assessments of trial arrangements and practice model, and suitability of DPOs to go forward to the pilot trial.

Qualitative data will be digitally recorded and transcribed verbatim. Thematic Analysis will be used to examine and interpret qualitative data, with themes developed both deductively and inductively including unexpected issues.

Outputs

We will report findings from the feasibility trial initially through a detailed presentation and discussion with YEF. If our recommendation is that the pilot should go forward, we will produce a short internal report highlighting findings and recommendations. A longer report suitable for external publication could be produced if the conclusion is not to go forward.

Following the pilot trial, we will again report the findings initially through a presentation and discussion with YEF, and produce a full report suitable for publication covering:

- The rationale for the study
- Full description of the practice model and its development
- Feasibility trial methods, support arrangements and findings relating to the feasibility and support required for a multi-site trial and of practice codified in a core components framework
- Pilot trial methods, support arrangements and findings. The main focus will again be on the feasibility and support required for multi-site trial and adherence to a core components practice model. Reporting the impacts of mentoring will be secondary to this (and may be best addressed in a short separate report)
- Recommendations and implications: including the feasibility of this method for evaluating practices across multiple settings, and how it can be strengthened and used by YEF.

Ethics and registration

The study will follow high standards of ethical practice aligned with guidelines issued by the UK Evaluation Society^{xxiv} and the Social Research Association^{xxv}. Senior team leaders have set up and served on ethics boards and published and taught on ethical research practice and bring high level ethics expertise. We will agree approaches with DPOs to ensure that participation is based on mentees' informed consent, including consent from parents/carers. Participants will be provided with written information about the study aims and their involvement, that participation is voluntary, how data securing will be ensured, and their right to withdraw. We will ensure that data collection is not unduly onerous for the mentees, mentors, and DPO managers, and that this process does not undermine participation in the youth organisations.

We will register the protocol for the pilot study and seek ethical advice from an external organisation, e.g., the National Children's Bureau's Research and Ethics Advisory Group¹⁰.

Data protection

For DPOs, the legal basis for processing personal data is legitimate interests as per GDPR Article 6 (1) (f): *'processing is necessary for the purposes of the legitimate interests pursued by the controller or by a third party except where such interests are overridden by the interests or fundamental rights and freedoms of the data subject which require protection of the personal data'*.

For the evaluation team, the legal basis for processing personal data is similarly legitimate interests. The processing of data collected about the programme is expected to have clear benefit for understanding research about the programme, with a limited privacy impact on the individual.

Youth organisations' data, including personal data of key personnel, will be processed during the recruitment, appraisal and selection processes. This is so the evaluation team can communicate with prospective DPOs and carry out necessary due diligence checks. When organisations apply, they will consent to their data being processed and held for these purposes and signposted to a joint Privacy Notice, shared by the partners.

Additionally, we will process special category data under Article 9: processing that is necessary for the performance of research being carried out in the substantial public interest (Paragraph 13, Schedule 1).

¹⁰ <https://www.ncb.org.uk/what-we-do/research-evidence/research-ethics>

We will also gather explicit consent from young people and parent/carer consent for participation in mentoring and in the trial, and explicit consent from all interviewees.

Data sharing agreements will be put in place, both between DPOs and the evaluation team, and within the evaluation team. Egress or similar secure system will be used for the transfer of personal and/or special category data.

We will set out requirements for DPOs' processing and storing of data and assess these as part of due diligence. The evaluation team will store identifiable and pseudonymised data in a secure folder (accessible only by the evaluation team members) on an encrypted server, and in accordance with Section 5 of the Data Protection Act and the General Data Protection Regulation (GDPR). Interviews will be tracked via a unique identifier number, with data kept separately from any contact information.

A joint Privacy Notice will be drafted across the three organisations, held on each organisational website, and highlighted to participants.

We anticipate naming the participating DPOs in reports, with their consent, but without attributing data or findings to them. No identifiable information about individual study participants will be made available to anyone outside the DPOs or the evaluation team. Names and other identifiers of those participating will not be used in any reporting.

The evaluation team will securely destroy data two years after completion of the final report.

As part of the commitment to the YEF Evaluation Data Archive, we will explore, in the feasibility trial, the viability of asking young people involved in the pilot trial to consent to data archiving as part of the trial arrangements. If viable, we will archive young people's outcomes data from the pilot trial, following YEF's process.

Personnel

Delivery teams

Given the project approach, the DPOs and delivery personnel are not yet known.

Centre for Evidence and Implementation (CEI)

- Jane Lewis – Director: principal investigator and project lead, supporting development of the mentoring practice model and support for DPOs, leading the implementation evaluation, and accountable for the project overall.
- Dr Stephanie Smith – Senior Advisor: responsible for the day-to-day project management and coordination of the evaluation, involved in all stages.
- Amy Hall – Research Assistant: providing research support to the evaluation.
- Second Research Assistant to be identified: providing research support to the evaluation.

Centre for Youth Impact (CYI)

- Bethia McNeil – Chief Executive: project lead for the recruitment and management of the DPOs, leading the development of the mentoring practice model, and supporting on fidelity and quality monitoring.
- Mary McKaskill – Research and Methods Lead: supporting the development of the practice model and responsible for the day-to-day project management of DPO recruitment and ongoing support to DPOs.
- Sarah Rose – Resources Manager: supporting the logistics for recruiting and managing DPOs.
- Josef Fischer – Data Lead: supporting the management of DPOs and data analysis.

Bryson Purdon Social Research (BPSR)

- Dr Susan Purdon – Partner, statistician: jointly lead the design and implementation of the RCTs at the feasibility and pilot stages, covering designing the data collection tools, the randomisation procedures, and the analysis of the outcomes data.
- Caroline Bryson – Partner, social science researcher: jointly lead the design and implementation of the RCTs at the feasibility and pilot stages, covering designing the data collection tools, the randomisation procedures, and the analysis of the outcomes data.

Risks

Risk	Mitigation
Failure to recruit sufficient numbers of DPOs (Likelihood: medium; Impact: medium)	<ul style="list-style-type: none">● Recruitment will be closely monitored, so that any challenges will be caught early● Draw on extensive sector networks, and approach potentially suitable organisations if need be● Adjust case numbers per DPO where feasible
Delay in DPO recruitment of young people and of mentoring delivery, leading to problems in following up participants during evaluation period (Likelihood: medium, Impact: medium)	<ul style="list-style-type: none">● Consulting with youth organisations prior to recruitment to check timing of interventions in relation to school term● Appraisal and due diligence checks of DPOs to assess ability to recruit sufficient numbers of young people per the study timeline and deliver mentoring● Monitoring of set up and delivery to allow early additional support where necessary● Study timelines will be adjusted and extended if needed

Risk	Mitigation
	<ul style="list-style-type: none"> ● Avoid delivery in school holidays
Reduction in DPO capacity because of Covid (eg lockdowns, furlough, sickness) (Likelihood: medium, Impact: medium)	<ul style="list-style-type: none"> ● Adjustment of study timelines
Reduction in capacity of evaluation team staff because of Covid or other reasons (Likelihood: medium, Impact: low)	<ul style="list-style-type: none"> ● Constant monitoring of resource allocation against requirements ● If staff becoming unavailable (due to leave, illness, or long-term absence), substitute staff from the evaluation organisations will be involved, with access to freelance consultants if necessary
Data breach by evaluation partners or DPOs (Likelihood: low, Impact: low)	<ul style="list-style-type: none"> ● Data Sharing Agreement between DPOs and evaluation team ● Data to be held securely in accordance with data policies ● Egress or similar, to be used for transfer of data securely

Timeline

Dates	Activity	Staff responsible/leading
Phase 1: Recruitment and model development		
July- end August 2021	Rapid evidence review – mentoring practice, models and impacts	JL, SS, BMcN, MMcK
	Rapid evidence review – multi-site trial literature	SP, CB
	Develop materials for recruitment of DPOs, including FAQs and webinars	BMcN, MMcK
September 2021	Development of initial practice model and theory of change	All
	Initial design of feasibility/pilot trials	SP, CB
	Outreach and recruitment of DPOs – EOI open from 13 th September <ul style="list-style-type: none"> ● Deadline for clarification questions 23rd September ● Two webinars 28th and 29th September 	BMcN, MMcK
October 2021	Deadline for applications – 13 th October, screening and due diligence of DPOs <ul style="list-style-type: none"> ● Shortlisted candidates interviewed the weeks commencing the 25th October and 1st November 	BMcN, MMcK
	Development of practice model and support resources	BMcN, MMcK

Dates	Activity	Staff responsible/leading
	Development of measures and instruments for feasibility trial	SP, CB
November 2021	Submit documents for ethical approval	SS
	Confirmation of DPOs for feasibility trial <ul style="list-style-type: none"> Successful DPOs notified the w/c 8th November Restricted grant agreements signed 	BMcN, MMcK
Phase 2: Feasibility trial		
December 2021 (first 2 weeks)	DPO consultation and refinement of practice model	BMcN, MMcK
January 2022	Set up support and briefings for DPOs	BMcN, MMcK
February-March 2022	Delivery of mentoring and data collection / support for DPOs	JL, SS / BMcN, MMcK
April 2022	Analysis of outcomes data	SP, CB
May-June 2022	Recommendations, presentation and interim report	All
Phase 3: Pilot trial		
July 2022	Revisions as needed for pilot trial	SP, CB
September 2022-May 2023	Delivery of mentoring and data collection; support for DPOs	JL, SS / BMcN, MMcK
June 2023	Analysis of outcomes data Analysis of other data	SP, CB JL, SS
July 2023	Presentation and discussion Draft report	All
August 2023	Final report	All
Phase 4: Delivery to wait list		
May-December 2023	Oversight of delivery to wait list	BMcN, MMcK, SP, CB

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