Effectiveness and cost-effectiveness of a parenting programme to improve family wellbeing in England (TOGETHER): a multicentre, single-blind, randomised controlled trial

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Summary

Background Stark socioeconomic health inequalities exist in the UK, with families from ethnic minority backgrounds disproportionally affected. Robust evidence is needed on interventions that can improve family wellbeing. We aimed to assess the effectiveness and cost-effectiveness of a group-based parenting intervention (Strengthening Families, Strengthening Communities [SFSC]) in enhancing parental mental wellbeing.

Methods We conducted a randomised, multicentre, waiting list controlled trial of a parenting intervention in socially and ethnically diverse urban areas in England. Participants were invited from 34 areas and were randomly assigned with an allocation ratio of 1·154:1·000 to the SFSC parenting programme or waiting list control. The randomisation sequence was made by a researcher using an online algorithm and was stratified by site, parent gender, and self-referral status. Researchers collecting outcome data and those analysing data were masked to randomisation but participants were not. Participants were any adult caregivers (aged ≥18 years) of children aged 3–18 years. The intervention was delivered in weekly, 3-h group sessions over 13 weeks. The primary outcome was parental mental wellbeing assessed with the Warwick-Edinburgh Mental Well-Being Scale at post-intervention and a 6-month follow-up. Cost-effectiveness was evaluated using a within-trial cost-utility analysis. All analyses were conducted on an intention-to-treat basis. The trial was prospectively registered (ISRCTN15194500).

Findings Between Aug 5, 2019, and Dec 17, 2022, 1214 individuals were screened for eligibility, of whom 674 participants were randomised to the waiting list control (n=314) and to the intervention group (n=360). Most participants were women (641 [95%]; 33 [5%] men) and from diverse social and ethnic minority backgrounds (350 [52%] had a household income less than £20 000 per year and 420 [62%] from ethnic minority groups). The attrition rate at the 6-month follow-up was 30% (200 participants). Participants in the intervention group reported higher mental wellbeing at both post-intervention (mean difference 1·89 [95% CI 0·64–3·13]) and the 6-month follow-up (1·66 [0·30–3·02]) compared with the waiting list control group. The mean cost per participant attending the SFSC programme was £1081. There were three adverse events recorded, all in the control group and unrelated to the intervention.

Interpretation The SFSC parenting programme can improve parental mental wellbeing in a diverse sample of families living in disadvantaged areas across England, with no significant increase in cost. Evidence-based parenting interventions, such as SFSC, should be implemented at scale to promote family and child health.

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See **Comment** page e207

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Introduction

The health and wellbeing of children and young people is a crucial foundation for their transition to adulthood, long-term health, and future life chances, as well as having wider societal benefits.[1] To ensure that all children have a best start in life, the WHO–UNICEF–*Lancet* Commission highlighted the urgent need for governments to increase investment in policies and interventions that promote children's health.[2] However, in the UK, there is evidence that children's health is in a state of decline. The National Health Service reported in 2023 that one in five children and young people in England had a probable mental disorder, a sharp increase since 2017 when the prevalence was estimated to be 13%.[3] Stark and persistent socioeconomic inequalities exist for children's health linked to the wider social determinants of health.[4] Over 4·5 million children are living in poverty in the UK and families from ethnic minority backgrounds are disproportionally affected, with 65% Bangladeshi, 59% Pakistani, and 49% Black heritage children growing

Research in context

Evidence before this study

We searched PubMed and Cochrane databases on May 12, 2025, for trials and systematic reviews of parenting programmes published in English from Jan 1, 2000, to April 30, 2025, using the terms "parenting programmes", "parental mental wellbeing", and "health inequalities". Additional references were identified from bibliographies of relevant studies and reviews. Previous systematic reviews have shown evidence that parenting programmes can improve parenting skills, child behaviour, and parental and child mental health. However, fewer studies have focused on families from socially and ethnically diverse backgrounds, an important gap given the stark and widening inequalities in child health. The Strengthening Families, Strengthening Communities (SFSC) programme is a parenting intervention developed by the Race Equality Foundation to specifically engage and support ethnically diverse families and has been delivered across the UK since 2000. Although previous evaluations of SFSC have shown promise, these studies were non-randomised, involving mainly pre-assessments and post-assessments. There has been little robust evidence from randomised controlled trials.

Added value of this study

To our knowledge, this trial is the first large-scale, multicentre, randomised controlled trial to evaluate the SFSC programme. The study recruited a highly diverse sample with most participants being from ethnic minority backgrounds, half having a first language other than English, and most being from low-income households. The findings show that SFSC improved parental mental wellbeing, parenting practices, and family relationships. Importantly, the benefits were seen across ethnic and socioeconomic groups. By successfully engaging families often under-represented in research, this study provides robust evidence that SFSC is effective.

Implications of all the available evidence

The findings from this trial, when combined with previous evidence, indicate that parenting programmes such as SFSC can effectively improve parental and child outcomes in diverse and disadvantaged communities. The SFSC programme offers a scalable, culturally inclusive approach to supporting families, particularly those from ethnic minority groups who are often under-represented in research. Policy makers and commissioners can consider implementing SFSC as part of a wider set of measures to promote child and family wellbeing and address social determinants of health.

up in poverty compared with 24% of White children.[5] These families often face intersecting challenges—including structural inequalities, racial discrimination, and entrenched socioeconomic disadvantage—that substantially undermine their health.[6]

Multifaceted interventions are needed to promote equitable improvements in child health.[1,2] Within this intervention framework, and in recognition of the key role of families, parenting support interventions such as group-based parenting programmes can have a pivotal role in empowering families to navigate challenges and promote their children's health and wellbeing effectively.[7] Parents have a central role in supporting the health and wellbeing of their children by providing emotional support, a stable home environment, and a buffer to the effects of any adverse social conditions.[8] Parenting programmes are usually designed to equip parents with the knowledge, skills, and strategies needed to support their children's development, behaviour, and overall wellbeing in a positive and nurturing manner. The relationship between parents and children's wellbeing is reciprocal in which positive parenting practices influence children's emotions and behaviours, which in turn affect the parents' wellbeing and reinforce parenting practices.[9] Universal parenting programmes also seek to promote health and wellbeing through intervening early. These programmes mainly look to engage parents who might need targeted support, but they also reach other families with the expectation of improvements in child wellbeing at a larger population level.

Systematic reviews have consistently found that universal parenting programmes can lead to improved short-term outcomes in parenting skills, parental mental health, and child behaviour.[10–12] However, questions remain about their long-term effectiveness and the extent to which these programmes address social inequalities.[8] A large, individual-participant data meta-analysis of the Incredible Years programme found consistent reductions in child conduct problems with no evidence of differential effects by socioeconomic disadvantage or ethnic minority status, suggesting the programme is unlikely to widen inequalities, particularly given evidence that benefits persist at follow-up.[13] However, related work showed that families with lower socioeconomic status were less likely to attend sessions than those of higher socioeconomic status, highlighting the importance of strategies to enable the engagement of disadvantaged groups.[14] Parenting programmes might still struggle to reach and engage families from ethnic minority groups and those living in socioeconomically disadvantaged circumstances.[8,15,16] This issue emphasises the need for trials that are both inclusive and attentive to issues of reach, engagement, and effectiveness to establish whether parenting interventions can reduce inequalities while being delivered universally.

The Strengthening Families, Strengthening Communities (SFSC) programme is a universal parenting

programme designed to meet the needs of diverse families, including those from Black, Asian, and other minority ethnic groups. Developed by the Race Equality Foundation, it has been delivered in the UK since 2000. SFSC differs from many other parenting programmes through its strong emphasis on ethnocultural identity and strengthening parents' connections within communities. The programme is based on the premise that improving parental connections to ethnocultural identity and communities supports their wellbeing, which leads on to positive parenting practices and fostering children's social, emotional, and behavioural development.

Several uncontrolled studies have evaluated the SFSC programme and have shown encouraging, positive outcomes for both children and parents.[17–19] The Parenting Early Intervention Programme study[20] published in 2011 evaluated the effectiveness of three parenting programmes, including SFSC, using pre-assessments and post-assessments of parenting practices, child behaviour, and parent–child relationships. All three programmes showed improvements in parenting practices, reductions in child behaviour problems, and enhanced parent–child relationships, with SFSC noted for its unique strength in addressing cultural and community-specific needs.

There is a pressing need for large-scale, well designed trials to assess the effectiveness of parenting programmes such as SFSC on both parent and child outcomes. Additionally, addressing the evidence gap regarding their effectiveness for families from a range of social and ethnic backgrounds is crucial. The TOGETHER study aimed to assess the effectiveness and cost-effectiveness of the SFSC programme in enhancing parental mental wellbeing and children's social and emotional wellbeing up to 6-months after the intervention across a diverse sample of families living in disadvantaged areas of England.

Methods

Study design

The TOGETHER study was a randomised, multicentre, waiting list-controlled trial across six socially and ethnically diverse urban areas in England where the SFSC parenting programme was commissioned (Calderdale, Hull, Kirklees, Leeds, London, and Luton). Within these areas, 34 commissioning boundaries (referred to as research sites) were recruited, typically reflecting areas with high proportions of deprivation where agencies designated specific planned programmes to the trial. The study protocol included an internal pilot, economic evaluation, and embedded process evaluation (reported elsewhere).[21] The trial was originally planned across seven regions, but one region withdrew due to organisational changes. There are no other protocol deviations. Active and meaningful community engagement and involvement was incorporated through all aspects of the study and comprised three parent advisory groups recruited from diverse communities, a community co-investigator, trained community researchers, and a partnership with the Race Equality Foundation. The study was approved by the University College London Research Ethics Committee (reference 1538/002) and was prospectively registered with the ISRCTN Registry (ISRCTN15194500). The study is reported per the CONSORT 2020 and 2025 guidelines.[22]

Participants

The trial eligibility criteria were broad and inclusive to reflect the usual target population of the SFSC programme. Inclusion criteria included any person (aged ≥18 years) with parenting responsibilities for an index child aged 3–18 years, including biological parents, grandparents, step-parents, foster parents, and legal guardians (all herein referred to as parents). Potential participants were excluded if they were unwilling to provide written informed consent to participate, if they were already participating in another interventional research study, or if there was an active court proceeding relating to separation between parent and child.

Research sites were asked to designate specific planned SFSC programmes to the trial, with an agreed target to recruit parents through their usual referral pathways. In areas with a high proportion of families with a range of first languages, we specifically sought opportunities to include SFSC parenting programmes delivered in a language other than English (the most common being Turkish, Somali, Bengali, and Arabic). Participants were recruited to the trial through a combination of approaching parents on existing service waiting lists and drawing on current referrals from agencies such as social work, family support, or criminal justice services. Parents also came from direct self-referrals, often in response to promotions and outreach events (eg, coffee mornings in schools) or being encouraged to self-refer by other agencies.

Interested parents met with a researcher to discuss their involvement in the trial and to assess their eligibility. Specifically, parents had to be willing to accept random assignment and able to attend the designated SFSC parenting programme if they were assigned to the intervention arm. Informed consent (written or digitally recorded) was gained before a baseline questionnaire was completed. In areas where SFSC parenting programmes were delivered in a language other than English, we also provided translated versions of all research materials and employed and trained community researchers fluent in the relevant languages to support involvement in the trial (our language support and translation procedure is outlined in the protocol[21]). Gender was self-reported with the options of woman or man.

Randomisation and masking

After completing a baseline questionnaire, participants were randomly assigned to either the SFSC parenting programme or waiting list control. Randomisation was conducted by a researcher via a secure online system

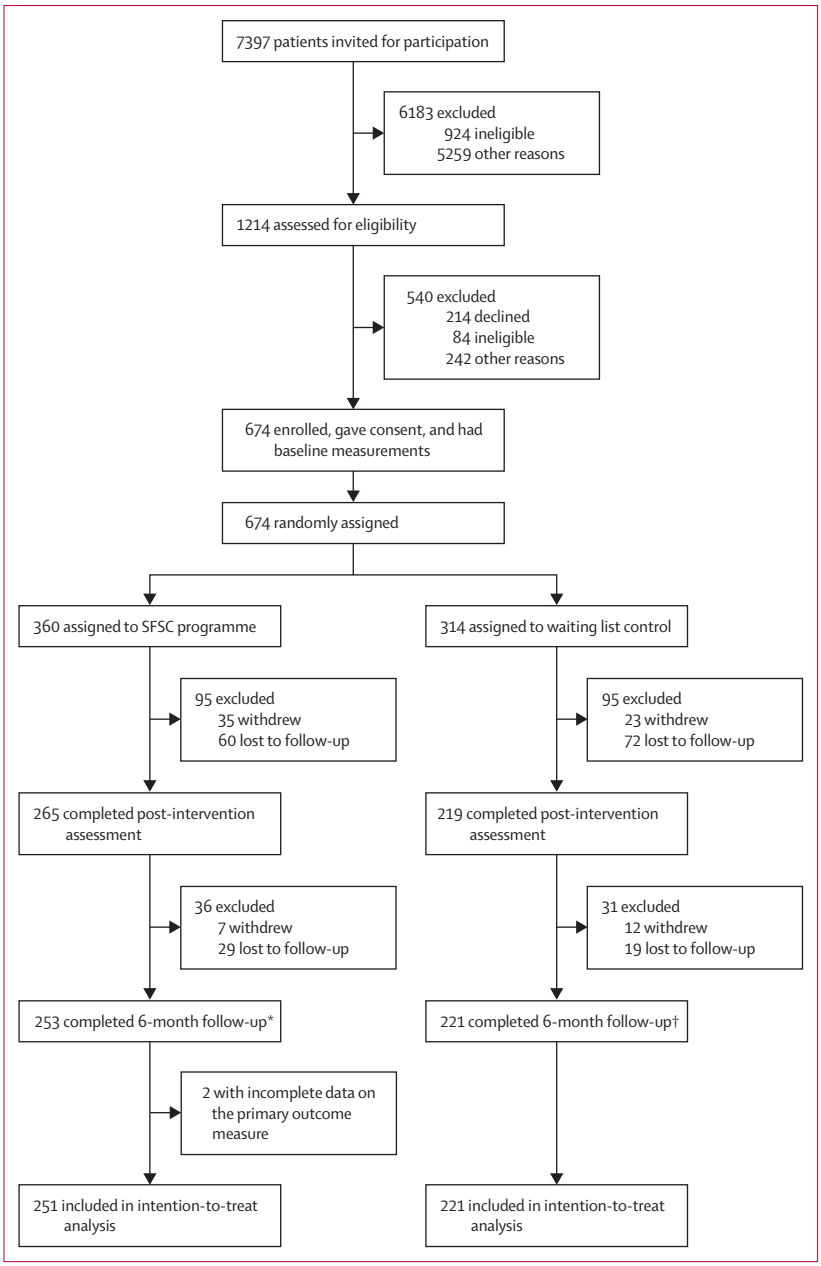

Figure: **Trial profile**
*Data were collected from 24 participants who were lost at post-intervention. †Data were collected from 33 participants who were lost at post-intervention.

See Online for appendix

using a sequentially randomised dynamic adaptive algorithm,[23] stratified by site, the gender of the parent, and self-referral status. An initial 1:1 allocation ratio was used during the pilot phase but was revised to 1·154:1·000 for the remainder of the study recruitment. The initial allocation ratio incorporated the clustering effect within the intervention arm and an expected higher attrition rate from the control arm. The internal pilot showed no differential dropout and therefore the sample size was revised to accommodate only the clustering within the intervention arm, resulting in the differential allocation ratio. Researchers collecting outcome data and those analysing data were masked to randomisation but participants were not. The integrity of masking was assessed at each point of data collection. To maintain blinding, the researcher randomising the participant was not involved in collecting follow-up data. Facilitators delivering the SFSC programme had no role in collecting outcome data.

Procedures

The SFSC programme is delivered in weekly, 3 h group sessions over 13 weeks, typically during school term time, with around 10–12 parents per group. Sessions are structured around five components (cultural and spiritual identity, rites of passage, enhancing relationships, discipline, and community involvement) and are cofacilitated by two trained individuals—often professionals or peers with lived experience—who have completed Race Equality Foundation-accredited training. Programmes were delivered free of charge, scheduled to align with school terms and breaks, and followed a manualised structure that used interactive learning methods. The programme is offered in multiple languages to ensure accessibility. Quality assurance procedures and fidelity checklists were applied to promote consistency across delivery. A fuller description of the intervention (structured with the template for intervention description and replication framework[24]) is available in the appendix (pp 2–5).

Participants randomised to the SFSC parenting programme arm were enrolled on the designated programme (usually within 8 weeks of randomisation) and received written confirmation of their allocation and details of the programme. Participants randomised to the waiting list control arm were placed on a 10-month waiting list (after the final follow-up data collection). Participants were advised to not attend any parenting programmes while in the trial. All study participants, including those in the waiting list arm, continued to have access to a full range of locally available health and social care services and received a debriefing leaflet outlining a list of national and local services on offer, such as mental health charities, family support services, and national helpline numbers.

The recruitment period was extended due to COVID-19, with all face-to-face activity paused from March to September, 2020. When the trial resumed in November, 2020, recruitment and data collection moved online. One SFSC programme was delivered in a hybrid format, with all others returning to in-person delivery.

Outcomes

The primary outcome was mental wellbeing of an index parent, which was assessed at each site via the Warwick–Edinburgh Mental Wellbeing Scale (WEMWBS),[25] a 14-item self-report measure of positive mental health and wellbeing. This outcome reflects the programme's

mechanisms of effect, in which strengthening parental wellbeing is a proximal mechanism through which improvements in parenting practices and child outcomes are expected to occur. WEMWBS is a widely used measure of mental wellbeing that is reliable, cross-culturally valid, and sensitive to change.[25–27] The primary outcome was measured at the end of the programme (ie, post-intervention) and at the 6-month follow-up.

The main secondary outcome measure was child's socioemotional wellbeing, which was measured via the Total Difficulties score on the Strengths and Difficulties Questionnaire (SDQ)–parent report.[28] The SDQ has been used in over 100 countries, is reliable, and is cross-culturally valid.[29,30] The Total Difficulties score reflects the severity of problems across four subscales relating to emotional symptoms, conduct problems, hyperactivity and inattention, and peer relationship problems. We also included additional items from the SDQ to establish an impact score. This score specifically measured the extent to which difficulties interfered with the child's daily life, such as home, school, or peer relationships. Parents were asked to consider the same index child when answering the SDQ at all timepoints.

Other secondary outcomes were: (1) parenting practices (ie, positive and negative dimensions of warmth and hostility, and behavioural control), measured by the Multidimensional Assessment of Parenting Scale (MAPS);[31] (2) self-efficacy (ie, generalised perceived control over life circumstances), measured by the Pearlin Mastery Scale (PMS);[32] (3) child–parent relationship (ie, relational conflict and closeness), measured by the Child–Parent Relationship Scale (CPRS);[33] (4) quality of partner relationship, measured by the Quality of Marriage Index (QMI);[34] (5) neighbourhood cohesion, including the sense of neighbourhood belonging and social cohesion, measured by the adapted Buckner scale;[35] and (6) health-related quality of life, measured by the five-level EQ-5D (EQ-5D-5L; visual analogue scale [VAS] and index score).[36]

A standard operating procedure for serious adverse events monitored trial safety. Researchers were responsible for reporting any safety concerns and the chief investigator (RGW) reviewed and assessed the severity of any reports and action needed. Any serious adverse events were reported to the University College London's Ethics Committee, the Trial Steering Committee, and the Data Monitoring and Ethics Committee.

The outcome measures are widely applied in evaluations of parenting interventions and were reviewed for their psychometric properties and tested with our Patient and Public Involvement group to ensure appropriateness for our diverse, multilingual study population and for the age range of children (ages 3–18 years). Data were collected for both intervention and control groups at baseline (timepoint 0), post-intervention (timepoint 1), 3 months after intervention (timepoint 2; only EQ-5D-5L), and 6 months after intervention (timepoint 3; appendix p 6). All measures were assessed

	Control (n=314)	SFSC (n=360)	Overall (N=674)
Child age, years	9 (6–12; n=314)	8 (5–11; n=357)	9 (6–12; N=671)
Parent age, years	38 (34–43; n=314)	38 (33–43; n=359)	38 (33–43; N=673)
Years in the UK, if born abroad	15 (9–19; n=177)	13 (8–19; n=200)	14 (9–19; N=377)
Gender of parent			
Woman	298 (95%)	343 (95%)	641 (95%)
Man	16 (5%)	17 (5%)	33 (5%)
Self-referral			
No	35 (11%)	40 (11%)	75 (11%)
Yes	279 (89%)	320 (89%)	599 (89%)
Gender of child			
Boy	175 (56%)	197 (55%)	372 (55%)
Girl	139 (44%)	163 (45%)	302 (45%)
Ethnicity of child			
White British	114 (36%)	124 (34%)	238 (35%)
Black African	42 (13%)	48 (13%)	90 (13%)
Arab	39 (12%)	43 (12%)	82 (12%)
Mixed	29 (9%)	45 (13%)	74 (11%)
Any other ethnic group	23 (7%)	22 (6%)	45 (7%)
Bangladeshi	20 (6%)	23 (6%)	43 (6%)
Pakistani	18 (6%)	23 (6%)	41 (6%)
Other Asian	15 (5%)	11 (3%)	26 (4%)
Black Caribbean	9 (3%)	10 (3%)	19 (3%)
Indian	4 (1%)	8 (2%)	12 (2%)
Not reported	1 (<1%)	3 (1%)	4 (1%)
Relationship with child			
Birth mother	290 (92%)	335 (93%)	625 (93%)
Birth father	13 (4%)	13 (4%)	26 (4%)
Other (eg, adoptive parent, foster parent, step-parent)	11 (4%)	12 (3%)	23 (3%)
Parenting structure			
Two-parent family	179 (57%)	206 (57%)	385 (57%)
Single-parent family	123 (39%)	140 (39%)	263 (39%)
Other (eg, step-parent, foster parent, grandparent)	12 (4%)	14 (4%)	26 (4%)
Ethnicity of parent			
White British	117 (37%)	137 (38%)	254 (38%)
Black African	43 (14%)	48 (13%)	91 (14%)
Arab	38 (12%)	41 (11%)	79 (12%)
Any other ethnic group	25 (8%)	27 (8%)	52 (8%)
Mixed	18 (6%)	26 (7%)	44 (7%)
Pakistani	19 (6%)	25 (7%)	44 (7%)
Bangladeshi	19 (6%)	24 (7%)	43 (6%)
Black Caribbean	12 (4%)	12 (3%)	24 (4%)
Other Asian	16 (5%)	7 (2%)	23 (3%)
Indian	5 (2%)	11 (3%)	16 (2%)
Not reported	2 (1%)	2 (1%)	4 (1%)
Religion			
Muslim	146 (46%)	166 (46%)	312 (46%)
No religion	75 (24%)	98 (27%)	173 (26%)
Christian	79 (25%)	78 (22%)	157 (23%)
Other (eg, Hindu, Sikh, Buddhist)	12 (4%)	17 (5%)	29 (4%)
Not reported	2 (1%)	1 (<1%)	3 (<1%)

(Table 1 continues on next page)

	Control (n=314)	SFSC (n=360)	Overall (N=674)
(Continued from previous page)			
English as the first language?			
No	161 (51%)	171 (48%)	332 (49%)
Yes	153 (49%)	187 (52%)	340 (50%)
Not reported	0	2 (1%)	2 (<1%)
Country of birth			
Abroad	177 (56%)	200 (56%)	377 (56%)
UK	137 (44%)	159 (44%)	296 (44%)
Not reported	0	1 (<1%)	1 (<1%)
Highest education			
College degree or higher, or NVQ level 4–5	177 (56%)	184 (51%)	361 (54%)
Secondary school (ages ≤18 years) or NVQ level 1–3	83 (26%)	111 (31%)	194 (29%)
Secondary school (ages ≤16 years)	43 (14%)	51 (14%)	94 (14%)
Primary school or none	10 (3%)	14 (4%)	24 (4%)
Not reported	1 (<1%)	0	1 (<1%)
Housing type			
Owner occupier	57 (18%)	61 (17%)	118 (18%)
Council rented	107 (34%)	126 (35%)	233 (35%)
Housing association	54 (17%)	62 (17%)	116 (17%)
Private rented	78 (25%)	83 (23%)	161 (24%)
Other	18 (6%)	25 (7%)	43 (6%)
Not reported	0	3 (1%)	3 (<1%)
Annual household income			
Under £9999	77 (25%)	87 (24%)	164 (24%)
£10 000 to £19 999	85 (27%)	101 (28%)	186 (28%)
£20 000 to £29 999	33 (11%)	36 (10%)	69 (10%)
£30 000 to £39 999	16 (5%)	21 (6%)	37 (5%)
£40 000 to £49 999	15 (5%)	11 (3%)	26 (4%)
Over £50 000	21 (7%)	29 (8%)	50 (7%)
Not reported	67 (21%)	75 (21%)	142 (21%)
Employment status			
Employed	80 (25%)	101 (28%)	181 (27%)
Student	13 (4%)	21 (6%)	34 (5%)
Housewife or househusband	103 (33%)	108 (30%)	211 (31%)
Unemployed	95 (30%)	104 (29%)	199 (30%)
Other (eg, retired)	22 (7%)	25 (7%)	47 (7%)
Not reported	1 (<1%)	1 (<1%)	2 (<1%)
In a relationship?			
No	119 (38%)	142 (39%)	261 (39%)
Yes	194 (62%)	217 (60%)	411 (61%)
Not reported	1 (<1%)	1 (<1%)	2 (<1%)

Data are n (%) or median (IQR). NVQ=National Vocational Qualification. SFSC=Strengthening Families, Strengthening Communities.

Table 1: **Baseline characteristics**

during an internal pilot phase of the trial.[21] Additionally, we used the Parent Programme Implementation Checklist[37] to measure programme fidelity by an independent rater. The Parent Programme Implementation Checklist was developed to assess the fidelity of universal parenting programmes in the UK and is reported to have acceptable inter-rater reliability and intraclass correlations across subscales and the overall score. Fidelity was assessed through live observations with a standardised adherence checklist examining session content, delivery components, and facilitation. Video recording of sessions was deemed intrusive for parents and with the potential to affect the delivery of the programmes.

For the economic evaluation, we included SFSC intervention costs, costs for the index parent and the child, and quality-adjusted life-years (QALYs) for the index parent. We did microcosting of the SFSC programme to calculate the mean cost per participant. For other costs, resource use data were collected via parent or carer questionnaires administered at 3-monthly intervals and valued with 2022–23 pound sterling unit costs. We described the health status for the index parent using the EQ-5D-5L descriptive system at 3-monthly intervals, converted to utility scores using UK preference weights. We calculated the unit cost of the SFSC programme and the gains in health-related quality of life required for the intervention to be cost-effective.

Statistical analysis

A sample of 672 participants (360 in the SFSC group, 312 in the control waiting list group) was needed to detect a standardised effect size of 0·3 with 90% power at a 5% significance level and assuming an intraclass correlation coefficient of 0·05 for the intervention arm,[38] including 20% attrition across both groups. An intraclass correlation coefficient of 0·05 was used in calculating the sample size to accommodate for sample size inflation that might be due to a clustering effect within the intervention programme group. The sample size calculation was performed with the clsampi Stata package.[39] An effect size of 0·3 on the primary outcome, WEMWBS, is indicative of a change of three points on the scale, stated as clinically relevant by the scale manual, and assuming a standard deviation of 10 as seen in a similar population.[20] The WEMWBS measured at the 6-month follow-up was considered the primary timepoint.

All analyses were conducted on an intention-to-treat basis. We used R (version 3.6.3) for analyses. The main analysis used mixed-effects models adjusted for baseline score, allocation group, randomisation stratification variables, age of index parent, age of child, and first language of parent. Site was also included as a random effect. To assess whether data were missing completely at random, we used Little's test. Independent *t* tests and χ^2 tests were conducted to investigate whether the data were missing at random. Data imputation was initially done at an item level, in line with Bono and colleagues' recommendations.[40] After which, missing data were treated in accordance with the recommendations by Jakobsen and colleagues.[41] Additional regression analyses were conducted to explore factors associated with effectiveness, including a measure of programme

adherence. An exploratory subgroup analysis was conducted to investigate whether the effectiveness of the intervention varied by ethnicity or indicators of socioeconomic position.

The economic analysis was a within-trial cost-utility analysis comparing the costs and QALYs of the SFSC intervention versus usual care. The time horizon was 6 months after the end of the SFSC programme (9 months from baseline), and the main analysis took a public-sector costing perspective. The health economic analysis plan is available in the appendix (pp 32–49).

Role of the funding source

The funder of the study had no role in study design, data collection, data analysis, data interpretation, or writing of the report.

Results

Between Aug 5, 2019, and Dec 17, 2022, 7397 potential participants were initially approached and 1214 expressed interest in the trial, of whom 540 were excluded due to being ineligible, declining participation, or other reasons such as not being able to attend the planned dates or location of the designated SFSC parenting programmes (figure). 674 participants were randomly assigned: 314 to the waiting list (control group) and 360 to the SFSC parenting programme (intervention group; across 34 group programmes in total). Participants were recruited from across England, with 435 (65%) in London and 239 (35%) in other urban areas including Luton, Leeds, Calderdale, Hull, and Kirklees. Of the 674 participants, 77 (11%) withdrew from the trial. There was no substantial difference in withdrawal rates between the trial arms. The attrition rate for the post-intervention assessment (timepoint 1) was 28% (187 participants). The attrition rate for the 6-month follow-up assessment (timepoint 3) was 30% (200 participants).

Most participants were women (641 [95%]) and birth mothers (625 [93%]) of the index child (table 1). Over half (385 [57%]) reported being part of a two-parent family and 263 (39%) reported being a single-parent family. The mean age of participants was 38 years (SD 8, range 22–70). The cohort was socially and ethnically diverse: 420 (62%) were from a Black, Asian, or other mixed or minoritised group and 254 (38%) were White British; 334 (50%) reported a first language other than English; and just over half (350 [52%]) had a household income of less than £20 000/year. Most participants had self-referred (599 [89%]), with 75 (11%) referred by another agency or organisation. Of the index children, 372 (55%) were boys and 302 (45%) were girls, and the mean age was just under 9 years (SD 3·77, range 3·00–18·00). There were no substantial differences between the two groups for the characteristics at baseline (table 1) and the outcome measures assessed at baseline (table 2).

The mean baseline parental mental wellbeing score, as measured by the WEMWBS, was 49·03 (SD 10·55; range 17·00–70·00; median 49·00 [IQR 42·00–56·00]; table 2). Mean child socioemotional wellbeing, as measured by the Total Difficulties score on the SDQ, was 15·43 (SD 7·57; range 0·00–39·00; median 15·00 [IQR 10·00–21·00]; table 2).

The intervention was delivered as intended. Fidelity, assessed by the Parent Programme Implementation

	Mean (SD)	Median (IQR)	Range	N missing
Parental mental wellbeing (WEMWBS [score 14–70])				
Control (n=310)	49·12 (10·43)	50·00 (43·00 to 57·00)	17·00 to 68·00	4 (1%)
SFSC (n=350)	48·96 (10·66)	49·00 (42·00 to 56·00)	18·00 to 70·00	10 (3%)
Overall (N=660)	49·03 (10·55)	49·00 (42·00 to 56·00)	17·00 to 70·00	14 (2%)
Child socioemotional wellbeing (SDQ total [score 0–40])				
Control (n=314)	15·90 (7·84)	15·00 (10·00 to 22·00)	0·00 to 39·00	0
SFSC (n=356)	15·01 (7·32)	15·00 (9·00 to 20·25)	0·00 to 33·00	4 (1%)
Overall (N=670)	15·43 (7·57)	15·00 (10·00 to 21·00)	0·00 to 39·00	4 (1%)
Child socioemotional wellbeing (SDQ effect [score 0–10])				
Control (n=314)	2·31 (2·85)	1·00 (0·00 to 4·00)	0·00 to 10·00	0
SFSC (n=358)	2·11 (2·61)	1·00 (0·00 to 3·00)	0·00 to 10·00	2 (1%)
Overall (N=672)	2·20 (2·72)	1·00 (0·00 to 4·00)	0·00 to 10·00	2 (<1%)
Parenting practices—positive (MAPS [score 1–5])				
Control (n=313)	4·41 (0·46)	4·50 (4·10 to 4·79)	2·35 to 5·00	1 (<1%)
SFSC (n=358)	4·41 (0·47)	4·48 (4·19 to 4·79)	2·17 to 5·00	2 (1%)
Overall (N=671)	4·41 (0·46)	4·50 (4·12 to 4·79)	2·17 to 5·00	3 (<1%)
Parenting practices—negative (MAPS [score 1–5])				
Control (n=313)	1·95 (0·48)	1·9 (1·62 to 2·24)	1·00 to 3·76	1 (<1%)
SFSC (n=357)	1·94 (0·50)	1·93 (1·57 to 2·29)	1·00 to 3·65	3 (1%)
Overall (N=670)	1·94 (0·49)	1·90 (1·57 to 2·25)	1·00 to 3·76	4 (1%)
Parent-child relationships—conflict (CPRS [score 8–40])				
Control (n=309)	22·25 (8·05)	22·00 (15·00 to 29·00)	8·00 to 40·00	5 (2%)
SFSC (n=347)	21·67 (7·70)	21 (16 to 28)	8·00 to 40·00	13 (4%)
Overall (N=656)	21·94 (7·87)	21·00 (16·00 to 28·00)	8·00 to 40·00	18 (3%)
Parent-child relationships—closeness (CPRS [score 7–35])				
Control (n=306)	31·01 (4·07)	32·00 (29·00 to 34·00)	11·00 to 35·00	8 (3%)
SFSC (n=348)	31·11 (4·12)	33·00 (29·00 to 34·00)	15·00 to 35·00	12 (3%)
Overall (N=654)	31·06 (4·09)	32·00 (29·00 to 34·00)	11·00 to 35·00	20 (3%)
Quality of partner relationships (QMI [score 6–45])*				
Control (n=192)	36·53 (8·21)	39·00 (31·00 to 43·25)	11·00 to 45·00	2 (1%)
SFSC (n=214)	36·76 (8·07)	39·00 (33·00 to 44·00)	9·00 to 45·00	3 (1%)
Overall (N=406)	36·65 (8·13)	39·00 (32·00 to 44·00)	9·00 to 45·00	5 (1%)
Self-efficacy (PMS [score 7–28])				
Control (n=307)	19·01 (3·36)	19·00 (17·00 to 21·00)	8·00 to 28·00	7 (2%)
SFSC (n=342)	19·11 (3·18)	19·00 (17·00 to 21·00)	11·00 to 28·00	18 (5%)
Overall (N=649)	19·07 (3·26)	19·00 (17·00 to 21·00)	8·00 to 28·00	25 (4%)
Community cohesion—neighbourhood (score 7–35)				
Control (n=311)	25·05 (7·08)	27·00 (21·00 to 30·00)	7·00 to 35·00	3 (1%)
SFSC (n=355)	25·60 (6·47)	26·00 (22·00 to 31·00)	7·00 to 35·00	5 (1%)
Overall (N=666)	25·34 (6·76)	27·00 (22·00 to 30·00)	7·00 to 35·00	8 (1%)
Community cohesion—social (score 8–40)				
Control (n=311)	28·41 (6·22)	29·00 (24·00 to 33·00)	11·00 to 40·00	3 (1%)
SFSC (n=355)	28·83 (5·99)	29·00 (25·00 to 33·00)	8·00 to 40·00	5 (1%)
Overall (N=666)	28·63 (6·10)	29·00 (24·25 to 33·00)	8·00 to 40·00	8 (1%)

(Table 2 continues on next page)

	Mean (SD)	Median (IQR)	Range	N missing
(Continued from previous page)				
Health-related quality of life—VAS (EQ-5D-5L [score 0–100])				
Control (n=305)	71·82 (21·09)	80·00 (60·00 to 90·00)	10·00 to 100·00	9 (3%)
SFSC (n=350)	72·92 (21·17)	80·00 (60·00 to 90·00)	0·00 to 100·00	10 (3%)
Overall (N=655)	72·41 (21·12)	80·00 (60·00 to 90·00)	0·00 to 100·00	19 (3%)
Health-related quality of life—index (EQ-5D-5L [score –0·22 to 1·00])				
Control (n=304)	0·83 (0·20)	0·90 (0·78 to 1·00)	–0·01 to 1·00	10 (3%)
SFSC (n=349)	0·84 (0·22)	0·92 (0·80 to 1·00)	–0·16 to 1·00	11 (3%)
Overall (N=653)	0·83 (0·21)	0·92 (0·78 to 1·00)	–0·16 to 1·00	21 (3%)

N values represent the number of respondents included in each group for each outcome. CPRS=Child–Parent Relationship Scale. EQ-5D-5L=five-level EQ-5D. MAPS=Multidimensional Assessment of Parenting Scale. PMS=Pearlin Mastery Scale. QMI=Quality of Marriage Index. SDQ=Strengths and Difficulties Questionnaire. SFSC=Strengthening Families, Strengthening Communities. VAS=visual analogue scale. WEMWBS=Warwick–Edinburgh Mental Well-Being Scale. *Of 411 of participants in a relationship.

Table 2: **Baseline outcome measures**

Checklist, was high, with a mean score of 90·2% (SD 7·6) and 324 (92%) of the cohort reaching the scale's recommended threshold of 80% considered to indicate good fidelity (full fidelity and acceptability data will be reported separately).

Results for the primary and secondary outcomes are summarised in table 3. For the primary outcome, participants in the intervention group reported higher mental wellbeing at both post-intervention (mean difference 1·89 [95% CI 0·64 to 3·13]) and the 6-month follow-up (1·66 [0·30 to 3·02]) compared with those in the control group, in which a deterioration in wellbeing was observed. Results for the key secondary outcome measured by SDQ total also showed higher child socioemotional wellbeing (ie, lower total difficulties) in the index child in the intervention group at post-intervention (–1·12 [–2·00 to –0·24]) compared with those in the control group, but this finding was not reflected at the 6-month follow-up (–0·71 [–1·61 to 0·19]). Child socioemotional wellbeing, as measured by SDQ impact (ie, the extent to which difficulties interfered with the child's daily life), showed improvements in the intervention group compared with those in the control group. Although the effect size was small and non-significant after intervention (–0·19 [–0·51 to 0·13]), it was larger and significant at the 6-month follow-up (–0·37 [–0·72 to –0·03]).

Seven of the ten other secondary outcomes suggest programme benefits on at least one timepoint. Participants in the intervention group reported higher positive parenting practices at both post-intervention (mean difference 0·11 [95% CI 0·05 to 0·17]) and the 6-month follow-up (0·07 [0·01 to 0·14]) compared with those in the control group, as measured by the MAPS. Participants in the intervention group also reported fewer negative parenting practices at both post-intervention (–0·16 [–0·22 to –0·09]) and the 6-month follow-up (–0·11 [–0·17 to –0·05]) compared with those in the control group. Furthermore, participants in the intervention group also reported fewer conflicts in the child–parent relationships, as measured by the CPRS, at both post-intervention (–1·78 [–2·75 to –0·80]) and the 6-month follow-up (–2·08 [–3·16 to –1·01]) compared with those in the control group. Participants in the intervention group also reported improved closeness in child–parent relationships compared with those in the control group: this finding was not significant at post-intervention (0·49 [–0·01 to 1·00]), but was at the 6-month follow-up (0·83 [0·26 to 1·39]).

The quality of partner relationships was not significant at post-intervention (mean difference 0·96 [95% CI –0·19 to 2·12]), but was significant at the 6-month follow-up (1·34 [0·06 to 2·62]), as measured by the QMI. Parental self-efficacy, as measured by the PMS, was not significant at post-intervention (0·23 [–0·25 to 0·72]) or the 6-month follow-up (0·25 [–0·22 to 0·72]). The same was seen for neighbourhood cohesion, in which there were no significant differences for neighbourhood belonging at post-intervention (0·75 [–0·06 to 1·55]) or the 6-month follow-up (0·61 [–0·30 to 1·52]), nor for social cohesion at post-intervention (0·67 [–0·11 to 1·44]) or the 6-month follow-up (0·82 [–0·02 to 1·67]).

Exploratory analyses found no differences in outcomes based on data collection mode (ie, online or in-person) or referral pathways. There were also no significant differences in outcomes based on ethnicity or various socioeconomic status factors, or the group size of each SFSC parenting programme (appendix pp 50–56). Participants in the SFSC parenting programme attended a mean of nine of the 13 sessions (SD 4·00, IQR 6·50–12·00]) and there was a modest improvement in outcomes in participants who attended more SFSC parenting programme sessions, but this finding was not significant (χ^2 9·98, p=0·62; appendix p 51). There were three adverse events, all of which occurred for participants in the control group and were deemed unrelated to the trial or the intervention.

In the within-trial economic analysis of cost utility, the mean cost per participant attending the SFSC programme was £1081. This value was derived from programme-level delivery and management costs apportioned per participant. Other public sector costs per family in both groups were similar, as were QALYs for the index parent since randomisation. Combining the intervention costs, costs during follow-up for the child and the index parent, QALYs for the index parent since randomisation, imputing missing data and adjusting for confounding factors, the incremental cost per family in the intervention group versus control group was £703 (95% CI 26 to 1380) and the QALYs gained were 0·0087 (95% CI –0·0055 to 0·0229). The incremental net monetary benefit was –£626 (–1340 to 88) at a willingness to pay of £13 000 per QALY, –£566 (–1327 to 195) at £20 000 per QALY, and –£481 (–1324 to 362) at £30 000 per QALY. At a maximum willingness to pay per QALY of £13 000, the probability that the SFSC intervention

	Participants	χ^2*	df	p value	Adjusted mean, control (SE)†	Adjusted mean, SFSC (SE)	Adjusted mean difference (95% CI)
Post-intervention parental mental wellbeing (WEMWBS)	484	8·88	1	0·0029	48·77 (1·10)	50·66 (1·09)	1·89 (0·64 to 3·13)
6-month follow-up parental mental wellbeing (WEMWBS)	472	5·72	1	0·017	48·56 (1·07)	50·22 (1·07)	1·66 (0·30 to 3·02)
Post-intervention child socioemotional wellbeing (SDQ total)	481	6·19	1	0·013	14·11 (0·75)	12·99 (0·74)	–1·12 (–2·00 to –0·24)
6-month follow-up child socioemotional wellbeing (SDQ total)	469	2·37	1	0·12	14·18 (0·71)	13·47 (0·70)	–0·71 (–1·61 to 0·19)
Post-intervention child socioemotional wellbeing (SDQ effect)	483	1·40	1	0·24	1·77 (0·27)	1·57 (0·26)	–0·19 (–0·51 to 0·13)
6-month follow-up child socioemotional wellbeing (SDQ effect)	471	4·46	1	0·035	1·73 (0·28)	1·36 (0·28)	–0·37 (–0·72 to –0·03)
Post-intervention parenting practices—positive (MAPS)	482	12·09	1	0·0005	4·34 (0·05)	4·45 (0·05)	0·11 (0·05 to 0·17)
6-month follow-up parenting practices—positive (MAPS)	471	5·02	1	0·026	4·42 (0·05)	4·50 (0·05)	0·07 (0·01 to 0·14)
Post-intervention parenting practices—negative (MAPS)	482	23·88	1	<0·001	1·90 (0·05)	1·75 (0·05)	–0·16 (–0·22 to –0·09)
6-month follow-up parenting practices—negative (MAPS)	471	13·84	1	<0·001	1·86 (0·04)	1·75 (0·04)	–0·11 (–0·17 to –0·05)
Post-intervention parent–child relationships—conflict (CPRS)	476	12·85	1	<0·001	21·01 (0·83)	19·23 (0·83)	–1·78 (–2·75 to –0·80)
6-month follow-up parent–child relationships—conflict (CPRS)	468	14·50	1	<0·001	20·67 (0·85)	18·59 (0·84)	–2·08 (–3·16 to –1·01)
Post-intervention parent–child relationships—closeness (CPRS)	473	3·72	1	0·054	31·16 (0·41)	31·66 (0·41)	0·49 (–0·01 to 1·00)
6-month follow-up parent–child relationships—closeness (CPRS)	465	8·35	1	0·0039	30·10 (0·43)	30·93 (0·42)	0·83 (0·26 to 1·39)
Post-intervention quality of partner relationships (QMI)	279	2·68	1	0·10	37·05 (1·03)	38·01 (1·02)	0·96 (–0·19 to 2·12)
6-month follow-up quality of partner relationships (QMI)	271	4·21	1	0·041	35·29 (1·06)	36·63 (1·02)	1·34 (0·06 to 2·62)
Post-intervention self-efficacy (PMS)	477	0·90	1	0·34	19·29 (0·40)	19·52 (0·39)	0·23 (–0·25 to 0·72)
6-month follow-up self-efficacy (PMS)	467	1·08	1	0·30	19·62 (0·37)	19·87 (0·37)	0·25 (–0·22 to 0·72)
Post-intervention community cohesion—neighbourhood	479	3·32	1	0·069	24·98 (0·68)	25·73 (0·67)	0·75 (–0·06 to 1·55)
6-month follow-up community cohesion—neighbourhood	469	1·74	1	0·19	25·32 (0·71)	25·93 (0·71)	0·61 (–0·30 to 1·52)
Post-intervention community cohesion—social	479	2·86	1	0·091	27·59 (0·64)	28·26 (0·64)	0·67 (–0·11 to 1·44)
6-month follow-up community cohesion—social	469	3·65	1	0·057	27·77 (0·66)	28·60 (0·65)	0·82 (–0·02 to 1·67)
Post-intervention health-related quality of life—VAS (EQ-5D-5L)	462	1·94	1	0·16	75·81 (2·59)	78·05 (2·61)	2·24 (–0·91 to 5·38)
6-month follow-up health-related quality of life—VAS (EQ-5D-5L)	457	2·62	1	0·11	73·85 (2·60)	76·58 (2·60)	2·73 (–0·58 to 6·04)
Post-intervention health-related quality of life—index (EQ-5D-5L)	459	1·19	1	0·28	0·86 (0·02)	0·88 (0·02)	0·01 (–0·01 to 0·04)
6-month follow-up health-related quality of life—index (EQ-5D-5L)	451	4·46	1	0·035	0·82 (0·02)	0·85 (0·02)	0·03 (0·00 to 0·06)

The range of possible scores for the outcome measures are shown. CPRS=Child–Parent Relationship Scale. EQ-5D-5L=five-level EQ-5D. MAPS=Multidimensional Assessment of Parenting Scale. PMS=Pearlin Mastery Scale. QMI=Quality of Marriage Index. SDQ=Strengths and Difficulties Questionnaire. SFSC=Strengthening Families, Strengthening Communities. VAS=visual analogue scale. WEMWBS=Warwick–Edinburgh Mental Well-Being Scale. *Type III Wald χ^2 tests of the group effect. †Analysis models were adjusted for the randomisation stratification variables (ie, site, gender of index parent, and self-referral), age of index parent, age of child, first language of parent, and baseline measure score.

***Table 3*: Primary and secondary outcomes at post-intervention and the 6-month follow-up**

was preferred on cost-effectiveness grounds was 4·1%. At a maximum willingness to pay per QALY of £20 000 and £30 000, these values were 7·2% and 13·0%, respectively. Detailed results of the economic analysis are in the appendix (pp 32–49).

Discussion

The SFSC parenting programme was effective in improving parental mental wellbeing compared with a waiting list control group in a socially and ethnically diverse sample of families living in disadvantaged areas of England. Improvements were seen in children's socioemotional wellbeing post-intervention, with a sustained reduction in the impact of socioemotional difficulties at the 6-month follow-up (main secondary outcome). Seven of ten secondary outcomes suggest programme benefits on at least one timepoint, which included children's socioemotional wellbeing, parenting practices, family conflict, and relationship quality. Importantly, the effects of the intervention did not differ by ethnicity, socioeconomic status, attendance rates, or group size. Costs and QALYs were similar across groups, and although some service-use savings offset intervention costs, the probability of cost-effectiveness at standard UK thresholds was low with considerable uncertainty. In this context, the positive primary and some secondary outcomes might still support SFSC as reasonable value for money for its incremental cost (£703).

The WHO–UNICEF–*Lancet* Commission[2] on children highlighted the need for pro-equity community-based interventions to support and empower families. Cochrane reviews have shown the effectiveness of parenting programmes on a range of parental and child outcomes.[8,10,11] More recent high-quality studies have also begun to address equity, suggesting that such programmes do not widen inequalities and might even reduce them.[13] However, the literature still highlights challenges in engaging families from socioeconomically disadvantaged and ethnically diverse backgrounds, underlining the importance of inclusive trial designs that prioritise reach and sustained participation.[8] In this

study, we recruited and retained a very diverse sample of families living in disadvantaged areas across England and showed the effectiveness of the SFSC group-based intervention delivered by local community organisations on a range of parental and child outcomes.

Although statistically significant, the effect size for our primary outcome, parental mental wellbeing, was small (1·66), which is consistent with systematic reviews showing that parenting programmes generally yield small to moderate improvements in parental mental health and child socioemotional outcomes.[10,12,13] Small improvements can be meaningful; for instance, a parent shifting from rarely to some of the time in feeling confident or close to others can make a real difference in their ability to cope and manage daily demands for their families. Evidence also shows that even small individual effects can yield substantial population-level benefits when implemented at scale.[42,43] As a public health intervention, the cumulative effect across a population could be substantial, contributing meaningfully to early mental health support and wider family wellbeing. Parenting programmes alone cannot address health inequalities. Family interventions, combined with interconnected interventions and policies that tackle the wider determinants of health such as child poverty, can have an important role in strengthening families and facilitating their access to relevant support services and organisations.[1,2]

The fact that our study results showed no differences on parental self-efficacy and neighbourhood cohesion is interesting to note. Systematic reviews of parenting programmes have shown the difficulty in improving parental self-efficacy[11] and generic self-efficacy measures might not be appropriate.[44] The absence of significant effects on neighbourhood cohesion in this study might be due to the time needed to have a meaningful effect on developing perceptions of belonging to a neighbourhood and building social cohesion.

This study has several notable strengths. Despite facing major challenges including the COVID-19 pandemic that stopped recruitment for 7 months in 2020, the desired sample size was recruited and the trial was fully powered to detect differences between trial arms. Unlike other parenting trials,[8,10,11] we recruited a diverse sample of participants, most of whom were from ethnic minority communities and half had a first language other than English. Several of the intervention programmes were delivered in languages other than English to ensure that they were inclusive and reflective of the local communities. Our sample was also socially diverse, with nearly two-fifths being single parents (39%), over half (52%) having an annual household income of less than £20 000 per year, and over half living in social housing. Across the six study locations, the SFSC parenting programme was delivered with a high degree of fidelity. The planning and successful conduct of this study greatly benefited from meaningful and sustained community involvement and engagement.

Acknowledging the limitations of this study is important. Over 7000 individuals were initially approached to participate in the study and 674 finally consented to participate. Our recruitment strategy was specifically designed to be inclusive and to reach out to as wide a spectrum of community groups and settings as possible. However, a large proportion of the individuals we initially approached were not interested in the study, and even for those who expressed their initial interest, many did not consent to participate because of the inconvenient timing or location of the planned programmes. Despite the selective nature of the study sample, the demographic profile is very similar to those attending SFSC general programmes routinely delivered across the country. Only 5% of the index parents were fathers, which limits our ability to draw conclusions on the effectiveness of the programme for fathers. Our 70% retention rate at the 6-month follow-up was lower than the 80% rate for which we originally planned but was still adequate for our data analysis. This study was single blind, in which participants were aware whether they had received the SFSC programme or not; we do not know the extent to which this knowledge influenced their ratings.

The findings from this study have important implications to consider. As a community-based intervention that requires relatively modest investment, the SFSC parenting programme could be easily implemented at scale. As a universal intervention, offering the SFSC programme to a wide range of families while ensuring the programme is specifically targeted to families living in disadvantaged areas would be important.

Future research is needed to establish whether the SFSC programme is effective among fathers and other parental roles and with a wider range of vulnerable families (eg, those with family members with disabilities and people in contact with the criminal justice service). Future research should also assess whether the SFSC parenting programme can be modified and delivered successfully in other community settings, such as prisons, and whether the programme has an effect on other selected outcomes, such as youth violence. Further research is also required to assess whether the SFSC programme could be implemented as part of a wider range of complementary pro-equity policy measures to support families and address health inequalities in the long term.

In conclusion, the SFSC parenting programme effectively improved parental mental wellbeing and a range of other child and parental outcomes in a diverse sample of families living in disadvantaged areas across England, with no substantial increase in cost. Although differences in cost-effectiveness were not significant, the positive outcomes based on primary and secondary outcome measures suggest the intervention might still represent good value for money

when weighed against its modest incremental costs. The UK government should develop a bold and comprehensive strategy to promote child and family health and wellbeing within which evidence-based parenting interventions such as SFSC could be embedded.

Contributors
RGW, ZH, JB, LB, MC, KM, SK, SM, PR, AH, TW, and YK conceptualised the study, developed the study design, and secured funds. AM, HP, and AL led recruitment and data collection. JB and LB supported access to research sites and delivery of the intervention. HP and GS led trial management. ZH and SM led all data analysis with support from AB and EM. ZH and AB directly accessed and verified the underlying data reported in the manuscript. RGW and AM prepared the manuscript with input from all authors. All authors had full access to all the data in the study. All authors read and approved the final manuscript and accept responsibility for the decision to submit for publication.

Declaration of interests
JB and LB are employed by the Race Equality Foundation, which owns the intellectual property rights of the SFSC parenting programme evaluated in this study, but were not involved in any aspects of data collection or analysis. AH declares receiving a research grant from the Nuffield Foundation (WEL/FR-000023794) paid to the institution; work on a project funded by NIHR Public Health Research Programme (reference 17/03/11) paid to the institution; receiving consulting fees from National Centre For Social Research paid to the institution; and receiving honoraria from Trinity College Dublin and LaTrobe University. MC declares receiving honoraria from the Journal of Personality Disorders and grants from NIHR for projects other than that reported here, and participated on Data Safety Monitoring Boards for NIHR-funded trials. PR declares receiving grants from the LEGO Foundation, the Nuffield Foundation, and Nesta. All other authors declare no competing interests.

Data sharing
The de-identified data and statistical code will be made available on request to the corresponding author after publication. A data sharing agreement will require a commitment to using the data only for specified research purposes, to securing the data appropriately, and to destroying the data after a nominated period.

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