ACADEMIA MENTAL HEALTH & WELL-BEING

Research Article
Published: 2025-12-29
https://doi.org/10.20935/MHealthWellB8071

Comparable efficacy of counselling, equine-assisted learning and nature-based interventions in family support

S. Kezia Sullivan[1,*], Ann Hemingway[1]

Academic Editors: Gabriel Ivbijaro, Kiran Rabheru

Abstract

This study presents findings from an analysis of the impact of three different intervention types referred to as part of the Supporting Families Program in England (SFP), which supports families experiencing multiple challenges, including domestic violence, children in need of help, and mental health challenges—many of which are considered Adverse Childhood Experiences (ACEs). The interventions include a talk-based program (n = 809), a 5-day equine-assisted learning program (n = 812) and a nature-based intervention within a care farm (n = 312). The data were flags triggering involvement with social services, collected by the local authority as part of their usual operations. The flags studied were domestic violence, child in need, and education flags, as well as the total number of flags per person within each family; these were collected prior to referral and at a 1-year follow up. Analyses found that all services significantly reduced the number of domestic violence and child-in-need flags as well as the total number of flags per family member at 1-year follow-up, indicating similar efficacy between services. Equine-assisted learning and nature-based interventions may therefore provide alternative support for clients finding talk-based programs either undesirable or ineffective. Effective alternatives are essential for delivering inclusive care to marginalised groups, improving client agency and dignity by delivering choice and improved outcomes within social services to support mental health.

Keywords: *equine-assisted learning, mental health, counselling, supporting families program, nature-based intervention, domestic violence, child in need, education, inclusive services*

Citation: Sullivan SK, Hemingway A. Comparable efficacy of counselling, equine-assisted learning and nature-based interventions in family support. *Academia Mental Health and Well-Being* 2025;2. https://doi.org/10.20935/MHealthWellB8071

1. Introduction

1.1. The supporting families program

The Supporting Families Program (SFP), previously known as the Troubled Families Program, has been running in England since 2012, and is currently in its third iteration following a 40% expansion in 2022 [1]. The program moved from being run by the Ministry of Housing, Communities and Local Government to the Department of Education in April 2024 [2] to better coordinate a systemic model of support for children.

The SFP takes a whole-family approach, providing interventions for families with complex interrelated challenges. These include mental and physical health problems, domestic violence and poor family relationships, educational challenges and children in need, including children on child protection plans, under the care of local authorities, and children with disabilities [1, 2]. Each family included in the program must have dependent children, as well as members who are experiencing two or more of the challenges above. Referrals are managed by local authorities based on need and the opinions of lead professionals regarding which programs will be beneficial for specific families or family members. Practicalities such as the availability of resources also impact referral decisions, with a focus on cost-efficiency and payment by results [3].

The SFP has been critiqued for having an excessive focus on people's behaviour and worklessness, rather than the circumstances which might lead to such challenges [4]. There have also been criticisms of the program as heavily politicising the experiences of vulnerable people as part of a government rhetoric, relocating the perceived centre of societal issues to a range of problematized families [5]. This problematization risks amplifying structural biases through which the diverse experiences of people in poverty are de-differentiated through data-driven processes, resulting in the risk of reducing agency for individual families within the social care system [6].

Another central issue of the SFP has been challenges with evaluating the efficacy of supports available to families [7]. This is partly driven by high thresholds for involvement in the program, with many families still experiencing adversity and complex challenges when they are considered to have been "turned around" as they no longer meet one of the criteria for support [8]. Further, the payment-by-results model used by the SFP risks excluding families with more complex challenges from receiving support in favour of families with issues which are perceived to be more tractable [3]. The true efficacy of interventions offered for families with the most complex challenges is therefore not yet well under-

[1]Department of Public Health and Wellbeing, Faculty of Health and Social Sciences, Bournemouth University, Bournemouth, UK.
*email: s5653685@bournemouth.ac.uk

stood, despite the critical need for local authorities to provide equitable support and dignity through the provision of effective services. These criticisms are vital to ongoing discourse and policy development; however, the focus of this paper is limited to understanding the impact of specific services working with families from the SFP on key outcomes. It is hoped that this will help to inform future referrals, practice and program development.

This study builds on previous research which was carried out in collaboration with a local authority and an EAL provider [9]. In the previous study, the impact of EAL for reducing domestic violence and child-in-need flags was compared with the impact of other levels of support within the SFP, including having been identified as in need of support but not currently receiving any, having a key worker assigned, and receiving other services which were not EAL. It was found that the 5-day EAL program delivered the greatest reduction in the incidence of domestic violence flags at a 1-year follow-up compared with other types of family support. The current study presents the analyses of the same flags within a later dataset from the same local authority and EAL program, which has been extended to facilitate comparisons of the efficacy of EAL and two other programs (a talk-based program and a nature-based intervention) for reducing flags collected by the local authority.

For some families on the SFP, mental health is a core challenge which underpins engagement with other services such as healthcare and education [10], as well as impacting challenges such as interfamilial conflict [11]. Poor mental health can drive marginalisation through difficulties managing family logistics, which may lead to missed appointments, which can then lead to exclusion from vital services [10]. Further, limited service availability and long waiting lists can reduce access to timely care, meaning that mental health difficulties and associated challenges may escalate, potentially becoming chronic before the possibility of addressing them. Interventions which support mental health and engagement in other services could therefore drive widespread impacts for families with complex needs.

The interventions under study here were offered as part of the SFP. They were focussed on supporting participants to develop social and emotional skills to improve wellbeing, mental health and relationships. Supporting clients to develop these skills is expected to reduce the incidence of problems at home such as domestic violence or having child-in-need status [12–14], as well as improving engagement at school [15]. Flags such as Health and Financial Exclusion, which were not directly targeted by interventions, were also included when considering the total number of flags within a family at each time period to give a more accurate representation of family circumstances following participation in interventions.

This paper presents a causal-comparative study evaluating the impact of interventions which families have been referred to as part of the SFP, to reduce the future likelihood of domestic violence, child-in-need, and educational problems within the family. The presence of these challenges within families is compared using data collected by the local authority at the time that families were referred to interventions and at a 1-year follow up period. The interventions included in this evaluation are a talk-based program (TBP), a nature-based intervention (NBI) and a 5-day equine-assisted learning (EAL) program.

1.2. Intervention impacts

To understand outcomes of priority for vulnerable families engaging with the SFP, vulnerability must first be defined and operationalised in this context. It has been argued that use of the term "vulnerable" without proper consideration risks further exclusion of already marginalised groups through stigmatisation and paternalism [16]. Instead, it is suggested that the precise risks which give rise to vulnerability to harm be considered, in line with recommendations from the National Health and Medical Research Council [17]. As such, this study investigates both the specific circumstances affecting families through analysis of each flag type, as well as the composite number of flags within each family.

Families are inherently interconnected, with many bidirectional relationships existing between the wellbeing and challenges of individual family members. For example, children's health and wellbeing can impact parental mental health, physical health and employment [18–20]. Conversely, parental mental health and employment can impact the wellbeing of children in the family across both the short and long term [21, 22]. These interlinked impacts highlight the mediating role of the family environment for mitigating or exacerbating other circumstances such as poverty or school experiences [23–25]. This also means that interventions supporting one family member are likely to have impacts throughout the family system; the impact of the interventions under study here will be discussed below.

Counselling is frequently used to support people to work through challenges in their lives, working with either families or individuals to explore their feelings and determine constructive ways forward [26]. The counselling service under study here focusses on relationships, and referrals are based on lead professionals' opinion that the service would be helpful for their clients. Counselling can be considered a mainstream service, with nearly 1/3 people in the UK accessing therapy in the past year, and around half of people who have used talk-based programs (TBPs) in the UK were referred by their GP [27].

Counselling has been shown to support families in a wide range of circumstances. A review found that counselling can support people with anxiety or depression in the short term, indicating that counselling may mitigate mental health challenges in a family [28]. A qualitative study also found that young people exposed to domestic violence find value in counselling, which offers them a space to express their experiences and be listened to [29]. Clients also described valuing being able to "go in and out of" the topic of the violence at their own pace, interspersed with other activities rather than being asked to constantly focus on it.

Despite frequent referrals from primary care, there is limited high-quality efficacy research into the impacts of counselling, with studies tending to work outside of the medical model through small-scale qualitative methods [30]. Further, although many clients report benefits of counselling, TBP are also subject to high drop-out rates of up to an estimated 20% [31], which poses a clear challenge to their efficacy. Younger people were identified as more likely to drop out of therapy, representing a particular challenge for supporting vulnerable families where the young person may be the primary recipient of support. Having a higher level of interpersonal relationship concerns and lower support systems have also been found to be risk factors for dropping out of TBPs [32],

which may pose additional barriers to TBPs which aim to support vulnerable families experiencing issues such as domestic violence.

Factors relating to the TBP itself may also be a cause of attrition; a qualitative study of how homeless young people viewed counselling was carried out by the authors of [33], yielding insight as to why people might drop out of counselling. A lack of trust in the efficacy of counselling was a central concern, with one young person summarising their feelings succinctly, saying "I don't feel better about myself because I've sat there and cried in front of somebody". Another described feeling that counselling was ineffective for different reasons, stating that "They can't really do anything… they're not there all the time, do you know what I mean?". In addition to feeling counselling was ineffective, many of the young people reported the counselling being imposed on them, often in response to their challenging behaviour, rather than having sought counselling as an independent choice. This coercive approach to "support" poses a further challenge to the likelihood of trust and a therapeutic alliance forming. Other services which clients enjoy or feel motivated to engage in might form part of a strengths-based approach to mitigate these therapeutic challenges.

Alternative interventions such as EAL and NBI might be suitable for clients who prefer not to engage in TBPs. The reasons for non-engagement in TBPs can be myriad; for example, some clients with post-traumatic stress disorder (PTSD) report a fear of retraumatisation, as well as a worsening of symptoms following talk-based therapies [34]. Alternately, clients may view the professionalised setting of TBPs as potentially coercive [35], which could contribute to a lack of engagement [33, 36]. To reduce these risks, relational approaches have been suggested to co-creating services, with careful consideration of topics such as power dynamics and boundaries to avoid retraumatisation [37]. Services such as EAL and NBI, which incorporate embodied action towards achievable goals together with practitioners, could offer an alternative to TBPs where clients feel concerned, unmotivated or resistant [13, 38–40].

There are many different types of equine-assisted services (EASs), including equine-assisted psychotherapy (EAP), hippotherapy/therapeutic riding, and equine-assisted learning (EAL), which will be the topic of this study. There are currently no agreed standards for EASs within the UK [9], meaning that terms are often conflated or mislabelled—for example, EAP may or may not refer to services delivered by licensed mental health professionals [41]. This article will primarily refer to research regarding equine-assisted learning (EAL) to start to develop distinctions within the evidence base, and noting where the EAS literature refers to other services.

The literature around the efficacy of EAL is subject to similar challenges as that of TBPs, with a review finding that although there is likely to be a positive impact of equine-assisted services (EASs) across several psychological outcomes [42], there is limited empirical research into specific impacts. Instead, studies tend to focus on small-scale and exploratory methods, leading to limited interpretation and generalizability of the findings [43]. The benefit of these qualitative studies is that they have indicated potential mechanisms of action through their rich phenomenological accounts. These include features of EAL such as offering emotional safety and embodied learning, which may facilitate rapid behavioural changes and improved emotional regulation for vulnerable client groups such as families engaged on the SFP [44–46].

EAL has been found to support participants with a wide range of needs, from increasing calmness in young people with anxiety [47] to increasing social competence for school children [48]. Another study (Sullivan and Hemingway, 2025; pending publication) found that EAL reduces antecedents to aggression such as a lack of healthy communication skills, or ability to establish boundaries. The skills delivered through EAL may support people in families with multiple challenges to navigate difficult circumstances and relationships—for example, through improved communication or assertiveness [49].

Nature-based interventions (NBIs) typically involve changing either the environment or peoples' behaviours within an environment [50]. There are a wide range of nature-based interventions which are likely to be effective for different participant needs—for example, wild swimming for improved mental health [51], and forest bathing for reducing anxiety [52]. The NBI included in this study is a care farm, bringing people into the rural environment of a farm to support their wellbeing using a solution-based approach to support re-engagement in education for young people aged 8–18. Care farms, also known as social farms, can serve a wide range of clients including disengaged young people, people with learning difficulties, and those with mental health conditions such as PTSD [38].

A report surveyed over 70 care farms in the UK, with staff reporting several areas of improvement for clients including vocational skills, improved mental health and wellbeing, and social skills such as developing personal responsibility and independence [39]. Participants of care farming programs also report feeling free to be themselves within the safe space provided by the farm setting and culture [38]. The skills and self-belief developed through care farming can support people to engage or re-engage positively outside of the program, having developed improved agency by overcoming perceived barriers, which can result from bad experiences within mainstream services [53].

1.3. Specific flag types on the supporting families program

Rates of domestic violence have almost doubled over recent years, from 7.5% of women and 4.4% of men in 2016/17 to 14% of women and 8.6% of men in 2023/24 [54, 55]. This amounts to there being approximately 2.3 million victims of domestic violence in 2023/24 [56], highlighting an urgent need for interventions which not only support victims of domestic violence but also act to prevent it.

Domestic violence has far-reaching impacts throughout the lifespan, with people experiencing domestic violence at greater risk of mental health problems such as anxiety, depression and sleep disorders [57]. Domestic violence may also impact the developmental trajectory of children exposed to domestic violence, potentially resulting in long-term challenges with learning, behaviour and socialising [58]. These challenges can result in the development of child-in-need status, as children may subsequently be placed on a child protection plan or require additional support for emotional or social difficulties arising from their experiences [59].

Child-in-need (CiN) flags indicate that a child is likely to be at risk of poor health or development if they do not receive additional

support. This could be due to a range of situations, including domestic violence, challenging family environments, disability and circumstances where additional support is needed to prevent the escalation of problems within the family [60]. There are an estimated 400,000 children in need in the UK; an increase of 2.6% since 2020 [61]. However, a recent study by Jay et al. (2025) suggests that this may be an under-representation, with approximately 1 in 4 children being in need of social services before they turn 18 [62]. With UNICEF (2023) [63] estimating that there are over 14 million children in the UK, the number of children who are likely to need support may be closer to 3.6 million.

Child-in-need flags can be triggered by many different circumstances—several of which are associated with socio-emotional challenges for both children and their families. Children in foster care are more likely to have mental health conditions than their peers [64], and parents of children with special needs described many challenges, including increased stress, difficulties managing behavioural problems, and a perception that counselling would support positive coping [65]. Further, children involved with social services are more likely to also have special educational needs [66], which may further impact their developmental trajectories.

Special educational needs (SEN) also has a high prevalence in the UK, with over 1.7 million children having SEN in 2024/25; an increase of 5.6% since 2024 [61]. Of these, almost 1 in 4 have social, emotional or mental health needs which may affect their experience of education. Young people with SEN and their families were disproportionately impacted during COVID-19 [67], with many families reporting feeling overwhelmed and that both parents and children were experiencing increased difficulties with mood. Family factors such as domestic violence can also increase the risk of young people experiencing problems in an educational setting [68], which can indirectly lead to the development of SEN through stress-related issues with cognition or conduct problems [69].

Having SEN can increase the risk of long-term social exclusion and poorer life outcomes through lower educational attainment [70]. Young people with conditions classified as SEN such as attention-deficit hyperactivity disorder (ADHD) or autism are also more likely to experience challenges engaging with education such as absenteeism, poor educational attainment and behavioural problems [71, 72]. This triad of educational exclusion, SEN and family challenges can result in long-term impacts such as mental health problems, chronic health conditions and challenges maintaining employment, which may drive intergenerational marginalisation for some families with complex needs [73–76].

Although there is limited agreement regarding what conditions constitute social exclusion, there is agreement that exclusion is related to a range of complex, interlinked concerns which may affect families [77]. The flags under study here are all associated with marginalisation and social exclusion, which can result in a lack of opportunities and dignity [77] as well as increased risk of mental health issues and poor life outcomes [57, 73, 74]. Interventions which are both practically and emotionally accessible are therefore critical for transferring agency to people in vulnerable families as a first step towards reducing long-term and intergenerational inequalities [78].

1.4. The current study

The current study aims to evaluate the efficacy of 3 different services offered to members of vulnerable families through the SFP to indicate whether they reduce the incidences of flags which may present for families in complex circumstances. These are domestic violence, child-in-need and education flags. Services will be compared with a mainstream TBP to evaluate whether alternative services held in outdoor settings might provide dignity through effective support for families facing complex challenges where other services might be ineffective, undesirable, or inaccessible for clients with the greatest degree of need.

2. Materials and methods

2.1. Method

The method was a quantitative causal-comparative study which used statistical analysis to investigate whether the type of intervention (EAL, NBI or TBP) accessed by any member of a family impacted the likelihood of a reduction in total flags per person in the family or specific flags per person in the family. The categories of flag included in the analyses were domestic violence, child in need, and education. The local authority (LA) Supporting Families Program (SFP) team collected the data from local services such as crime, education and social services as part of their usual operations across 7 years and 3 months. The data were anonymised and shared with two independent researchers via a data sharing agreement and were stored and processed securely in line with GDPR.

2.2. Participants

Participants were referred to each service by social workers within a local authority when circumstances triggered flags across one or more areas. Domestic violence flags are triggered when a young person or adult is at risk of experiencing or is experiencing domestic violence, and relate to crime/incident data from the police database, disclosure to a lead professional, or MARAC dates (Multi-Agency Risk Assessment Conference). The flag refreshes every 3 months; this study includes data extracted just prior to the intervention and at a 1-year follow up. Child-in-need data relate to the child-in-need plan, which is a peer-reviewed decision made by social workers. The flag also refreshes every 3 months, and was extracted before the intervention and at a 1-year follow-up. Education flags were also included, which are triggered by low school attendance, limited participation or unmet SEND needs. This flag also refreshes every 3 months, and was extracted before the intervention and at a 1-year follow-up. The overall number of participants who attended each intervention type is shown in **Table 1**.

The inclusion criteria for the study were that at least one member of the family had been referred to at least one of the three intervention types, and all families who had consistent complete data between the start of the intervention and a 1-year follow-up. The exclusion criteria were families with incomplete data availability, and those with any inconsistencies in recorded data across the time period. Families who were referred to more than one intervention type during the same period of time were also excluded from analysis.

Table 1 • Number of participants of each intervention type.

Intervention type	All participants	No. of families	Participants aged 23 and under	Families with persons under 23
Talk-Based Program	809	203	477	196
Nature-Based Intervention	312	81	171	78
Equine-assisted Learning	812	206	466	204

The participants were part of an opportunity sample of people referred to programs by the local authority through the Supporting Families Program (previously the Troubled Families Program). The sample size was therefore decided by the number of people within families who had been involved with the program, who met all of the inclusion criteria and none of the exclusion criteria across the time period.

2.3. Ethics

This study was granted ethical approval by Bournemouth University (protocol code 51112, approved on 2025 Jun 1), and the data were accessed through a data sharing agreement with the local authority. All data were stored on a university computer which was password-protected, in line with UK data management and storage Data Protection Law. It is recognised that animal welfare is also paramount within animal-assisted interventions such as EAL and NBI. Full details of how welfare is managed within the EAL setting are available [9, 47] along with further information around the intervention under study; therefore, it is not reproduced here.

2.4. Materials

The Multi-Agency outcomes captured by the local authority through the SFP team allowed this study to carry out secondary analysis of existing data collected by impartial agencies, rather than the charities providing services. Decisions regarding referrals were made by the LA team within the SFP based on need. This causal-comparative study compares outcomes across intervention types via a data sharing agreement.

The outcomes of the interventions were determined using the flags as described above. The number of flags per person of the appropriate age for the flag in a family was used to identify changes following the interventions, with reduced numbers of flags indicating a positive effect of the intervention. The average number of people in each family was 3.95, and there were no significant differences in family size across the intervention types. Information regarding which members of the families had attended interventions was not available and was therefore not included in these analyses.

2.5. Procedure

For each flag type, a mixed-measures ANOVA was undertaken to evaluate the effects of time and intervention type on the number of flags per person in each family, as well as whether there was any interaction between time and intervention type. The total number of flags per person in the family across all flag types was also investigated.

3. Results

3.1. Total flags per person

A mixed-measures ANOVA was carried out with the number of flags per person in the family included as a dependent variable, time as a within-participant independent variable, and intervention type as a between-participant independent variable. Participants of all ages were included in this analysis.

There was a significant main effect of Time on Total Flags following the intervention ($F(1, 487) = 20.541$, $p < 0.001$, $\eta_p^2 = 0.040$), shown in **Figure 1**. However, there was no main effect of intervention type or significant interaction between time and intervention type ($p > 0.005$). For full details, please see **Table 2**.

3.2. Domestic violence flags

A mixed-measures ANOVA was carried out with the number of domestic violence flags per person in the family included as a dependent variable, time as a within-participant independent variable, and intervention type as a between-participant independent variable. This analysis was carried out including participants of all ages. Box's Test for Equality of Covariance was significant ($F(6, 607{,}293.889) = 3.774$, $p < 0.001$); therefore, Pillai's Trace values were used.

There was a significant main effect of time on total flags following the intervention ($F(1, 487) = 8.751$, $p = 0.003$, $\eta_p^2 = 0.018$). There was also a significant main effect of intervention type ($F(2, 487) = 142.455$, $p < 0.001$, $\eta_p^2 = 0.014$), as shown in **Figure 2**. Post hoc tests with a Bonferroni correction found that the talk-based program ($M = 0.180$) had significantly more flags ($p = 0.035$) at both pre- and post-intervention compared with equine-assisted learning ($M = 0.120$). However, there was no significant interaction between time and intervention type ($p > 0.005$). For full details, please see **Table 3**.

3.3. Education flags

A mixed-measures ANOVA was carried out including the number of education flags per person aged under 23 in each family as a dependent variable, time as a within-participant independent variable, and intervention type as a between-participant independent variable. The analysis only included young people aged 23 and under, and flags per person were calculated based on the number of people aged 23 and under in each family. Box's Test for Equality of Covariance was significant ($F(6, 553{,}972.024) = 5.355$, $p < 0.001$); therefore, Pillai's Trace values are reported. Levene's test for homogeneity of variance was also significant for both pre flags ($F(2, 436.956) = 8.522$, $p < 0.001$) and post flags ($F(2, 448.968) = 4.659$, $p = 0.010$); therefore, η_p^2 is reported as a measure of effect size, and the Games–Howell statistic was calculated for post hoc tests as these are robust to heterogeneity of variance.

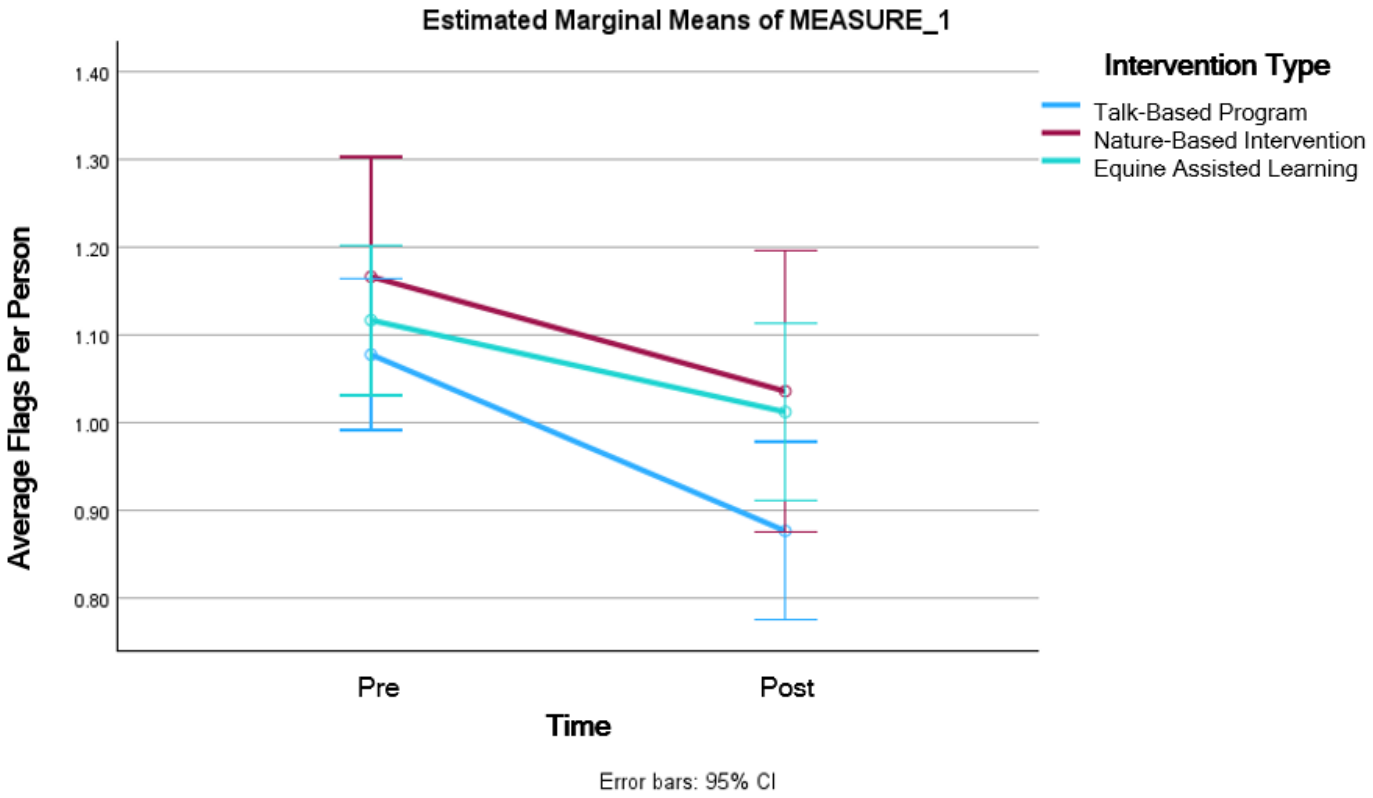

Figure 1 • Main effect of time on total family flags.

Table 2 • Mixed-measures ANOVA results for total flags per person.

Source	Type III sum of squares	*df*	Mean square	*F*	*p*	η_p^2	Noncent. parameter	Observed power [a]
Within-participant effects on total flags per person								
Time	4.296	1	4.296	20.541	0.000	0.040	20.541	0.995
Time × Intervention Type	0.492	2	0.246	1.177	0.309	0.005	2.354	0.258
Error (Time)	101.853	487	0.209					
Between-participant effects on total flags per person								
Intercept	892.610	1	892.610	1230.996	0.000	0.717	1230.996	1.000
Intervention Type	2.428	2	1.214	1.674	0.189	0.007	3.348	0.353
Error	353.130	487	0.725					

[a] Computed using $\alpha = 0.05$.

There was no significant main effect of time on education flags following the intervention ($p > 0.005$, $\eta_p^2 = 0.001$), and no significant interaction between time and intervention type ($p > 0.005$, $\eta_p^2 = 0.002$). However, there was a significant main effect of intervention type, demonstrating a small effect size ($F(2, 475) = 8.317$, $p < 0.001$, $\eta_p^2 = 0.034$). For full details, please see **Table 4** and **Figure 3**. Post hoc tests using the Games–Howell statistic found that people referred to the talk-based program ($M = 0.153$) had significantly lower education flags than people referred to either the nature-based intervention ($M = 0.280$, $p = 0.009$) or equine-assisted learning ($M = 0.257$, $p < 0.001$) at each time point. There was no significant difference between the numbers of flags per person of those referred to the nature-based intervention or equine-assisted learning ($p > 0.005$).

3.4. Child-in-need flags

The number of child-in-need flags per person aged 23 and under in each family was analysed as a dependent variable in a mixed-measures ANOVA, with time as a within-participant independent variable, and intervention type as a between-participant independent variable. The analysis only included young people aged 23 and under, and flags per person were calculated based on the number of people aged 23 and under in each family. Neither Box's Test of Covariance nor Levene's test for homogeneity of variance were significant; therefore, the standard ANOVA statistics are reported; please see **Table 5** for full details.

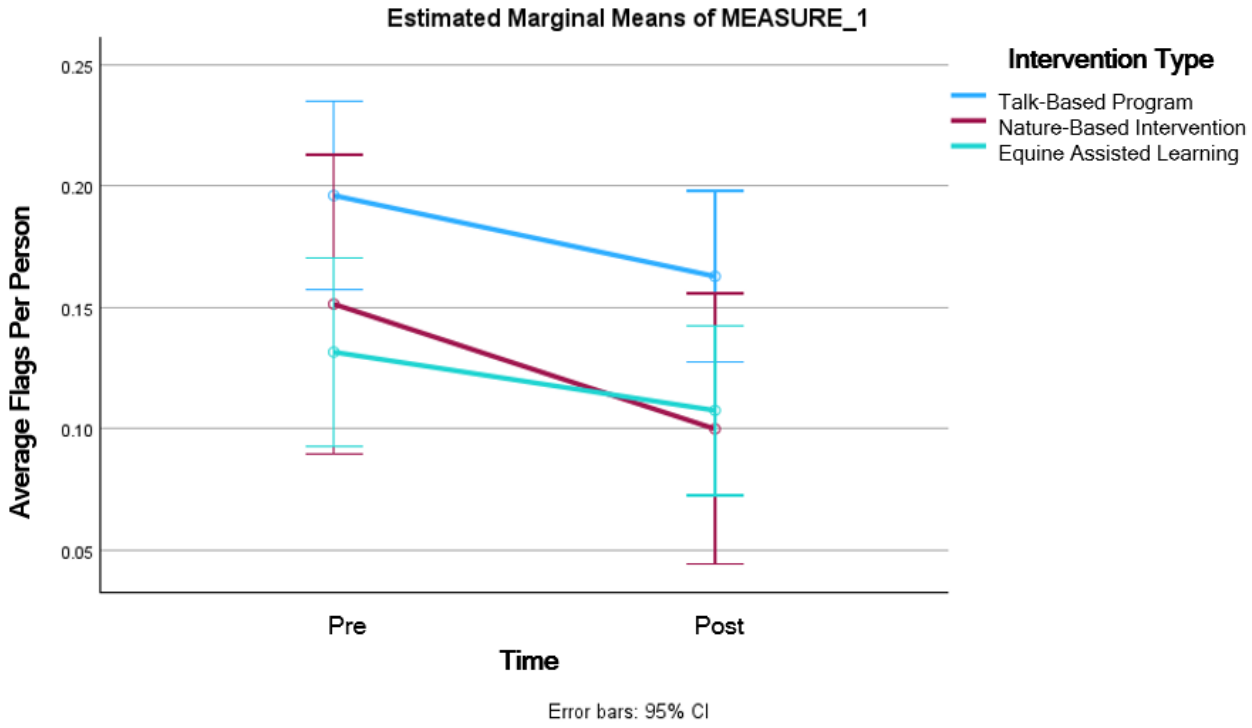

Figure 2 • Main effects of time and intervention type on domestic violence flags.

Table 3 • Mixed-measures ANOVA results for domestic violence flags.

Source	Type III sum of squares	*df*	Mean square	*F*	*p*	η_p^2	Noncent. parameter	Observed power [a]
Within-participant effects on domestic violence flags per person								
Time	0.268	1	0.268	8.751	0.003	0.018	8.751	0.840
Time × Intervention Type	0.022	2	0.011	0.360	0.698	0.001	0.720	0.108
Error (Time)	14.893	487	0.031					
Between-participant effects on domestic violence flags per person								
Intercept	16.323	1	16.323	142.455	0.000	0.226	142.455	1.000
Intervention Type	0.809	2	0.405	3.532	0.030	0.014	7.064	0.657
Error	55.803	487	0.115					

[a] Computed using $\alpha = 0.05$.

Table 4 • Mixed-measures ANOVA results for education flags in participants aged 23 and under.

Source	Type III Sum of squares	*df*	Mean square	*F*	*p*	η_p^2	Noncent. parameter	Observed power [a]
Within participants effects on education flags per person								
Time	0.030	1	0.030	0.565	0.453	0.001	0.565	0.116
Time × Intervention Type	0.044	2	0.022	0.419	0.658	0.002	0.838	0.118
Error (Time)	25.006	475	0.053					
Between participants effects on education flags per person								
Intercept	41.728	1	41.728	240.551	0.000	0.336	240.551	1.000
Intervention Type	2.885	2	1.443	8.317	0.000	0.034	16.634	0.962
Error	82.397	475	0.173					

[a] Computed using $\alpha = 0.05$.

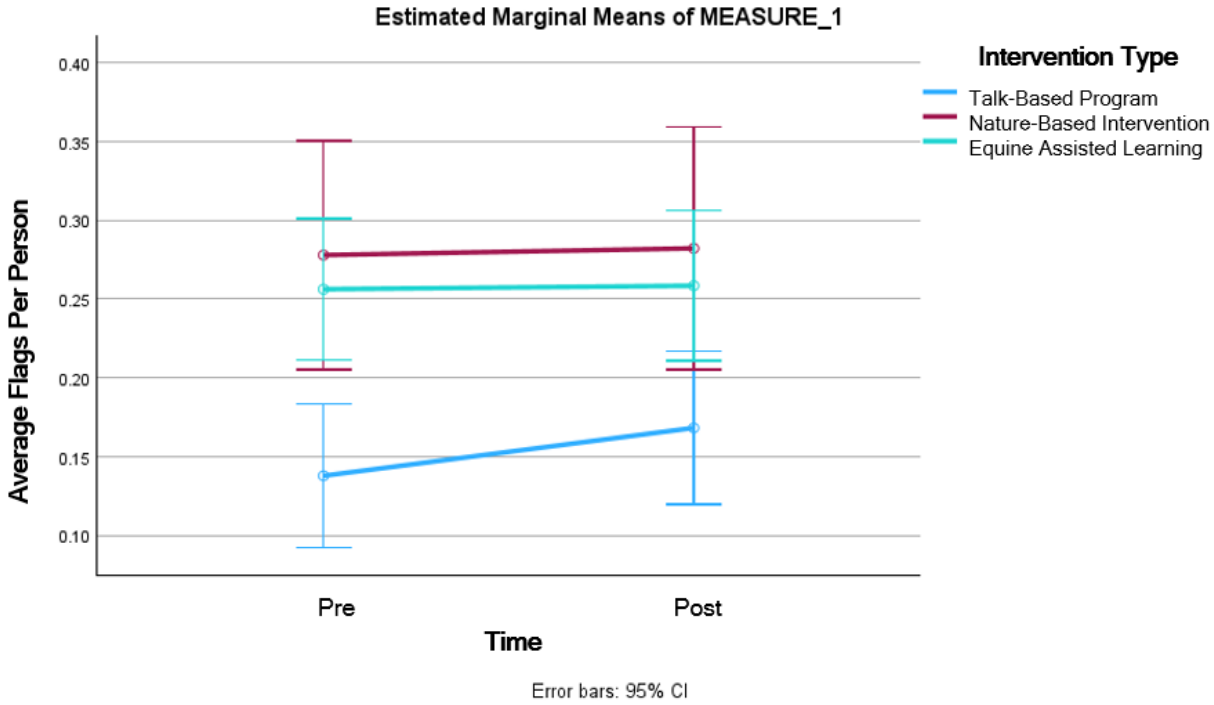

Figure 3 • Main effects of time and intervention type on education flags in people aged 23 and under.

Table 5 • Mixed-measures ANOVA results for child-in-need flags in participants aged 23 and under.

Source	Type III sum of squares	*Df*	Mean square	*F*	*p*	η_p^2	Noncent. parameter	Observed power [a]
Within participants effects on child-in-need flags per person								
Time	7.973	1	7.973	60.504	0.000	0.113	60.504	1.000
Time × Intervention Type	1.165	2	0.583	4.421	0.013	0.018	8.842	0.760
Error (Time)	62.596	475	0.132					
Within participants effects on child-in-need flags per person								
Intercept	297.825	1	297.825	1393.210	0.000	0.746	1393.210	1.000
Intervention Type	0.860	2	0.430	2.011	0.135	0.008	4.022	0.415
Error	101.540	475	0.214					

[a] Computed using $\alpha = 0.05$.

There was a significant main effect of time on total flags following the intervention ($F(1, 475) = 60.504$, $p < 0.001$, $\eta_p^2 = 0.113$). There was also a significant interaction between time and intervention type ($F(2, 475) = 4.421$, $p = 0.013$, $\eta_p^2 = 0.018$) shown in **Figure 4**. However, there was no significant main effect of intervention type ($p > 0.005$).

4. Discussion

4.1. Findings

This study compared the impact of three commonly used interventions for supporting vulnerable families. These were a talk-based program (TBP), a nature-based intervention (NBI) and a 5-day equine-assisted learning (EAL) program. All intervention types were found to have a positive impact on the total number of flags experienced by families at a 1-year follow up, with no significant main effect of intervention or interaction between intervention type and time. This indicates that all three intervention types may be of equal value for supporting vulnerable families with various challenges through the SFP.

For domestic violence flags, each intervention type was shown to be similarly effective with a significant main effect of time, although there was also a main effect of intervention type. Post hoc tests revealed TBP to have higher flags at both pre- and post-intervention compared with NBI or EAL programs. This may be an artefact of the referral process, as the TBP is designed to support people with relationship challenges, whereas the NBI and EAL programs focus on developing positive engagement, behaviour and personal emotional regulation skills rather than supporting directly relational challenges such as those which are likely to present within families with domestic violence. The main effect of time and the absence of an interaction between intervention type and time indicates similar efficacy across the three interventions for reducing domestic violence flags, despite possible differences in referral patterns.

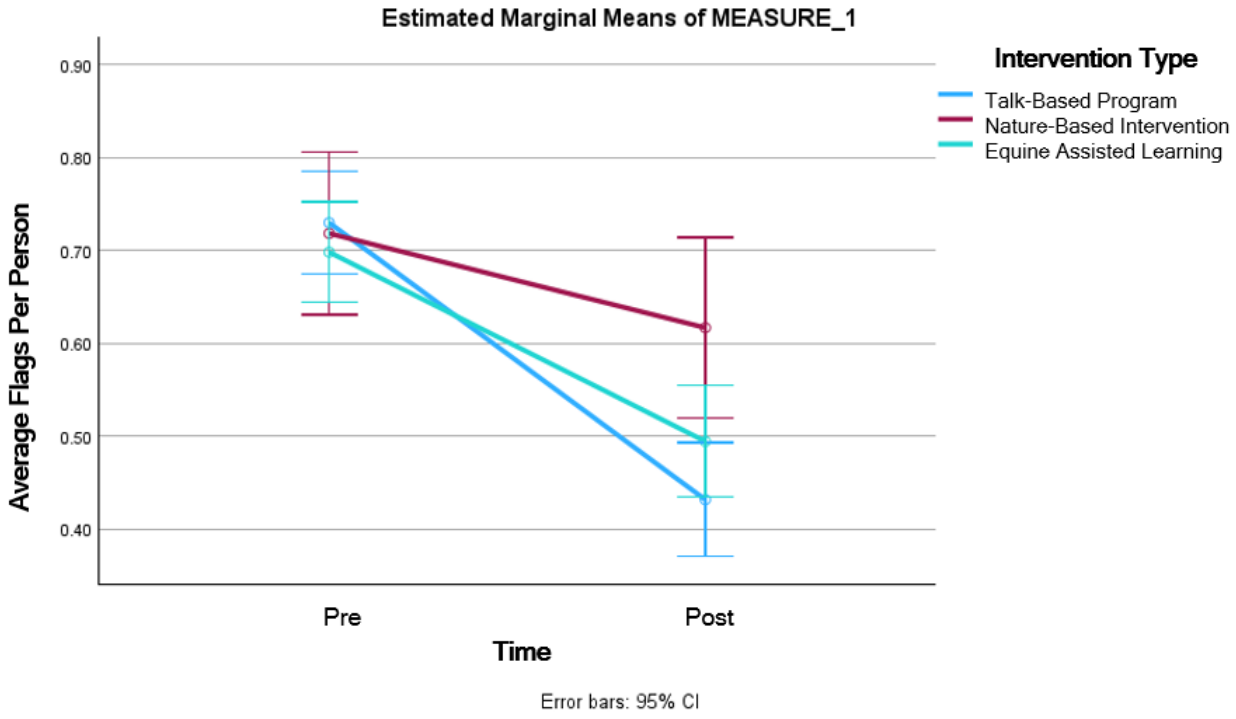

Figure 4 • Main effects of time and intervention type on child-in-need flags in people aged 23 and under.

Analyses of education flags pre- and post-intervention included only participants under the age of 23 in each family, as flags for people older than 23 would transfer to an "employment" category. There was no significant main effect of time for education flags, indicating a lack of impact across intervention types. However, the significant main effect of intervention type revealed that people with education flags were more likely to be referred to either NBI or EAL programs than TBPs. This is in line with the slightly differing goals of each intervention type. The TBP focusses specifically on relationships, compared with more general emotional and behavioural goals of NBI and EAL programs, which might reduce barriers to accessing education.

Child-in-need (CiN) flags were also analysed for under-23-year-olds only within each family, revealing a significant positive impact of each intervention type, as well as an interaction between intervention type and time. The NBI was less impactful for reducing CiN than TBPs and EAS, which may be in alignment with the types of referrals and goals for each intervention type. Both the TBP and EAS have a greater explicit focus on developing emotional skills compared with the NBI, which focusses more on engagement and developing positive behaviours. Further, clients referred due to CiN may have a variety of different needs, ranging from socio-emotional needs which may resolve over time when supported by EAS or TBP, to children with disabilities, who may benefit from NBI but are unlikely to drop CiN flags. These referral patterns were not possible to distinguish from our data, but could be investigated in future work.

4.2. Implications

The main effects of time across total flags, domestic violence, and CiN along with the absence of significant interactions between intervention type and time for total flags per family and domestic violence may indicate that each program has similar efficacy for supporting vulnerable families through the SFP. The finding that people referred to TBPs are more likely to have domestic violence flags whereas NBI and EAS are more likely to receive clients with education flags may also reveal slightly differing referral patterns between services, which may relate to their content.

Decisions are made by the social workers who support each family based on a balance between their perception of family needs, organisational structure and available resources. For example, EAS is a relatively expensive service, meaning that referrals are typically limited to cases where other interventions have been ineffective or are not engaged with. Despite families often being referred to EAS when they have more complex issues or have not responded to other services [9], these analyses show EAL to be similarly effective to mainstream services such as TBP. This is in line with previous findings that EAL is effective for reducing domestic violence at a 1-year follow up for families referred as part of the SFP [9].

EAS may provide a suitable alternative to TBPs in cases where there are fears of re-traumatization through trauma-focussed therapies, which may result in disengagement from services [34]. Previous work found the EAL program to have a high completion rate of 94% compared to lower rates of completion for TBPs [13, 31], indicating that clients enjoy and are motivated to attend the EAL program. Providing services which clients feel able and motivated to attend is likely to enhance efficacy ahead of specific service-related factors.

Challenges experienced by clients during TBP, which contribute to relatively high drop-out rates may highlight strengths of alternative provisions such as EAL or NBI for clients who are not achieving their desired results through TBPs. A client's dislike for the formality and professionalism of counselling settings may pose a barrier to trust and open dialogue [33], which is not present in the nature-rich environments of EAL and NBI. These nature-rich

environments are understood to have therapeutic value which may unlock progress for clients who are "stuck" or disengaged by removing the sense of restriction which may be present in mainstream settings. Within these environments, clients are also able to develop their self-esteem through facilitating steady achievements, perhaps for the first time [53].

Relatively high drop-out rates from TBPs could also be due to discomfort within institutional settings, often compounded by a sense of coercion as clients may not have made the choice to attend the TBP themselves—instead feeling that services have been imposed on them as a response to their behaviour or circumstances [33]. This threatens clients' experience of dignity throughout their interactions with programs such as the SFP and associated services [79] and may increase the risk of their dropping out of programs where they perceive their agency to be threatened.

The relatively egalitarian, action-oriented setting of NBI and EAL may allow services to operate outside of perceived power imbalances which can exist within TBPs. These power imbalances can result in people appearing disengaged due to feeling that they must manage the information they share to avoid adverse consequences [80]. People from vulnerable families may also be at particular risk of harm through the "psychiatrization of society". This is the over-diagnosis of mental ill-health through the pathologizing of emotional experiences, which can obscure the impact of societal factors such as chronic adversity or poverty [81]. For clients in complex circumstances, services which facilitate and demonstrate client's capacity to succeed may improve their sense of agency and dignity, bypassing victimisation and supporting the resolution of emotional symptoms through action [82].

The embodied, practical nature of NBI and EAL activities also allows people to participate fully without feeling pressured to verbalise their feelings, which can sometimes pose a barrier to engagement. A study found a disconnect between the needs of adolescent clients and the expectations of their therapists [36]. This manifested as young people reporting not knowing what to talk about and feeling uncomfortable in the silences during therapy, which was compounded by feeling unable to talk to their therapists about their concerns. Meanwhile, therapists were apparently unaware of these concerns, tending to report instead that the young people were simply unable or unwilling to engage. Such misunderstandings risk the further marginalisation of people at risk of exclusion, as much-needed services may be inaccessible, rather than unavailable. This is a particular risk for people with lower socio-economic status (SES) who are particularly likely to drop out of TBPs [31], potentially impacting service uptake within the context of the SFP.

Engaging in the physical activities of EAL and NBI may also support rapid learning through embodied action [45]. This can support behaviour change by building physical experiences of successfully using emotional regulation skills to achieve desired outcomes, first during programs with support from facilitators, and later independently, transferring to other contexts [40, 83]. The directly relational nature of EAL has been described as particularly powerful for supporting these emotional changes [44, 45]; however, NBI may also provide opportunities for clients to develop through experiencing success and positive relationships with animals [84, 85]. The sense of being in relationship with animals is built through skill development, contributing to a sense of mastery and trust [86] in direct opposition to possible disempowering experiences of soft or direct pressure within the social services.

Services such as NBI and EAL promote agency for clients through strengths-based practical activities which encourage the development of an internal locus of control through building a series of successes [87, 88]. Strengths-based approaches have been described as building on family capabilities to promote resilience [89], as well as sharing several features which have been identified as contributing to a service users' perception that they have been treated with dignity in a social work setting. These include treating people as unique, and as collaborators in planning for their support [90]. Some circumstances in the SFP may pose a particular challenge to upholding clients' dignity [91]; it is these circumstances, where the risk of coercive practice is greatest, that supporting clients to build agency and self-determination may hold the greatest value and enable active engagement.

4.3. Limitations

The sample for this study was a convenience sample, meaning that there was no matching of participant characteristics across groups. The potential heterogeneity between the groups may therefore mean there is limited generalizability of the findings, as groups were defined by both SFP criteria and through decisions taken by the referral team at the local authority. Discussions with the local authority teams revealed an informal process by which participants might be referred to more expensive interventions (such as EAL or NBI) following other interventions being either ineffective or not engaged with. However, this process is not standardised, meaning participants of this study are likely to have followed various pathways to the interventions attended.

It is therefore assumed that in some cases, clients attending EAL or NBI programs may have experienced challenges which were not resolved through TBP. This context was not possible to determine from the dataset, which offered a snapshot of intervention impact across a 1-year period. Future research could deepen the understanding around circumstances in which families are referred to EAL, NBI or TBP, as our findings have indicated some heterogeneity in the groups. This would support optimisation of referral pathways to ensure clients receive access to appropriate support which is most likely to be effective for their specific challenges.

Another limitation of this study is that each service type was represented by a sole provider who had been engaged by the local authority; however, there is significant variability between providers of TBP, NBI and EAL. This study therefore indicates the potential efficacy of services of each type for supporting vulnerable families; multi-site studies carried out across several providers of each type would support further generalisability of the results.

5. Conclusions

This study found similar efficacy across TBP, EAL and NBI for reducing the total number of flags which trigger involvement with the SFP, as well as for reducing reported domestic violence flags and child-in-need flags. Differing referral patterns were also indicated across the services, which may be further understood during future research. The comparable efficacy across services for supporting families with multiple challenges implies that EAL and NBI may offer an effective alternative to mainstream services

where TBP are either not being engaged with or are ineffective. These services support dignity in mental health care through improved support systems accessible via local authorities, in a step towards providing equitable access to effective, engaging services for families at risk of social exclusion. Common barriers to engagement with TBPs such as institutional environments or an expectation to verbalise emotions may be mitigated through EAL or NBI, which may support marginalised clients to develop improved agency in strengths-based environments.

Acknowledgments

The authors would like to thank the local authority staff who helped with data extraction and sharing across agencies, as well as everyone involved with the Charities, particularly with the horses and other animals.

Funding

This research received no external funding.

Author contributions

Conceptualization, A.H. and K.S.; methodology, K.S. and A.H.; validation, K.S and A.H.; formal analysis, K.S.; investigation, K.S. and A.H.; resources, A.H and K.S.; data curation, K.S.; writing—original draft preparation, K.S.; writing—review and editing, A.H.; visualisation, K.S.; supervision, A.H.; project administration, K.S. and A.H. All authors have read and agreed to the published version of the manuscript.

Conflict of interest

The authors declare that they have no competing interests.

Data availability statement

The data supporting the findings of this publication can be made available upon request.

Institutional review board statement

The study was conducted according to the guidelines of the Declaration of Helsinki and approved by the Institutional Review Board of Bournemouth University (protocol code 51112, approved on 2025 Jun 1).

Informed consent statement

Informed consent for participation was not required, as this study involved secondary analysis of fully anonymized data collected by a third party.

Additional information

Received: 2025-10-23

Accepted: 2025-12-12

Published: 2025-12-29

Academia Mental Health and Well-Being papers should be cited as *Academia Mental Health and Well-Being 2025*, ISSN 2997-9196, https://doi.org/10.20935/MHealthWellB8071. The journal's official abbreviation is *Acad. Ment. Health WellB.*

Publisher's note

Academia.edu Journals stays neutral with regard to jurisdictional claims in published maps and institutional affiliations. All claims expressed in this article are solely those of the authors and do not necessarily represent those of their affiliated organizations, or those of the publisher, the editors and the reviewers. Any product that may be evaluated in this article, or claim that may be made by its manufacturer, is not guaranteed or endorsed by the publisher.

Copyright

© 2025 copyright by the authors. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (https://creativecommons.org/licenses/by/4.0/).

References

1. Department for Education, UK Government. Supporting families programme guidance 2022 to 2025: chapter 1—introduction and objectives. London: GOV.UK; 2022 [accessed on 2025 Oct 16]. Available from: https://www.gov.uk/government/publications/supporting-families-programme-guidance-2022-to-2025/chapter-1-introduction-and-objectives#supporting-families-programme-guidance-2022-to-2025
2. Department for Education, UK Government. Supporting families: whole family working—informing future system reform. London: DfE; 2024 [accessed on 2025 Oct 16]. Available from: https://assets.publishing.service.gov.uk/6847fe0586036 2efc8e787ac/Supporting_Families_-_Whole_Family_Working_Informing_Future_System_Reform.pdf
3. Thoburn J. 'Troubled families', 'troublesome families' and the trouble with payment by results. Fam Relats. Soc. 2013;2(3):471. doi: 10.1332/204674313X13805512389852
4. Hayden C, Jenkins C. 'Troubled families' programme in England: 'wicked problems' and policy-based evidence. Policy Stud. 2014;35(6):631–49. doi: 10.1080/01442872.2014.971732
5. Lambert M, Crossley S. 'Getting with the (troubled families) programme': a review. Soc Policy Soc. 2017;16(1):87–97. doi: 10.1017/S1474746416000385
6. Horsley N, Gillies V, Edwards R. 'We've got a file on you': problematising families in poverty in four periods of austerity. J Pov Soc Justice. 2020;28(2):227–44. doi: 10.1332/175982720X15791324075050
7. Day L, Bryson C, White C, Purdon S, Bewley H, Sala Kirchner L, et al.National evaluation of the troubled families programme. Final synthesis report. London:

DCLG; 2016 [accessed on 2025 Oct 16]. Available from: https://www.niesr.ac.uk/wp-content/uploads/2021/10/Troubled_Families_Evaluation_Synthesis_Report.pdf

8. Wills J, Whittaker A, Rickard W, Felix C. Troubled, troubling or in trouble: the stories of 'troubled families'. Br J Soc Work. 2017;47(4):989–1006. doi: 10.1093/bjsw/bcw061

9. Hemingway A, Sullivan K. Reducing the incidence of domestic violence: an observational study of an equine-assisted intervention. Fam Process. 2022;61(2):549–70. doi: 10.1111/famp.12768

10. Boddy J, Statham J, Warwick I, Hollingworth K, Spencer G. What kind of trouble? Meeting the health needs of 'troubled families' through intensive family support. Soc Policy Soc. 2016;15(2):275–88. doi: 10.1017/S1474746415000494

11. Jin Y, Liu J, Li P, Hu Y, Hong X, Li X, et al. Longitudinal associations between family conflict, intergenerational transmission, and adolescents' depressive symptoms: evidence from China family panel studies (2016–2020). Child Adolesc Psychiatry Ment Health. 2025;19(1):10. doi: 10.1186/s13034-025-00866-9

12. Edwards KM, Neal AM, Rodenhizer-Stämpfli KA. Domestic violence prevention. In: Preventing Crime and Violence. Cham: Springer International Publishing; 2016. p. 215–27. doi: 10.1007/978-3-319-44124-5_19

13. Hemingway A. A study exploring the implementation of an equine-assisted intervention for young people with mental health and behavioural issues. J. 2019;2(2):236–46. doi: 10.3390/j2020017

14. Jaffee SR, Gallop R. Social, emotional, and academic competence among children who have had contact with child protective services: Prevalence and stability estimates. J Am Acad Child Adolesc Psychiatry. 2007;46(6):757–65. doi: 10.1097/chi.0b013e318040b247

15. Huttunen I, Upadyaya K, Salmela-Aro K. Longitudinal associations between adolescents' social-emotional skills, school engagement, and school burnout. Learn Individ Differ. 2024;115:102537. doi: 10.1016/j.lindif.2024.102537

16. Munari SC, Wilson AN, Blow NJ, Homer CS, Ward JE. Rethinking the use of 'vulnerable'. Aust New Zealand J Public Health. 2021;45(3):197–9. doi: 10.1111/1753-6405.13098

17. Anderson W. 2007 National Statement on Ethical Conduct in Human Research. Intern Med J. 2011;41(7):581–2. doi: 10.1111/j.1445-5994.2011.02528.x

18. Disabled Children's Partnership. Failed and forgotten: DCP report 2023. London: Disabled Children's Partnership; 2023 [accessed on 2025 Oct 16]. Available from: https://disabledchildrenspartnership.org.uk/wp-content/uploads/2023/03/Failed-and-Forgotten-DCP-report-2023.pdf

19. Graaf G, Baiden P, Keyes L, Boyd G. Barriers to mental health services for parents and siblings of children with special health care needs. J Child Fam Stud. 2022;31(3):881–95. doi: 10.1007/s10826-022-02228-x

20. Ayano G, Lin A, Dachew BA, Tait R, Betts K, Alati R. The impact of parental mental health problems on the educational outcomes of their offspring: Findings from the Raine Study. Aust N Z J Psychiatry. 2022;56(5):510–24. doi: 10.1177/00048674211025633

21. Judd N, Hughes K, Bellis MA, Hardcastle K, Amos R. Is parental unemployment associated with increased risk of adverse childhood experiences? A systematic review and meta-analysis. J Public Health (Oxf). 2023;45(4):829–39. doi: 10.1093/pubmed/fdad069

22. Kamis C. The long-term impact of parental mental health on children's distress trajectories in adulthood. Soc Ment Health. 2021;11(1):54–68. doi: 10.1177/2156869320912520

23. Adjei NK, Jonsson KR, Straatmann VS, Melis G, McGovern R, Kaner E, et al. Impact of poverty and adversity on perceived family support in adolescence: findings from the UK Millennium Cohort Study. Eur Child Adolesc Psychiatry. 2024;33(9):3123–32. doi: 10.1007/s00787-024-02389-8

24. Annunziata D, Hogue A, Faw L, Liddle HA. Family functioning and school success in at-risk, inner-city adolescents. J Youth Adolesc. 2006;35(1):100–8. doi: 10.1007/s10964-005-9016-3

25. Deng Y, Cherian J, Khan NUN, Kumari K, Sial MS, Comite U, et al. Family and academic stress and their impact on students' depression level and academic performance. Front Psychiatry. 2022;13:869337. doi: 10.3389/fpsyt.2022.869337

26. BACP. What is counselling? BACP—about therapy. 2025 [accessed on 2025 Dec 4]. Available from: https://www.bacp.co.uk/about-therapy/what-is-counselling/

27. BACP. 2025 UK counselling and therapy trends and attitudes revealed. 2025 [accessed on 2025 Dec 4]. Available from: https://www.bacp.co.uk/about-us/about-bacp/bacp-public-perceptions-survey/

28. Bower P, Rowland N, Hardy R. The clinical effectiveness of counselling in primary care: a systematic review and meta-analysis. Psychol Med. 2003;33(2):203–15. doi: 10.1017/S0033291702006979

29. Källström Å, Thunberg S. "Like an equal, somehow"—What young people exposed to family violence value in counseling. J Fam Violence. 2019;34(6):553–63. doi: 10.1007/s10896-018-00032-0

30. Bondi L. The effectiveness of counselling: COSCA's review and commentary. Edinburgh: COSCA; 2006 [accessed on 2025 Oct 16]. Available from: https://www.cosca.org.uk/application/files/5615/2119/6776/Effectiveness_of_Counselling06-24-15.pdf

31. Swift JK, Greenberg RP. Premature discontinuation in adult psychotherapy: a meta-analysis. J Consult Clin Psychol. 2012;80(4):547. doi: 10.1037/a0028226

32. Harris S, Mitchell MD, Tabet SM, Hundley G. Predictors of client attrition in a university-based community counseling clinic. J Couns Dev. 2020;98(1):74–82. doi: 10.1002/jcad.12301

33. Cormack J. Counselling marginalised young people: A qualitative analysis of young homeless people's views of counselling. Couns Psychother Res. 2009;9(2):71–7. doi: 10.1080/14733140902823755

34. Purnell L, Chiu K, Bhutani GE, Grey N, El-Leithy S, Meiser-Stedman R. Clinicians' perspectives on retraumatisation during trauma-focused interventions for post-traumatic stress disorder: a survey of UK mental health professionals. J Anxiety Disorders. 2024;106:102913. doi: 10.1016/j.janxdis.2024.102913

35. Haines-Delmont A, Duxbury JA, Gupta V, Lantta T. Trauma-informed care. In: Coercion and violence in mental health settings: causes, consequences, management. Cham: Springer Nature Switzerland; 2024. p. 287–310. doi: 10.1007/978-3-031-61224-4_13

36. Ghaemian A, Ghomi M, Wrightman M, Ellis-Nee C. Therapy discontinuation in a primary care psychological service: why patients drop out. Cognit Behav Ther. 2020;13:e25. doi: 10.1017/S1754470X20000240

37. Edelman N. Doing trauma-informed work in a trauma-informed way: understanding difficulties and finding solutions. Health Serv Insights. 2023;16:11786329231215037. doi: 10.1177/11786329231215037

38. Murray J, Wickramasekera N, Elings M, Bragg R, Brennan C, Richardson Z, et al. The impact of care farms on quality of life, depression and anxiety among different population groups: a systematic review. Campbell Syst Rev. 2019;15(4):e1061. doi: 10.1002/cl2.1061

39. Peacock J, Hine R, Pretty J. Got the blues, then find some greenspace: The mental health benefits of green exercise activities and green care. London: MIND. 2007 [accessed on 2025 Dec 4]. Available from: https://www.calameo.com/read/0009143747c40eedd7eeb.

40. Sullivan SK, Hemingway A. Perspective chapter: mind the gap–young people's mental health and equine assisted interventions. London: IntechOpen; 2023. doi: 10.5772/intechopen.1003135

41. Professional Association of Therapeutic Horsemanship International. Equine-assisted services. Definitions guide for researchers. Denver (CO): PATH Intl.; 2023 [accessed on 2025 Oct 16]. Available from: https://pathintl.org/wp-content/uploads/2023/07/PATH-Intl-Definitions-Guide-for-Researchers.pdf

42. Kendall E, Maujean A, Pepping CA, Downes M, Lakhani A, Byrne J, et al. A systematic review of the efficacy of equine-assisted interventions on psychological outcomes. Eur J Psychother Couns. 2015;17(1):57–79. doi: 10.1080/13642537.2014.996169

43. Stern C, Chur-Hansen A. An umbrella review of the evidence for equine-assisted interventions. Aust J Psychol. 2019;71(4):361–74. doi: 10.1111/ajpy.12246

44. Cagle-Holtcamp K, Nicodemus MC, Parker J, Dunlap MH. Does equine assisted learning create emotionally safe learning environments for at-risk youth? J Youth Dev. 2019;14(4):2. doi: 10.5195/jyd.2019.727

45. Green S. Horse sense: equine-assisted single session consultations. In: Capturing the moment: single session therapy and walk-in services. Bancyfelin: Crown House Publ; 2014. p. 425–40. [accessed on 2025 Dec 4]. Available from: https://contextconsultants.com/wp-content/uploads/2020/09/Horse-Sense-Equine-Assisted-Single-Session-Consultations.pdf

46. Smith SJ. Bringing up life with horses. Indo-Pacific J Phenomenol. 2018;18(2):179–89. doi: 10.1080/20797222.2018.1499266

47. Sullivan K, Hemingway A. Equine-assisted learning reduces anxiety and increases calmness & social skills in young people. Academia Mental Health and Well-Being. 2024;1(3):1–11. doi: 10.20935/MHealthWellB7424

48. Pendry P, Roeter S. Experimental trial demonstrates positive effects of equine facilitated learning on child social competence. Human-Animal Interaction Bulletin. 2013;2013:1–19. doi: 10.1079/hai.2013.0004

49. Saggers B, Strachan J. Horsing around: using equine facilitated learning to support the development of social-emotional competence of students at risk of school failure. Child Youth Serv. 2016;37(3):231–52. doi: 10.1080/0145935X.2015.1072045

50. Shanahan DF, Astell–Burt T, Barber EA, Brymer E, Cox DT, Dean J, et al. Nature–based interventions for improving health and wellbeing: The purpose, the people and the outcomes. Sports. 2019;7(6):141. doi: 10.3390/sports7060141

51. Christie MA, Elliott D. From a dark place to a blue space: open water swimming transformed our lives. Sport Soc. 2024;28:1082–112. doi: 10.1080/17430437.2024.2357231

52. Kotera Y, Richardson M, Sheffield D. Effects of shinrin-yoku (forest bathing) and nature therapy on mental health: a systematic review and meta-analysis. Int J Ment Health Addict. 2022;20(1):337–61. doi: 10.1007/s11469-020-00363-4

53. Fell-Chambers R. Care farming, learning and young people: An exploration into the possible contribution of care farming to young people's engagement with learning [dissertation]. Hull (UK): Univ of Hull; 2020 [accessed on 2025 Dec 4]. Available from: https://bgro.repository.guildhe.ac.uk/id/eprint/814/1/Fell-Chambers_care%20farming.pdf

54. Strickland P, Allen G. Domestic violence in England and Wales. Research briefing no. SN06337. London: UK Parliament, House of Commons Library; 2018 [accessed on 2025 Dec 4]. Available from: https://researchbriefings.files.parliament.uk/documents/SN06337/SN06337.pdf

55. Office for National Statistics. Developing a combined measure of domestic abuse, sexual assault and stalking—England and Wales. 2025 [accessed on 2025 Dec 4]. Available from: https://www.ons.gov.uk/peoplepopulationandcommunity/crimeandjustice/articles/developingacombinedmeasureofdomesticabusesexualassaultandstalkingenglandandwales/july2025

56. ONS Centre for Crime and Justice. Domestic abuse in England and Wales overview: November 2024. Office for National Statistics; 2024 [accessed on 2025 Dec 4]. Available from: https://www.ons.gov.uk/peoplepopulationandcommunity/crimeandjustice/bulletins/domesticabuseinenglandandwalesoverview/november2024#latest-domestic-abuse-data

57. Bhuller M, Dahl GB, Løken KV, Mogstad M. Domestic violence reports and the mental health and well-being of victims and their children. J Hum Resour. 2024;59(S):S152–86. doi: 10.3368/jhr.1222-12698R1

58. Schafran LH. Domestic violence, developing brains, and the lifespan: new knowledge from neuroscience. Judges J. 2014;53:32. [accessed on 2025 Dec 4]. Available from: https://archivedv.com/wp-content/uploads/2025/02/142-142-domestic-violence-neuroscience-and-developing-brains.pdf

59. Simon JD, Brooks D. Identifying families with complex needs after an initial child abuse investigation: a comparison of demographics and needs related to domestic violence, mental health, and substance use. Child Abuse Neglect. 2017;67:294–304. doi: 10.1016/j.chiabu.2017.03.001

60. Office of the Children's Commissioner for England. What is this plan for? The purpose and content of child in need plans. London: Children's Commissioner; 2024 [accessed on 2025 Oct 16]. Available from: https://assets.childrenscommissioner.gov.uk/wpuploads/2024/10/What-is-this-plan-for-The-purpose-and-content-of-child-in-need-plans-.pdf

61. Department for Education (UK). Special educational needs in England, 2024–25. London: DfE; 2025 [accessed on 2025 Oct 16]. Available from: https://explore-education-statistics.service.gov.uk/find-statistics/special-educational-needs-in-england/2024-25

62. Jay MA, Troncoso P, Bilson A, Thomson D, Dorsett R, Pearson R, et al. Estimated cumulative incidence of intervention by children's social care services to age 18: a whole-of-England administrative data cohort study using the child in need census. Int J Popul Data Sci. 2025;10(1):2454. doi: 10.23889/ijpds.v10i1.2454

63. UNICEF Data. How many children under 18 are there in the UK?. New York: UNICEF; 2024 [accessed on 2025 Oct 16]. Available from: https://data.unicef.org/how-many/how-many-children-under-18-are-there-in-the-uk/

64. Dubois-Comtois K, Bussières EL, Cyr C, St-Onge J, Baudry C, Milot T, et al. Are children and adolescents in foster care at greater risk of mental health problems than their counterparts? A meta-analysis. Child Youth Serv Rev. 2021;127:106100. doi: 10.1016/j.childyouth.2021.106100

65. Jambekar AS, Padhyegurjar MS, Padhyegurjar SB, Joshi SP, Shahri P. Impact of having a child with special needs on the psychosocial well-being of parents: a cross-sectional study. J Ment Health Hum Behav. 2018;23(2):115–9. [accessed on 2025 Oct 16]. Available from: https://journals.lww.com/mhhb/fulltext/2018/23020/impact_of_having_a_child_with_special_needs_on_the.8.aspx

66. Kovan N, Mishra S, Susman-Stillman A, Piescher KN, LaLiberte T. Differences in the early care and education needs of young children involved in child protection. Child Youth Serv Rev. 2014;46:139–45. doi: 10.1016/j.childyouth.2014.07.017

67. Asbury K, Fox L, Deniz E, Code A, Toseeb U. How is COVID-19 affecting the mental health of children with special educational needs and disabilities and their families? J Autism Dev Disord. 2021;51(5):1772–80. doi: 10.1007/s10803-020-04577-2

68. Cage J, Kobulsky JM, McKinney SJ, Holmes MR, Berg KA, Bender AE, et al. The effect of exposure to intimate partner violence on children's academic functioning: a systematic review of the literature. J Fam Violence. 2022;37(8):1337–52. doi: 10.1007/s10896-021-00314-0

69. Lloyd C, Wollny I, White C, Gowland S, Purdon S. Monitoring and evaluation of family intervention services and projects between February 2007 and March 2011. London: Department for Education; 2011 [accessed on 2025 Dec 4]. Available from: https://assets.publishing.service.gov.uk/5a7ae439ed915d71db8b3387/DFE-RR174.pdf

70. Ugalde L, Santiago-Garabieta M, Villarejo-Carballido M, Puigvert L. Impact of interactive learning environments on learning and cognitive development of children with special educational needs: a literature review. Front Psychol. 2021;12:674033. doi: 10.3389/fpsyg.2021.674033

71. May F, Ford T, Janssens A, Newlove-Delgado T, Russell AE, Salim J, et al. Attainment, attendance, and school difficulties in UK primary schoolchildren with probable ADHD. Br J Educ Psychol. 2021;91(1):442–62. doi: 10.1111/bjep.12375

72. Totsika V, Hastings RP, Dutton Y, Worsley A, Melvin G, Gray K, et al. Types and correlates of school non-attendance in students with autism spectrum disorders. Autism. 2020;24(7):1639–49. doi: 10.1177/1362361320916967

73. Chang X, Jiang X, Mkandarwire T, Shen M. Associations between adverse childhood experiences and health outcomes in adults aged 18–59 years. PLoS ONE. 2019;14(2):e0211850. doi: 10.1371/journal.pone.0211850

74. Daníelsdóttir HB, Aspelund T, Shen Q, Halldorsdottir T, Jakobsdóttir J, Song H, et al. Adverse childhood experiences and adult mental health outcomes. JAMA Psychiatry. 2024;81(6):586–94. doi: 10.1001/jamapsychiatry.2024.0039

75. Loprest P, Spaulding S, Nightingale DS. Disconnected young adults: Increasing engagement and opportunity. RSF Russell Sage Found J Soc Sci. 2019;5(5):221–43. doi: 10.7758/rsf.2019.5.5.11

76. Symonds JE, D'Urso G, Schoon I. The long-term benefits of adolescent school engagement for adult educational and employment outcomes. Dev Psychol. 2023;59(3):503. doi: 10.1037/dev0001458

77. Cedeño D. Social exclusion and inclusion: A social work perspective. Fam Soc. 2023;104(3):332–43. doi: 10.1177/10443894221147576

78. Isola AM. Intergenerational social exclusion, silences, and the transformation of agency: an oral history approach. Soc Inclusion. 2024;12:7781. doi: 10.17645/si.7781

79. Schmid M, Goldbeck L, Nuetzel J, Fegert JM. Prevalence of mental disorders among adolescents in German youth welfare institutions. Child Adolesc Psychiatry Ment Health. 2008;2(1):2. doi: 10.1186/1753-2000-2-2

80. Roddy JK. Client perspectives: the therapeutic challenge of domestic violence counselling–a pilot study. Couns Psychother Res. 2013;13(1):53–60. doi: 10.1080/14733145.2012.711340

81. Lavallee Z, Gagné-Julien AM. Affective injustice, sanism and psychiatry. Synthese. 2024;204(3):94. doi: 10.1007/s11229-024-04731-8

82. Corrigan JA, Schutte NS. The relationships between the hope dimensions of agency thinking and pathways thinking with depression and anxiety: a meta-analysis. Int J Appl Posit Psychol. 2023;8(2):211–55. doi: 10.1007/s41042-023-00099-1

83. Hemingway A, Carter S, Callaway A, Kavanagh E, Ellis S. An exploration of the mechanism of action of an equine-assisted intervention. Animals. 2019;9(6):303. doi: 10.3390/ani9060303

84. Gorman R. Smelling therapeutic landscapes: embodied encounters within spaces of care farming. Health Place. 2017;47:22–8. doi: 10.1016/j.healthplace.2017.06.005

85. Gorman R. Thinking critically about health and human-animal relations: therapeutic affect within spaces of care farming. Soc Sci Med. 2019;231:6–12. doi: 10.1016/j.socscimed.2017.11.047

86. Burgon HL. 'Queen of the world': experiences of 'at-risk' young people participating in equine-assisted learning/therapy. J Soc Work Pract. 2011;25(2):165–83. doi: 10.1080/02650533.2011.561304

87. Coffin J, Vaz S, Kickett-Tucker C, Milroy H, Olsson C, Kirby M, et al. Protocol to implement and evaluate a culturally secure, strength-based, equine-assisted learning program, "Yawardani Jan-ga" (horses helping), to support the social and emotional wellbeing of Australian Aboriginal children and young people. PLoS ONE. 2024;19(12):e0312389. doi: 10.1371/journal.pone.0312389

88. Tyler N, Heffernan R, Fortune CA. Reorienting locus of control in individuals who have offended through strengths-based interventions: Personal agency and the good lives model. Front Psychol. 2020;11:553240. doi: 10.3389/fpsyg.2020.553240

89. Saleebey D. The strengths perspective in social work practice: extensions and cautions. Social Work. 1996;41(3):296–305. doi: 10.1093/sw/41.3.296

90. Schmidt J, Niemeijer A, Leget C, Trappenburg M, Tonkens E. The dignity circle: how to promote dignity in social work practice and policy? Eur J Soc Work. 2020;23(6):945–57. doi: 10.1080/13691457.2020.1804332

91. Borowski A. On human dignity and social work. Br J Soc Work. 2022;52(2):609–23. doi: 10.1093/bjsw/bcab016

EQUINE ASSISTED LEARNING
EQUINE EXPERIENTIAL EDUCATION