CORC Child Outcomes Research Consortium

A project of

Anna Freud National Centre for Children and Families

Advantage Programme Evaluation

A report by CORC at the Anna Freud Centre, for the Advantage Foundation

Jenna Jacob, Emily Stapley, Jasmine Harju-Seppänen, Anisa Rashid & Jess Deighton

Updated 21st November 2022

This report presents an overview of an independent evaluation of the outcomes of participants of the Advantage Programme.

Child Outcomes Research Consortium (CORC)
Anna Freud National Centre for Children and Families
4-8 Rodney Street, London N1 9JH
Phone: +44 (0)20 7443 2225
Email: corc@annafreud.org
Twitter: CORCcentral

TABLE OF CONTENTS

EXECUTIVE SUMMARY 3

BACKGROUND 5

METHODS... 7

1) Administrative data.............................. 7

2) Semi-structured interviews.................... 8

FINDINGS... 9

1) Demographics and mental health and wellbeing outcomes...................................... 9

a) Mentee demographic characteristics 9

b) Mentee outcomes 15

2) Interviews... 20

a) Mentee interviews 20

b) Mentor interviews 29

CONCLUSIONS.. 36

ACKNOWLEDGEMENTS 39

REFERENCES... 39

APPENDICES... 41

CORC Child Outcomes Research Consortium
A project of
Anna Freud National Centre for Children and Families

EXECUTIVE SUMMARY

BACKGROUND

The Advantage Programme is a new mentoring programme for young people aged 14-21 years, with mild to moderate mental health and wellbeing difficulties. The programme looks to utilise the expertise of two anchor community organisations, that of the clinical expertise of an NHS Mental Health service and the ability of the professional football Club's Community Organisation (CCO) to support underserved communities.

The Advantage Programme focuses on helping to re-establish aspirations and a sense of connection for young people. Participants receive ongoing individual mentoring support for up to 6 months from trained CCO youth workers, who are in turn supported by a CAMHS practitioner through weekly supervision.

The CORC project team at the Anna Freud Centre were commissioned by the Advantage Programme Partnership to conduct an independent evaluation of the Advantage Programme. The evaluation ran from October 2021 to September 2022.

AIMS

The aims of the evaluation were to explore mentee and mentor experiences of the Advantage Programme, and mentees' changes in mental health and wellbeing at two timepoints. The evaluation covered the Advantage Programme located in London and Manchester.

METHODS

Data collection and analysis had two strands: 1) the collection and analysis of anonymised administrative data including mental health and wellbeing outcome information, and 2) the analysis of semi-structured interviews conducted with mentors and mentees.

PARTICIPANT PROFILES

We received administrative data for 48 young people from London and Manchester, with a mean age of 16 years, the majority were male (67%). The most common ethnic category was Black/Black British (29%) and there was a majority (75%) of participants from minoritized ethnic backgrounds. Young people involved in Advantage were, on the whole, from areas with high levels of multiple deprivation, in terms of, for example, income, employment, health and crime.

The Advantage Programme's location in the community, makes it more accessible to young people from minoritized ethnic groups to engage with compared to other sources of support, such as CAMHS. The Advantage Programme being potentially more accessible to those traditionally underserved by more traditional sources of support is certainly a strength.

CORC Child Outcomes Research Consortium
A project of
Anna Freud National Centre for Children and Families

KEY FINDINGS

We found that mentees reported statistically significant improvements across all 4 typical measurements in areas of mental wellbeing, stress, and progress towards their individual goals.

We also explored reliable change for all the outcome measures, and the outcomes reported for the programme showed proportions that either appeared to be higher, or similar, to the levels of reliable improvement reported for CAMHS services, according to recent research in the UK[1]. However, it is important to note that the comparisons between Advantage and CAMHS on reliable change are based on different populations and there is some variation in the measures used. Nevertheless, this shows promising improvement, particularly for a programme with an early intervention focus.

In interviews, mentees described the Advantage Programme as a setting for conversations with a focus on providing practical solutions, working together towards goals, and giving young people space to talk. Shared interests, feeling listened to, and the trusting and non-judgemental nature of the mentor-mentee relationship were important factors from the mentees' perspectives. Mentees discussed areas of improvement in their lives since being involved, which were often related to a general sense of having benefitted from the Advantage Programme, but were also related to specific areas of outcome too.

In interviews, mentors described the Advantage Programme as flexible, with the format and content of the sessions varying depending on the needs of the mentees. Mentors described their sense that the Advantage Programme had a positive impact on young people and also suggested some areas for improvement, including related to the referral process, training, and CAMHS supervision.

CONCLUSION

In conclusion we can see that the Advantage Programme is able to have a positive impact on the mental wellbeing of young people with a mild to moderate mental health need, and more specifically a demographic of young people who are amongst the least likely groups to access CAMHS.

The programme has so far proven to be an effective way at engaging with young people who do not traditionally access mental health support.

---

[1] Jacob J, Edbrooke-Childs J, Costa da Silva L, Law D. Notes from the youth mental health field: Using movement towards goals as a potential indicator of service change and quality improvement. J Clin Psychol. 2021;(October 2019):1–14.

Bear, H. A., Edbrooke-Childs, J., Norton, S., Krause, K. R., & Wolpert M. Systematic review and meta-analysis: Outcomes of routine specialist mental health care for young people with depression and/or anxiety. J Am Acad Child Adolesc Psychiatry. 2019;59(7):810–841.

BACKGROUND

The Advantage Programme (https://www.advantageprogramme.co.uk) is a unique, innovative partnership between football community club organisations and NHS CAMHS[2]: West Ham United Foundation, Leyton Orient Trust (East London NHS Foundation Trust), Arsenal in the Community (North East London NHS Foundation Trust), Manchester City in the Community (Greater Manchester Mental Health NHS FT), and Crystal Palace for Life Foundation (South West London and Maudsley). Due to the high level of unmet mental health needs in young people, and the high level of mental health difficulties in individuals who access mentoring programmes (1), it has been proposed that paraprofessional mentors could deliver or support therapeutic activities under the supervision of mental health providers (2). This is the approach taken by the Advantage Programme, which is a new mentoring programme for young people aged 14-21 years, with mild to moderate mental health and wellbeing difficulties.

The programme looks to utilise the expertise of two anchor community organisations, that of the clinical expertise of an NHS Mental Health service and the ability of the professional football Club's Community Organisation (CCO) to support underserved communities. The Advantage Programme's unique focus is on helping to re-establish aspirations and a sense of connection for young people. Participants receive ongoing individual mentoring support for up to 6 months from trained CCO youth workers, who are in turn supported by a CAMHS practitioner through weekly supervision.

Young People are referred to the local CAMHS from school, youth clubs or their GP, and those assessed with mild to moderate mental health needs, particularly those that have been brought about or worsened due to the coronavirus pandemic, are invited to join the Advantage Programme. While they have been referred to CAMHS, most of the young people invited to take part in the Advantage Programme do not usually meet the mental health difficulties threshold for CAMHS intake. Young people with the highest level of need are therefore not invited to join the Advantage Programme, and continue to be supported by CAMHS in the usual way.

Once referred to the Advantage Programme, young people are matched with one of the football clubs' community foundations. At this point the individual receives an initial consultation with a support coach, followed by training and mentoring which matches their personal goals, receiving consistent support throughout. Young people meet with their mentors weekly for around an hour, for as long as they find useful, over a period of around six months.

Formal mentoring programmes have been shown to promote the development and wellbeing of young people (3). These programmes vary in terms of their features, mentoring relationship qualities, and characteristics of the young people participating. Many mentoring programmes are flexible in terms of their structure and activities, and this approach is commonly taken in "community-based mentoring" programmes (i.e., as opposed to school-based interventions, or

---

[2] Child and Adolescent Mental Health Services (CAMHS) are NHS services which assess and treat children and young people who experience mental health difficulties

those within specialist settings, for example (4)). The majority of community-based programmes match young people to adult volunteers for one-to-one relationships, whereby they participate in activities in a range of community settings (5).

Several published reviews have examined whether mentoring programmes lead to improved outcomes for young people across a range of domains, including behavioural, social, emotional and academic attainment (3,6,7). In September 2021, East London Foundation NHS Trust reported on their initial findings of a one-year internal evaluation of the Advantage Programme. In late 2021, the CORC[3] project team at the Anna Freud Centre were commissioned by the Advantage Programme Partnership (led by West Ham United Foundation) to conduct an independent evaluation of the Advantage Programme. The evaluation ran from October 2021 to September 2022. The aims were to explore mentee and mentor experiences of the Advantage Programme, and mentees' changes in mental health and wellbeing at two timepoints. The evaluation covered the Advantage Programme located in London and Manchester. In this report, we outline our approach and findings.

[3] CORC is a project of the Anna Freud Centre. CORC provides support to individuals and organisations across the mental health and education sectors, helping them to collect and improve the quality of young people's mental health and wellbeing outcomes data, and use evidence in their pursuit of more effective child-centred support, services and systems

METHODS

Data collection and analysis had two strands: 1) the collection and analysis of anonymised administrative data including mental health and wellbeing outcome information, and 2) the analysis of semi-structured interviews.

1) Administrative data

As well as demographic characteristics, mentees' mental health and wellbeing were measured by the mentors at two timepoints: the beginning of the intervention and around six months later. These data are routinely collected from all young people who take part in the Advantage Programme and, as part of the evaluation, were anonymously collated for the mentees who were involved in the Advantage Programme from 1 September 2021 to the time of data transfer (July 2022) and securely transferred in an anonymised format to the research team. The outcomes were measured using:

a) the Outcome Rating Scale, a 4-item measure designed to assess areas of life functioning including: personal or symptom distress (measuring individual wellbeing); interpersonal well-being (measuring how well the individual is getting along in intimate relationships); social role (measuring satisfaction with work/school and relationships outside of home); and overall wellbeing, suitable for use with young people aged 6-18 years old. An increase in scores over time represents better functioning. (Mentee reported).
b) the Perceived Stress Scale (PSS), a 10-item measure of stress, suitable for use with young people aged 12 years old and above. A decrease in scores suggests a decrease in stress levels. (Mentee reported).
c) the World Health Organisation- Five Well-Being Index (WHO-5), a 5-item measure of current wellbeing, suitable for use with young people aged nine years old and above. An increase in scores suggests improved mental wellbeing. (Mentee reported).
d) Goal Based Outcomes tool (GBO), a tool for tracking collaboratively agreed goals, measured on an 11-point scale and suitable for use with young people up to the age of 18 years old. An increase in scores over time suggests that positive progress has been made. (Collaboratively agreed).

We explored whether there were any statistically significant changes for the ratings on each outcome measure between Time 1 and Time 2, whether the scores showed reliable change, and identified the main themes found in the types of goals set in data received. See Appendix 1: About the analysis, for further explanations of the analyses used.

2) Semi-structured interviews

Mentees aged 14-21 years old, and mentors (not exclusively those working with the mentees who were also interviewed), were invited to take part in semi-structured interviews. The aim of the interviews was to explore reasons for involvement in the Advantage Programme, experiences specifically of referral processes, experiences of the Advantage Programme in general, including the content and structure of the sessions, and perceived impact. The interviews were conducted with mentors and mentees separately, via Microsoft Teams (video/audio), and audio-recorded using encrypted Dictaphones. Ethical approval was granted by UCL Research Ethics Committee (21875/001). Voucher incentives were offered to mentees by their mentors to take part in the interviews. Informed consent was obtained from all participants. The audio files were transcribed, and reflexive thematic analysis (8,9) was conducted on the mentee and mentor transcripts separately. We report our findings below.

FINDINGS

1) Demographics and mental health and wellbeing outcomes

a) Mentee demographic characteristics

We received administrative data for 48 mentees, from four areas of the UK: 13 (27%) from Hackney, 10 (21%) from Manchester, 15 (31%) from Newham and 10 (21%) from Waltham Forest.

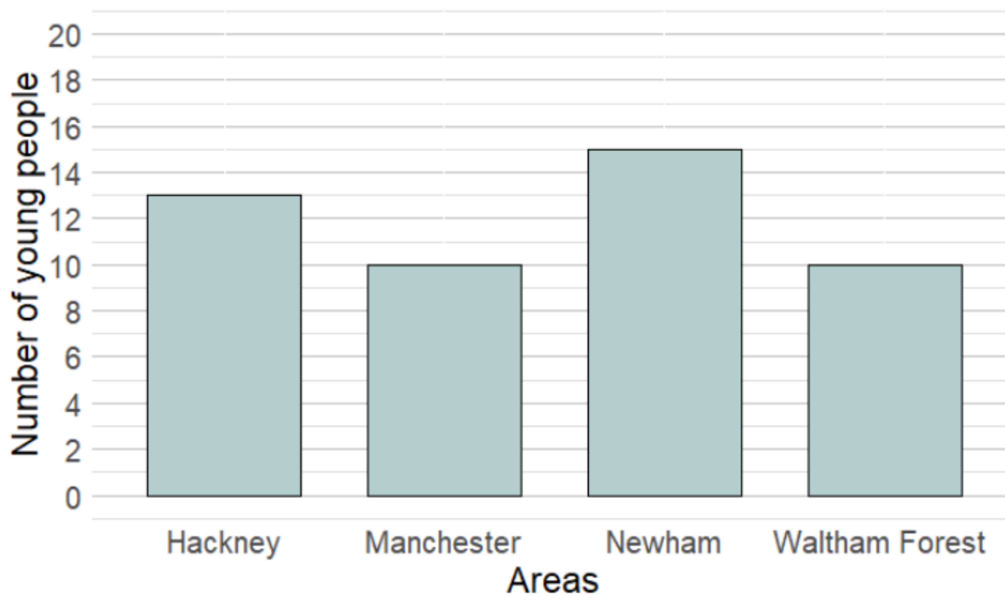
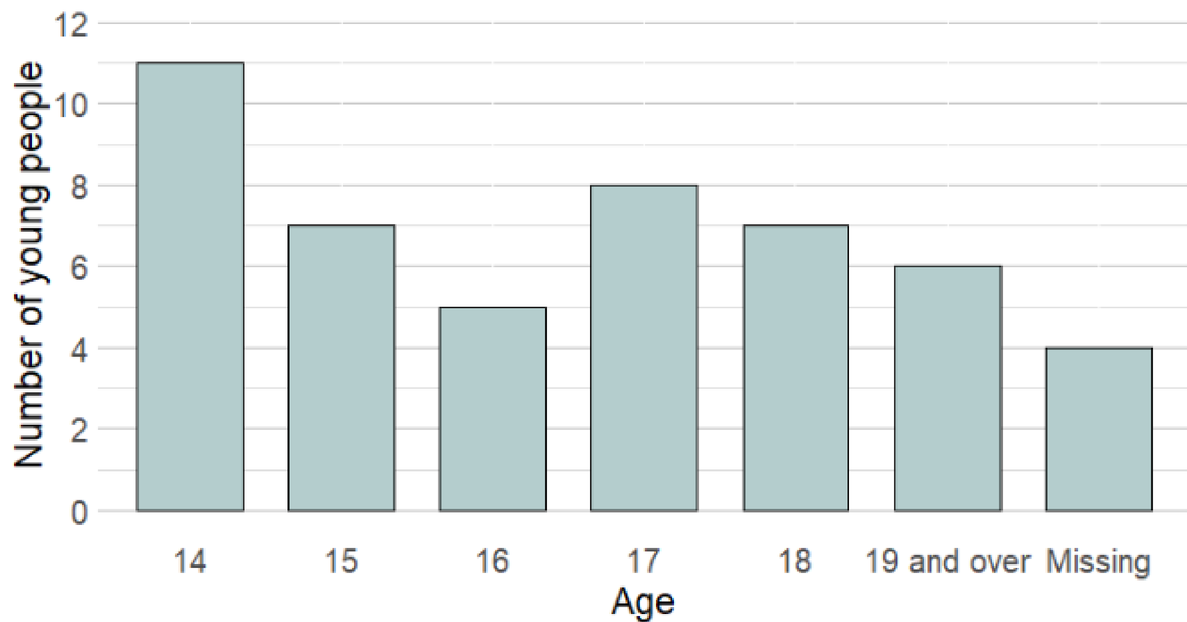


Fig.1. Areas of the UK mentees were from, n[4] = 48.

[4] N= The number of cases

The mentees included in the dataset were aged between 14 and 21 years old (mean 16.4 years old), with 32 (67%) being male, 12 (25%) being female, and 4 missing information on gender.

A



B

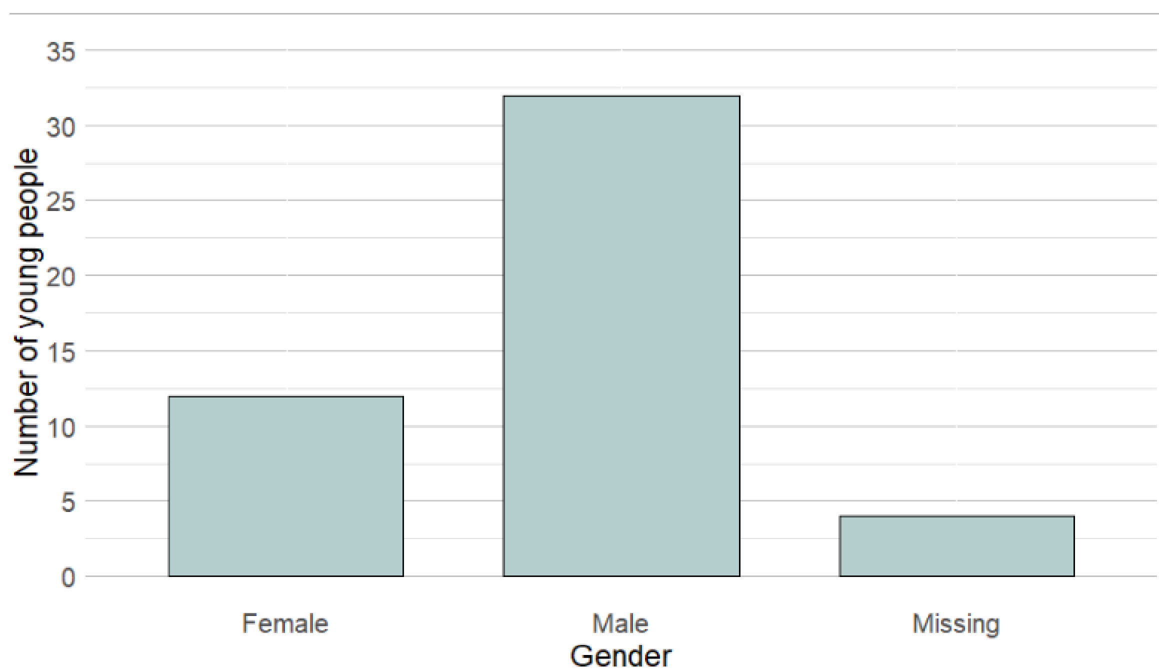


Fig.2. (A) Ages of mentees ranging from 14 to 21, n= 44, missing n=4 **(B)** gender of mentees, n= 44, missing n=4.

For mentees included in the dataset, the most common ethnicity categories were Black/Black British (n= 14, 29%), White/White British (n= 12, 25%) and Asian/Asian British (n= 9, 19%).

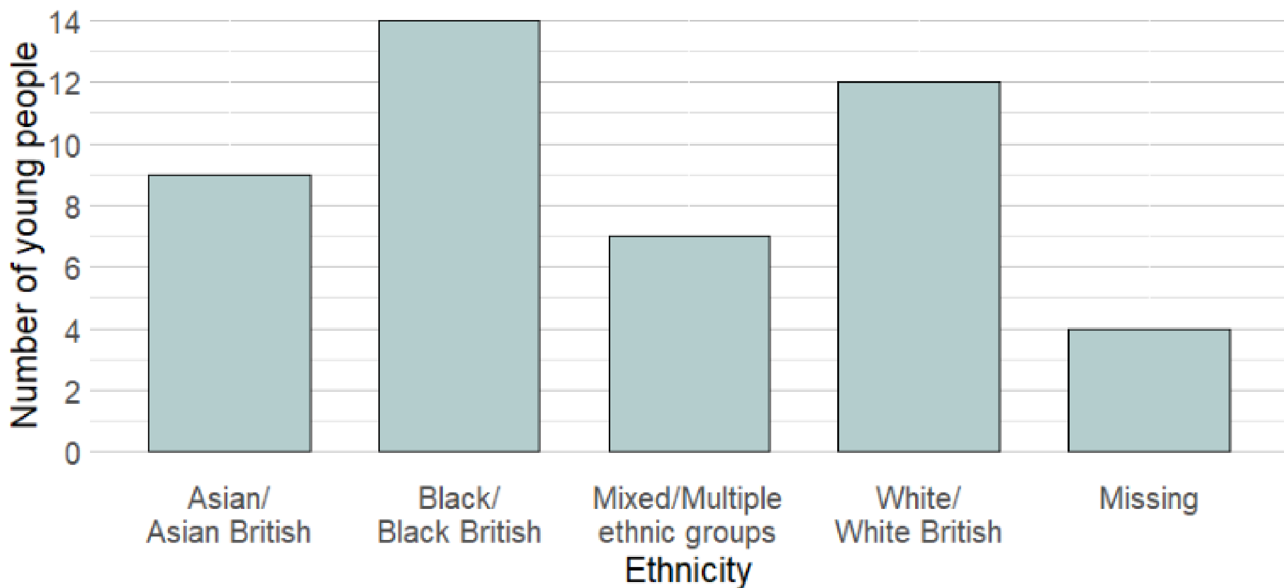
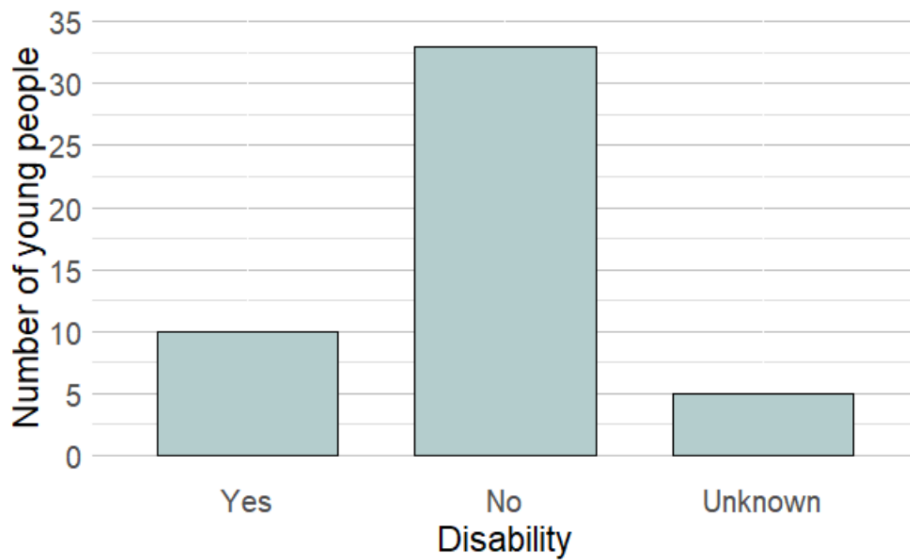


Fig.3. Ethnicity of mentees, n= 44, missing n=4

21% (n=10) of the mentees had a disability (69% did not, 10% had missing data), and 29% (n= 14) had special educational needs (54% did not, and 17% had missing data).

A



B

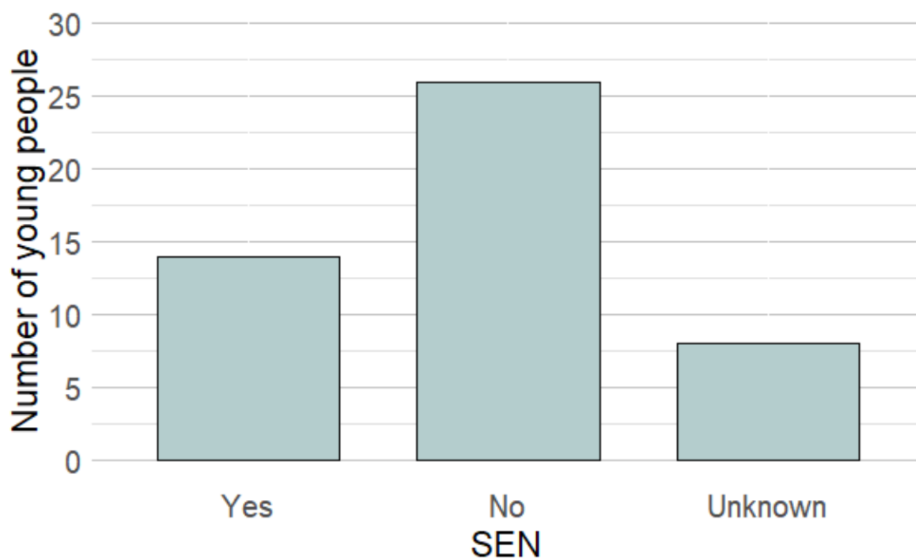


Fig.4. (A) Disability status of mentees, n= 48 **(B)** SEN status of mentees, n= 48.

We also received data on whether the mentees were 'looked after children', but most of the young people in the dataset had missing data for this variable (88%, n= 42).

10% (n=5) of the mentees had a social worker, with 71% (n=34) not having one, and 9 (19%) missing data.

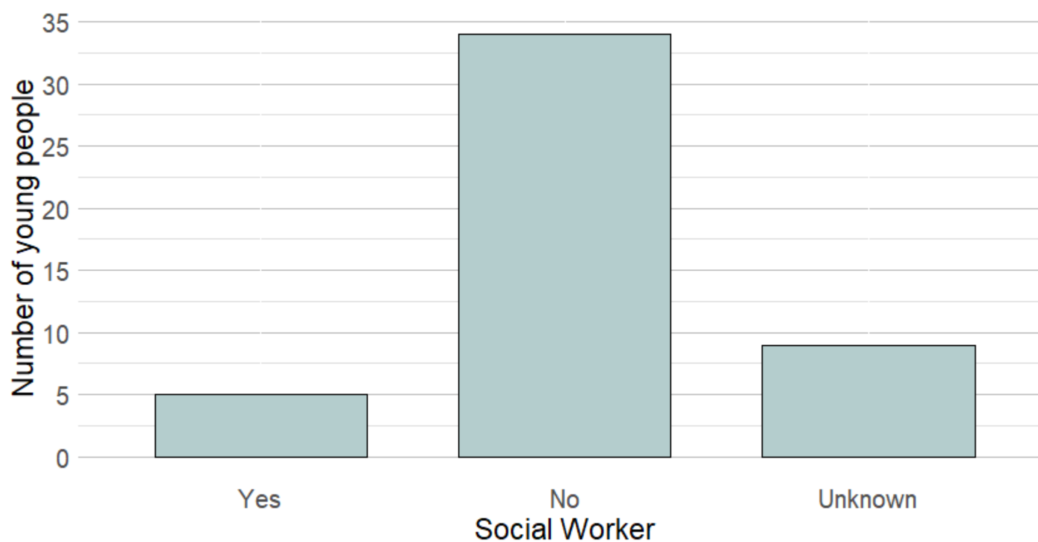


Fig.5. Social worker status, n= 48.

The administrative data included data about the mentees' eligibility for CAMHS. 24% (n= 11) were eligible and 76% (n= 34) were not. Please see the conclusions section for more information about this categorisation.

Table 1. Mentees eligibility for CAMHS, n= 48

	Number and Percentage of Young People	
Eligible for CAMHS	*n*	%
Yes	11	23%
No	34	71%
Missing	3	6%

75% (n=36) of mentees in the dataset are in education, with 17% (n= 8) not in education, employment or training, and 8% (n=4) missing data.

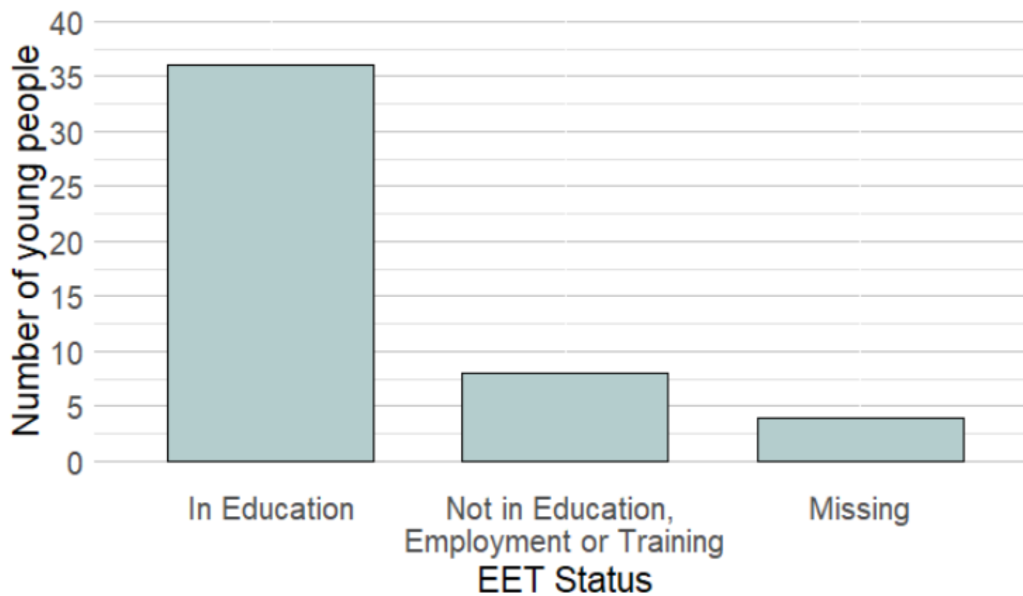


Fig.6. Education, employment and training status, n= 44, missing n=4

The average individual index of multiple deprivation (IMD) decile[5] by area ranged from 1.6 to 2.4 (scores of 1 indicate the most deprivation; 10 indicate the least deprivation), indicating that young people involved in the Advantage Programme were from areas with high levels of multiple deprivation, which includes weighted calculations of income, employment, education and skills, health and disability, crime, housing barriers and living environment deprivation (10).

Table 2. Mentees index of multiple deprivation by borough and individual, n= 48

Club	Borough	Average Mentee IMD Decile
West Ham United	Newham	2.0
Arsenal	Hackney	1.6
Leyton Orient	Waltham Forest	2.4
Crystal Palace	Croydon	2.1
Manchester City	Manchester	1.9

[5] IMD deciles are derived from calculations of weighted deprivation indicators. A decile of 1 indicates the 10% of areas with highest levels of multiple deprivation, a decile of 10 indicates the top 10% of areas with lowest levels of multiple deprivation

Mentee outcomes

See *Appendix 1: About the analysis*, for an explanation of the analyses used.

Outcome Rating Scale

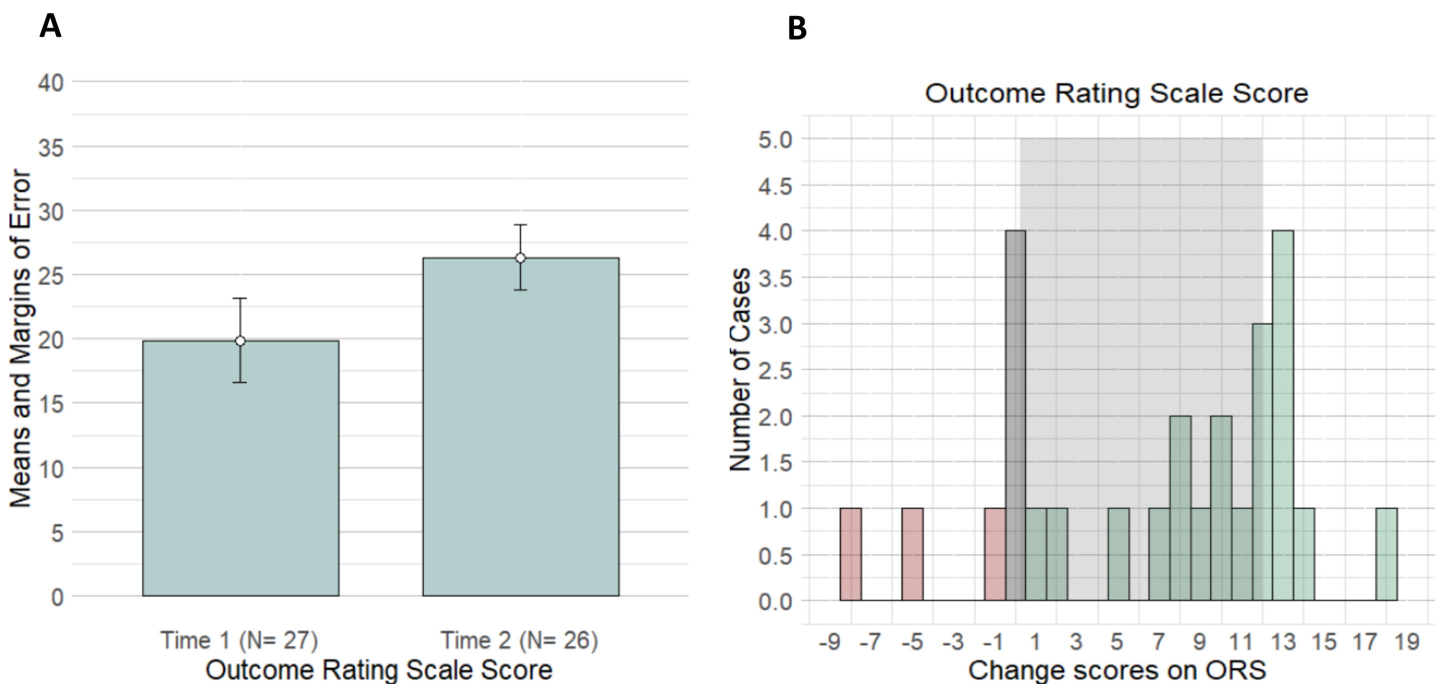


Fig.7. (A) ORS average Time 1 and Time 2 scores **(B)** ORS count of all change scores for those respondents with a T1 and T2 score

In figure 7, the chart on the left (chart A) displays the mean scores at Time 1 (n = 27, Mean = 19.85, Standard Deviation = 8.3, Margin of Error = [16.57, 23.13]) and at Time 2 (n = 26, Mean = 26.31, SD = 6.26, Margin of Error = [23.78, 28.84]).

The difference between the scores at Time 1 and Time 2 is statistically significant, $t(25) = 5.2$, $p < .001$.

62% (16/26) of mentees reliably improved, 4% (1/26) reliably deteriorated, and 35% (9/26) presented no reliable change. See Appendix 1 and the conclusions section for notes regarding the application of reliable change calculations to this population.

World Health Organisation- Five Well-Being Index

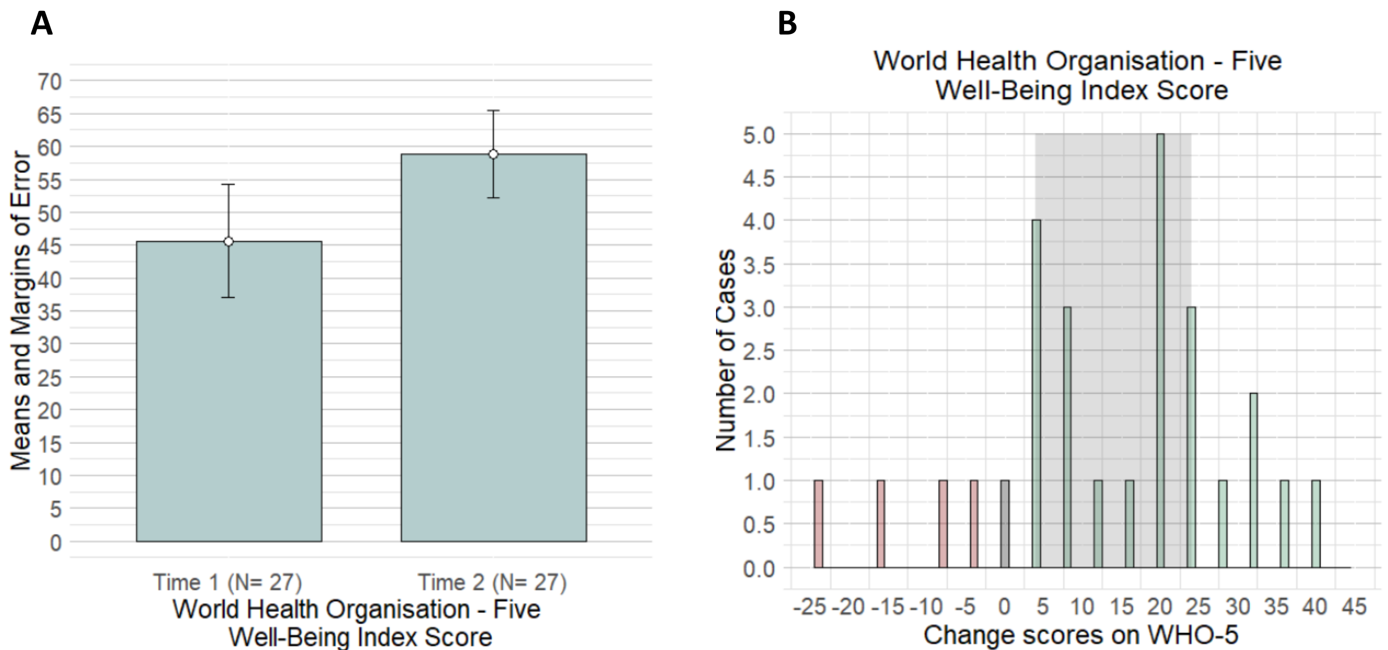


Fig.8. (A) WHO-5 average Time 1 and Time 2 scores **(B)** WHO-5 count of all change scores for those respondents with a T1 and T2 score

In figure 8, the chart on the left displays the mean scores at Time 1 (n = 27, Mean = 45.63, Standard Deviation = 21.61, Margin of Error = [37.08, 54.18]) and at Time 2 (n = 27, Mean = 60, SD = 16.71, Margin of Error = [52.21, 65.42]).

The difference between the scores at Time 1 and Time 2 is statistically significant, $t(26) = 4.4$, $p < .001$.

30% (8/27) of mentees reliably improved, 4% (1/27) reliably deteriorated, and 67% (18/27) presented no reliable change. See Appendix 1 and the conclusions section for notes regarding the application of reliable change calculations to this population.

Perceived Stress Scale

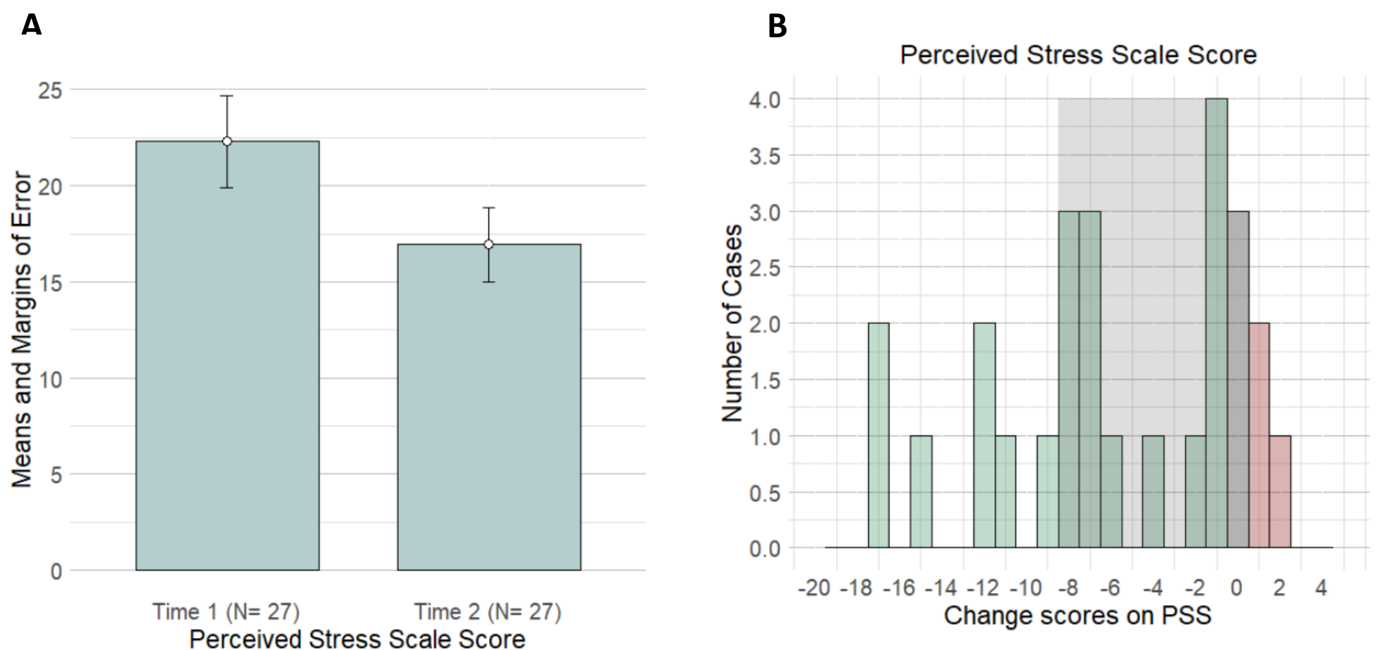


Fig.9. (A) PSS average Time 1 and Time 2 scores **(B)** PSS count of all change scores for those respondents with a T1 and T2 score. N.B. a decrease in scores indicates reduced stress levels

In figure 9, the chart on the left (chart A) displays the mean scores at Time 1 (n = 27, Mean = 22.30, Standard Deviation = 6.05, Margin of Error = [19.90, 24.69]) and at Time 2 (n = 27, Mean = 16.93, SD = 4.84, Margin of Error = [15.01, 18.84]).

The difference between the scores at Time 1 and Time 2 is statistically significant, $t(26) = -4.6$, $p < .001$.

52% (14/27) of mentees reliably improved, 0% reliably deteriorated, and 48% (13/27) presented no reliable change. See Appendix 1 and the conclusions section for notes regarding the application of reliable change calculations to this population.

CORC Child Outcomes Research Consortium
A project of
Anna Freud National Centre for Children and Families

Goal Based Outcomes tool

We received 35 goals (28 Goal 1 goals, and 7 Goal 2 goals) for 28 mentees, which were coded into one of five main themes.

As shown in Table 2, the most commonly set goals were in the theme of *Focusing on education and employment* (including goals relating to improving behaviour at school and enrolling onto a training course), with 34% (n=12) of goals being attributed to this theme. This is followed by *Communicating and managing emotions* (26%, n= 9) and *Confidence* (20%, n=7).

Table 2. Main themes from submitted GBO data

	Number and Percentage of Goals	
Goal Themes	***n***	**%**
Communicating and managing emotions	9	26%
Confidence	7	20%
Improving wellbeing	3	9%
Extra-curricular activities (e.g., sports)	4	11%
Focus on education and employment	12	34%

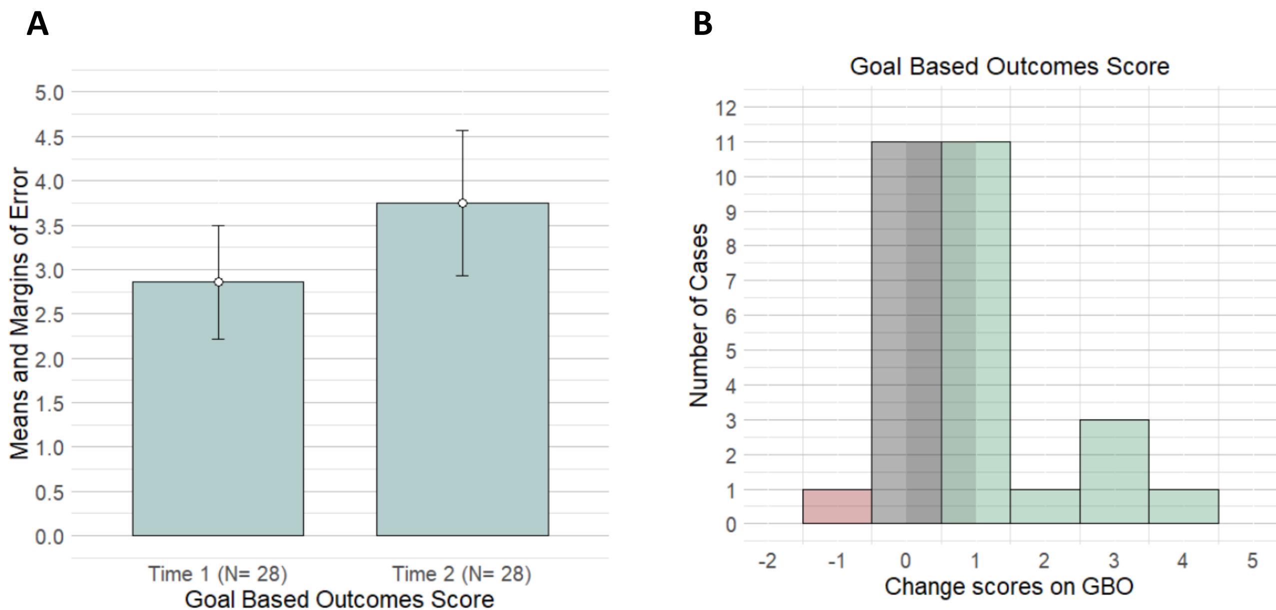


Fig.10. (A) GBO average Time 1 and Time 2 scores **(B)** GBO count of all change scores for those respondents with a T1 and T2 score

For the analysis of the Goal Based Outcomes tool scores, we looked at the 28 'Goal 1' goals we received.

In figure 10, the chart on the left (chart A) displays the mean scores at Time 1 (n = 28, Mean = 2.86, Standard Deviation = 1.65, Margin of Error = [2.22, 3.50]) and at Time 2 (n = 28, Mean = 3.75, SD = 2.12, Margin of Error = [2.93, 4.57]).

The difference between the scores at Time 1 and Time 2 is statistically significant, $t(27) = 4.1$, $p < .001$.

14% (4/28) of mentees reliably improved, 0% reliably deteriorated, and 86% (24/28) presented no reliable change. See Appendix 1 and the conclusions section for notes and cautions regarding the application of reliable change calculations to this population, and to goals data.

CORC Child Outcomes Research Consortium
A project of
Anna Freud National Centre for Children and Families

2) Interviews

a) Mentee interviews

We conducted semi-structured interviews with seven young people, aged between 15 and 19 years old (mean age 16.0 years; all male and all involved in the Advantage Programme in London). Mentees were asked about how they came to be involved in the Advantage Programme, any comparisons to previous support received, their experiences of their mentoring sessions, and any outcomes that they may have experienced.

We have separated out the findings from the interviews with young people into two sections:

I. How mentees described the Advantage Programme
II. What mentees told us about their outcomes

In each of the two sections, we present the themes we developed using a thematic analysis (8,9) approach.

CORC Child Outcomes Research Consortium
A project of
Anna Freud National Centre for Children and Families

i. Describing the Advantage Programme

Initial contact

Mentees described a range of ways of **becoming involved** in the Advantage Programme, which were primarily referrals by teachers or school counsellors. The types of difficulties that mentees described as leading to them being involved in the Advantage Programme included emotional and behavioural difficulties generally, and sometimes specific difficulties such as anger. Mentees often described the referral, or contact from their mentor, as being a surprise to them, and having a lack of initial information about the Advantage Programme, but a willingness to try it out.

"I think because my teacher wanted me to get some mentoring […] and they were like […] I signed you up for the [place] mentoring project. […]. Well, I didn't really know what to say and then a couple of weeks went by, and I just saw just randomly, saw an email pop in my inbox saying we've got a meeting today."

Mentees often had experience of receiving **previous support**, for example, from CAMHS. Mentees described the support from their mentors as being very different to the support that they had previously received from therapists, as the latter had been focused solely on emotions and feelings, whereas the support from their mentors was broader than this. They also described the ability of their mentors to communicate with their school, providing a more linked up type of support to mentees.

"I feel like my mentor thing is much better because even at my mentor, when I get angry in school and that, [my mentor] can communicate with my school way better than my consultants can […] so it's even more convenient actually."

"I said I didn't want a therapist, because last time I had a therapist I really wasn't comfortable because all we talked about was my emotions, I couldn't really like just try and have someone to speak to."

Set-up of sessions

Mentees were generally **not able to easily describe** the Advantage Programme as a whole entity, but they did describe particular elements of the Advantage Programme, including participating in 'productive conversations' (see also next theme), receiving advice, and either engaging in or talking about, areas of interest to the mentee.

Mentees described feeling encouraged by their mentors through their **focus on their interests**. Sometimes this was football, or another sport, while at other times this included their mentor showing an interest in activities and topics of importance to the mentee. Encouraging mentees through their interests did not necessarily mean doing the activities, and while some did, others talked about them. This was described by one mentee as a means to building relationships through trust.

> *"[…] it's a life changing programme that can expand your mind on other stuff around you, and it opens up how you feel. It's quite hard to explain it."*

Mentees described the Advantage Programme, and specifically the meetings with their mentors, as **a productive conversation**, consisting of talking about a range of topics, not only focused on mental health. Some described these conversations as a means to *"speak to people more about certain things that you wouldn't normally speak about"* which was not forced in any way.

> *"[…] if someone's interested in football then if they could try to help them through football, but not in the way of playing football with them. I mean, like, sort of gaining trust through football. I feel like that would be very beneficial thing because they'll be much more open."*

"You talk what's on your mind and then my mentor gives me good advice, [my mentor] gives me friendly advice. I see it as a good conversation, a productive conversation [...] [My mentor is] someone that if I can't talk to anyone, I can always talk to him."

"It just brings you out of your comfort zone, it gets you to actually speak to people more about certain things that you wouldn't normally speak about. It helps a lot with stuff."

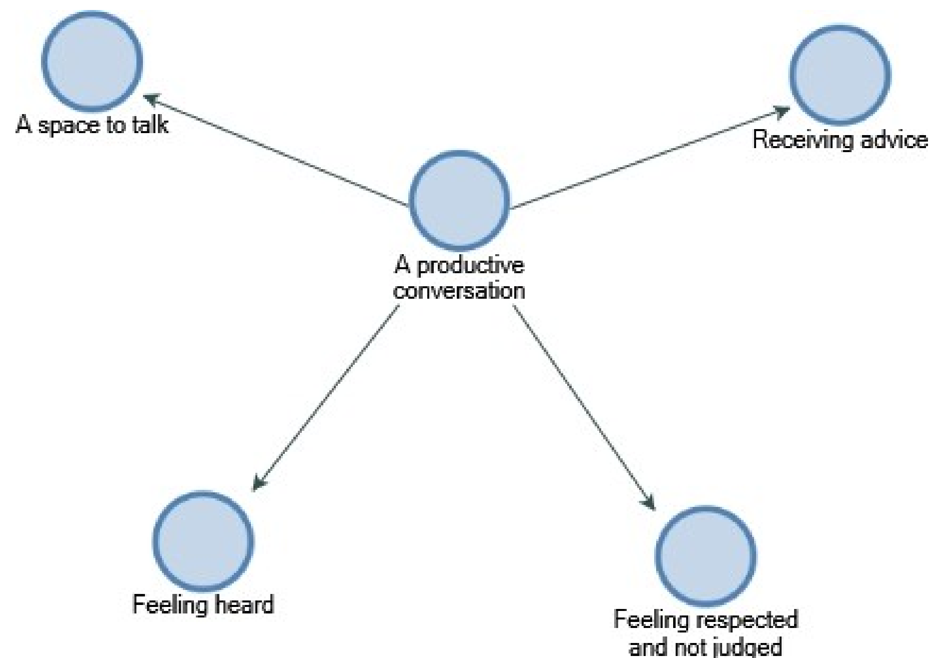


Fig.11. Theme: A productive conversation

Mentees also described these 'productive conversations' as **a place to talk**, where they **felt heard**, **respected,** and **not judged,** and viewed the Advantage Programme as a place to go to **receive advice** on a range of issues.

"It's very beneficial and comforting, [...], to have someone in your life that you can just go to and that you can ask for help, and that you know you're not going to get judged."

"When I leave the facility, I'm happy that I know someone's there thinking of a solution, that by the next time I meet [my mentor] [they are] already thinking of a solution to help me out, so that's satisfying, and I appreciate that a lot."

"Advantage is something that you can go to and ask for help and have someone to talk to, not just ask for help and consistently be spoken to about mental health. I feel like Advantage is a place to help express yourself even if you're not talking about how you actually feel."

"[...] having someone to talk to just really, really helped me with my mental health. Like having someone who will listen to me and constantly listen to me, be there to support me, having someone to talk to."

Mentees described having a mixture of **in person and online/phone sessions** with their mentors. Mentees varied in terms of their views on the location and timings of sessions. For example, mentees described enjoying having their sessions at a location that was of interest to them, while others said that they benefitted from remote sessions due to the flexibility that this afforded, and others still said that they preferred to meet face to face rather than online.

"I just don't think that you can really talk online [...] Like, you might not be yourself, and not only will that affect how well someone can know you and, I suppose in this case, help you."

"I chose to stay on the video call because I'm not going all the way to [place], for a 30-minute chat."

"So, like, it was closer; it contained most of my main interests; it was just easier and more efficient for both of us."

Mentees were not always aware when the sessions would be **coming to an end**. However, some did know, and described feeling nervous, sad, and disappointed because they felt that they became attached to people easily and would need more ongoing support.

"I'm a little bit... not sad but a bit down about it because I really enjoyed the whole thing, to be fair. The experience is perfect, in my opinion, so the thought I won't be able to do much of this again is quite saddening."

Goal setting

Mentees described **working on a range of different goals** with their mentors, often working towards multiple goals in their time involved in the Advantage Programme, sometimes long- and short-term goals and sometimes moving from one goal to the next. Goals included areas of improvement such as sleep, schoolwork, behaviour, anger, and relationships with others.

Mentees described **being helped to reach goals** by their mentors.

"I've reached some of them already and I've got a few more to reach as well, that's good."

All mentees described the **value of goal setting**, including that it provides motivation and inspiration, and a sense of focus and clarity.

"[…] it's given me motivation to be able to do something because I really struggle with motivation."

"It helps me get some thoughts in order […] so they're like laid out, so it's clear what you should do or something like that, to get something done."

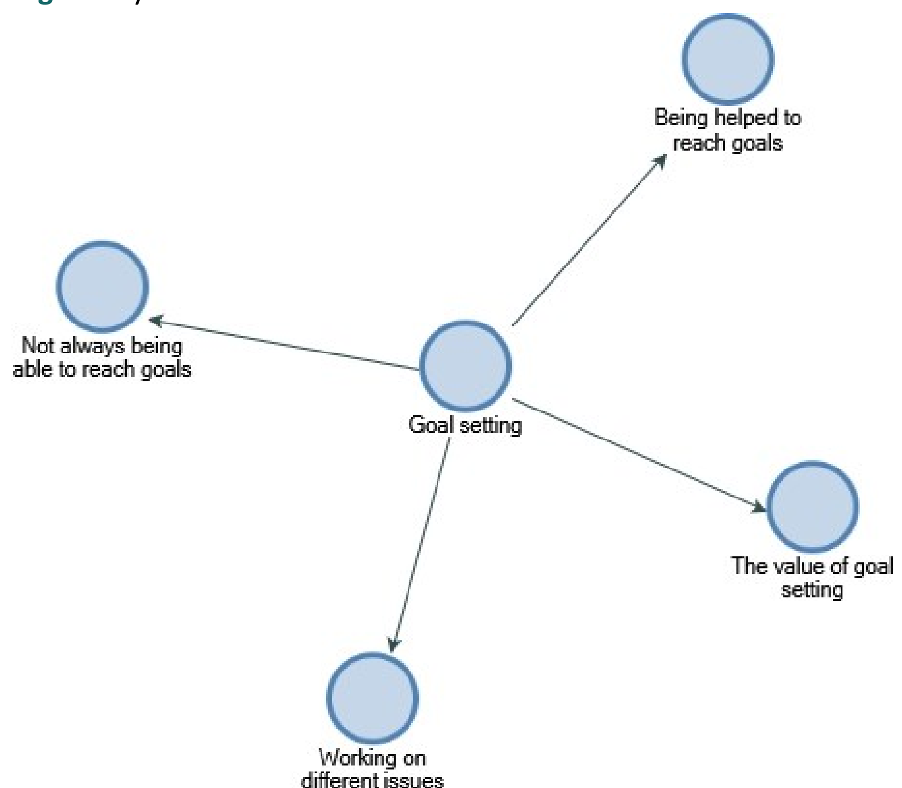


Fig.12. Theme: Goal setting

"[My mentor would] usually ask me how the week was and whatever. Like we'd try to set like a goal the week before or the last time we met and then see if I could stick to it by the next week, so then we'd check up on that."

However, some mentees described **not always being able to reach goals**, sometimes due to outside factors, sometimes due to the goal being challenging, and sometimes due to still being early in their involvement in the Advantage Programme.

"I found it quite challenging because I couldn't really think of a lot of ideas of goals I had to reach. But it took a while and I found some. Some of them were quite hard as well. I've reached some of them."

Relationship with mentor

All mentees described **getting along well with their mentors.** When describing the support received from the Advantage Programme, the relationships between the mentees and mentors was a focal point for the young people we interviewed. Some described a friendship, while others described their mentors as role models.

"I was comfortable from the beginning to tell [my mentor] everything."

"It's nice I guess, [my mentor is] a nice person. [They are] easy to talk to, so I think it makes it, it's easier to work through things if you can say pretty much anything to that person and they'll be receptive to it, which is nice. It's like welcoming."

"[My mentor is] a great role model, in a sense, and I feel like just [them] being [them] kind of taught me, or showed me, that confiding in other people and having these sort of relationships is beneficial.

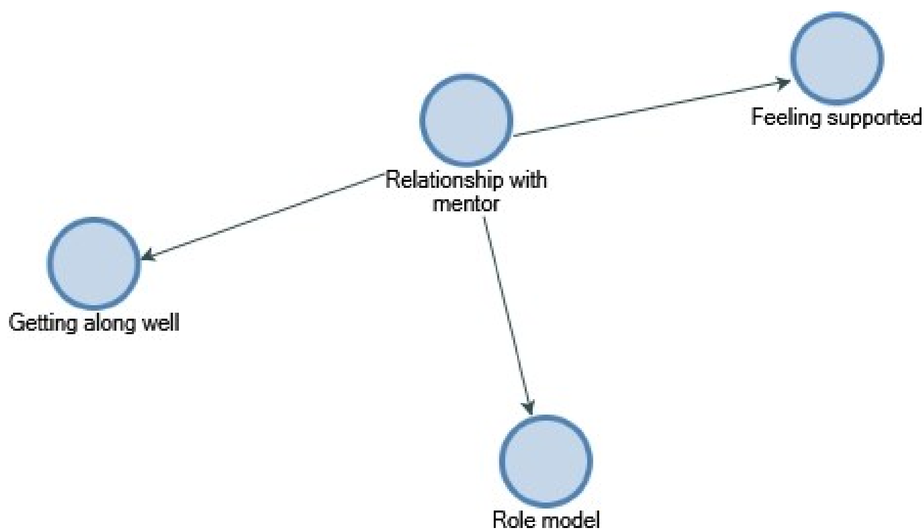


Fig.13. Theme: Relationship with mentor

"[…] having someone to talk to just really, really helped me with my mental health. Like having someone who will listen to me and constantly listen to me, be there to support me, having someone to talk to. Even if it wasn't about my mental health, even just talking about random things that had nothing to do with my actual mental health, it made me so comfortable."

Some mentees described feeling well-supported in general by their mentors and spoke about the value of feeling listened to. Some also described how having someone take an interest in them, help them to feel supported, and listen to them was beneficial to their mental health and wellbeing.

Suggestions for improvement

Some mentees discussed the need to advertise the Advantage Programme to a wider group of young people. One mentee wanted more of a focus on including a variety of age-appropriate activities within the sessions. Some mentees also discussed the impact of missing sessions due to life events and expressed a preference to have their sessions at different times because, for example, the sessions clashed with preferred school lessons.

> *"You get to that age where you can't really do kid activities, you can't really do adult activities, so you're stuck at that age. So maybe they should introduce more activities into the programme, like sessions, like sporty sessions, or games sessions."*

ii. Mentee Outcomes

Most mentees described the Advantage Programme as being **generally beneficial** to them in terms of their overall wellbeing, mental health, and outlook on life. Some mentees used terms such as being *"a more complete person"* and the Advantage Programme being *"life changing"*, to encapsulate this sense of overall benefit.

> *"I would say it's a life changing programme that can expand your mind on other stuff around you, and it opens up how you feel."*
>
> *"I'd say it's helped in me becoming a more complete person."*

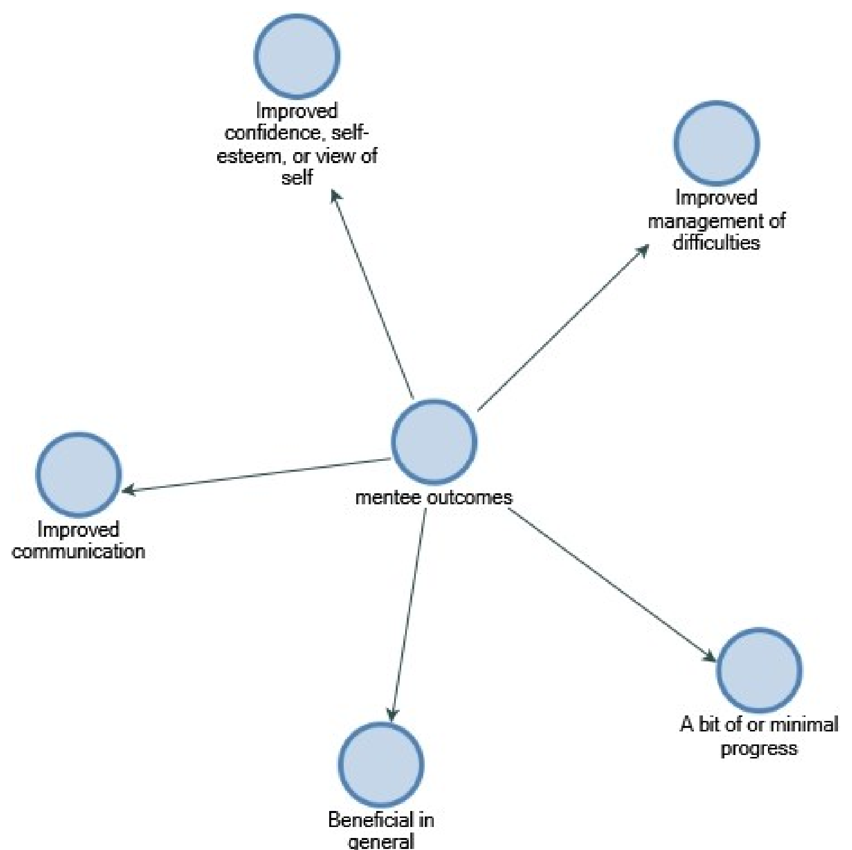


Fig.14. Theme: Mentee outcomes

Some mentees described having made **a little bit of progress**, sometimes referring to how small improvements within the time had still had an overall positive effect, e.g., *"…even the little improvements that I'm making, they're making a good impact."*

One mentee discussed making small amounts of progress themselves, but reflected that the Advantage Programme may be more beneficial to others.

"…the programme would be a lot more helpful for someone else who's perhaps in a more disadvantaged position than it would be for me."

Most mentees also described experiencing specific improvements related to **their confidence or self-esteem, communication,** and **management of specific difficulties.** Mentees often described themselves as feeling more confident and feeling better about themselves. They also described improvements in their communication skills in general, as well as in being open to approaching new friends. There were some specific difficulties that mentees discussed experiencing improvements in as well, for example, in terms of their behaviour and anger difficulties.

"You can speak to someone that actually listens to you and, even if you're wrong, there will always be a way that people will try and find good in you, and that raises your self-esteem, your confidence, that makes you happier."

"[Advantage] let me express myself to other people. Like I can talk about how I feel to my family now."

"It has made me realise a couple things within myself, and how I deal with issues. And, like, more of how I react to things."

Outcomes were often attributed to their positive relationships with, and encouragement by, their mentors, and sometimes attributed to the specific advice and strategies their mentors provided.

"There's been times where I've gotten angry, but there's also been a lot of times where I've been quite calm, more than usual, because I've taken my mentor's advice."

CORC Child Outcomes Research Consortium
A project of Anna Freud National Centre for Children and Families

b) Mentor interviews

We conducted semi-structured interviews with five mentors (four London-based and one Manchester-based; two female, three male).

Mentors were asked to describe the Advantage Programme, comparisons to other sources of support, their experiences of working for the Advantage Programme and with CAMHS practitioners, barriers and facilitators to implementation, and any perceived impact that they may have experienced. The length of time that mentors had been involved with the Advantage Programme varied, ranging from its inception to four months.

We present below the themes that we developed using a thematic analysis (8,9) approach.

i. Descriptions of the Advantage Programme

A flexible programme

Several mentors described the Advantage programme as being flexible, notably in terms of the locations where the sessions can take place. This flexibility was also echoed in mentors' descriptions of the format of the sessions; some mentors described the Advantage Programme as one-to-one support, but others highlighted that the number of mentors and mentees attending each session could vary, such as if a group format would work well for mentees who are friends, or when two mentors might be needed for safeguarding purposes in online sessions.

> *"It's quite flexible [...] it can be online. It can be in person. It can be in their school. It can be outside of school, in the community"*

Descriptions of the content covered in sessions also varied, with it being described as being flexible with no set content. Some mentors described working through a *"pack"* with all of their mentees. Some mentors also mentioned participating in activities (such as playing football) with the mentees during their sessions.

> *"It's quite a flexible programme in terms of content, like there's no set content"*
>
> *"And then if they want to, we'll try and go out for a game of football. We'll try and go out for a little bit of a kickabout, try and destress a little bit".*

When describing the Advantage Programme, some mentors mentioned the time-limited nature of involvement with mentees, describing it as lasting for six months. However, for other mentors, the Advantage Programme was more open-ended; for example, indicating that some young people could receive support beyond six months if they wanted it.

Being there for young people

"The programme isn't there to transform young people from having these concerns to being an extraordinary person. But it's just for them to feel comfortable and understand that there aren't alone in this kind of journey that they're on".

Some mentors described the purpose of the Advantage Programme as **being there** for the mentees. Mentors used terms such as *"a bit of a role model"* as well as a *"friend"* to the mentees, to describe their mentor-mentee relationships.

Working with a range of needs

Mentors described working with young people with a range of needs, including those who are below the threshold for CAMHS support or on a waitlist, those with mental health concerns, or those who are "struggling".

Working with goals

The majority of the mentors described goal setting as forming part of the Advantage Programme, some identifying it as an integral part of the Advantage Programme. Mentors described how the goals that they are working on during the sessions are monitored and updated, if they are no longer deemed *"valid"* by the mentee. Examples of goals which the mentors have worked on included getting exam ready, getting into university, making new friends and playing football.

"That is the main concept of Advantage, it's a goal-based learning, goal-based outcome kind of programme where we set goals at the beginning, and we work towards those goals".

Matching process

"I was like, 'It would be nice for [the mentee] to be mentored by somebody different that doesn't mirror [them]. Which can help [them] learn and help that mentor learn. But what we realise is the best suited person was somebody that does mirror [the mentee]".

Referrals appeared to come from schools and colleges, although mentors also stated that young people interested in the programme could self-refer. The referral process also included CAMHS performing the screening and identifying young people who are suitable to take part in the Advantage Programme. Descriptions of the process of allocating young people to mentors varied, with some mentors describing matching taking place based on demographic characteristics, such as gender or cultural background, and others described using information that they had received from CAMHS to inform decisions about which young people would be best suited to particular mentors. Some mentors also described having a handover meeting with CAMHS and the mentee, with this being described as a stage in the process because otherwise the young person may feel *"uncomfortable, a bit nervous to speak to someone they've never met before".*

ii. Training

Descriptions of training

When asked about training received, the descriptions provided by mentors varied. This ranged from no formal Advantage Programme training to half a day and between two and four sessions. The descriptions of the training differed even where the mentors described attending training sessions: one mentor described the sessions as consisting of discussions around adverse childhood experiences and safeguarding, while other mentors described the training as more focused on learning about the Advantage Programme.

Positive aspects of training

The overall feedback for the Advantage Programme training was positive. Helpful factors included providing mentors with the tools needed for the role, as well as serving as a refresher of existing knowledge and practice, and the cognitive behavioural therapy aspects were considered useful.

"they offer you a lot of tools to go out and be an effective mentor and work within youth work and, you know, just work with young people. And that was great because it can help with the dynamics that come with the sessions"

Suggestions for improving training

When asked about suggestions for improving training, roleplays and more training specifically regarding mental health difficulties in young people were suggested as useful topics. Some mentors reported that it would be helpful to have more training sessions in general, to enable them to immerse themselves in the Advantage Programme offer more. In person (instead of online) training was welcomed, if possible. A gap between the training and being allocated mentees was also described, indicating that the timing of the training may be of importance.

"I definitely want more, because I feel like it just touched the surface, and we can go a bit deeper"

"It felt a bit like ohh that's a bit really out of my mind. So when I actually started it was like OK no, let's try and figure this out again"

CORC Child Outcomes Research Consortium
A project of
Anna Freud National Centre for Children and Families

ii. Comparisons to existing support

A friendly or "soft" professional

Mentors contrasted their description of the Advantage Programme with existing sources of support, such as CAMHS. They did so through stating that while professional, in their opinion, their relationships with their mentees were different: emphasising their focus on creating a *"supportive environment"*, signposting, and the option of including activities within the sessions. The description of a *"soft professional",* was used by mentors, due to the setting and because the mentors are not dressed in traditional 'professional' attire.

> *"I'm not gonna try and psychoanalyse everything that they're saying to me"*
>
> *"We're friendly professionals, not professional friends"*

iii. Contact with CAMHS

Frequency of clinical supervision

The mentors' descriptions of their contact with CAMHS for clinical supervision varied. Some mentors described having regular group supervision, while others described having more informal supervision arrangements, or ad hoc or no supervision.

Impact of clinical supervision

When asked about the impact of receiving regular clinical supervision, some mentors described it as helpful, helping them to feel l mentors mentioned that it had provided them with **emotional support** and an opportunity to **share ideas and resources**.

> *"[My CAMHS supervisor is] not only there for [the mentees], [they are] there for us"*
>
> *"It can often be quite a lonely experience for a mentor, so knowing that you're not alone and that you're able to share ideas and work with others, I'd say is really helpful"*

iv. Impact of Advantage

Perceived impact on mentees

When asked about whether they felt the Advantage Programme had an impact on the mentees, mentors listed a range of outcomes that they thought could be attributed to the Advantage Programme. These included improvements in mood, social skills, improvements in behaviour,

taking more responsibility (such as with chores at home), and an increase in both networking skills and the opportunity to meet new people.

Perceived impact on mentors

In terms of the impact of Advantage on the mentors themselves, some mentors described finding their mentoring work to be personally rewarding. Some mentors also described the experience as improving their mentoring skills, as it was their first time working as a mentor. Mentors also described how their role had provided them with an opportunity to put theory into practice, with the Advantage Programme being an *"eye-opening experience"*, which had enabled them to learn more about *"different styles of delivery"* and *"how to respond to the needs of different individuals"*. Some mentors described feeling more knowledgeable as a result of the experience due to the wide-ranging concerns they work with their mentees on, even if they were experienced mentors.

"[…] And that enriches me, that makes me smile, because I know [several] sessions ago [the mentee] really didn't want to do it"

"It's given me a bit more knowledge about those concerns. And hopefully as we go forward, I can identify these concerns and know how to manage them"

v. Facilitators to implementation

Mentors were asked about the facilitators of implementing the Advantage Programme. Several facilitators were identified, including having a **clear purpose, finding a suitable time and location for sessions, good communication, teamwork** and **using existing skills and resources.**

A clear purpose

Some mentors indicated that there was a clear need for the Advantage Programme in the current climate. On the person level, an intrinsic purpose was also identified as a facilitator, where mentors described that as being one of the motivating factors for them personally to be involved.

"There was a real need before the Covid pandemic, and I know Advantage initially came out as a Covid response programme. But what we've seen since then is the focus, particularly on mental health and wellbeing, […] and I think there is a clear need"

"It's because I genuinely have a care, and I'm bothered about seeing them being the best that they can be"

Good communication

Some mentors listed good communication as a facilitator to implementing the Advantage Programme. This included communication between the mentors and the mentees'

parents/carers where relevant, and also between mentors and school staff. This was demonstrated as important for the location of the mentoring sessions in addition, as good communication with education settings can facilitate the sessions taking place onsite. This is linked to **identifying a suitable time and location** in order to help facilitate the implementation of the Advantage Programme.

Teamwork

Linked to the **good communication** theme, all mentors we interviewed spoke positively about communicating and working within the Advantage Foundation team. Some mentors explicitly described teamwork within the Advantage Foundation team as a facilitator, describing how they *"bounce ideas off each other"*.

> *"Like, if there has been an issue, I can speak to [my manager] and there might be something that [they've] done similar, or [they've] been through something similar with somebody else and [they] can give me ideas as to what I can do"*,

Existing skills and resources

> "*It was a mix between resources that we already had that were like single activities, a bit that Advantage had, and a bit that I had created myself".*

Some mentors described using their existing skills and resources, which facilitated the implementation of the Advantage Programme. This included the use of information packs, previous experience working with schools and colleges, as well as gaining input from CAMHS. This links to the **comparisons to existing support** theme, where some mentors described a distinctive feature of the Advantage Programme as being the option of incorporating various activities in their sessions.

vi. Barriers to implementation

A number of barriers to implementation were identified by mentors we interviewed, namely **delays to referrals, communication difficulties, administrative requirements** and **lack of resources**.

The first three barriers (**delays to referrals, communication** and **administrative requirements**) were factors which were identified to slow down the process of young people getting involved with the Advantage Programme. Firstly, paperwork and administrative requirements that needed to be finalised before a young person could start their involvement in the Advantage programme which was described as causing a delay in accepting mentees into the Advantage Programme. As a result, some mentors described mentees as having forgotten all about the Advantage Programme by the time they were accepted into it.

"So, I'd say that there's certainly a need to understand that and to explain that process to individuals that are being referred beforehand"

"By the time I'm calling them, they're actually don't even remember being part of that programme in the first place"

Linked to this, some mentors found it difficult to contact all parties involved, including CAMHS, parents/carers, and the mentees. One mentor described how they had difficulties organising the first session with their mentee, as their initial contact had to go via their parent/carer. Communication difficulties were also described as a barrier within sessions, with one mentor stating that they found it particularly challenging when their mentee was *"reluctant" to communicate*.

"[…] there was a lot of back and forth like that for a good few months"

"They're the sessions that you come away and you think… sometimes you can think to yourself, 'These don't want to have any part.' Like, they're not bothered"

The final barrier identified was a **lack of resources**. Mentors described the role as difficult because they did not feel as though they had been equipped with the relevant resources to enable them to effectively carry out the role. Some mentors also identified the need for further resources to be available, in order for the Advantage Programme to be sustainable in the future.

"I think it becomes difficult, when you're not a therapist and you go into these sessions, it's difficult to have some of these sessions if you've got no resources. Because it just turns into a conversation every single session, where you just sit down and have a conversation"

vii. Suggestions for improving the Advantage Programme

Aside from increasing resources in order to provide more options for activities within sessions, other suggestions for improvement included: speeding up the referral process, lengthening the duration of the support provided to mentees, providing recognition to the mentees for taking part (such as a certificate, or a summer gathering with all mentors and mentees), offering group mentoring, providing social opportunities, and increasing awareness of the existence of the programme.

CONCLUSIONS

We received administrative data for 48 mentees from London and Manchester, with a mean age of 16 years old, the majority were male (67%), and the most common ethnic category was Black/Black British (29%). The majority of mentees were not eligible for CAMHS (71%), did not have a disability (69%) or special educational needs (54%), and the majority were in education (75%)[6]. The average individual index of multiple deprivation (IMD) decile indicated that mentees engaged in the Advantage Programme were from areas with the highest levels of multiple deprivation. See Table 2 for details.

These demographics findings should be considered alongside the target population for the Advantage Programme. For example, it is notable that the majority of mentees were boys; this may be seen as beneficial, as boys are known to be less likely to engage in mental health support services such as CAMHS (see, (11)). This is also true for the finding that most mentees were from a Black/Black British ethic group, which may be attributable to the referral routes primarily being from education settings, as we know that referral routes to CAMHS also differ by ethnicity (see, e.g., (12)). This may also be attributable to the Advantage Programme's location in the community, which may make it more accessible to young people from minoritized ethnic groups to engage with compared to other sources of support, such as CAMHS. The Advantage Programme being potentially more accessible to those traditionally underserved by more traditional sources of support, including engaging with those from the areas with the highest levels of multiple deprivation, is certainly a strength. However, if a broader target audience is desired (e.g., greater representation of girls and young women), referral routes and advertisement channels should be reflected upon, this includes whether some young people's decisions to be involved may be based on football club choice.

The high proportion of mentees who were considered not meeting the threshold for CAMHS suggests that, consistent with its aims, the Advantage Programme is providing support in an early intervention capacity. The role of early intervention support is important, as it potentially prevents problems escalating to a point where specialist services are required, which in turn may reduce additional demands on CAMHS at a time when CAMHS struggles to meet the current – and growing – demand. However, Advantage did still reach some of those with higher levels of difficulty, with almost a quarter of mentees meeting the high threshold of eligibility for CAMHS. The positive outcomes reported by the mentees demonstrates that the Advantage Programme appears able to meet the needs, and improve outcomes, for these young people who would otherwise not be supported.

---

[6] Please note that due to the small numbers in some of the demographics categories (e.g., 'looked after child status') not all information could be displayed.

We found that mentees reported statistically significant improvements in areas of mental wellbeing, stress and on progress towards their individual goals. 30% of mentees reported reliable change in their wellbeing, 52% reported reliable change in their stress levels and 62% reported reliable change in life functioning. 14% of mentees reported reliable change in their goal progress. The proportion of mentees who reported reliable improvement appeared to be either higher, or similar, to the levels of reliable improvement reported for CAMHS, according to recent research in the UK (13,14). However, it is important to note that the comparisons between Advantage and CAMHS on reliable change are based on different populations and there is some variation in the measures used. Nevertheless, this shows promising improvement, particularly for a programme with an early intervention focus. It is important to also note that the reliable change criteria have been derived from clinical populations, and so we advise caution when interpreting these results, as more change may be required to be considered reliable for populations of young people with severe difficulties. In addition, reliable change calculations do not take into consideration a statistical artefact known as 'regression to the mean' that can make natural variation appear to be real change in populations with high severity at the start, because there is more scope for large amounts of subsequent reduction in scores. Because the reliable change criterion is conventionally used in clinical settings where difficulties are likely to be more severe, we are not clear about the meaning of applying it to an early intervention population, but offer these analyses as a guide for discussion. It is also important to note that 'no reliable' change does not equate to no meaningful change for the young person, rather, the amount of change they report has not met the rigorous criteria to be considered statistically reliable. Finally, the goals set by mentees were different to those commonly found in CAMHS services (see Table 2 and also (15)).

Goals set by mentees in collaboration with their mentors were most commonly related to a focus on education and employment (34%) and communicating and managing emotions (26%), as well as a range of other areas including confidence, extra-curricular activities (e.g., sports) and wellbeing. This information may be useful when considering the Advantage Programme focus and offer.

In interviews, mentees described the Advantage Programme as a setting for conversations with a focus on providing practical solutions, working together towards goals, and giving mentees a space to talk. They discussed receiving advice from mentors who they get on well with, and who some saw as role models. Shared interests, feeling listened to, and the trusting and non-judgemental nature of the mentor-mentee relationship were important factors from mentees' perspectives. Mentees discussed areas of improvement in their lives, which were often related to a general sense of having benefitted from the Advantage Programme, but were also related to specific areas of outcome, namely, self-confidence, improved communication with those around them and the improvement of specific difficulties, such as anger. Some mentees described the Advantage Programme as having a large impact on their lives, while others referred to smaller amounts of change. These differences may be attributed to the different stages of involvement in the Advantage Programme.

In interviews, mentors described the Advantage Programme as flexible, with the format and content of the sessions varying depending on the needs of the mentees. Mentors described 'being there' for their mentees, and both mentors and mentees described the mentors as friends or role

models. Mentors also described how the Advantage Programme had had a positive impact on mentees from their perspective, in areas such as mood, social skills, and improvements in behaviour. The benefits to mentors were also described as improvements to their own mentoring skills, and a sense that being involved in the Advantage Programme was rewarding. Facilitators to the implementation of the Advantage Programme were identified as good communication, finding a good time and place for the sessions, bringing their previous experience and creating their own support materials. Some suggested areas for improvement to the Advantage Programme were identified by mentors, including the referral process, training, CAMHS supervision, increasing the length of the programme, and offering group support.

The interview findings presented in this report represent the views and experiences of mentees and mentors interviewed as part of this evaluation. There are many other mentees and mentors involved in the Advantage Programme whose views are not represented here. Further, while we were able to interview seven mentees, all of them were involved in the Advantage Programme in London, and only one had completed their involvement in the Advantage Programme, with the others still ongoing. Therefore, more interviews would be beneficial to explore the experiences of those no longer involved in the Advantage Programme, and those who were involved in areas outside of London, to gain a fuller picture what the sessions involved, and the outcomes that were achieved.

CORC Child Outcomes Research Consortium
A project of Anna Freud National Centre for Children and Families

ACKNOWLEDGEMENTS

Thank you to the following for their support on this evaluation:

- All mentors and mentees who took part in our interviews
- The Advantage Foundation team, in particular Neal Hickey and Konrad Deckers Dowber
- Our colleagues across the Anna Freud Centre who provided support and input, including Kate Dalzell and Adwoa Okyere.

REFERENCES

1. Herrera, C., DuBois, D. L., & Grossman JB. The role of risk: Mentoring experiences and outcomes for youth with varying risk profiles. MDRC; 2013.
2. McQuillin, S. D., Hagler, M. A., Werntz, A., & Rhodes JE. Paraprofessional Youth Mentoring: A Framework for Integrating Youth Mentoring with Helping Institutions and Professions. Am J Community Psychol. 2021;ajcp.12546.
3. DuBois, D. L., Portillo, N., Rhodes, J. E., Silverthorn, N., & Valentine JC. How effective are mentoring programs for youth? A systematic assessment of the evidence. Psychol Sci Public Interes. 2011;12(2):57–91.
4. Karcher, M. J., Kuperminc, G. P., Portwood, S. G., Sipe, C. L., & Taylor AS. Mentoring programs: A framework to inform program development, research, and evaluation. J Community Psychol. 2006;34(6):709–25.
5. Keller, T. E., & DuBois DL. Influence of program staff on quality of relationships in a community-based youth mentoring program. Ann N Y Acad Sci. 2021;1483(1):112–26.
6. DuBois, D. L., Holloway, B. E., Valentine, J. C., & Cooper H. Effectiveness of Mentoring Programs for Youth: A Meta-Analytic Review. Am J Community Psychol. 2002;30(2):157–97.
7. Goldner, L., & Ben-Eliyahu A. Unpacking Community-Based Youth Mentoring Relationships: An Integrative Review. Int J Environ Res Public Health. 2021;18(11):5666.
8. Braun, V., Clarke V. Reflecting on reflexive thematic analysis. Qual Res Sport Exerc Heal. 2019;11(4):589–97.
9. Braun, V., Clarke V. Can I use TA? Should I use TA? Should I not use TA? Comparing reflexive thematic analysis and other pattern-based qualitative analytic approaches. Couns Psychother Res. 2021;21(1):37–47.
10. Ministry of Housing Communities & Local Government. English indices of deprivation 2019 [Internet]. English indices of deprivation 2019. 2019. Available from: https://www.gov.uk/government/statistics/english-indices-of-deprivation-2019
11. Lynch L, Long M, Moorhead A. Young Men, Help-Seeking, and Mental Health Services: Exploring Barriers and Solutions. Am J Mens Health. 2018;12(1):138–49.
12. Edbrooke-Childs, J., & Patalay P. Ethnic differences in referral routes to youth mental health services. J Am Acad Child Adolesc Psychiatry. 2019;58(3):368–75.

CORC
Child Outcomes Research Consortium
A project of
Anna Freud National Centre for Children and Families

13. Jacob J, Edbrooke-Childs J, Costa da Silva L, Law D. Notes from the youth mental health field: Using movement towards goals as a potential indicator of service change and quality improvement. J Clin Psychol. 2021;(October 2019):1–14.
14. Bear, H. A., Edbrooke-Childs, J., Norton, S., Krause, K. R., & Wolpert M. Systematic review and meta-analysis: Outcomes of routine specialist mental health care for young people with depression and/or anxiety. J Am Acad Child Adolesc Psychiatry. 2019;59(7):810–841.
15. Jacob J, Edbrooke-Childs J, Holley S, Law D, Wolpert M. Horses for courses? A qualitative exploration of goals formulated in mental health settings by young people, parents, and clinicians. Clin Child Psychol Psychiatry. 2015;21(2).

CORC
Child Outcomes Research Consortium
A project of
Anna Freud National Centre for Children and Families

APPENDICES

Appendix 1: About the analysis

How are change scores calculated?
Change scores are the difference between the Time 1 score and the Time 2 score (Change Score = Score T2 – Score T1). We plot these change scores to get an impression of how much all individuals have changed between Time 1 and Time 2. Red bars represent scores that got worse, green bars represent scores that have improved, dark grey bars represent scores that have not changed. The light grey area in the chart encompasses the approximate middle 50% of change scores.

Why show margins of error? When we make statistical comparisons, we have to take the uncertainty in the data into account. This can be caused by small sample sizes or very varied data. The margin of error (also known as the confidence interval) gives a range of numbers which we are reasonably certain contains the true average. If the interval is narrow, we are quite certain what the true average is. If it is wide, we are not.

How can margins of error be used to evaluate change scores? When the margin of error of an average change score doesn't cross 0, it suggests that there may be a difference between two scores. When it crosses 0, there is no evidence to suggest that the two scores are different.

Why do statistical tests? When there appears to be a difference between two average scores, for example time 1 (T1) and time 2 (T2) SDQ scores, we may test to see if this difference is not simply due to chance.

What is reliable change?
We use reliable change calculations to tell whether an individual's score has changed from T1 to T2 more than we would expect from random variation and measurement error. *Reliable improvement* means the change from a first to a last time point was more than what would be expected due to measurement error, in a positive direction. *Reliable deterioration* means the change was more than what would be expected due to measurement error but in a negative direction. *No reliable change* means change was less than what would be expected due to measurement error. Please note that the reliable change parameters have been derived from clinical populations, and so we advise caution when interpreting these results. This means that the reliable change criterion thresholds may be higher than that for a non-clinical population. In addition, reliable change calculations do not take into consideration regression to the mean, which is the statistical phenomenon that can make natural variation appear to be real change, such that the higher someone's scores on a questionnaire are to start with, the more likely it is that they will show a lot of change, because there is more scope for large amounts of change.