



An evaluation of Growing Stronger adverse childhood experiences (ACEs) training programmes delivered in Liverpool

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About this report

To effectively prevent and respond to adverse childhood experiences (ACEs) as a public health priority in Liverpool, the Growing Stronger project¹ was developed and implemented using community insight and cross-sector professional collaboration. Growing Stronger developed the Growing Stronger Framework to strengthen and coordinate the response to ACEs across the city, and as part of their broader programme of work, implemented a range of training opportunities for professionals and the public based around this framework. The goal was to develop knowledge, understanding, and awareness around ACEs, and to develop practice to become more ACE/trauma responsive. To inform the continued development and implementation of the Growing Stronger project, Liverpool John Moores University were commissioned to evaluate the perceptions and impact of the training programmes, as part of their wider ACE and trauma-informed research and evaluation work programme.

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¹ More information on the Growing Stronger project is available at: <https://growing-stronger.org/>

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Evaluation of Growing Stronger adverse childhood experiences (ACEs) training programmes delivered in Liverpool

The Growing Stronger project was launched to prevent and address adverse childhood experiences (ACEs) as a public health priority in Liverpool. Central to this initiative was the Growing Stronger Framework, designed to strengthen and coordinate the citywide response. This framework guided the development of training programmes for professionals and the public, which aimed to enhance knowledge, understanding, and awareness around ACEs and trauma-responsive practices. To inform the continued development and implementation of these training sessions, Liverpool John Moores University were commissioned to evaluate the perceptions and impacts of the training programmes.

Training programmes

Four training programmes were implemented, two targeting frontline professionals (**Growing Stronger Skilled**) and organisational leaders (**Growing Stronger Leadership**). A train-the-trainer model programme called **Growing Stronger Together (GST)** was also implemented to equip professionals with the knowledge and skills to deliver training in the community to adults interested in learning about ACEs. The training programmes were designed to deepen participants' understanding of ACEs and strengthen their ability to respond to them, both professionally and personally, in line with the Growing Stronger Framework. Each programme included content on the nature of ACEs, their impacts, and strategies to mitigate their effects. Delivered in person, the sessions incorporated presentations alongside experiential learning methods, including group discussions, sharing of best practices, and opportunities for self-reflection.

The Growing Stronger Framework



WHAT I CAN DO

Elements you can activate to address adversity you or others may be facing.



Look at the big picture – think about things from different angles. Explore what could make a difference in the situation, however small.



Get to know yourself.

Understand and appreciate who you are as a person.



Create safety and choice, for yourself and those around you.



Show empathy and have compassion. Be kind to yourself and others.



Actively find and build on positives – seek out and do things that make you and your family stronger.

Methods

Pre and post training survey completion

- **Growing Stronger Skilled:** Pre (n=177); pre and post matched (n=58)
- **Growing Stronger Leadership:** Pre (n=138); pre and post matched (n=74)
- **GST Trainers:** Pre (n=92); pre and post matched (n=76)
- **GST Community adults:** Pre (n=77); pre and post matched (n=56)

Survey measures

Surveys included validated measures on:

- Trauma-informed attitudes and knowledge (Growing Stronger Skilled & Leadership; GST Trainers)
- Mental wellbeing (GST Community adults)

Surveys included additional bespoke measure on:

- Confidence to implement trauma-informed approaches (Growing Stronger Skilled & Leadership)
- Attitudes towards trauma-informed leadership (Growing Stronger Leadership)
- Knowledge of ACEs and awareness of the impacts ACEs can have (GST Community adults)
- Perceptions of the training (all training)

Secondary data

- **Programme monitoring data** captured by training providers
- **Training materials**
- Additional **feedback from trainees** captured by the training implementors on perceptions and impacts of the training programmes

Dose and reach



Across **18** training sessions, **232** individuals attended the 3-hour Growing Stronger Skilled training. Across **10** training sessions, **182** individuals attended the 6-hour Growing Stronger Leadership training.



Across **6** cohorts of training, **133** individuals attended the GST Trainers training, delivered over 3 consecutive days. Additionally, **29** one-hour online peer supervision sessions were held, with **34** trainees attending these sessions.



The GST Community adults programme is a four-session model, with 2-hour sessions delivered weekly to groups. Sessions were delivered to both workforce and community member groups. However, for some of the workforce groups delivery took place over a shorter timeframe. Overall, across **14** cohorts of delivery, at least **118** individuals attended GST Community adults sessions.



Perceptions of the programmes

Perceptions of each of the Growing Stronger training programmes were overwhelmingly positive. Over 90% of participants on each of the training programmes agreed that...



The training content was appropriate

The training content was delivered in a way which was easy to understand

The trainers were knowledgeable

The trainers interacted with the group well

The training materials were good

The length of the training was just right

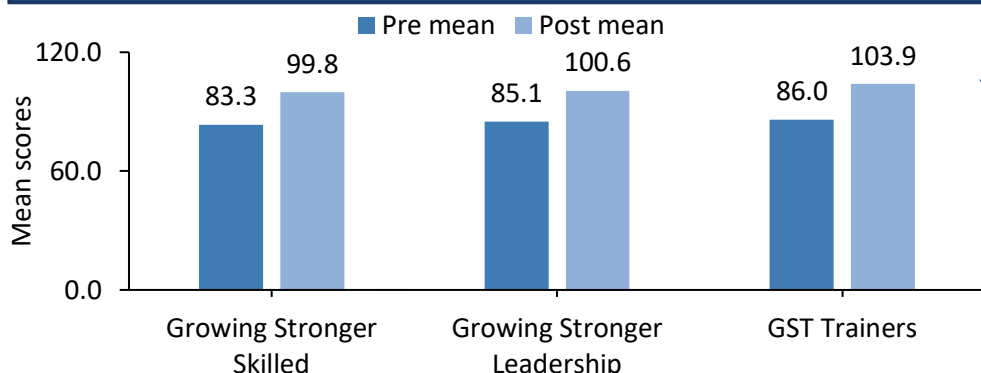
I would recommend the training to others

Additionally, over 90% of participants on the Growing Stronger Skilled and Leadership and GST Trainers programmes agreed that 'what I've learnt in the training is useful for my work practice' and 'I will apply what I have learnt in the training in my work practice'.

Impacts of the programmes[^]

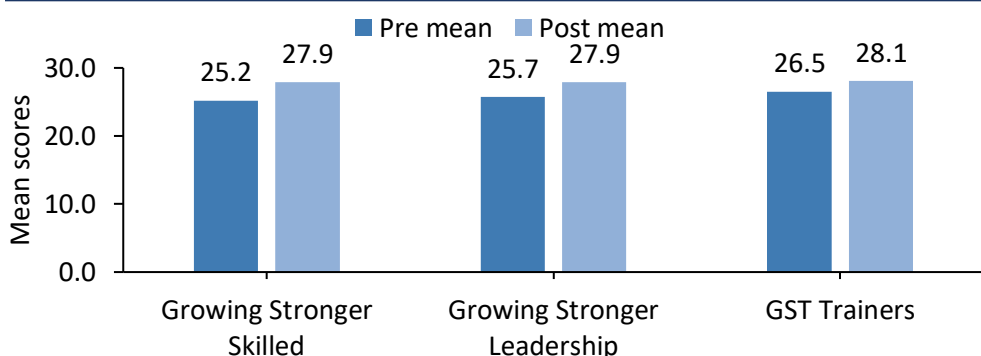
[^] Only includes measures where, in paired analysis, there was a statistically significant positive change from pre to post survey

Increased individual-level trauma-informed knowledge and attitudes



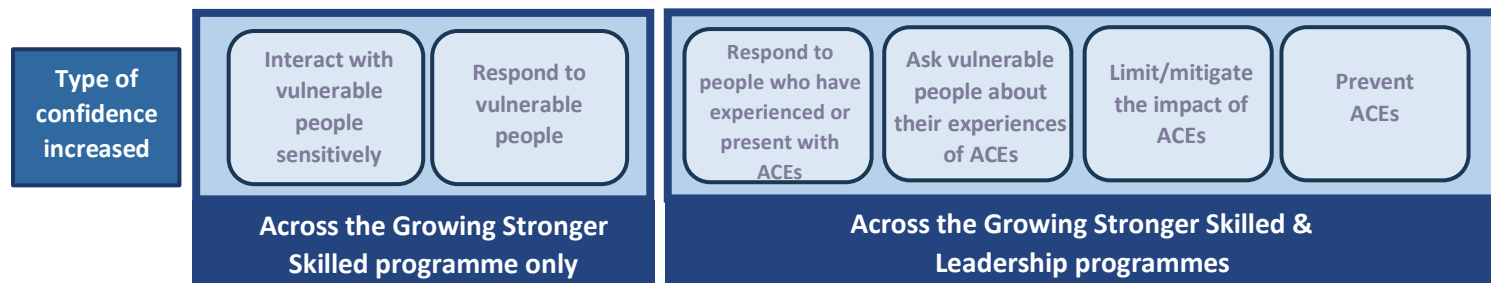
"...using the techniques from the course, I have altered the way I communicate and engage with adults/children, adopting the tools to sit next to them to encourage opening up, mindfulness activities and reflection, instigating breathing techniques, and talking to their inner child to associate and empathise." GST Trainer, follow-up survey

Increased system-wide trauma-informed knowledge and attitudes



"The training helped me to recognise the impact of the detailed ACEs on CYP [children and young people] and to support them with accessing our service along with other appropriate services." Growing Stronger Leadership, follow-up survey

Increased mean level of confidence to implement trauma-informed approaches



"I was recently able to refer parents of children I support for their own therapeutic support having identified how the parents' own ACEs were impacting the child and the home environment... The training has allowed me to identify and respond to ACEs more confidently." Growing Stronger Skilled, follow-up survey



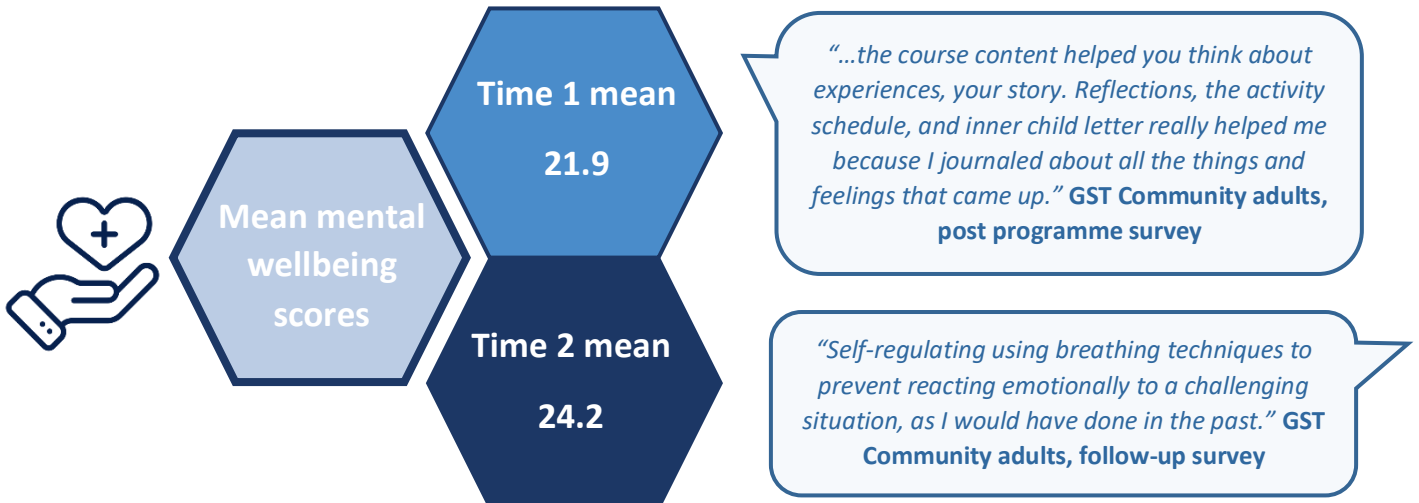
Increased mean level of agreement with knowledge of ACEs statements (GST Community adults only)

I understand what is meant by the term ACEs		I have a good understanding of the different types of ACEs		I am aware of the importance of resilience in preventing ACEs and mitigating against their impacts		I am aware of how to act against ACEs in later life		I am aware of how to prevent ACEs	
Pre mean	Post mean	Pre mean	Post mean	Pre mean	Post mean	Pre mean	Post mean	Pre mean	Post mean
3.8	4.8	3.4	4.7	3.5	4.7	3.2	4.6	3.4	4.6

Increased mean level of awareness of the impacts that ACEs can have (GST Community adults only)

Awareness of the impacts of ACEs on...	Low mental wellbeing		Effects on relationships		Health harming behaviours		Effect on brain development		Early development of disease		Effect on the immune system	
	Pre mean	Post mean	Pre mean	Post mean	Pre mean	Post mean	Pre mean	Post mean	Pre mean	Post mean	Pre mean	Post mean
	3.6	4.7	3.8	4.7	3.7	4.7	3.5	4.7	3.2	4.6	3.3	4.6

Increased wellbeing (GST Community adults only)



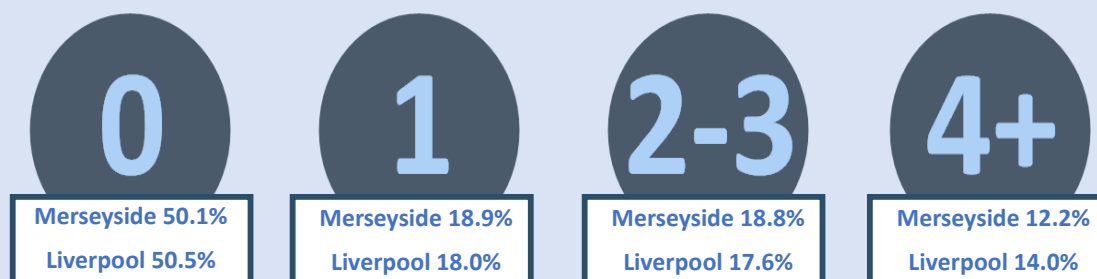
Overall, perceptions of the delivery and the impact of the Growing Stronger training programmes have been positive. Findings suggest positive changes for professionals in trauma-informed knowledge and attitudes, and increases in confidence to implement trauma-informed approaches. Adult community member trainees also showed improved understanding of ACEs, and increased wellbeing. Across the different training programmes there was qualitative evidence of participants putting the Growing Stronger Framework into action, making changes to how they interacted with others (including children and young people), and to their work practices at an individual- and organisational-level. Findings are supportive of the continuation of each of the Growing Stronger training programmes delivered in Liverpool, and evidence positive impacts from the programmes through utilisation of the Growing Stronger Framework.

1. Introduction

Adverse Childhood Experiences (ACEs) refer to negative experiences during childhood (typically this includes abuse and neglect, exposure to violence in the household, and other household stressors), that may lead to heightened levels of stress or trauma [1]. There is also growing recognition and a call for a number of additional household- and environmental-level stressors to be considered as ACEs, including experiencing poverty, bereavement, bullying, fear of an unsafe neighbourhood, and isolation [2, 3]. There is strong evidence to suggest that cumulative exposure to ACEs can have significant impacts on individuals' health and social outcomes across the life course. For example, evidence from England and Wales shows that those with greater numbers of ACEs are increasingly likely to experience mental health problems, problematic drug or alcohol use, violence victimisation and perpetration, and engagement with the criminal and youth justice systems [4, 5, 6, 7]. Recent evidence has shown that even experiencing just one ACE can increase the risk of negative health and social outcomes in adulthood [8]. ACEs also have significant social costs to health, social care, education, and criminal justice systems [1, 9]. In Merseyside, data from a representative household survey of adults demonstrates the extent of ACEs across Merseyside (including Liverpool Local Authority Area) and their associated impacts across the lifecourse (see Box 1; [10]). As such, preventing and responding to ACEs has become a priority for different services, communities, and society [1].

Box 1. The prevalence and impacts of ACEs in Merseyside (Quigg et al., 2025; [10]).

In Merseyside, 49.9% of adult residents had experienced at least one ACE, with 12.2% of adults experiencing 4+ ACEs. More specifically, in Liverpool, 49.5% of adult residents had experienced at least one ACE, with 14.0% of adults experiencing 4+ ACEs.



Compared to those in Merseyside who experienced no ACEs, those who experienced 4+ ACEs had an increased risk of:

- Engaging in different types of health risk behaviours (e.g. 8.4 times more likely to have used any drug in the past year).
- Having current low mental wellbeing (2.6 times more likely).
- Having current poor general health (1.5 times more likely).
- Having poor educational and employment outcomes (e.g. 8.4 times more likely to have ever been excluded from school).
- Being a victim of violence (ever since 18 years, 9.7 times more likely; in the past year, 6.8 times more likely).
- Being exposed to the criminal justice system (e.g. 6.2 times more likely to have ever been incarcerated).

Internationally, implementing training sessions on ACEs has been advocated for by various organisations to improve the knowledge and understanding of ACEs for professionals and within communities, and to increase the confidence of professionals in responding to the needs of individuals who have experienced ACEs. Across a number of different organisations in the UK, ACE training programmes have been implemented, with evaluations of these training programmes also beginning to be undertaken. ACE training usually involves training professionals to improve their knowledge and attitudes in relation to ACEs and the impacts they can have on health, wellbeing, and social outcomes across the life course, as well as seeking to improve the confidence and skills of professionals to work with those who have experienced ACEs [1]. Evidence of the impacts of these training sessions is emerging, with evaluations on training implemented in the UK with a range of professionals (e.g. education, policing, healthcare, and community-facing organisations) showing that from pre- to post-training the sessions can significantly improve the knowledge and attitudes of trainees, including attitudes towards the importance of trauma-informed working, and the confidence and skills of trainees to work with people who have experienced ACEs [1, 11, 12, 13, 14, 15, 16]. However, there is a lack of evidence on the impacts of training on professionals' knowledge, attitudes, and practices, particularly over the longer-term [1]. The extent to which these training sessions impact organisational level change in terms of culture, and leadership and management practices is also not well evidenced. There is also very little evidence available on the impact of ACE training and campaigns in improving knowledge of ACEs amongst the general public. However, an evaluation of one Welsh campaign, which aimed to raise public awareness of how compassion can have positive impacts for those affected by ACEs, found that people's intentions to help members of their community, be kinder to others, and to check in with their family and friends, increased as a result of exposure to the ACEs campaign [17].

In Liverpool, Growing Stronger² have produced a strategy to support the development and implementation of approaches to prevent ACEs and mitigate against the impacts that ACEs can have [2], which in turn will have a role in addressing the poor health outcomes experienced by the Liverpool population currently and in the future [18]. In line with this strategy [2] and the Growing Stronger Framework (Figure 1), training programmes are being implemented across Liverpool Local Authority Area, targeting various professionals and organisational leaders from multiple sectors, in addition to community members. Frontline professionals will have the opportunity to take part in the Growing Stronger Skilled programme, and organisational leaders will have the opportunity to take part in the Growing Stronger Leadership programme (delivered by Merseyside Youth Association (MYA)³ and School Improvement Liverpool ([SIL]; see Box 2). In addition, a train-the-trainer model programme called Growing Stronger Together (GST) has been developed and delivered by Trauma-Informed Consultancy Services (TICS) to equip professionals with the knowledge and skills to deliver training in the community to adults interested in learning about ACEs, the impacts they can have, and strategies and skills to mitigate against these impacts. Each of these programmes are developed in line with elements of the Growing Stronger Framework (Figure 1). Understanding how best to deliver such programmes and the impacts that these training programmes have on professional, organisational leader, and community member trainees is critical to their future development and implementation.

² Growing Stronger is led by Liverpool City Council, and the Growing Stronger working group is made up of stakeholders from a range of different organisations working across multiple sectors.

³ MYA also delivered Growing Stronger Aware – brief sessions to raise awareness of ACEs. This is not part of the current evaluation (pre and post surveys were not feasible due to the brevity of the sessions).

Growing Stronger has three overarching strategic aims: 1) prevent ACEs from happening; 2) support young people affected by ACEs; and 3) support adults who may be experiencing the impacts of their own ACEs. To help achieve these aims Growing Stronger developed a framework⁴ (Figure 1) informed by a survey, consultations, academic evidence, and the expertise of the project steering group. This framework provides individuals and organisations with strategies aligned around five key components to help them respond to the needs of those who have experienced ACEs, including themselves.

Box 2. Aims of the Growing Stronger training programmes delivered in Liverpool

Growing Stronger Skilled – aims to improve frontline professionals’ knowledge of ACEs, awareness of the impacts they can have on individuals’ health, and equip them with strategies they can implement to develop practice that is responsive to people who have experienced ACEs and trauma, utilising the elements of the Growing Stronger Framework (Figure 1).

Growing Stronger Leadership – aims to improve organisational leaders’ knowledge and attitudes towards ACEs and confidence to work in an ACE/trauma-informed way, using the Growing Stronger Framework (Figure 1). It also seeks to improve individual- and organisational-level ACE/trauma-informed attitudes towards leadership (including confidence to make relevant changes to incorporate trauma-informed care into organisational-level policies, practices, and culture).

Growing Stronger Together (Trainers) – aims to improve professionals’ knowledge and attitudes towards ACEs and the impacts they can have, and equip professionals with the skills to deliver training to adults in the community who want to learn about ACEs and their impacts, in line with the key elements of the Growing Stronger Framework (Figure 1). Trainees also develop skills in peer supervision and reflective practice.

Growing Stronger Together (Community adults) – aims to improve adult community members’ knowledge of ACEs and awareness of the impacts which they can have, and equip them with skills and strategies to mitigate the impacts of their own ACEs to improve their own wellbeing, and mitigate the impacts of ACEs on others, in line with the Growing Stronger Framework (Figure 1).

⁴ More information on the Growing Stronger Framework is available at: <https://growing-stronger.org/what-i-can-do/>

Figure 1: Growing Stronger Framework



The wider work of the Growing Stronger project informed by the Growing Stronger Framework has included: a communications campaign and community events to raise awareness of ACEs and the work of Growing Stronger; workforce training; strengthening the role of positive childhood experiences for young people; education on ACEs for young people; and implementing a programme of support for adults affected by their own ACEs.

1.1 Evaluation aims and objectives

The aim of the study is to conduct a process and outcome evaluation of Liverpool's package of Growing Stronger training programmes to explore:

- Dose and reach of the programmes, including number of training sessions delivered, length of the sessions delivered, and number of trainees attending the sessions.
- Perceptions of programme content and delivery.
- Impacts of the programme on professionals' ACE/trauma-informed knowledge and attitudes, confidence to implement elements of ACE/trauma-informed approaches, and ACE/trauma-informed attitudes towards leadership.
- Impacts of the programme on adult community members' understanding of ACEs, awareness of the impacts that ACEs can have, and mental wellbeing.

2. Methodology

2.1 Methods

2.1.1 Review of programme monitoring data

Training materials and monitoring data from training providers were shared with and reviewed by the evaluation team. This included information on content of the training programmes, numbers of trainees booked onto and attending sessions, and qualitative feedback from trainees. Information collected through reviewing these materials are used to indicate the content, delivery, dose, and reach of the training programmes, and are presented in the findings section alongside survey data.

2.1.2 Pre, post, and follow up training surveys

Trainees taking part in each of the training sessions were asked to complete pre- and post-training surveys. Surveys for the different training programmes used different measures depending on the aims and content of the training (see Section 2.1.3). To allow pre and post surveys to be anonymously matched, survey participants were asked to include their initials and day and month of birth. At the end of post-training surveys participants were asked to leave their contact details if they wanted to take part in the 3-month follow up survey.

- For Growing Stronger Skilled surveys, 177 individuals completed baseline surveys. Of these, 32.8% (n=58) had pre and post survey completions which could be matched for analyses.
- For Growing Stronger Leadership surveys, 138 individuals completed baseline surveys. Of these, 53.6% (n=74) had pre and post survey completions which could be matched for analyses.
- For Growing Stronger Together (GST) Trainers surveys, 92 individuals completed baseline surveys. Of these, 82.6% (n=76) had pre and post survey completions which could be matched for analyses.
- For GST Community adults surveys, 77 individuals completed baseline surveys. Of these, 72.7% (n=56) had pre and post survey completions that could be matched for analyses.

Survey participants' sociodemographics are presented in Table 1. Across each of the training programmes the majority of survey participants were female, aged 35+ years, and White (Table 1).

Table 1: Baseline survey participants' sociodemographics by programme

Sociodemographics	Growing Stronger Skilled % (n)	Growing Stronger Leadership % (n)	GST Trainers % (n)	GST Community adults % (n)
Gender				
Female	90.2 (156)	89.7 (130)	86.8 (79)	77.9 (60)
Male	9.8 (17)	10.3 (15)	13.2 (12)	22.1 (17)
Age (years)				
18-24	10.2 (18)	2.8 (4)	4.3 (4)	15.6 (12)
25-34	31.1 (55)	20.7 (30)	18.5 (17)	23.4 (18)
35-44	30.5 (54)	31.0 (45)	39.1 (36)	33.8 (26)
45-54	19.2 (34)	32.4 (47)	26.1 (24)	15.6 (12)
55+	9.0 (16)	13.1 (19)	12.0 (11)	11.7 (9)
Ethnicity				
Any White background	89.8 (158)	95.2 (138)	95.7 (88)	76.0 (57)
Any other non-White background	10.2 (18)	4.8 (7)	4.3 (4)	24.0 (18)
Type of organisation worked for⁵				n/a
Community/third sector	18.1 (32)	16.0 (23)	33.7 (31)	
Education and children's centres	18.6 (33)	34.0 (49)	31.5 (29)	
NHS/Health and mental health services	32.8 (58)	24.3 (35)	18.5 (17)	
Social care	11.3 (20)	11.8 (17)	-	
Youth services	9.6 (17)	4.2 (6)	-	
Other ⁶	9.6 (17)	9.7 (14)	16.3 (15)	
Time working for organisation⁵				n/a
Less than 1 year	24.3 (43)	9.7 (14)	15.4 (14)	
1-2 years	21.5 (38)	18.1 (26)	16.5 (15)	
3-5 years	22.0 (39)	16.7 (24)	23.1 (21)	
6-9 years	11.9 (21)	20.8 (30)	7.7 (7)	
10+ years	20.3 (36)	34.7 (50)	37.4 (34)	
Type of service users worked with⁵				n/a
Adults only	15.9 (28)	7.9 (11)	17.4 (16)	
Children only	42.6 (75)	53.6 (75)	12.0 (11)	
Both adults and children	41.5 (73)	38.6 (54)	70.7 (65)	
Works with children in professional or voluntary role				
Yes	-	-	-	33.8 (25)
No	-	-	-	66.2 (49)
Have children living at home				
Yes	41.9 (62)	50.0 (21)	51.9 (41)	42.1 (32)
No	58.1 (86)	50.0 (21)	48.1 (38)	57.9 (44)

⁵ This question was not asked for survey participants on the GST Community adults programme.

⁶ Includes local authority, other public sector services, criminal justice/policing, and other organisation types. However, due to small numbers of survey participants from social care backgrounds in the GST Trainers training, this group were amalgamated into 'other'.

2.1.3 Survey measures

Survey questions across the different training programmes aimed to identify changes in participants' trauma-informed knowledge and attitudes, confidence to implement ACE/trauma-informed approaches, attitudes towards ACE/trauma-informed leadership, knowledge and awareness of ACEs and the impacts they can have, and mental wellbeing. All surveys asked questions on participants' perceptions of the programme, and basic sociodemographic measures. Surveys included the following validated measures:

- **The Survey for Trauma-Informed Systems Change (STISC; Growing Stronger Skilled, Growing Stronger Leadership, GST Trainers):** The STISC is a validated measure of culturally responsive trauma-informed care [19]. The overall scale contains five subscales, of which three were utilised in the current evaluation: Individual-level trauma-informed knowledge and attitudes subscale (23-items; Growing Stronger Skilled, Growing Stronger Leadership, GST Trainers); system-wide trauma-informed knowledge and attitudes subscale (6-items; Growing Stronger Skilled, Growing Stronger Leadership, GST Trainers); and trauma-informed training, support, interaction, and environment subscale (20-items; Growing Stronger Leadership only), scored on a five-point scale (1=strongly disagree; 5=strongly agree). Item scores are totalled for each subscale, with higher scores indicating more trauma-informed knowledge and attitudes. The wording of some items was adapted to use language which was more culturally and locally relevant [15].
- **Mental wellbeing (GST Community adults):** The Short Warwick-Edinburgh Mental Wellbeing Scale (SWEMWBS; [20]) is a validated scale including seven items about an individual's mental wellbeing over the past two weeks, scored on a five-point scale (1=none of the time; 5=all of the time). Higher scores indicate higher levels of overall mental wellbeing. Total scores on the SWEMWBS range from 7-35. Raw scores are converted to metric scores using a standard conversion table [20].

In addition to validated measures, surveys included other bespoke measures:

- **Confidence to implement elements of ACE/trauma-informed approaches (Growing Stronger Skilled and Growing Stronger Leadership):** Six items were used to measure participants' confidence to implement elements of ACE/trauma-informed approaches, measured on a five-point scale (1=very unconfident; 5=very confident). Items were adapted from other work assessing individuals' knowledge and awareness of ACEs, and confidence in working with those who have experienced ACEs [21].
- **Attitudes towards ACE/trauma-informed leadership (Growing Stronger Leadership):** Eight items were used to measure participants' ACE/trauma-informed attitudes towards leadership, measured on a five-point scale (1=strongly disagree; 5=strongly agree). Four items were negatively worded, whereby disagreement with these items indicated more positive attitudes. Four items were positively worded, whereby agreement with these items indicated more positive attitudes.
- **Knowledge of ACEs (GST Community adults):** Five items were used to measure participants' knowledge of ACEs, measured on a five-point scale (1=strongly disagree; 5=strongly agree) [21].
- **Awareness of the impacts that ACEs can have (GST Community adults):** Six items were used to measure participants' awareness of the impacts that ACEs can have on specific outcomes, measured on a five-point scale (1=very unaware, 5=very aware) [21]. Two additional items were used to measure participants' awareness of the impacts of ACEs specifically on physical and mental health later in life, measured on a five-point scale (1=strongly disagree; 5=strongly agree) [21].

2.2 Data analyses

Thematic analyses were used to analyse qualitative data to detail trainees' perceptions of the training, impacts, and areas for development. Illustrative quotes are presented where appropriate to highlight key findings.

Quantitative analyses were undertaken in SPSS (v.29) using descriptive statistics. Where data was available to match participants' pre and post surveys, paired samples t-tests were used to examine changes from pre- to post-training in trauma-informed knowledge and attitudes (STISC), confidence in implementing ACE/trauma-informed approaches, ACE/trauma-informed attitudes towards leadership, knowledge and awareness of ACEs and the impacts they can have, and mental wellbeing.

GST Community adults programme analyses refers to Time 1 and Time 2 instead of pre- and post-training. This is because there was a range of different time periods between pre survey completions and post survey completions. Analyses on knowledge and awareness of ACEs and the impacts they can have included all matched post survey completions (ranging from 0 days to 64 days after pre survey completion). Analyses on mental wellbeing included only survey completions whereby there was a sufficient time gap (at least two weeks) between the pre and post survey completion (ranging from 21 to 64 days after pre survey completion).

2.3 Ethical approval

Full ethical approval was obtained from Liverpool John Moores University research ethics committee (REC no. 24/PHI/004).

3. Findings

3.1 Growing Stronger training programmes content and delivery

3.1.1 *Growing Stronger Skilled*

- Training aimed to improve frontline professionals' knowledge and attitudes towards ACEs, and confidence to work in an ACE/trauma-informed way with people who have experienced ACEs, specifically utilising the Growing Stronger Framework to embed a trauma-informed approach.
- Content was split into three sections exploring: 1) what ACEs are, 2) why ACEs matter (including the impacts of ACEs on health, wellbeing, and behaviours), and 3) what professionals can do about ACEs using elements of the Growing Stronger Framework to shape their responses. This includes understanding and use of self, developing empathy and compassion, thinking about the wider system in relation to ACEs and trauma, developing safety and choice, and other trauma-informed practices, and building on positives for individuals, families, and systems.
- Content was delivered through presentation with video aids, participant activities including group discussions with feedback and sharing of experiences and best-practices, self-reflections, and action planning activities⁷. Participants were also provided with a workbook⁸ to utilise during and after the training.

3.1.2 *Growing Stronger Leadership*

- Training aimed to improve organisational leaders' and managers' knowledge and attitudes towards ACEs and confidence to work in an ACE/trauma-informed way utilising the Growing Stronger Framework, and individual- and organisational-level ACE/trauma-informed attitudes towards leadership.
- Training content was the same as the content of the Growing Stronger Skilled training, however, Growing Stronger Leadership sessions also included content specifically relevant to organisational leaders and management, such as information on collective resilience, emotional intelligence, how ACEs can impact work performance, what makes a psychologically safe work environment, and individual- and organisational-level trauma-informed leadership practices.
- Content was delivered through the same methods as the Growing Stronger Skilled sessions, however, the action planning activities were expanded to incorporate elements of how trainees can implement changes at an organisational-level, and an additional goal setting activity was implemented in relation to building empathy and compassion in participants' individual-level leadership and within their organisation more broadly. The goal setting activity fed into trainees' action planning. Participants were provided with a workbook to utilise during and after the training. Participants were also offered the opportunity to attend networking events⁹ where they could be supported further by peers and the training providers.

3.1.3 *GST Trainers*

- Training aimed to improve professionals' knowledge and attitudes towards ACEs, and equip professionals with the knowledge and skills to deliver training to adults in the community who want to learn about ACEs and their impacts (GST Community adults, see below).

⁷ Involved trainees reflecting on their current skills, identifying areas for improvement and setting goals and making an action plan on how they can embed elements of the Growing Stronger Framework into their work practices.

⁸ Included information on trauma-informed practice and the Growing Stronger Framework and provided resources to support trainees to implement trauma-informed approaches.

⁹ Hosted by MYA, the training providers.

- Training included content split into six sections, with each section drawing heavily upon the five key elements of the Growing Stronger Framework:
 - 1) Introduction to the training and setting of the local context in relation to ACEs in Liverpool¹⁰.
 - 2) Walkthrough of day 1 of the GST Community adults training model¹¹: understanding of what ACEs are and why they matter (including the impacts of ACEs on development and adulthood outcomes).
 - 3) Walkthrough of day 2 of the GST Community adults training model: understanding how experiences shape attachment styles, and the nervous/stress-response system responses to ACEs. This section included development of skills for trainees in active listening and validation and identifying and responding to signs of ACEs with empathy and compassion.
 - 4) Walkthrough of day 3 of the GST Community adults training model: implementing personal reflection activities, identifying personal strengths and how to build on these using evidence-based interventions, introducing a cycle of change model, and implementing behaviour activation and goal setting activities.
 - 5) Walk through of day 4 of the GST Community adults training model: developing communication styles to build connection, introducing techniques for self-regulation and emotional control, and implementing a values sharing activity.
 - 6) Integrating learning into practice, including review and reflection on the key learning points and action planning.
- Content was delivered through presentations, group discussions, sharing of experiences and best practices, examination of real-world case studies on ACEs and their impacts, setting of action plans, reflection activities, and elements of action-based learning including role-play and simulation activities for developing and practicing key skills.
- Post-training, individuals had the opportunity to attend 60-minute peer supervision sessions online with the training facilitator. These focussed on integrating training content into practice and allowed trainees to give feedback to one another on how they found delivery of the GST Community adults sessions, sharing of best practices, implementation of their action plans and strategies, further goal setting activities, and space for self-reflection in relation to the aims of the Growing Stronger strategy and key components of the Growing Stronger Framework. Ongoing support and supervision were also given to trainees by the training providers for up to six months after completion of the training.
- Post-training, trainees had access to an online repository of the training materials to allow them to revisit the learning materials.

3.1.4 GST Community adults

- The programme aimed to improve adult community members' knowledge of ACEs and awareness of the impacts which they can have, and equip them with CBT and mindfulness skills and strategies to mitigate the impacts of their own ACEs to improve their own wellbeing, and mitigate the impacts of ACEs on others.
- The programme included content split across four sessions, with each session designed and implemented around the elements of the Growing Stronger Framework:
 - 1) Session 1: compassion-focussed approaches towards understanding of a biopsychosocial model of ACEs, including what ACEs are and why they matter (e.g. the impacts of ACEs on development and adulthood outcomes).

¹⁰ 'Liverpool specific ACEs' can be found in the Growing Stronger strategy [2] and more recent data in Box 1 (Quigg et al., 2025 [10]).

¹¹ Which is to be delivered by the GST Trainers trainees, after they complete the training.

- 2) Session 2: understanding how experiences shape attachment styles, and the nervous/stress-response system responses to ACEs. Utilising behaviour activation to explore the 'five ways to wellbeing'¹² and setting of SMART goals¹³ in relation to these.
 - 3) Session 3: identifying personal strengths and exploring how to build on these, introduction to different models (e.g. cycle of change model), understanding the importance of and development of techniques for active listening and validation, and discovery writing¹⁴ exercises.
 - 4) Session 4: introduction to and practicing of techniques for self-regulation and emotional control, undertaking a values sharing activity, and group celebration of their learning and achievements through taking part in the programme.
- Content was delivered through presentations, group discussions and sharing of experiences, worksheet and writing activities (e.g. writing a letter to your inner child), setting of goals and action plans, self-reflection activities, and elements of action-based learning including practicing of exercises/skills (e.g. grounding and breathing exercises).

3.2 Growing Stronger training programmes dose and reach

Dose and reach for each of the Growing Stronger training programmes are shown in Table 2. All training programmes were delivered face-to-face.

Table 2: Dose and reach of the Growing Stronger training programmes

Programme	Number of cohorts of trainees delivered to	Length of session delivery	Number of individuals approved to take part in training ¹⁵	Number of individuals attending the training
Growing Stronger Skilled	18	3 hours	389	232
Growing Stronger Leadership	10	6 hours	231	182
GST Trainers	6	3 consecutive full days	133	84
GST Community adults	At least 14 ¹⁶	4 two-hour sessions delivered weekly	-	At least 118 ¹⁶

- Overall, 498 individuals from across the Liverpool workforce attended the Growing Stronger Skilled (n=232), Leadership (n=182), and GST Trainers training (n=84) sessions.

¹² For more information on the 'five ways to wellbeing' see: <https://www.nhs.uk/mental-health/self-help/guides-tools-and-activities/five-steps-to-mental-wellbeing/>

¹³ SMART goals are set using a goal-setting framework which helps individuals to set goals which are: Specific, Measurable, Achievable, Relevant, and Time-bound.

¹⁴ Discovery writing is a therapeutic tool allowing individuals to express themselves emotionally, in an open and spontaneous way. Discovery writing can complement other more structured approaches to Cognitive Analytic Therapy.

¹⁵ To be eligible to take part in the training, participants had to live in Liverpool or work in services based in Liverpool or in the surrounding areas that support people living in Liverpool.

¹⁶ Some deliveries of the GST Community adults programme were not captured in the monitoring data due to programme delivery not being registered online by the facilitators. As such, numbers of cohorts and numbers of individuals that the programme was delivered to should be considered as a minimum.

- At least 118 individuals attended the GST Community adults programme¹⁶.
- Of the 753 individuals who were booked onto the Growing Stronger Skilled, Leadership, and GST Trainers training programmes, two thirds (66.1%; n=498) attended the training (Growing Stronger Skilled, 59.6%; Growing Stronger Leadership, 78.8%; GST Trainers, 63.2%).
- Uptake of the offer of networking events for Growing Stronger Leadership trainees was low, with 19 bookings onto these sessions across four dates.
- GST Trainers training cohorts ranged in size from having 9 attendees in cohort 3, up to having 22 attendees in cohort 6 (Table A1).
- In addition to the face-to-face delivery of training, GST Trainers trainees were invited to take part in online peer supervision sessions. Overall, 29 one-hour online peer supervision sessions were held, with 34 trainees¹⁷ attending these sessions.
- GST Community adults programme content was intended to be delivered as a four-session model, delivered by the GST Trainers trainees. Sessions were intended to be delivered weekly, with each session lasting 2 hours. The break between sessions provided learners with time to reflect and process the session content, and work on their goals.
- Programme delivery, however, for some of the workforce groups took place over a half a day or over two half a day sessions.
- The GST Community adults programme was delivered to at least 14 cohorts¹⁶ of workforce and community member participants (9 workforce groups; 5 community member groups; Table 2).

¹⁷ Overall, there were 60 attendances at these sessions in total as some trainees attended multiple sessions.

3.3 Baseline organisational-level trauma-informed practices¹⁸

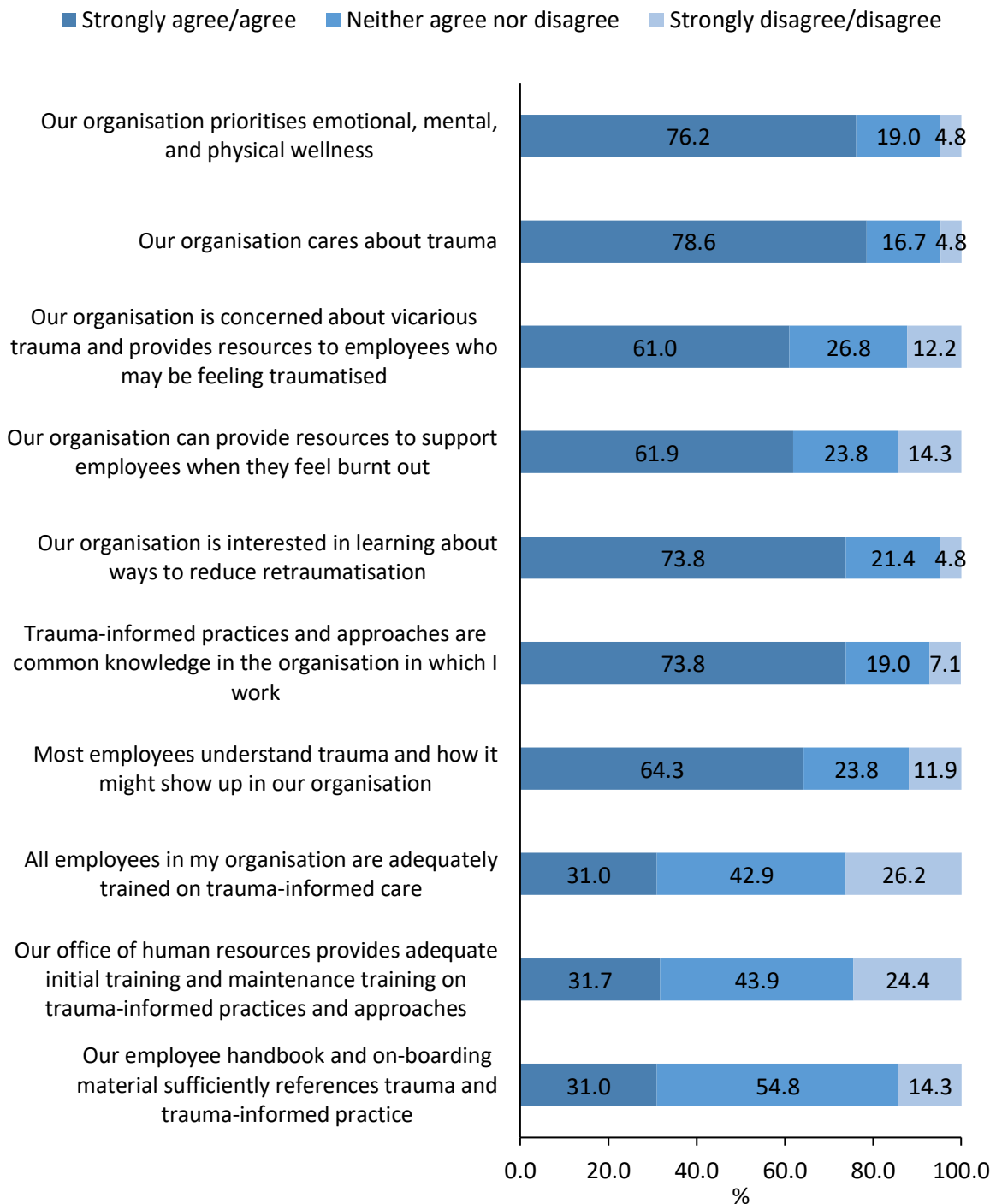
This section includes findings from the Growing Stronger Leadership training programme only. The Growing Stronger Skilled, GST Trainers, and GST Community adults training programmes are not included here as evaluation surveys did not use these measures for these training programmes.

Trauma-informed training and support

- Over three quarters of participants agreed that their organisation cares about trauma (78.6%) and prioritises staff's emotional, mental, and physical wellness (76.2%; Figure 2).
- Just over six in ten participants agreed that their organisation can provide resources to staff who feel burnt out (61.9%) or who may be feeling traumatised (61.0%; Figure 2).
- Just under three quarters (73.8%) of participants agreed their organisation is interested in learning about ways to reduce re-traumatisation (Figure 2).
- Just under three quarters (73.8%) of participants agreed that trauma-informed practices are common knowledge in their organisation, and just under two thirds (64.3%) agreed that most employees understand trauma and how this can present. However, a smaller proportion (31.0%) of participants agreed that their organisation's employees are adequately trained on trauma-informed care (Figure 2).
- Just over three in ten participants agreed with statements relating to their organisation providing adequate initial and follow up training (31.7%) and resources on trauma-informed practices (31.0%; Figure 2).

¹⁸ Changes in these measures could not be assessed in the current evaluation due to lack of completion of the Growing Stronger Leadership follow up surveys, additionally impacts could not have been assessed from pre- to post-training as it would be unreasonable to expect the training to have had an impact on these organisational-level factors.

Figure 2: Growing Stronger Leadership participants' level of agreement with statements relating to trauma-informed training and support, pre-training

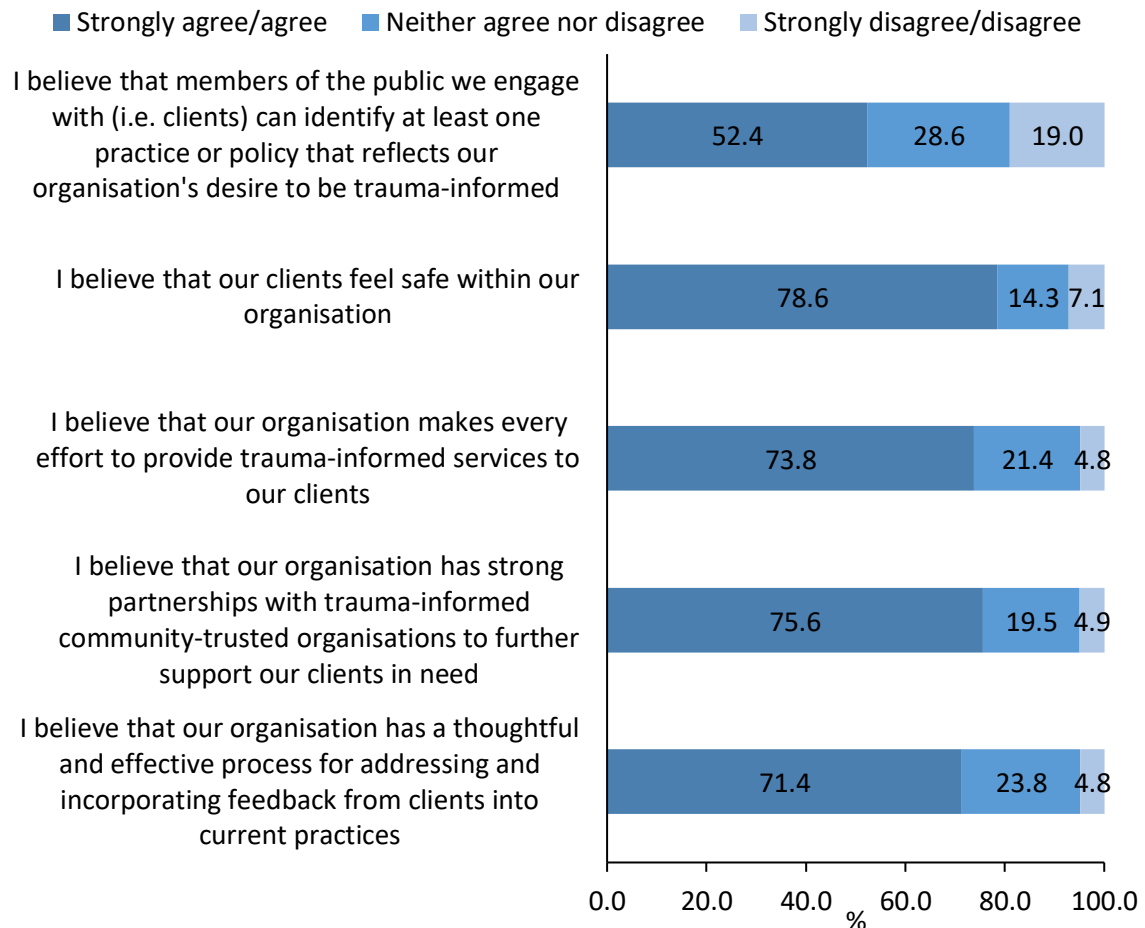


Trauma-informed interactions with clients

- Nearly eight in ten (78.6%) participants agreed that their clients feel safe within their organisation, however, only half (52.4%) agreed that their clients could identify their organisation's trauma-informed policies or practices (Figure 3).
- Just under three quarters (73.8%) of participants agreed that their organisation makes every effort to provide trauma-informed services (Figure 3).

- Three quarters (75.6%) of participants agreed that their organisation has strong partnerships with trauma-informed organisations in the community (Figure 3).
- Over seven in ten (71.4%) participants agreed that their organisation has effective processes to address feedback from clients and make relevant changes to current practices (Figure 3).

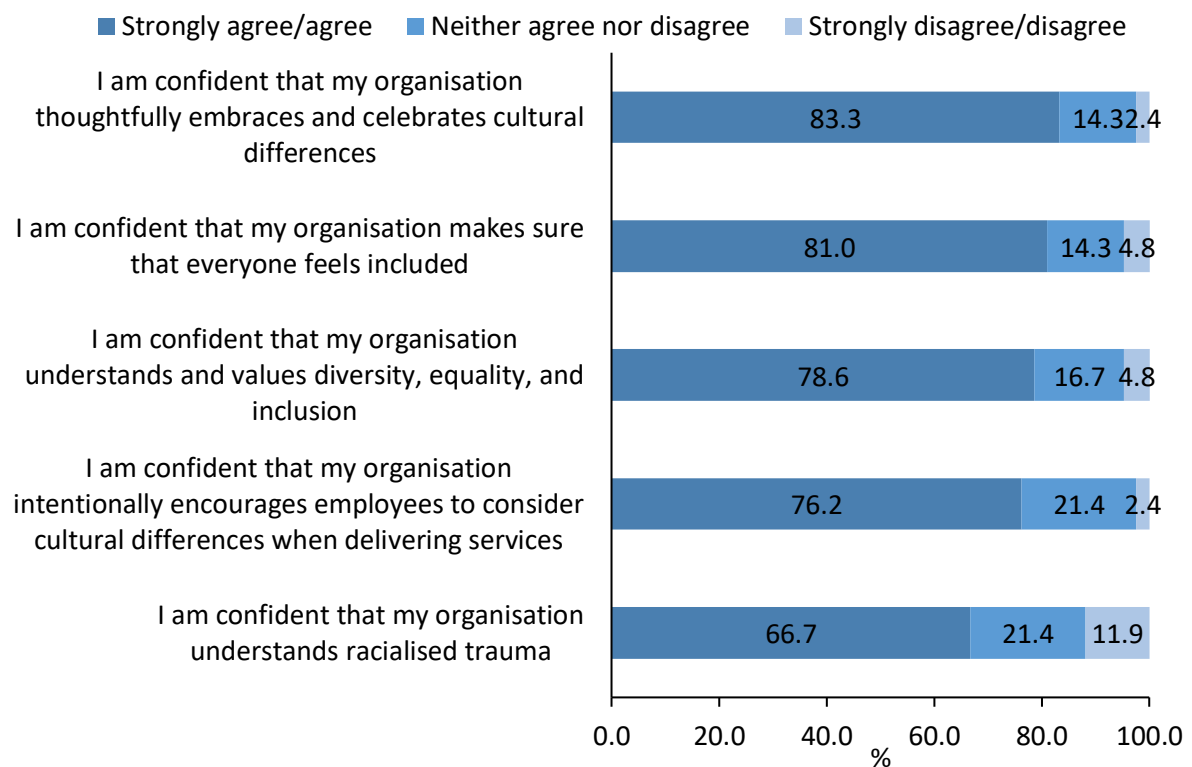
Figure 3: Growing Stronger Leadership participants' level of agreement with statements relating to trauma-informed interactions with clients, pre-training



Trauma-informed environment

- Over eight in ten participants agreed that their organisation embraces cultural differences (83.3%) and makes sure everyone feels included (81.0%; Figure 4).
- Over three quarters of participants agreed that their organisation understands and values diversity, equality, and inclusion (78.6%), and encourages staff to consider cultural differences in their practice (76.2%; Figure 4).
- Two thirds (66.7%) of participants agreed that their organisation understands racialised trauma (Figure 4).

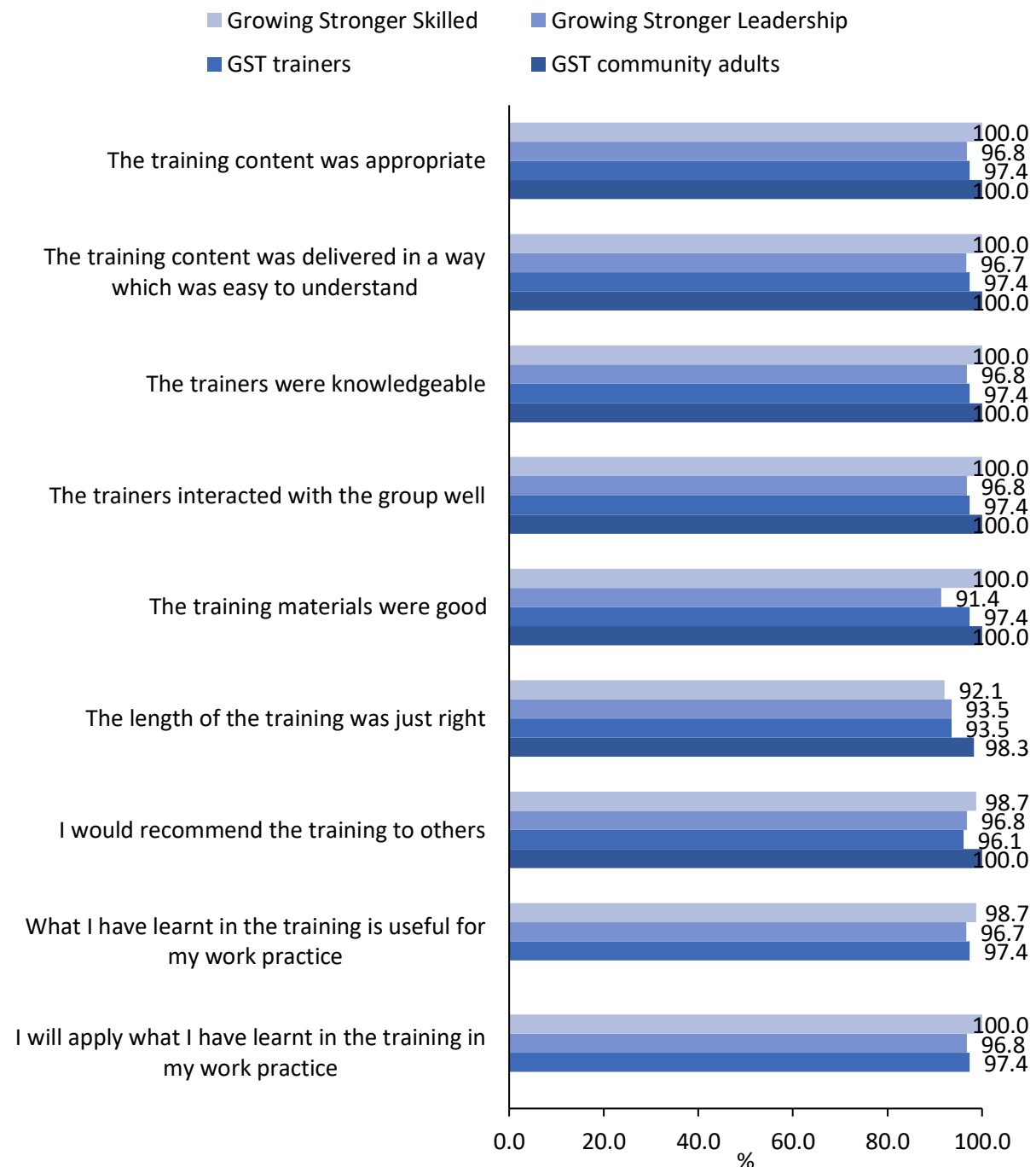
Figure 4: Growing Stronger Leadership participants' level of agreement with statements relating to trauma-informed environment, pre-training



3.4 Perceptions of the Growing Stronger training programmes

Perceptions of each of the Growing Stronger training programmes were overwhelmingly positive (Figure 5). Further qualitative feedback for each of the individual programmes is provided below.

Figure 5: Proportions of participants agreeing with statements related to their perceptions of each of the Growing Stronger training programmes¹⁹



¹⁹ The two questions relating to work practice were not asked to participants on the GST Community adults programme who may not necessarily have had use for trauma-informed practice in their work.

3.4.1 Growing Stronger Skilled

Qualitative feedback from trainees indicated that they particularly enjoyed the interactive nature of the training, including discussions with different professionals. Additionally, trainees indicated that having a knowledgeable and flexible trainer was one of the best aspects of the training, praising how the trainer facilitated group discussions.

“The discussions with other trainees and the trainer were good. We were able to share opinions and elaborate on each other’s points.” **Growing Stronger Skilled, post-training survey**

“The presenter was great. They managed the needs of the group, was professional whilst being personable and is obviously passionate about the subject.” **Growing Stronger Skilled, post-training survey**

Other trainees highlighted that the learning they had developed in relation to how trauma may present in children and young people was the best aspect of the training, and acknowledged the important role that having the opportunity during the training to reflect on their own experiences of ACEs played in this, which is a critical element of the Growing Stronger Framework.

“Opportunities to reflect on personal and professional responses to ACEs and how our own experiences of ACEs can impact these [were the best aspect of the training].” **Growing Stronger Skilled, post-training survey**

Qualitative feedback from trainees provided some potential areas for development of the Growing Stronger Skilled training. Trainees indicated that given the large volume of information provided throughout the training, they would prefer to have longer training sessions. One trainee recommended that providing additional post-training resources (trainees were already provided with some resources to utilise post-training) may help to consolidate learning even further, while another trainee suggested that more time could be allocated to elements of experiential learning during the sessions.

“It was a lot of information in a short time. There was some pre-course links provided before the training event, could some resources be provided after the training to consolidate learning?”

Growing Stronger Skilled, post-training survey

“I would incorporate a couple more group activities throughout the training. I feel like it would break the training up more and give people a break from being spoken to for long periods of time.” **Growing Stronger Skilled, post-training survey**

3.4.2 Growing Stronger Leadership

Qualitative feedback from trainees indicated that having opportunities to share best practices in terms of trauma-informed approaches with other trainees was the best aspect of the training, with one trainee indicating that this helped them to identify some approaches to use in their own organisation.

“Sharing good practice with others and identifying next steps to take back to my workplace [was the best aspect of the training].” **Growing Stronger Leadership, post-training survey**

Trainees appreciated the role of the trainer in developing a comfortable environment for reflection and sharing of experiences, with the trainers’ knowledge and passion for the subject helping trainees in understanding the content and facilitating discussions.

“[Trainer] made sure that everyone felt comfortable and listened to. The course was delivered at the right pace with opportunities to reflect and share. The content was interesting and [trainer] helped

people to understand by giving real life experiences.” **Growing Stronger Leadership, post-training survey**

The opportunity to look at ACEs through a workforce lens was viewed positively by trainees and was indicated as being something that some trainees hadn’t considered or received training on before. Trainees highlighted that the opportunity to reflect on the trauma-informed practices of their own organisation was valuable, stating that the resources provided could act as a useful framework to take away and to help implement changes.

“Looking at ACEs through a workforce lens [was the best aspect of the training], I embarrassingly hadn’t considered ACEs of staff in relation to their work.” **Growing Stronger Leadership, post-training survey**

“Considering where we are/the organisation we work in is in relation to how trauma-informed the care and support we provide [is] [was the best aspect of the training]. The document that was given out for acknowledging how different parts of the system in the organisation we work in is a useful framework to bring back.” **Growing Stronger Leadership, post-training survey**

Qualitative feedback from trainees provided some potential areas for development of the Growing Stronger Leadership training. Trainees indicated that having a network set up post-training with other trainees could help in the continuation of learning, including sharing of best practice. However, it should be noted that this was already being offered to trainees, though uptake of this offer was low. Other trainees noted that providing resources electronically would better enable them to revisit the learning after the training.

“Have a network set up to maintain discussion with others on this journey.” **Growing Stronger Leadership, post-training survey**

Some trainees also highlighted that they would like to receive more content specifically recognising experiences of ACEs among marginalised groups (e.g. LGBTQIA+ and neurodivergent groups), and how these may present.

“More recognition of all marginalised peoples e.g. racism is well and appropriately recognised but we should also include sexual orientation and transgender discrimination.” **Growing Stronger Leadership, post-training survey**

3.4.3 GST Trainers

Qualitative feedback from trainees indicated that they particularly enjoyed the action-based learning elements of the training, the development of specific skills for use in practice and their personal lives, and the time built in for reflections. The exploration of theories which underpinned training content and examples of how to apply this practically was seen to enhance trainees’ learning. Trainees appreciated that the training resources could be adapted for delivery suited to their own clients’ specific needs.

“...the course is extremely relevant to the demographic I work with and [I] see how useful it would be in improving the lives of the patients. It was great to integrate within the group and network with other practitioners across Liverpool and [understand] their experience of ACEs in their service. I thought the course was informative but also really interactive which helped over the span of the 3 days.” **GST Trainer, post-training survey**

“Enjoyed touching on various different theories that can be applied to different scenarios. Enjoyed the focus on mindfulness and grounding that can be utilised with any client.” GST Trainer, post-training survey

The role of the training facilitator was seen as crucial to creating a safe environment to be able to safely share opinions and perspectives. The trainer’s expert knowledge, empathy, and adaptability to the needs of trainees was seen by participants as aiding their learning and understanding of content.

“[Trainer] is very personable and really easy to talk to. They made the training and content easy to access and held me/us as a group through a couple of tricky activities or conversations. The training was really powerful.” GST Trainer, post-training survey

“The warmth and empathy of the delivery, and acceptance of different members’ needs or situations that may have impacted learning, and offering different support to allow inclusivity [were the best aspects of the training].” GST Trainer, post-training survey

The supervision element of the training was perceived positively by trainees. Trainees noted that it was helpful to share ideas with others in attendance, to discuss barriers, and to further develop their plans for delivery. The supervision provided by the training facilitator was viewed as being key to this, particularly to those who may not have other forms of supervision.

“...I feel it [the supervision element] is of great benefit for those who do not have other forms of supervision.” GST Trainer, follow up survey

At post-training, all participants (100.0%; n=66), and at follow up 86.4% (n=19) of participants, agreed that the training they received made them feel confident to implement the GST sessions with adults in the community. The resources shared during training, and the supervision element were seen as crucial in building and maintaining this confidence to deliver the sessions.

“It [the training] was well delivered, with plans and resources shared for us to then deliver training. It makes me feel confident in delivering this.” GST Trainer, post-training survey

“...it [the supervision element] has enabled us to maintain confidence in what we do and plan for our implementation – [trainer]’s supervision has been essential!” GST Trainer, follow up survey

Qualitative feedback from trainees provided some potential areas for development of the GST Trainers training. Some trainees suggested that the training could be delivered over a longer time period to include more time spent on reflections. One trainee suggested that once the programme has started to be delivered by trainees, examples of good practice and impacts could be incorporated into the training. Another trainee recommended that providing resources on how trainees could train other staff within their organisation, to enable them to refer clients to the GST Community adults programme delivered by the trainees may be helpful.

“Future sessions, once [the] course has been delivered [it] would be good to have examples to show.” GST Trainer, post-training survey

“A plan for training staff e.g. key activities that should be focussed on in a 1 hour learning group for professionals who will be signposting to the course.” GST Trainer, post-training survey

Trainees identified other areas where they thought training may be improved, including mixing up of groups within each session, providing more information on the structure of the training in the first session (both for the GST Trainers training and the GST sessions where trainees will be delivering to adults), and providing greater coverage on safety when trainees deliver the GST sessions to adults. In

line with post-training feedback the training providers had received from the GST trainer trainees after the first three cohorts of delivery, the providers developed a training manual, which addresses such areas for development.

GST Trainers trainees also provided additional feedback²⁰ to the training providers at an event, on the positives and difficulties in terms of the training they received, and the delivery of the GST Community adults programme (Box 3).

Box 3. GST Trainers trainees' additional feedback to the training providers, secondary data

Trainees indicated there are a number of **positives about the training they received**:

- For trainees who work in smaller charity type organisations, they **learnt cognitive behavioural therapy and clinical skills** that they would **not have otherwise have ever had access to**.
- **Interacting and networking** with a range of professionals from other backgrounds was beneficial.

Trainees also highlighted **positives about delivering the GST Community adults programme and using the skills they learnt**:

- **The short nature of the programme** makes it more **achievable for adults to maintain attendance**.
- Trainees can **use the skills learnt in a variety of different settings and scenarios**, and that these **skills can be integrated into their existing work**. For example, one trainee spoke about how they used the skills with vulnerable women when visiting them in hospital.

Trainees also indicated areas they **found difficult in terms of the delivery of the GST Community adults programme**:

- **Recruitment of family members** to take part in the programme.
- **Budgets** e.g. if individuals need to have childcare arrangements.
- Knowing **how best to advertise** the programme **and signpost** to the programme.
- Having the **time and fitting in programme delivery** alongside other work duties.
- Having **someone to co-facilitate delivery of the programme** with.

3.4.4 GST Community adults

Qualitative feedback from participants indicated that they appreciated the group nature of the programme, with opportunities for sharing and group discussions key to learning. One participant indicated that it was critical to have a peer group whereby they could talk to others with children who are in a similar situation to their own children. Participants also enjoyed the opportunities to develop and practice CBT and mindfulness skills, and approaches for emotional regulation and improving wellbeing. The fact that the programme utilises a strengths-based approach with its participants was also received positively.

"The activities and opportunities to share with the group [were the best aspects of the programme]. There's power in saying things out loud." GST Community adults, post-programme survey

²⁰ Provided as secondary data for this evaluation.

“Talking to others with teens in similar situations [and] learning tactics [were the best aspects of the programme].” GST Community adults, post-programme survey

“Discussions on the practical applicability of the training to working with people with mental health problems [was the best aspect of the programme].” GST Community adults, post-programme survey

Qualitative feedback from participants provided some potential areas for development of the GST Community adults programme. Some participants suggested that the sessions could be slightly longer to allow for exploration of all possible content in depth, or to allow more time for mediation activities. Additionally, one participant also expressed that participants would benefit from having a prominent warning or disclaimer on the very first session of the programme on the emotional themes covered by the contents of the programme.

“The material was good, some content [was] not covered (it was explained that there was too much material for the time) so it’s not a criticism, but I enjoyed it so much, I wonder whether we missed out on something interesting.” GST Community adults, post-programme survey

One of the main reasons participants said they wanted to take part in the GST Community adults programme was to increase their knowledge and understanding of ACEs in general, as well as in terms of their own ACEs, and the ACEs of children they care for. Participants identified that this was in order to improve their wellbeing and confidence in both their personal and professional life, and to improve the wellbeing of their children. One participant even thought the programme could be better advertised specifically as something which can help parents to help their children and young people, particularly regarding school (see pp. 31).

“Looking to understand ACEs more to help with myself and [my] children’s well-being.” GST Community adults, post-programme survey

“Advertise the course as “helping anxious and school avoiding kids using CBT and other methods”.” GST Community adults, post-programme survey

Another key reason why participants said they wanted to take part in the programme was to increase their professional knowledge and skills in relation to ACEs, and to inform and improve their practices when working directly with clients who have experienced ACEs.

“[I] thought this would be a good opportunity to further my knowledge and understanding and ultimately improving the support I can provide.” GST Community adults, post-programme survey

3.5 Impacts of the Growing Stronger training programmes

3.5.1 Impact of the Growing Stronger training programmes on individual-level trauma-informed knowledge and attitudes

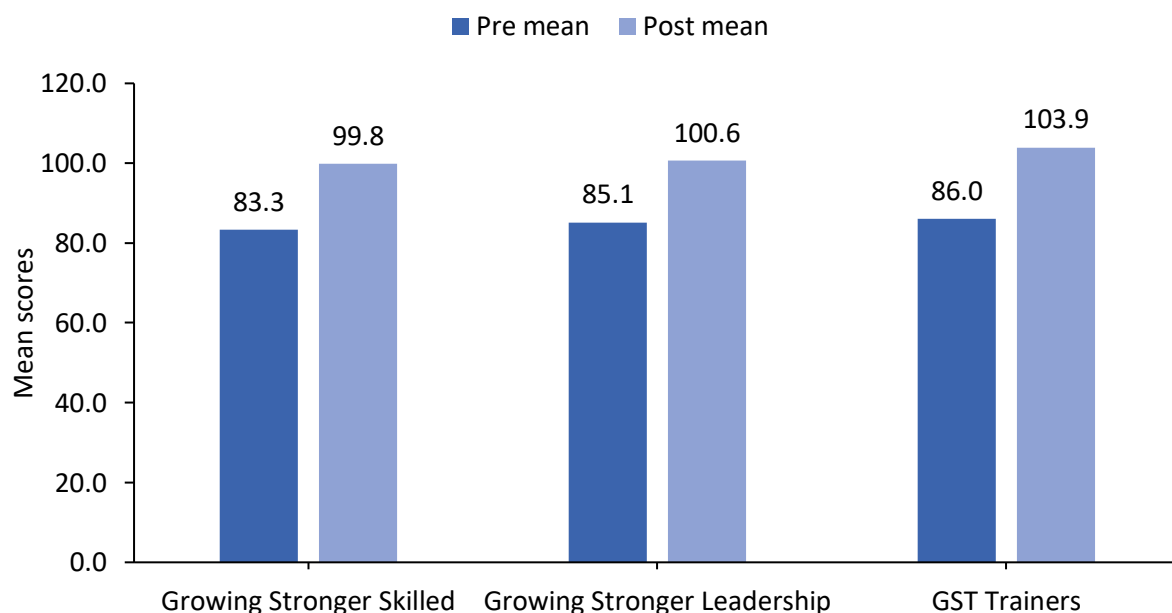
This section includes findings from the Growing Stronger Skilled and Leadership, and GST Trainers training programmes. The GST Community adults programme is not included here as evaluation surveys did not use these measures for this programme.

For each programme individually, in matched analyses, there was a significant increase in mean individual-level trauma-informed knowledge and attitudes subscale scores from pre- to post-training (Figure 6). Scores can range from 23-115 on this subscale, with higher scores indicating higher levels of trauma-informed knowledge and attitudes.

- Growing Stronger Skilled (n=56; pre-mean=83.34, pre-SD²¹=11.67; post-mean=99.77, post-SD=10.23; p<0.001).
- Growing Stronger Leadership (n=69; pre-mean=85.09, pre-SD=11.17; post-mean=100.58, post-SD=14.22; p<0.001).
- GST Trainers (n=71; pre-mean=86.01, pre-SD=11.32; post-mean=103.86; post-SD=14.01; p<0.001).

Unmatched proportions agreeing with each statement on this subscale are provided in the appendix tables (Table A2, A3, A4). Across all training programmes, in unmatched analyses, there was an increase in the proportion of participants agreeing with each statement relating to individual-level trauma-informed knowledge and attitudes from pre- to post-training (Table A2, A3, A4).

Figure 6: Pre- and post-training mean score on individual-level trauma-informed knowledge and attitudes in matched analyses, by training programme



Post-training, Growing Stronger Skilled and Leadership, and GST Trainers trainees specified that there were changes they would make to their practice in line with the knowledge they had gained from the training. Growing Stronger Skilled and Leadership trainees stated their intentions to change their/team

²¹ Standard deviation (SD) is a measure of how closely the data is dispersed in relation to the mean. Lower standard deviation indicates that the data is clustered tightly around the mean value, while a larger standard deviation indicates that the data is more spread out.

members' use of language to be more trauma-informed. Growing Stronger Skilled trainees highlighted their intentions to be aware of and change their thought processes when working with individuals who may have faced trauma, including being aware of any potential power imbalances. Growing Stronger Leadership trainees stated their intentions to ensure that their staff are encouraged and supported to work utilising trauma-informed approaches with their clients, in line with the components of the Growing Stronger Framework.

"[Changes to] Vocabulary we may use for example: how does ... feel... Have a different approach in the words we use within the setting." **Growing Stronger Skilled, post-training survey**

"Keeping in mind that I am an authority figure to my service users and be aware of the potential power imbalance that creates." **Growing Stronger Skilled, post-training survey**

"Reinforce the need for all staff to be trauma-informed [and] aware of the impact of ACEs throughout a person's life span." **Growing Stronger Leadership, post-training survey**

GST Trainers trainees indicated their intentions to be more mindful of ACEs in their day-to-day working practice. More specifically, trainees stated how they would implement some of the specific skills they had learned from the training in their practice (as well as when delivering the GST sessions with adults), including using active listening and validation techniques when working with people in distress, teaching people coping skills such as grounding techniques, and increasing their focus on showing empathy, in line with the Growing Stronger Framework.

"Meeting disclosures with empathy instead of immediately trying to fix it. It can be hard to sit in a place of validation and empathy without going into a fix it or rescuer mode, but sometimes all we need is someone to listen and understand." **GST Trainer, post-training monitoring feedback**

"Use more grounding and mindfulness techniques. Focus on empathy rather than problem solving. Consider different approaches and theories when working with different clients." **GST Trainer, post-training survey**

At follow up, Growing Stronger Skilled trainees indicated how through utilising elements of the Growing Stronger Framework they had changed their practices with children, allowing them to identify the children's vulnerability and experiences of trauma, and to provide a safe and supportive environment for children to emotionally regulate in.

"I work with several extremely vulnerable pupils, and I am very conscious of the way in which I manage them and speak to them. I make the necessary referrals to safeguarding when I have concerns about their welfare and their wellbeing... I welcome students to use sensory strategies to regulate and I will sit and be with them when needed. I try to keep in mind their background, including things like their peer or family influences and I let this inform my way of working with them." **Growing Stronger Skilled, follow up survey**

At follow up, GST Trainers trainees also described how they used the skills they developed with both adults and children (e.g. breathing and grounding techniques, mindfulness etc.), helping trainees to empathise with individuals, and helping the individual themselves to emotionally regulate and to open up.

"...using the techniques from the course, I have altered the way I communicate and engage with adults/children, adopting the tools to sit next to them to encourage opening up, mindfulness activities and reflection, instigating breathing techniques, and talking to their inner child to associate and empathise." **GST Trainer, follow up survey**

“When facilitating 1:1 sessions with a service user they can become overwhelmed and distressed. One session when discussing a family visit they reported heightened anxiety (due to a recent disclosure of traumatic incidents)... I used my knowledge and understanding to ground them and support them to understand the value in sharing these experiences with their loved ones.” GST

Trainer, follow up survey

3.5.2 Impact of the Growing Stronger training programmes on system-wide trauma-informed knowledge and attitudes

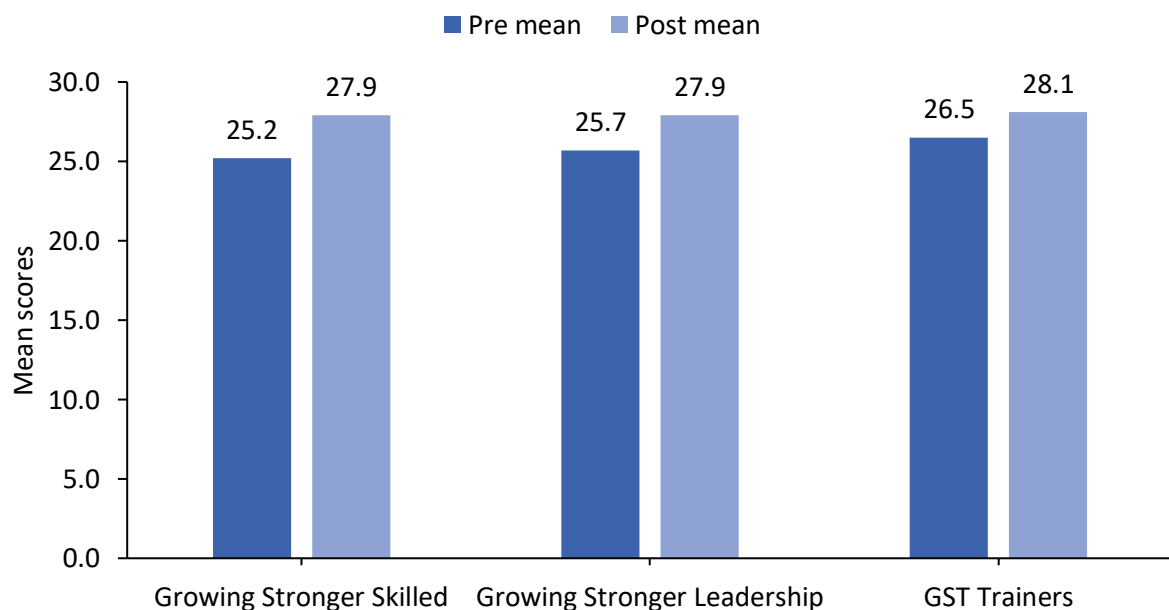
This section includes findings from the Growing Stronger Skilled and Leadership, and GST Trainers training programmes. The GST Community adults programme is not included here as evaluation surveys did not use these measures for this programme.

For each programme individually, in matched analyses, there was a significant increase in mean system-wide trauma-informed knowledge and attitudes subscale scores from pre- to post-training (Figure 7). Scores can range from 6-30 on this subscale, with higher scores indicating higher levels of trauma-informed knowledge and attitudes.

- Growing Stronger Skilled (n=56; pre-mean=25.20, pre-SD=4.64; post-mean=27.89, post-SD=2.65; $p<0.001$).
- Growing Stronger Leadership (n=68; pre-mean=25.74, pre-SD=4.51; post-mean=27.93, post-SD=3.64; $p<0.001$).
- GST Trainers (n=72; pre-mean=26.51, pre-SD=3.89; post-mean=28.10; post-SD=4.34; $p<0.01$).

Unmatched proportions agreeing with each statement on this subscale are provided in the appendix tables (Table A5). Across all training programmes, in unmatched analyses, there was an increase in the proportion of participants agreeing with each statement relating to system-wide trauma-informed knowledge and attitudes from pre- to post-training (Table A5).

Figure 7: Pre- and post-training mean score on system-wide trauma-informed knowledge and attitudes in matched analyses, by training programme



Post-training, one GST Trainers trainee indicated that the training had stressed and reaffirmed to them the importance of following the trauma-informed principles emphasised through the Growing Stronger Framework and the positive impacts this can have for individuals.

“[Something I don’t want to forget is] that if we have ACEs they don’t define us, that if we work with a trauma-informed lens that it shows others how things can be changed and will be changed, if we look at ourselves and make these positive changes.” GST Trainer, post-training monitoring feedback

At follow up, Growing Stronger Skilled and GST Trainers trainees described how the training had led to organisational-level changes in terms of trauma-informed practice. This included developing their organisation’s approach to working with adults to address their ACEs and embedding the GST Community adults programme into services. Trainees also indicated how they are arranging training within their own organisation, and in organisations across the wider system, for staff to pass on the knowledge and skills developed from the training to other staff who work with adults and children and young people, who may be impacted by ACEs.

“As an organisation we are going to work with our carers’ ACEs to help them understand their own needs, [and] to better understand their young peoples’ ACEs.” GST Trainer, follow up survey

“We are arranging a training day for clinical staff... so they will be aware of ACEs and know how to refer to the ACE course the APPs [staff] will be running.” GST Trainer, follow up survey

“The team I work for have started to deliver presentations in schools about our services and therapy in general, so that staff understand what we do and how trauma can affect children and families. Providing this information has resulted in staff being more mindful and sensitive to the needs of the children who are engaged in therapy.” Growing Stronger Skilled, follow up survey

At follow up, one Growing Stronger Leadership trainee indicated how the training had enabled them to improve access to their own and other organisations’ services for children and young people who have experienced ACEs. This trainee also stated that their organisation has started to implement a programme of one-to-one and group support for children and young people who are on waiting lists for therapy services, though it should be noted that this may not necessarily be as a result of the impacts of attending the training.

“The training helped me to recognise the impact of the detailed ACEs on CYP [children and young people] and to support them with accessing our service along with other appropriate services.”

Growing Stronger Leadership, follow up survey

“Our organisation has implemented an ACE-aware programme, providing both 1-1 and group support for CYP age 11-18, which can be accessed while they are on wait lists for therapy/wellbeing.”

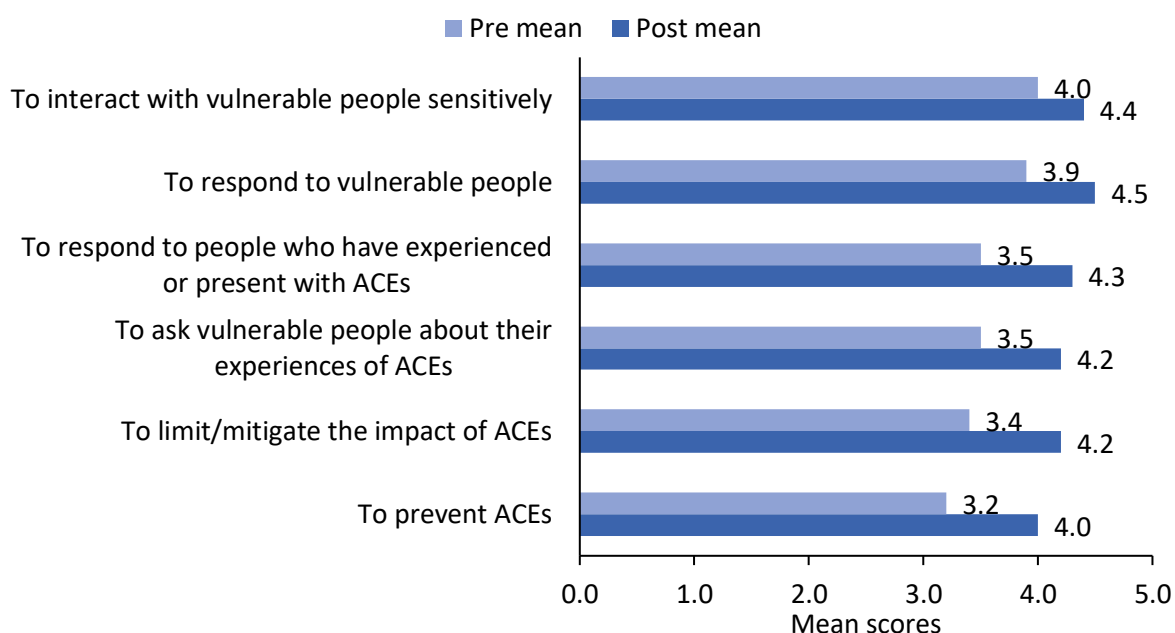
Growing Stronger Leadership, follow up survey

3.5.3 Impact of the Growing Stronger training programmes on confidence to implement elements of ACE/trauma-informed approaches

This section includes findings from the Growing Stronger Skilled and Leadership training programmes. The GST Trainers and GST Community adults training programmes are not included here as evaluation surveys did not use these measures for these training programmes.

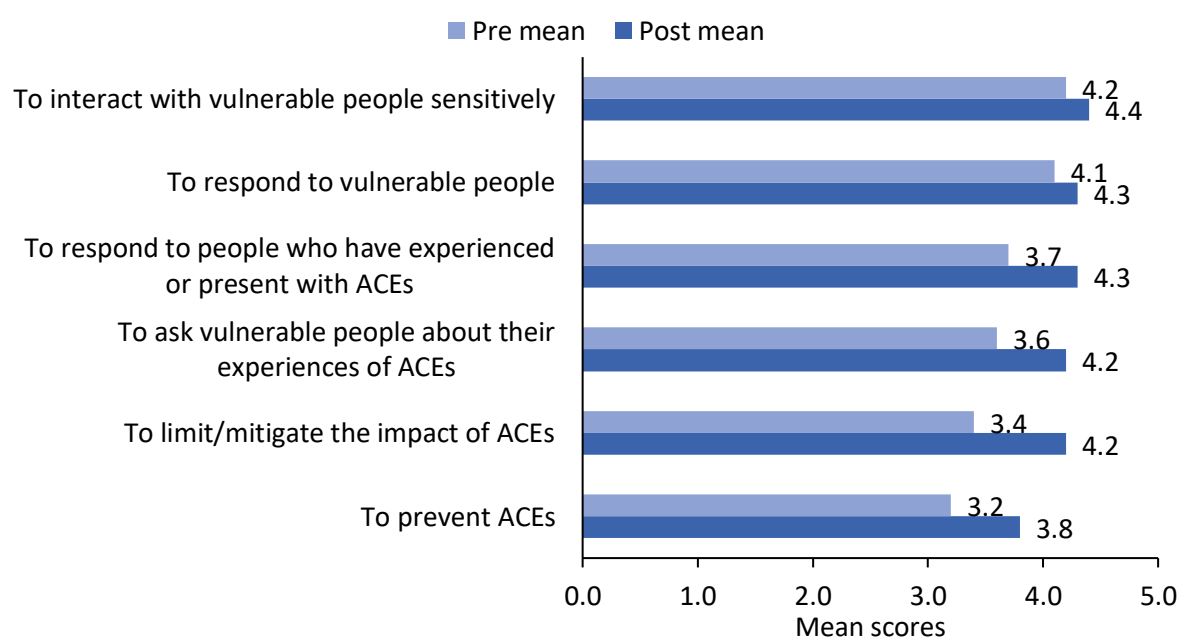
In matched analyses, examining the Growing Stronger Skilled training, from pre- to post-training there were significant increases in participants’ mean level of confidence to implement each element of ACE/trauma-informed approaches (Figure 8; Table A6).

Figure 8: Participants' mean level of confidence²² to implement elements of ACE/trauma-informed approaches, pre- and post-training, matched analyses, Growing Stronger Skilled



In matched analyses, examining the Growing Stronger Leadership training, from pre- to post-training there were significant increases in participants' mean level of confidence to: 'ask vulnerable people about their experiences of ACEs' ($p < 0.001$), 'respond to people who have experienced or present with ACEs' ($p < 0.001$), 'limit/mitigate the impact of ACEs' ($p < 0.001$), and 'prevent ACEs' ($p < 0.001$; Figure 9; Table A7).

Figure 9: Participants' mean level of confidence²² to implement elements of ACE/trauma-informed approaches, pre- and post-training, matched analyses, Growing Stronger Leadership



²² 1=very unconfident, 2=unconfident, 3=neither confident nor unconfident, 4=confident, 5=very confident

Unmatched proportions indicating that they are confident to implement different elements of ACE/trauma-informed approaches are provided in the appendix tables (Table A8). Across all training programmes, in unmatched analyses, there was an increase in the proportion of participants who indicated that they were confident to implement each element of ACE/trauma-informed approaches, from pre- to post-training (Table A8).

At follow up, one Growing Stronger Skilled trainee indicated how the training improved their confidence in recognising the impacts of ACEs when working with their clients. This improvement facilitated them to utilise approaches from the Growing Stronger Framework to refer the parents of a child they were working with for support in relation to their own ACEs, helping to further support the child in their home environment.

“I was recently able to refer parents of children I support for their own therapeutic support having identified how the parents’ own ACEs were impacting the child and the home environment. I had recognised that although the child was engaging well in therapy and seemed to be benefitting, returning to the home environment, where issues were continuing to present, it was interrupting the child’s progress. The training has allowed me to identify and respond to ACEs more confidently, therefore enabling me to work in an even more sensitive trauma-informed way.” **Growing Stronger Skilled, follow up survey**

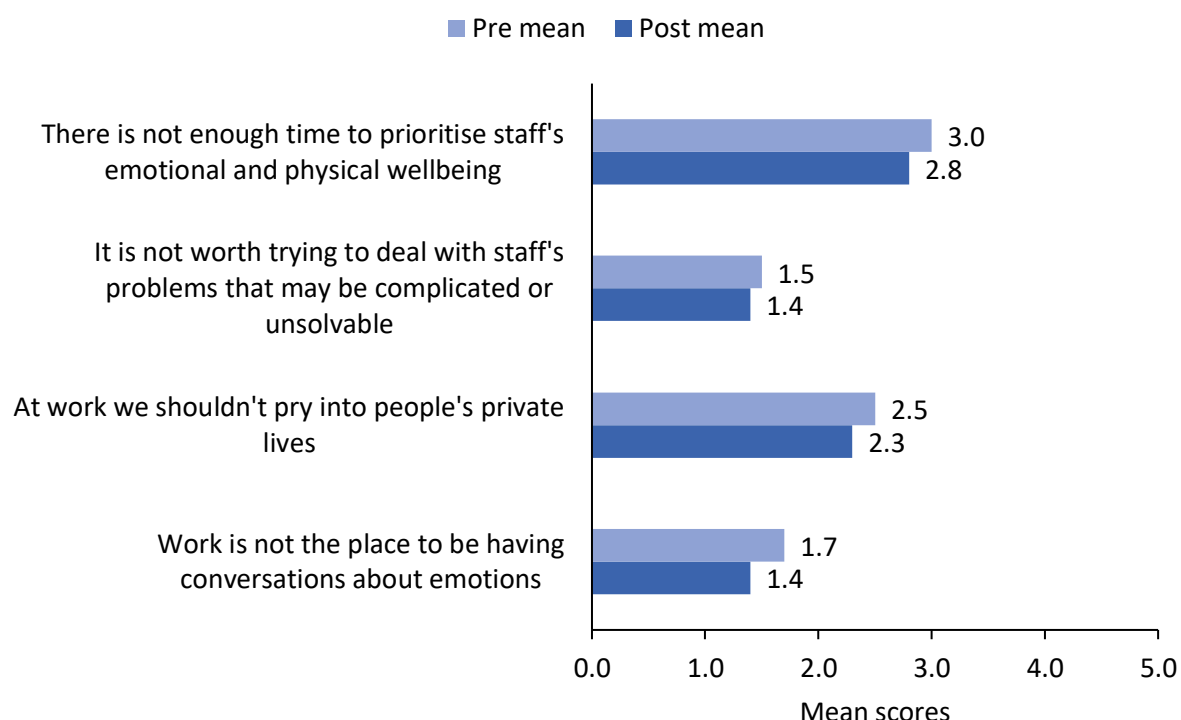
3.5.4 Impact of the Growing Stronger Leadership training programme on ACE/trauma-informed attitudes towards leadership

This section includes findings from the Growing Stronger Leadership training programme only. The Growing Stronger Skilled, GST Trainers, and GST Community adults training programmes are not included here as evaluation surveys did not use these measures for these training programmes.

In matched analyses, from pre- to post-training, there was a statistically significant decrease (i.e. a positive change in attitudes) in participants’ mean level of agreement with the statement ‘at work we shouldn’t pry into people’s private lives’ ($p < 0.05$). All other statements related to leadership attitudes towards staff wellbeing showed non-significant decreases in participants’ mean level of agreement (Figure 10; Table A9).

Unmatched proportions indicating that they disagree with each statement related to leadership attitudes towards staff wellbeing are provided in the appendix tables (Table A10). In unmatched analyses, there was an increase in the proportion of participants who disagreed with each statement, from pre- to post-training (Table A10).

Figure 10: Participants' mean level of agreement²³ with statements relating to leadership attitudes towards staff wellbeing, pre- and post-training, matched analyses

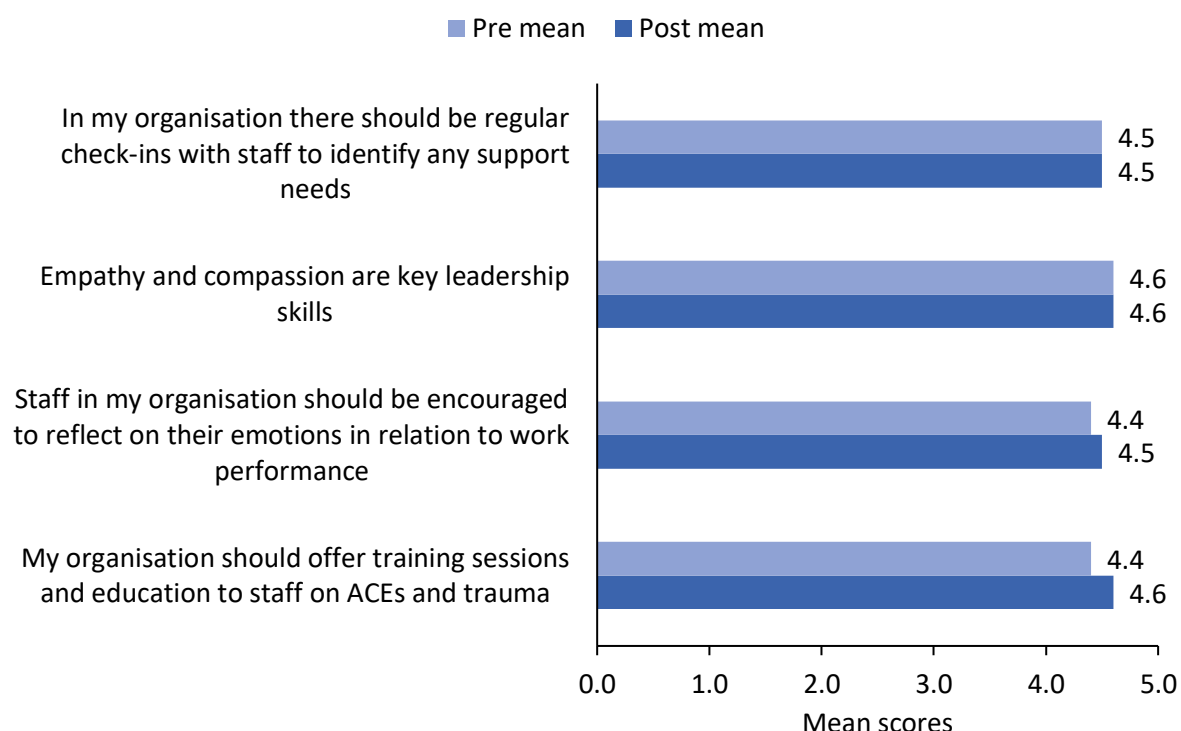


In matched analyses, from pre- to post-training, there were non-significant increases (i.e. a positive change in attitudes) in participants' mean level of agreement with statements relating to leadership attitudes towards approaches to improving staff wellbeing (Figure 11; Table A11).

Unmatched proportions indicating that they agree with each statement related to leadership attitudes towards approaches to improving staff wellbeing are provided in the appendix tables (Table A12). In unmatched analyses, there was an increase in the proportion of participants who agreed with each statement, from pre- to post-training (Table A12).

²³ 1=strongly disagree, 2=disagree, 3=neither agree nor disagree, 4=agree, 5=strongly agree.

Figure 11: Participants' mean level of agreement²³ with statements relating to leadership attitudes towards approaches to improving staff wellbeing, pre- and post-training, matched analyses



Qualitative feedback from Growing Stronger Leadership trainees highlighted their intentions to make changes to their organisation to become more trauma-informed. Many of the trainees indicated that they would get their staff to attend ACE training sessions, or to develop their own in-house training and cascade the knowledge they developed from the training to staff, including senior management. One Growing Stronger Leadership trainee had reflected that currently their organisation isn't where it wants to be in terms of being trauma-informed, however, they expressed wanting to rectify this by developing on-boarding material on ACEs and trauma-informed practices for new starters.

"It's made me reflect, we're not a trauma-informed service, however, aim to be. One thing I'm going to do is prepare a welcome pack for new starters and think with the team what trauma-informed principles should be included." **Growing Stronger Leadership, post-training survey**

Several Growing Stronger Leadership trainees have also suggested that their reflections on the position of their organisation in relation to being trauma-informed prompted their intentions to develop and implement an action plan to improve their organisation's approach to ACEs and trauma, including the integration of these into their policies.

"I will have a staff meeting to discuss our next steps and approaches to children and families...Have [an] action plan. Look at our policies to include trauma." **Growing Stronger Leadership, post-training survey**

Additionally, Growing Stronger Leadership trainees identified ways in which they would better support their staff in relation to their trauma-informed practice with clients, their own ACEs, as well as the impacts this may have on their work. This included increasing the understanding of their organisation's HR department and senior management in relation to staff's ACEs, ensuring that staff feel supported to work with clients who may have experienced ACEs, developing time for staff to reflect and talk about

their emotions, and ensuring that the trainee themselves is equipped to deal with this compassionately as a leader.

“Implore my HR and management team to learn more about ACEs in terms of the workforce.”

Growing Stronger Leadership, post-training survey

“I will definitely recommend staff being given more time to talk about their feelings as everybody needs to talk to somebody.” **Growing Stronger Leadership, post-training survey**

One Growing Stronger Leadership trainee indicated that after the training, they made suggestions to their organisation in relation to having a dedicated lead to help implement trauma-informed care, and to develop a feedback system so that the organisation can continually develop their trauma-informed practices.

“I have suggested that the organisation have a dedicated Trauma-Informed Care lead. Spoke to my manager and requested that we have a feedback system for staff so that we’re continually evolving and adapting to the needs of the staff and the people we support.” **Growing Stronger Leadership, post-training survey**

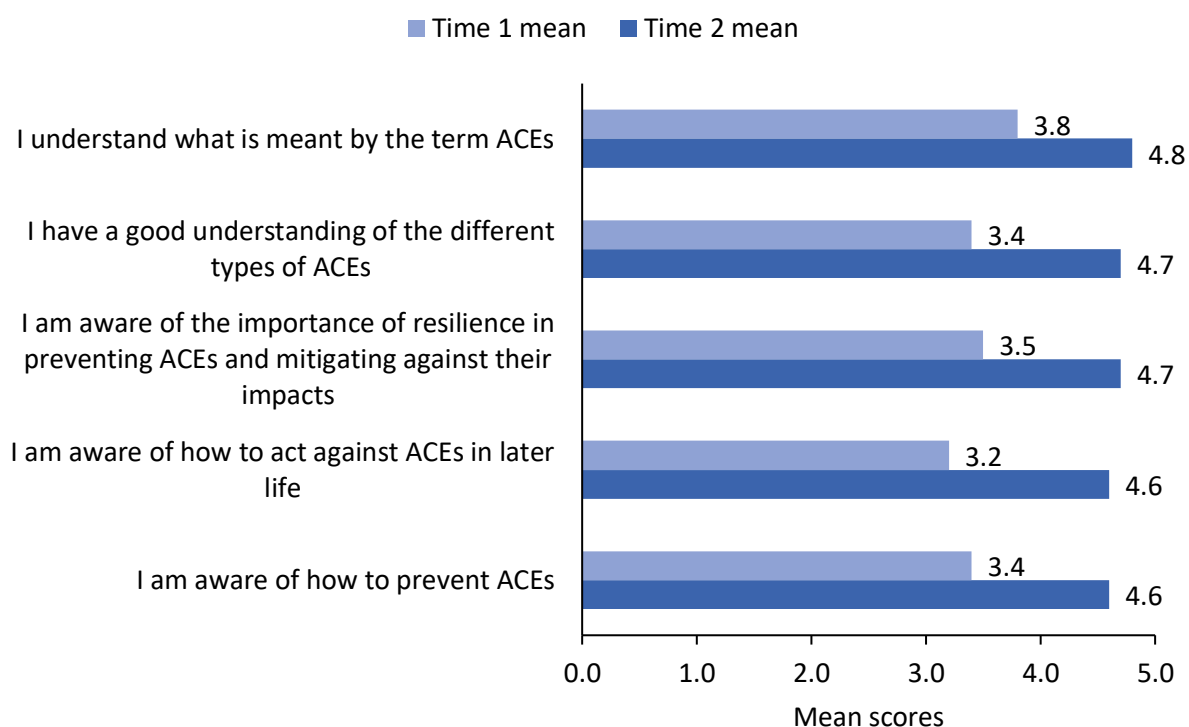
3.5.5 Impact of the GST Community adults programme on knowledge of ACEs and awareness of the impacts that ACEs can have

This section includes findings from the GST Community adults programme only. The Growing Stronger Skilled and Leadership, and GST Trainers training programmes are not included here as evaluation surveys did not use these measures for these training programmes.

In matched analyses, there was a statistically significant increase (i.e. increased knowledge) in participants’ mean level of agreement with each statement related to knowledge of ACEs from time 1 to time 2 (Figure 12; Table A13).

Unmatched proportions indicating that they agree with each statement relating to their knowledge of ACEs are provided in the appendix tables (Table A14). In unmatched analyses, there was an increase in the proportion of participants who agreed with each statement, from time 1 to time 2 (Table A14).

Figure 12: Participants' mean level of agreement²⁴ with statements relating knowledge of ACEs, time 1 and time 2, matched analyses

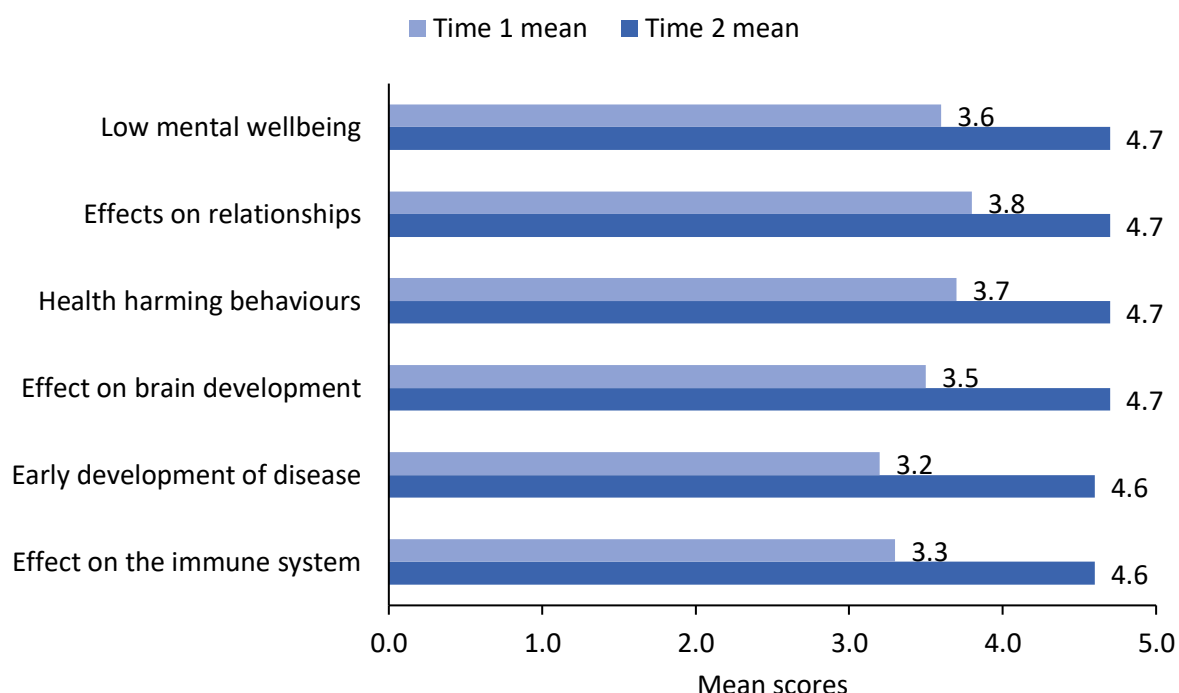


In matched analyses, there was a statistically significant increase (i.e. greater awareness) in participants' mean level of awareness of each of the impacts that ACEs can have from time 1 to time 2 (Figure 13; Table A15).

Unmatched proportions indicating that they are aware of the different impacts that ACEs can have are provided in the appendix tables (Table A16). In unmatched analyses, there was an increase in the proportion of participants who indicated they are aware of each of the different impacts that ACEs can have, from time 1 to time 2 (Table A16).

²⁴ 1=strongly disagree, 2=disagree, 3=neither agree nor disagree, 4=agree, 5=strongly agree.

Figure 13: Participants' mean level of awareness²⁵ of the impacts that ACEs can have on different aspects of health and development, time 1 and time 2, matched analyses



In matched analyses (n=56), there were also statistically significant increases from time 1 to time 2 in participants' mean level of agreement with the statements: 'I am aware of the impact that experiencing ACEs can have on mental health in later life' (time 1: mean=4.04, SD=0.85; time 2: mean=4.79, SD=0.41; $p<0.001$), and 'I am aware of the impact that experiencing ACEs can have on physical health in later life' (time 1: mean=3.89, SD=0.91; time 2: mean=4.71, SD=0.46; $p<0.001$).

Qualitative feedback indicated that the programme helped participants to develop a greater understanding of ACEs, their impacts in both adulthood and childhood, including how this may present, and steps on how to mitigate against these. For some participants, this helped them to acknowledge the importance of applying a trauma-informed lens to their work.

"[The best aspects of the programme were] trauma awareness and the effect [of ACEs] in childhood to adulthood, and how it can be improved, also how to manage it in workplaces and also at home."

GST Community adults, post-programme survey

3.5.6 Impact of the Growing Stronger training programmes on mental wellbeing

This section includes findings from the GST Community adults programme only. The Growing Stronger Skilled and Leadership, and GST Trainers training programmes are not included here as evaluation surveys did not use these measures for these training programmes. Qualitative findings are also provided from the GST Trainers programme.

SWEMWBS scores can range from 7-35, with higher scores indicating higher overall levels of mental wellbeing. In matched analyses (n=17), there was a statistically significant increase in participants'

²⁵ 1=very unaware, 2=unaware, 3=neither aware nor unaware, 4=aware, 5=very aware.

SWEMWBS scores from time 1 (mean=21.94; SD=2.46) to time 2 (mean=24.18; SD=2.71; $p<0.01$). The majority (76.5%; $n=13$) of participants had increases in their SWEMWBS score from time 1 to time 2.

Unmatched proportions responding often or all of the time to each SWEMWBS item are provided in the appendix tables (Table A17). In unmatched analyses, there was an increase in the proportion of participants who responded often or all of the time to each SWEMWBS item, except 'I've been feeling relaxed', from time 1 to time 2 (Table A17).

Qualitative feedback indicated that programme activities, in particular time for reflecting on personal experiences, helped participants in understanding themselves better. Participants recognised the importance of the programme equipping them with specific skills that can easily be applied in the real-world both for themselves, and those they care for including their children or children they work with. Some participants also noted that they had increased confidence after completing the programme.

"...the course content helped you think about experiences, your story. Reflections, the activity schedule, and inner child letter really helped me because I journaled about all the things and feelings that came up." **GST Community adults, post-programme survey**

At follow up one participant indicated how they used the skills they had learnt, in line with the Growing Stronger Framework, to help them emotionally regulate in a situation which in the past may have led to them having a negative reaction.

"Self regulating using breathing techniques to prevent reacting emotionally to a challenging situation, as I would have done in the past." **GST Community adults, follow up survey**

One workforce group participant was also grateful that the focus of the programme was on their own wellbeing, rather than solely focussed on the wellbeing of their pupils.

"Focussing on our wellbeing/mental health and not just that of pupils [was the best aspect of the programme]. I felt supported by my colleagues." **GST Community adults, post-programme survey**

Secondary data provided by a GST training partner (see pp. 31) describes how, although not specifically its aim, the GST Community adults programme could also be implemented specifically for parents whose children were having difficulties in engaging with mainstream education, to improve their own and their children's wellbeing.

There was also qualitative feedback from the GST Trainers trainees which indicated how the skills which they learned through the training has been beneficial to them in their personal lives. The skills allowed them to recognise the positive impacts that come with processing their own experiences and emotions. Further, one GST Trainers trainee at follow up highlighted how utilising these new skills had allowed them to better engage with new experiences and environments.

"This session had helped me personally, been the missing part of my journey. The realisation of helping oneself is so important..." **GST Trainer, post-training monitoring feedback**

"Grounding activities – I suffer with anxiety and go into freeze state a lot so feel this will be beneficial. Inner child activity – I feel I have suppressed a lot of emotions and feelings since [being] a child, so this will help me address this and help me understand more." **GST Trainer, post-training monitoring feedback**

"...doing activities to help me through the day has made a positive impact on my whole life, especially when going to new places, different environments and experiences in the here and now. Acknowledge, accept, and give ourselves permission!" **GST Trainer, follow up survey**

Example of delivery of the GST Community adults programme to a parent group

Programme delivery	Sessions overview	Key outcomes		Parents feedback
<p>The GST Community adults programme was offered to parents whose adolescents faced challenges in mainstream education due to physical or mental health reasons. Six parents attended an introductory coffee afternoon to learn about the programme, and four committed to the full intervention.</p> <p>The participating parents hoped to gain self-understanding and better support for their children, all of whom had some form of neurodivergence. The participants were eager to develop strategies to better understand themselves and their children, who were struggling with anxiety and attending school. The group met weekly for 2-hour sessions conducted at their children's educational setting.</p>	<p>Session 1: Focused on awareness and safety, introducing concepts like the fight-or-flight response, ACEs, and emotional regulation.</p>	<p>Improved emotional awareness and validation</p> <p>Participants applied new techniques in their own daily interactions and with their children, such as active listening, emotional validation and breathing exercises.</p>	<p>Group support and connection</p> <p>The parents valued hearing others' stories and felt less isolated in their struggles. This shared experience fostered a strong sense of community.</p>	<p>The parents identified several strengths of the course</p> <ul style="list-style-type: none"> • A good balance of psychoeducation and practical strategies • Opportunities to reflect on handling difficult situations • Learning new techniques and reinforcing existing ones • The value of connecting with others in similar situations
	<p>Session 2: Explored attachment theory and active listening techniques.</p>	<p>One parent described helping their child get to school by validating their feelings and encouraging them to try box breathing.</p>	<p>Increased wellbeing</p> <p>All participants showed increases from pre programme to post programme in mental wellbeing scores.</p>	<p>The parents also had suggestions for development of the course</p> <ul style="list-style-type: none"> • Extending the programme delivery with additional sessions • Revising the programme description to emphasise a focus on "helping anxious and school-avoiding kids".
	<p>Session 3: Emphasized self-regulation, cognitive reframing, and reflective writing.</p>	<p>Another parent recounted calming their child by acknowledging their disappointment instead of jumping to problem-solving.</p>		
	<p>Session 4: Concluded with a focus on self-compassion, personal values, and celebrating progress.</p>	<p>Enhanced Understanding of ACEs</p> <p>All participants gained a deeper awareness of how childhood adversity impacts health, relationships and quality of life.</p>		
	<p>Participants were assigned weekly home tasks such as practicing breathing exercises, validating emotions, observing their responses and using problem-solving tools.</p>			
<p>Conclusions</p> <p>The GST Community adults programme provided parents with effective tools to manage their own challenges whilst supporting their adolescents. Participants not only improved their emotional regulation and relationships but also left with a sense of empowerment and shared understanding.</p> <p>Although not specifically designed as a parenting intervention, this case study highlights how GST Community adults equips participants with valuable skills and strategies that can positively influence both parents and their children.</p>				

4. Summary and conclusions

Strong evidence suggests that experiencing ACEs, particularly in accumulation, can have significant impacts on individuals, making poor health, wellbeing, and social outcomes across the life course more likely compared to those who have experienced no ACEs [4, 5, 6, 8]. Evidence is emerging that ACE training programmes can significantly improve the trauma-informed knowledge and attitudes of frontline professional trainees, and their confidence to work effectively and safely with people who have experienced ACEs [1, 11, 12, 13, 14, 15, 16]. However, evidence of the longer-term impacts of training on professionals' knowledge, attitudes, and confidence is lacking, and the extent to which these training sessions reach organisational leaders and management is not well evidenced. There is also very little evidence available on the impact of ACE training and campaigns to improve the knowledge of ACEs with the general public.

Across Liverpool, Growing Stronger implemented training programmes targeting various professionals and organisational leaders in the workforce, and community members. All training programmes aimed to improve trainees' knowledge of ACEs and develop their skills to respond to ACEs based on the Growing Stronger Framework. Two training programmes targeted towards professionals (Growing Stronger Skilled) and organisational leaders (Growing Stronger Leadership) aimed to improve trainees' trauma-informed knowledge and attitudes, and equip them with the confidence, skills, and strategies to work with people who have experienced ACEs, and develop and implement ACE/trauma-informed practices and attitudes in leadership. A train-the-trainer model programme (GST) was also implemented which aimed to improve professionals' trauma-informed knowledge and attitudes, equip professionals with the knowledge and skills to deliver training to adults in the community, improve adult community members' knowledge of ACEs and awareness of the impacts that ACEs can have, and equip adults with skills and strategies to mitigate the impacts of their own ACEs to improve their own wellbeing. This study evaluates the Growing Stronger training programmes delivered across Liverpool in 2024.

4.1 Delivery of Growing Stronger training programmes

All of the Growing Stronger training programmes were delivered face-to-face and ranged in delivery length from half a day (Growing Stronger Skilled), a full day (Growing Stronger Leadership), three consecutive full days (GST Trainers), to being delivered over four two-hour sessions taking place weekly (GST Community adults). The content of the training programmes varied to suit different levels of needs in relation to knowledge and skills, but were all based on the five components of the Growing Stronger Framework. All of the programmes included content on what ACEs are, the impacts of ACEs on health, wellbeing, and social outcomes, and approaches to help mitigate against the impacts of ACEs, which were based on the Growing Stronger Framework, including increasing skills in showing empathy in interactions. Growing Stronger Skilled and Leadership had more specific content around trauma-informed practice, use of self, systemic working, and activating positives. Growing Stronger Leadership sessions included additional content specifically targeted to organisational leaders and management, particularly in relation to staff's own ACEs and individual- and organisational-level trauma-informed leadership practices. The GST Trainers and GST Community adults training programmes had content which allowed participants to practice and develop specific CBT and mindfulness skills to help with communication styles and emotional regulation, to support participants to develop a more compassionate mindset and improve their relationship with themselves and others, including their own wellbeing and the wellbeing of others.

The Growing Stronger training programmes were delivered utilising a variety of methods and approaches with participants. All of the training programmes contained some form of presentation

with use of PowerPoint slides and video aids, and elements of experiential learning, including group discussions and sharing of best practices and experiences, and self-reflections. The Growing Stronger Skilled and Leadership programmes included action planning activities to help trainees to activate each element of the Growing Stronger Framework in their practice. The action planning activities in the Growing Stronger Leadership training were expanded to incorporate elements of how trainees can implement changes to their leadership at an individual- and organisational-level, particularly in regard to building empathy and compassion into their leadership and organisation. Participants were given workbooks to take away to support them in implementing trauma-informed approaches. While Growing Stronger Leadership trainees were offered the opportunity to attend networking events with peers and training providers, uptake of this was low. The GST Trainers training utilised elements of action-based learning, including role plays and simulations to practice key skills. The GST Trainers training also provided trainees with post-training support, with a repository of materials to revisit, and online peer supervision sessions with the training facilitator. The peer supervision sessions focussed on integrating learning into practice, and opportunities to discuss any challenges in terms of delivering the GST Community adults programme, while also providing trainees space to self-reflect on their work in relation to the aims of the Growing Stronger strategy [2] and the components of the Growing Stronger Framework. The GST Community adults programme also included setting of weekly goals and action plans, worksheet and reflective writing activities, and elements of action-based learning, including practicing of skills.

Evaluation findings evidence the wide reach of the Growing Stronger Skilled and Leadership training programmes, with 232 frontline professionals and 182 leadership staff from organisations across the Liverpool workforce receiving the training. Findings also show that delivering training to 84 GST Trainers participants can produce a group of individuals who are confident to deliver the GST Community adults programme to a minimum of 118 participants. While most of the programmes were implemented as intended, the GST Community adults programme had some deliveries to workforce cohorts which were much shorter than intended, being delivered over a half a day or over two half a day sessions.

There was some evidence of sustainability and wider cascading of the training programmes, with a number of participants across the different programmes indicating that they would implement training with other staff within their organisation on what they had learnt in the training. Further, the delivery model of the GST Trainers training may support the sustainability of the GST Community adults programme, with trainers in the Liverpool workforce who, supported by training delivered over three days and ongoing supervision, can deliver the GST Community adults programme, with further evidence that programme delivery is starting to be embedded within services.

4.2 Perceptions of Growing Stronger training programmes

Perceptions of each of the programmes were very positive, with feedback indicating that participants enjoyed the group nature of sessions and receiving training from passionate, approachable, and knowledgeable training facilitators. Further, where implemented across the different programmes, the benefits of including elements of experiential learning and elements of action-based learning were widely acknowledged by participants. Growing Stronger Leadership participants also highlighted that looking at ACEs through a workforce lens was beneficial, and for some trainees a new experience. The supervision element of the GST Trainers training was also received very positively and was perceived as supporting the maintenance of participants' confidence to deliver the GST Community adults programme.

Across the different programmes, areas for development of the training were identified by participants. In particular, Growing Stronger Skilled participants indicated that they would have liked longer sessions and more activities in the training. Growing Stronger Leadership participants indicated they would have liked a network set up to continue learning and sharing of best practices with other trainees post-training. It should be noted that networking events were already being implemented as part of the training offer, however, uptake of this offer was low. GST Trainers participants would have found it helpful to see examples of best practice in terms of delivery of the GST Community adults programme by trainees and to have resources on how they can deliver the training to other staff in their organisation. GST Community adults participants also suggested that the sessions could have been slightly longer.

Additionally, GST Trainers participants indicated that in terms of delivering the GST Community adults programme there were some positives, including that the skills they learnt were adaptable and could be applied in a variety of different settings and scenarios, and that the GST Community adults programme is short, encouraging adults to maintain engagement. However, there were also some challenges to the delivery of the GST Community adults programme, including difficulties with recruiting participants onto the programme, not knowing how best to advertise the programme to community members, not having someone to co-facilitate programme delivery with, and having capacity to fit programme delivery in alongside other duties. To address some of these barriers (e.g. how best to advertise the GST Community adults programme), future iterations of the GST Trainers training may wish to integrate some further content into the training (e.g. suggestions for how best to advertise or recruit).

4.3 Impacts of Growing Stronger training programmes

4.3.1 Individual-level impacts of Growing Stronger training programmes

From pre- to post-training, there were significant improvements in both the individual-level and system-wide trauma-informed knowledge and attitudes of trainees across the Growing Stronger Skilled and Leadership, and GST Trainers training. Previous research has shown that ACE training sessions can increase the trauma-informed knowledge and attitudes of professionals, particularly in the policing and criminal justice system [15, 16]. This evaluation adds to this evidence and indicates that ACE training can improve the knowledge and attitudes of professionals across the wider system, including training which is specifically targeted at organisational leaders. Improving the knowledge and skills of frontline professionals and organisational leaders is an essential step in building the capacity of the Liverpool workforce to safely and effectively identify and support individuals impacted by ACEs [15]. Qualitative evidence from trainees across the Growing Stronger Skilled and Leadership, and GST Trainers training programmes suggests that improvements in trauma-informed knowledge and attitudes as a result of the training may have tangible benefits on practice, drawing upon the core elements of the Growing Stronger Framework to increase staff's abilities to recognise ACEs and their impacts in children and adults, and inform their approach in providing support. In particular, GST Trainers trainees described how they utilised the specific skills (e.g. grounding techniques, listening, validation and empathy) they had developed with adults and children to help them to emotionally regulate.

Critically, from pre- to post-training, there were significant improvements in Growing Stronger Skilled and Leadership participants' confidence to implement different elements of ACE/trauma-informed approaches, including those outlined in the Growing Stronger Framework. While there were significant improvements from pre- to post-training across all elements of ACE/trauma-informed approaches for Growing Stronger Skilled trainees, Growing Stronger Leadership trainees did not have significant increases in confidence relating to interacting with and responding to vulnerable people. This may be

because in their role, leadership staff may be less likely to engage directly with vulnerable individuals compared to frontline professional staff. Interestingly, at post-training there were still a proportion of both frontline professional and leadership trainees who did not feel confident in preventing ACEs (29.0%). Overall, further research should aim to evidence the longer-term impacts of ACE training programmes on staff's actual practices, and potential reasons why staff may report less confidence when it comes to preventing ACEs.

There were significant improvements in the knowledge of ACEs and awareness of their impacts for GST Community adults participants. Qualitative findings suggested that GST Community adult participants had increased knowledge and understanding of ACEs and how to mitigate their impacts, including through the use of the specific skills they had learned in line with the Growing Stronger Framework. Emerging evidence suggests that awareness-raising and educational interventions for adults on specific types of ACEs can improve the knowledge and attitudes of individuals, and may help to foster behaviours which increase the presence of protective factors and prevent risk factors for children [1, 22]. However, the current evaluation found that participation in the GST Community adults training was undertaken by those who were working in relevant sectors and thus were participating in the programme for reasons relating to development of their professional trauma-informed practices. Therefore, further evidence is needed on the impacts of ACE training programmes aimed towards community members who are not involved in related support services in their professional lives to better understand the impact that ACE/trauma awareness has for the general public and their families.

Crucially, from time one to time two there were significant improvements in the mental wellbeing of adults engaged in the GST Community adults training. Overall, 76.5% of participants had improvements in their mental wellbeing scores from time one to time two. There was also qualitative evidence from GST Community adults participants of how the programme activities and using the skills they learnt helped them to understand themselves and their own experiences better, improving their confidence. Further, one participant indicated how utilising the skills they had learnt, in line with the Growing Stronger Framework, helped them to emotionally regulate in a challenging situation. Interestingly, there was also evidence from GST Trainers participants indicating how using the skills which they learned through the training has been beneficial for their own wellbeing.

However, it should be noted that for the GST Community adults programme there was only a relatively small sample size whereby changes in wellbeing could be assessed. This is due to some of the delivery to workforce group participants being over a much shorter time period than intended, and it is not reasonable to expect that wellbeing would change over this time period. Overall, there is a need for further research evidencing the impacts of ACEs programmes on adults' behaviours to mitigate the impacts of ACEs and improve their own and others' wellbeing over the longer-term.

4.3.2 Organisational-level impacts of Growing Stronger training programmes

Baseline findings suggest that Growing Stronger Leadership trainees think that their organisations generally care about ACEs and trauma, provide aspects of trauma-informed services to clients, and show elements of having a trauma-informed working environment. In Growing Stronger Leadership training, from pre- to post-training, there was one statement related to ACE/trauma-informed attitudes towards leadership which showed a significant improvement ('at work we shouldn't pry into people's private lives'). Other statements may not have shown a significant change as high proportions of trainees already had positive attitudes. The only statement where this was not the case was 'there is not enough time to prioritise staff's emotional and physical wellbeing'. However, attitudes here may reflect environmental barriers (e.g. high demand for services, high levels of staff sickness), which training sessions alone do not have the capacity to change. Overall, baseline and pre- and post-training findings indicate certain organisational-level aspects of trauma-informed practice may require

improvement (e.g. provision of training to staff, providing resources to staff experiencing burnout or trauma themselves, etc.), which may need longer-term development and wider investment, including addressing of individual- and systemic-level barriers [23, 24, 25, 26]. A framework for building trauma-informed systems [27] stresses the importance of leadership staff having the knowledge and skills to support staff in implementing trauma-informed practices, understand the needs of staff in relation to their own ACEs, identify vicarious trauma and burnout, and build empathy and compassion. Promisingly, the Growing Stronger Leadership training targets the development of these key knowledge and skills. However, the current evaluation was not able to quantitatively measure the impact of changes at organisational level due to attrition at follow up, thus future research should aim to examine the extent to which ACE training, and the Growing Stronger project more broadly results in longer-term organisational-level change.

Qualitative evidence from trainees is however promising. There was evidence of Growing Stronger Leadership trainees' intentions to drive forward changes to make their organisation more trauma-informed, in line with the components of the Growing Stronger Framework. This included training and upskilling their staff in trauma-informed practice, integrating ACEs into working policies, and placing a greater priority on the wellbeing of staff, including giving them more time for reflections and helping HR and management staff to understand the impact of ACEs on staff. This is particularly important given that recent estimates suggest that 49.5% of adults in Liverpool have experienced ACEs [10]. One Growing Stronger Leadership trainee even indicated how they would encourage their organisation to have a dedicated lead for trauma-informed practice and a feedback loop to continually improve trauma-informed practices with clients and staff. Another trainee indicated how the training had enabled them to improve access to their own and other organisations' services for children and young people who have experienced ACEs, and additionally started to implement a programme of support for children and young people waiting for therapy services.

Qualitatively, Growing Stronger Skilled and GST Trainers participants suggested some trauma-informed organisational-level changes they would make in line with the Growing Stronger Framework as a result of attending the training. Growing Stronger Skilled participants indicated how they would target working with specific groups of clients to sensitively help them better understand their own ACEs and the ACEs of those they care for. One Growing Stronger Skilled participant described how their organisation had started to deliver presentations in schools to improve the knowledge of the wider child-facing workforce in terms of ACEs. GST Trainers trainees indicated how they would train staff to better understand trauma and ACEs and help them to develop the specific skills they had learnt. GST Trainers participants also highlighted how they would begin to integrate the delivery of the GST Community adults programme into their existing services, including informing other staff of how they could refer adults onto the programme. Participants across the Growing Stronger Skilled and GST Trainers training programmes also indicated how they would utilise the skills they had learnt into their day-to-day practices with clients.

4.4 Conclusions

Findings from the 2024 evaluation of Growing Stronger training programmes delivered in Liverpool indicate that the programmes are widely very well received by participants. The Growing Stronger Skilled and Leadership, and GST Trainers training programmes had a wide reach across the workforce in Liverpool, including organisational leaders, and findings suggested that the GST Community adults programme was starting to be embedded in services. Growing Stronger Skilled and Leadership, and GST Trainers training had positive impacts for trainees across the Liverpool workforce, including frontline professionals and leadership staff, with significant increases in trauma-informed knowledge and attitudes, and for Growing Stronger Skilled and Leadership participants increases in confidence to

implement ACE/trauma-informed approaches. There was also qualitative evidence of positive trauma-informed changes to practices at an individual- and organisational-level from trainees, who indicated that they were developing and putting into action their skills in utilising the Growing Stronger Framework to deliver trauma-informed approaches when working with clients and across their organisations. Additionally, the group of GST Trainers trainees from across the Liverpool workforce were equipped with the knowledge and skills and were confident to deliver the GST Community adults programme. This programme was aimed to be delivered to adult community members, educating them on ACEs and giving them CBT and mindfulness skills and specific approaches to mitigate the impacts of ACEs, for themselves and for others. Notably, across the GST Trainers and GST Community adults programmes a key positive element highlighted by different stakeholders was that the training offer was highly flexible to meet the needs of participants from different organisations and community members. The GST Community adults programme was delivered to workforce groups and community member groups, and whilst there was some flexibility in how the programme was implemented to meet community needs, had significant positive impacts on participants' knowledge of ACEs and awareness of their impacts, and on mental wellbeing. Further, the group of trainees who delivered the programme also showed qualitative evidence of improved wellbeing. Across the different training programmes, there was evidence of participants utilising the components of the Growing Stronger Framework to make changes to their practices, or how they interact with children and young people, potentially helping to mitigate the impacts of ACEs on their lives and improve their wellbeing. Further, there was quantitative evidence of the potential for the impacts of the training programmes to reach children and young people, with significant proportions of participants indicating they either had children themselves or worked with children. Overall, further evidence with more robust methodologies and including the perspectives of wider stakeholders (e.g. adult clients, children, and young people) is needed to assess the longer-term impacts of such training programmes on staff's actual trauma-informed practices, organisational-level changes, and on individuals' wellbeing. Nonetheless, findings from the current evaluation are supportive of the continuation of each of the Growing Stronger training programmes delivered in Liverpool, and evidence positive impacts from the programmes through utilisation of the Growing Stronger Framework. Implementation of such training programmes is a key component of the Growing Stronger strategy [2], which aims to build Liverpool into an ACE-responsive city, and critically improve the health and life chances of children and young people exposed to ACEs, and the high proportion of adults in Liverpool who have experienced ACEs [10].

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6. Appendices

Appendix Table A1: GST Trainers trainees' attendance at sessions

Training cohort	Training dates	Number of places booked	Number of attendees
1	15 th -17 th April	21	13
2	29 th April-1 st May	22	12
3	13 th -15 th May	20	9
4	3 rd -5 th June	24	17
5	16 th -18 th September	21	11
6	30 th September-2 nd October	25	22

Appendix Table A2: Proportions of participants agreeing²⁶ with statements related to understanding brain physiology and biology, pre- and post-training

	Pre-training % agree	Post-training % agree
I understand how the brain develops	68.1	91.5
I can identify threats to healthy brain development	80.1	95.5
I am familiar with attachment theory	77.9	94.7
I understand the stress-response system	66.8	95.1
I understand how trauma affects the brain	72.2	97.6
I understand the reward pathway (e.g. the impact of dopamine on behaviour)	54.4	88.6
I understand the effects of alcohol and cannabis on the brain	64.2	85.0
I understand the effects of cocaine, methamphetamine, and nicotine on the brain	55.4	79.3
I understand the connection between substance use disorders and trauma	63.1	88.2

²⁶ Including agree and strongly agree.

Appendix Table A3: Proportions of participants agreeing²⁶ with statements related to understanding the impacts of trauma and ACEs, pre- and post-training

	Pre-training % agree	Post-training % agree
I understand how ACEs can impact an individual throughout the lifespan	81.6	98.0
I am familiar with the long-term physical and behavioural effects which ACEs can have	76.2	97.2
I am familiar with historical trauma	73.5	97.6
I am familiar with racism as a form of trauma	70.0	94.3
I understand how racism and stereotype threat contribute to ACEs	65.0	93.5
I can recognise the impact of fear in the brain and body	69.7	93.0
I can identify fear and trauma in a system	53.8	93.0

Appendix Table A4: Proportions of participants agreeing²⁶ with statements related to awareness of trauma-informed practices, pre- and post-training

	Pre-training % agree	Post-training % agree
I am familiar with trauma-informed practice	62.8	97.2
I understand what it means to be trauma-informed	63.3	96.7
I can identify whether a practice is trauma-informed	46.7	91.1
I am familiar with mindfulness as a trauma-informed practice	58.8	93.9
I understand vicarious trauma	56.7	91.5
I understand trauma stewardship	37.6	87.4
I can take my knowledge of trauma-informed practice and approaches and change a practice and/or policy in the system in which I work	50.7	88.3

Appendix Table A5: Proportions of participants agreeing²⁶ with statements related to the importance of trauma-informed practices, pre- and post-training

	Pre-training % agree	Post-training % agree
I care about whether my work is trauma-informed	85.8	98.0
Learning about trauma-informed practices and approaches is important for the work I do	86.6	97.6
Applying a trauma-informed lens to my work can improve how I provide service in my organisation	87.4	97.2
Applying a trauma-informed lens to my work can improve the outcomes I (and my organisation) seek to achieve	86.7	97.6
It is important that our organisation has a budget specifically allocated for trauma-informed training and care	79.6	93.5
Acknowledging cultural differences is an important component of a trauma-informed approach	69.7	95.5

Appendix Table A6: Participants' mean level of confidence²⁷ to implement elements of ACE/trauma-informed approaches, pre- and post-training, paired samples t-tests, Growing Stronger Skilled only

To what extent are you confident or unconfident within your role to...	n	Mean (SD) level of agreement, pre-training	Mean (SD) level of agreement, post-training	p
Interact with vulnerable people sensitively	58	3.98 (0.76)	4.43 (0.73)	<0.001
Respond to vulnerable people	58	3.91 (0.80)	4.52 (0.71)	<0.001
Ask vulnerable people about their experiences of ACEs	58	3.45 (0.90)	4.22 (0.86)	<0.001
Respond to people who have experienced or present with ACEs	58	3.53 (0.92)	4.34 (0.81)	<0.001
Limit/mitigate the impact of ACEs	58	3.36 (0.81)	4.22 (0.84)	<0.001
Prevent ACEs	58	3.16 (0.88)	3.98 (0.95)	<0.001

²⁷ 1=very unconfident, 2=unconfident, 3=neither confident nor unconfident, 4=confident, 5=very confident

Appendix Table A7: Participants' mean level of confidence²⁷ to implement elements of ACE/trauma-informed approaches, pre- and post-training, paired samples t-tests, Growing Stronger Leadership only

To what extent are you confident or unconfident within your role to...	n	Mean (SD) level of agreement, pre-training	Mean (SD) level of agreement, post-training	p
Interact with vulnerable people sensitively	50	4.16 (0.71)	4.40 (0.86)	NS
Respond to vulnerable people	50	4.14 (0.67)	4.34 (0.98)	NS
Ask vulnerable people about their experiences of ACEs	50	3.62 (0.86)	4.16 (0.87)	<0.001
Respond to people who have experienced or present with ACEs	50	3.74 (0.88)	4.32 (0.87)	<0.001
Limit/mitigate the impact of ACEs	50	3.36 (0.88)	4.22 (0.86)	<0.001
Prevent ACEs	48	3.19 (0.87)	3.81 (1.00)	<0.001

Appendix Table A8: Proportions of participants indicating that they are confident²⁸ to implement elements of ACE/trauma-informed approaches, pre- and post-training

	Pre-training % confident	Post-training % confident
To interact with vulnerable people sensitively	85.0	94.7
To respond to vulnerable people	83.5	94.7
To respond to people who have experienced or present with ACEs	64.5	91.7
To ask vulnerable people about their experiences of ACEs	58.2	88.0
To limit/mitigate the impact of ACEs	49.6	87.2
To prevent ACEs	37.8	71.0

²⁸ Including confident and very confident.

Appendix Table A9: Participants' mean level of agreement²⁹ with statements related to leadership attitudes towards staff wellbeing, pre- and post-training, paired samples t-tests, Growing Stronger Leadership only

To what extent do you agree or disagree with the following statements...	n	Mean (SD) level of agreement, pre-training	Mean (SD) level of agreement, post-training	p
There is not enough time to prioritise staff's emotional and physical wellbeing	50	3.04 (1.21)	2.78 (1.33)	NS
It is not worth trying to deal with staff's problems that may be complicated or unsolvable	50	1.54 (0.79)	1.44 (0.76)	NS
At work we shouldn't pry into people's private lives	50	2.52 (0.79)	2.28 (0.95)	<0.05
Work is not the place to be having conversations about emotions	50	1.66 (0.87)	1.42 (0.61)	NS

Appendix Table A10: Proportions of participants disagreeing³⁰ with statements related to leadership attitudes towards staff wellbeing, pre- and post-training

	Pre-training % disagree	Post-training % disagree
There is not enough time to prioritise staff's emotional and physical wellbeing	35.4	42.1
It is not worth trying to deal with staff's problems that may be complicated or unsolvable	89.6	93.0
At work we shouldn't pry into people's private lives	37.5	59.6
Work is not the place to be having conversations about emotions	85.4	91.2

²⁹ 1=strongly disagree, 2=disagree, 3=neither agree nor disagree, 4=agree, 5=strongly agree. For these four statements a decrease in mean level of agreement indicates a positive change in attitudes.

³⁰ Including disagree and strongly disagree. For these four statements an increase in the proportion who disagreed indicates a positive change in attitudes.

Appendix Table A11: Participants' mean level of agreement³¹ with statements related to leadership attitudes towards approaches to improving staff wellbeing, pre- and post-training, paired samples t-tests, Growing Stronger Leadership only

To what extent do you agree or disagree with the following statements...	n	Mean (SD) level of agreement, pre-training	Mean (SD) level of agreement, post-training	p
In my organisation there should be regular check-ins with staff to identify any support needs	48	4.52 (0.83)	4.56 (0.97)	NS
Empathy and compassion are key leadership skills	46	4.57 (0.94)	4.61 (0.91)	NS
Staff in my organisation should be encouraged to reflect on their emotions in relation to work performance	47	4.38 (1.03)	4.47 (0.93)	NS
My organisation should offer training sessions and education to staff on ACEs and trauma	47	4.38 (1.10)	4.60 (0.90)	NS

Appendix Table A12: Proportions of participants agreeing³² with statements related to leadership attitudes towards approaches to improving staff wellbeing, pre- and post-training

	Pre-training % agree	Post-training % agree
In my organisation there should be regular check-ins with staff to identify any support needs	84.0	92.9
Empathy and compassion are key leadership skills	85.7	94.6
Staff in my organisation should be encouraged to reflect on their emotions in relation to work performance	78.5	92.9
My organisation should offer training sessions and education to staff on ACEs and trauma	82.6	94.6

³¹ 1=strongly disagree, 2=disagree, 3=neither agree nor disagree, 4=agree, 5=strongly agree. For these four statements an increase in mean level of agreement indicates a positive change in attitudes.

³² Including agree and strongly agree. For these four statements an increase in the proportion who agreed indicates a positive change in attitudes.

Appendix Table A13: Participants' mean level of agreement³³ with statements relating to knowledge of ACEs, time 1 and time 2, paired samples t-tests

To what extent do you agree or disagree with the following statements...	N	Mean (SD) level of agreement, time 1	Mean (SD) level of agreement, time 2	p
I understand what is meant by the term ACEs	56	3.82 (0.99)	4.75 (0.44)	<0.001
I have a good understanding of the different types of ACEs	56	3.41 (0.95)	4.66 (0.48)	<0.001
I am aware of the importance of resilience in preventing ACEs and mitigating against their impacts	56	3.52 (0.99)	4.68 (0.47)	<0.001
I am aware of how to act against ACEs in later life	56	3.23 (0.97)	4.64 (0.48)	<0.001
I am aware of how to prevent ACEs	56	3.36 (1.12)	4.59 (0.50)	<0.001

Appendix Table A14: Proportions of participants agreeing³⁴ with statements relating to their knowledge of ACEs, time 1 and time 2

	Time 1 % agree	Time 2 % agree
I understand what is meant by the term ACEs	67.5	100.0
I have a good understanding of the different types of ACEs	42.9	100.0
I am aware of the importance of resilience in preventing ACEs and mitigating against their impacts	49.4	100.0
I am aware of how to act against ACEs in later life	35.1	100.0
I am aware of how to prevent ACEs	39.0	100.0

Appendix Table A15: Participants' mean level of awareness³⁵ of different impacts that ACEs can have, time 1 and time 2, paired samples t-tests

To what extent are you aware of the impacts that ACEs can have on...	n	Mean (SD) level of agreement, time 1	Mean (SD) level of agreement, time 2	p
Low mental wellbeing	56	3.64 (1.15)	4.73 (0.45)	<0.001
Relationships/relationship outcomes	56	3.77 (1.14)	4.73 (0.45)	<0.001
Health harming behaviours	56	3.70 (1.13)	4.70 (0.46)	<0.001
Brain development	56	3.52 (1.10)	4.71 (0.46)	<0.001
Early development of disease	56	3.23 (1.10)	4.64 (0.52)	<0.001
The immune system	56	3.34 (1.07)	4.63 (0.52)	<0.001

³³ 1=strongly disagree, 2=disagree, 3=neither agree nor disagree, 4=agree, 5=strongly agree

³⁴ Including agree and strongly agree.

³⁵ 1=very unaware, 2=unaware, 3=neither aware nor unaware, 4=aware, 5=very aware

Appendix Table A16: Proportions of participants indicating they are aware³⁶ of the different impacts that ACEs can have, time 1 and time 2

	Time 1 % aware	Time 2 % aware
Low mental wellbeing	72.7	100.0
Effects on relationships	75.3	100.0
Health harming behaviours	69.7	100.0
Effect on brain development	58.4	100.0
Early development of disease	46.8	98.4
Effect on the immune system	51.9	96.8

Appendix Table A17: Proportions of participants responding often or all of the time to each SWEMWBS item, time 1 and time 2

	Time 1 % often or all of the time	Time 2 % often or all of the time
I've been feeling optimistic (positive) about the future	54.5	82.4
I've been feeling useful	55.8	77.8
I've been feeling relaxed	32.5	29.4
I've been dealing with problems well	55.8	77.8
I've been thinking clearly	51.9	83.3
I've been feeling close to other people	53.2	76.5
I've been able to make up my own mind about things	59.7	94.4

³⁶ Including aware and very aware.