Summary

The Strengthening Families Programme 10-14 UK (SFP 10-14 UK) is a preventative, universal programme which seeks to develop and enhance protective factors for young people at risk of developing social, emotional and mental health difficulties (SEMH) such as substance abuse. This paper conducted an extensive literature review to examine current research into the effectiveness of the SFP 10-14 UK in reducing SEMH difficulties, with a specific focus on substance abuse in young people aged 10-14 years. Findings from the studies were both qualitative and quantitative in nature. The qualitative analysis demonstrated a reduction in SEMH difficulties (e.g. Coombes, Allen & McCall, 2012), which was self-reported by children and young people, as well as by parents and in one study, school staff (Coombes, Allen & McCall, 2012). Quantitative findings showed mixed results of efficacy. The research into the efficacy of the SFP 10-14 UK remains in its infancy. Although extensive research has taken place in different countries, due to amendments made in different countries, this research may have limited external validity when trying to apply findings to the UK context. Further Randomised Controlled Trials (RCT) would be beneficial to developing the evidence base.

The UK Government (1998) highlighted the importance of parental involvement and collaborative work to support and prevent Social, Emotional and Mental Health (SEMH) difficulties for children and young people (Allen et al., 2007). An intervention with a plethora of cross-cultural evidence is the Strengthening Families Programme 10-14 (SFP 10-14), which has researched into the impact of family intervention in supporting SEMH difficulties (Segrott et al., 2022).

Strengthening Families Programme 10-14

The SFP 10-14 was developed by Dr Kumpfer in 1992 following research in rural Iowa in the USA (Coombes et al., 2009). This led to the creation of a 7-session universal programme for low risk Iowa families, called the SFP 10-14 (Segrott et al, 2022). It is designed to be delivered to support children pre to early puberty age (Semeniuk et al., 2010). The aim of the SFP 10-14 is to reduce risk factors which may result in social, emotional and mental health difficulties (SEMH), including substance misuse or abuse (Riesch et al., 2012). The SFP 10-14 seeks to support the development of parent-child interactions and relationships (Semeniuk et al.,

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difficulties in children and young people. Learning typically takes place through the use of DVDs, taking part in discussions, and activities (Lindsay et al., 2012).

Psychology underpinning SFP 10-14 UK

The SFP 10-14 UK is based on the Bio-psychosocial Vulnerability Model (Early Intervention Foundation, 2018). This model highlights that biological, psychological and social risk factors can interact, and where there are limited protective factors for the child or young person, such as family communication and management, this can create heightened risk of difficulties, such as substance use. Wangensteen and Hystad (2022) highlight that all factors can contribute to substance misuse and abuse, thus consideration into all of these must be considered when creating prevention and treatment interventions. Children and young people also interact with other social, economic and community environments which may influence behaviours, such as substance use (Semeniuk et al., 2010). Wangensteen and Hystad (2022) highlight that the frequency of substance use when coping with these varying factors, can lead to addiction, or abuse. The impact of such, can lead to mental health difficulties, such as anxiety and depression (Noordsy et al., 2013), and risky behaviours due to im02 Tw 040.004 T0(i)6 (dd[r)7 0(.)Tj0.010 (7 (s) r)7 0((s)4 (,)2 6 (ons) (es

considers human behaviour as a complex system, with members of a family who interconnect and interact with each other to influence each other's behaviours. As parent(s)/carer(s) have separate and joint sessions with their young person, the SFP 10-14 UK allows for exploration how family may interact and influence SEMH or substance abuse difficulties in young people.

Th Social Learning Theory (Pinheiro-Carozzo et al., 2021) states that learning occurs through social interaction and observation, and imitation of modelled behaviours (Lyons & Berge, 2012). Families have the opportunity in this intervention to model behaviours from peers, or facilitators. SFP 10-14 UK can also consider whether there are learnt behaviours from parent(s)/carer(s) that have contributed to a child or young person's SEMH or substance abuse difficulties.

Rationale and relevance

There is

Programme 10-14 UK (SFP 10-14 UK), to assess the effectiveness of this intervention. Although this systematic literature review is exploring Social, Emotional and Mental Health (SEMH) needs more generally, the historical and current research that has taken place with the SFP 10-14 UK has resulted in many of the searches looking at substance abuse. Substance abuse is also synonymous with terms such as drug misuse, substance misuse, and drug abuse, thus these terms were additionally used during the systematic literature review search.

Table 1: Systematic literature review search terms in Psychology databases

Database	Search terms used	Total results
Web of Science		
PsycINFO		
ERIC (EBSCO)		

Table 3: Mapping Table of studies

Author and Year of study	Participant information	Study design	Study aim(s)	Methods

Foxcroft (2012)	parents/carers and 34 young people, Control group: 27 parents/carers and 35 young people	methods, between groups	between young people's substance use, aggressive behaviours, school absence, parenting behaviour and measures of family life	Enrolled in project and pre-test Participated in SFP Completed 7 week posttest Completed 3 month posttest Focus group Control group Enrolled in project and pre-test Mailed reading materials Completed 7 week posttest Completed 3 month posttest	behaviours. Parents/carers reported that they listened more to this child which reportedly reduced substance use.	month posttest completed with both intervention and control group
Coombes et al. (2009)	58 families	Quasi-experimental mixed		This study looked at 70 families who	Parents'/caregivers' scores for the PCSQ were highly significantly lower at the	No follow up period

method
design

				well as evaluated in their own right
Coombes, Allen and McCall (2012)	1 parent, 1 child	Case study	To understand the effectiveness of the SFP 10-14 UK on a child's academic success and reduction of SEMH difficulties	Seven week S03 Tc -0.003 88.92 M240

Critical review of Studies

Study	WoE A
Segrott et al. (2002)	2.56 (High)
Coombes, Allen and Foxcroft (2012)	1.8 (Medium)
Coombes et al. (2009)	2 (Medium)
Lindsay and Strand (2013)	2.3 (Medium)
Coombes, Allen and McCall (2012)	2 (Medium)

Weight of Evidence B (WoE B)

The Weight of Evidence B (WoE B) relates to assessing the appropriateness of the research designs in relation to the review question. Petticrew and Roberts' (2003) hierarchy of evidence was adhered to. Generalisable studies have been rated as being the most effective study design to assess the effectiveness of interventions. Following this hierarchy, systematic reviews, and Randomised Controlled trials will be awarded with a score of 3. Experimental designs, including quasi-experimental designs and single case experimental designs (SCED), will be awarded with a score of 2. Qualitative research including case studies are stated to have the lowest internal validity, and produce a lower quality of evidence, thus will be awarded a score of 1 (Appendix F). Scores are highlighted in Table 5.

Table 5: WoE B rating scores

Study	Study Design	WoE B
Segrott et al. (2002)	Randomised Control Trial (RCT)	3 (High)
Coombes, Allen and Foxcroft (2012)	Quasi-experimental	2 (Medium)

Coombes et al. (2009)	Non-experimental	1 (Low)
Lindsay and Strand (2013)	Quasi-experimental	2 (Medium)
Coombes, Allen and McCall (2012)	Qualitative – Case study	1 (Low)

NB: Low = 0 to 1.4, Medium = 1.5 to 2.4, High = 2.5 to 3

Weight of Evidence C (WoE C)

The author of this systematic literature review formulated specific judgement about the relevance of the focus of evidence to the review question; reviewing the effectiveness of the SFP 10-14 UK in supporting the reduction of Social, Emotional and Mental Health (SEMH), with a particular focus on substance misuse, for children aged between 10-14 years. The age range, the country, design and evidence gathering method were all considered as part of the criteria (Appendix G). The WoE C rating scores can be found in Table 6.

Table 6: WoE C rating scores

	Segrott et al. (2022)	Coombes, Allen and Foxcroft (2012)	Coombes, et al. (2009)	Lindsay and Strand (2013)	Coombes, Allen and McCall (2012)
Type of participants attended	3	3	3	3	3
Age of target children intended for intervention	3	3	3	2	2
Country	3	3	3	3	3
Data collection/use of measures	3	2	3	3	1
Total	12	11	12	11	9

Participants

The review consisted of five studies, which were all conducted in the United Kingdom. These studies were all published between 2009 and 2022. All studies had parents/carers and or children and young people, constituting a member of family in line with the aims of the programme. However, the split between the number of parents/carers and children and young people, was not always clear. For example, Coombes et al. (2009) state the number of families that took part in the study, but not the specific number of parents/carers and young people. In comparison, studies (e.g. Segrott et al., 2022) report the number of families, and further dissected this into parent/carer and young people in both the intervention and control group. For t

Controlled Trial, which is why Segrott et al.'s (2022) study achieved a higher WoE B score than Coombes, Allen and Foxcroft's (2012).

Whilst two studies relied on exclusively quantitative (Lindsay & Strand, 2013) or qualitative (Coombes, Allen & McCall, 2012) methods of analysis, three studies utilised a mixed method design to analyse effectiveness. Coombes et al. (2009)

implementation fidelity in their study; 96% of individual activities in the study protocol were either mostly or fully covered.

Intervention aims varied in the studies. Segrott et al., (2022), Coombes, Allen and Foxcroft (2012) and Coombes et al. (2009) had the primary goal of assessing the SFP 10-14 UKs effectiveness on substance use and abuse. Considering the aims of this systematic literature review focusing on the SFP 10-14 UK looking at the effectiveness of reducing substance misuse, these studies received a high WoE C rating. Lindsay and Strand (2013) looked at overall effectiveness, requiring parents to evaluate parental laxness, child's behaviour over three time points, and mental wellbeing. Lindsay and Strand's (2013) study was more general in nature, due to comparing the SFP 10-14 UK with other parent programmes with different aims. For this reason, it was rated medium relevance to the research aims of this systematic literature review. Coombes, Allen and McCall (2012) sought to assess the impact of the SFP 10-14 UK on academic success, but also considered and reviewed substance use for the child in the study. Due to having a focus on substance use, this study also received a medium WoE C rating.

All studies, apart from Coombes, Allen and McCall (2012) positioned the SFP 10-14 UK as a universal intervention. Coombes, Allen and McCall (2012) stated that the intervention was a targeted intervention, where pastoral team staff members selected students and families for engagement.

Measures

The measure provided to parents at 3 months post intervention in Coombes, Allen and Foxcroft (2012) utilised measures which were incorporated from validated measured uses in SFP 10-14 studies in the USA and from alcohol and substance

use measures used in the European School Survey Project on Alcohol and Drugs. Whilst these measures are evidence-based, it is known that the adaptation of the SFP 10-14 UK project needed adaptation to be suitable to the demographic of the UK. It would be ideal for the measure, particularly the one that has been validated in the USA, to be reviewed as a valid tool in the United Kingdom. In addition, it would also be beneficial for one measure to be used, as opposed to bits of different measures, to ensure that this measure has validity in its entirety. Coombes et al. (2009) note that the outcome measures used in their study lacked validity and reliability.

Many studies utilised a mixed methodology approach to gathering information, for example, focus groups, and quantitative measures such as the Strengths and Difficulties Questionnaire (SDQ).

Outcomes

Studies varied in their follow up times, which may cause difficulties with comparing outcomes. For example, Lindsay and Strand (2013) had a follow up period of one year, and found statistical effectiveness of the SFP 10-14 UK. However, Segrott et al. (2022) had a follow up period of two years, and did not find statistical effectiveness of the intervention. This is not a linear assumption that the length of time impacts on the effectiveness, but it is one to consider for future research. Coombes, Allen and Foxcroft (2012) had two time points for follow up; 7 weeks, and then 3 months. Coombes, Allen and McCall (2012) did not provide clarity on whether any follow up took place in their case study analysis.

Outcomes and effect sizes for three studies are summarised in Table 8. For the purpose of this review, Cohens *d* (1988) was applied to evaluate effect sizes. Where

Table 8: Review of studies, including effect sizes

Study	Sample	Outcome	Significance reported	Effect size (When converted to Cohens *d*	Descriptor of Cohens *d*	Overall Weighting (WoE D)
Segrott et al. (2022)	*Intervention group* Parents/Carers; N= 461, Children and young people; N= 477 *Control group* Parents/Carers; N= 457, Children and young people; N= 454	No between-group difference on young people's alcohol consumption or drunkenness	Adjusted Odds Ratio (AOR) for alcohol consumption = 1.11			

Coombes, Allen and Foxcroft (2012)	*Intervention group* Parents/Carers; N= 26, Children and young people; N= 34 *Control group* Parents/Carers; N=27, Children and young people; N=35	Both children and parents/carers reported a reduction in aggressive

	post measures were compared to other parenting pre and post measures)
Coombes,	

Coombes, Allen and McCall's (2012) assessed the impact of the SFP 10-14 UK on academic attainment and engagement, however it is unclear how this was measured. Reports from teachers and parents were the markers that evidenced and highlighted effectiveness of the intervention, for example, through engagement in lessons. Segrott et al.'s (2022) study intended to gather academic data but ceased to do so. Coombes, Allen and McCall could have considered collecting academic data on the participant.

The families in Coombes et al.'s (2009) study identified four main areas where they thought that the SFP 10-14 UK programme was effective; parent and young people wellbeing, young people's behaviour, young people's substance use, and family functioning.

Conclusion and Recommendations

The Strengthening Families Programme 10-14 UK (SFP 10-14 UK) is still in its infancy stages of building a culturally appropriate evidence base. Findings, at present seem to be mixed and do not appear to corroborate the United States version of the SFP 10-14. Lindsay and Strand (2013) highlight the ability to deliver the SFP 10-14 UK in community settings, however findings are mixed across the five studies. Therefore, the first recommendation is:

(1) For the SFP 10-14 UK to continue to develop its evidence base in the United Kingdom.

Petticrew and Roberts' (2003) hierarchy of evidence states that Randomised Controlled Trials are the best way of assessing the effectiveness of an intervention,

Difficulties in being able to gather participants reflective of the nature and diversity of the United Kingdom, was highlighted as a limitation. Coombes, Allen and Foxcroft (2012) noted in their study, that this was due to the small sample size. Coombes et al. (2009) conducted the study in Barnsley; an area which at the time of publishing was recorded to be over 99% White British, and all three locations studied had over 90% of a White British population. Therefore, the third recommendation is as follows:

(3) For the SFP 10-14 UK to research a diverse range of families, considering socio-economic background, ethnicity, etc.

Lindsay and Strand (2013) show evidence of achieving diversity in demographics, however, as this study examined four different parenting programmes, it is not clear nor reported how the demographic data reflected the specific SFP 10-14 UK programme, particularly since participants were able to sign up and choose which intervention they attended. Taking lessons from Lindsay and Strand's (2013) study however, show that a method of achieving a diverse demographic base, can be through recruiting using national services such as Local Authorities. Coombes et al. (2009) reported a difference in attendance in families with more than one sibling, and saw this enhanced when a creche facility was provided. By considering the diversity and ensuring it reflects the true population as best as possible, this can also allow researchers to consider cultural and societal differences within subgroups in the United Kingdom, to further inform delivery and enhance effectiveness.

Lindsay and Strand's (2013) study had the benefit of being able to assess effectiveness of multiple parenting programmes. The SFP 10-14 UK is still in its infancy stages regarding research and development in the UK, whereas some

competence. It may therefore be useful to collaborate with another professionals, such as a CAMHS member of staff.

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Appendices

Appendix A – Inclusion and Exclusion Criteria during literature review screening process

Criteria	Inclusion	Exclusion	Rationale
1. Intervention	Studies which examine the SFP 10-14 UK intervention Studies that examine the delivery of the SFP 10-14 UK intervention within the UK	'Strengthening Families Programme (Program)' 10-14 or Strengthening Families Program in another country(ies) or interventions which are not the SFP 10-14 UK	Examining the delivery of the SFP 10-14 UK being delivered in the UK, and its effectiveness for UK populations Studies conducted in other countries (outside of the UK) may have adaptations which mean they it is difficult to directly compare thus conclude overall effectiveness
2. Outcomes	Reviewing the effectiveness of SFP 10-14 UK for children and young people with Social, Emotional and Mental Health		

		(SEMH) difficulties Reviewing the effectiveness of SFP 10-14 UK for children and young people with substance abuse/misuse problems		
3.	Population	Intervention including Parent and/or child or young people (families)	Intervention exclusively delivered to a population other than to families	This review is focusing on the effectiveness of a parent or family completing this intervention and the subsequent impact that this has on the family dynamics as a whole, including for a child and/or young person.
4.	Language	Article being written in the English language	Article not being written in the English language	Transcribing/translation implications
5.	Resource access	Resource available for full review	Resource unavailable for full review	This may be due to limited access of the resource via the journal databases, or physical access

An exploratory search was conducted due to the limited research. For this reason, time span of research was not used as an inclusion or exclusion criteria.

Appendix B – Excluded studies during the content screening phase of the literature review

Study (Full reference)	Reason for exclusion (See Appendix A for inclusion and exclusion criteria list)

Akin, B. A., Johnson-Motoyama, M., Davis, S., Paceley, M., & Brook, J. (2018). Parent perspectives of engagement in the strengthening families program: An evidence·based intervention for families in child welfare and affected by parental substance use. *Child & Family Social Work*, *23*(4), 735–742.

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Ballester, L., Amer, J., Sánchez-Prieto, L., &Vicente, M. V. de. (2021). Universal Family Drug Prevention Programs. A Systematic Review. *J Evid Based Soc Work (2019)*, *18*(2), 192–213. https://doi.org/10.1080/26408066.2020.1822976 1

Ballester, L., Sánchez-Prieto, L., Orte, C., & Vives, M. (2022). Preventing Internalizing and Externalizing Symptoms in Adolescents Through a Short Prevention Programme: An Analysis of the Effectiveness of the Universal Strengthening Families Program 11-14. *Child and Adolescent Social Work Journal*, *39*, 119–131. https://doi.org/10.1007/s10560-020-00711-2 1

Bröning, S., Sack, P.-M., Thomsen, M., Stolle, M., Wendell, A., Stappenbeck, J., 1

& Thomasius, R. (2014). Implementing and evaluating the german adaptation of the 'strengthening families program 10—14'- A randomized-controlled multicentre study. *BMC Public Health*, *14*(1), 83–86. https://doi.org/10.1186/1471-2458-14-83

Cleve Redmond, Richard L. Spoth, Lisa M.

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https://doi.org/10.1016/j.childyouth.2017.07.009 1

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Karol L. Kumpfer. (n.d.). Strengthening Families Program. In *Evidence-based Parenting Education* (1st ed.). Routledge. 1

Karol L. Kumpfer, Catia Magalhães, Henry Whiteside, & Jing Xie. (2015). Strengthening Families for Middle/Late Childhood. In *Family-Based Prevention Programs for Children and Adolescents*. Psychology Press. 1

Kumpfer, K. L., Scheier, L. M., & Brown, J. (2020). Strategies to Avoid Replication

on Substance Use Initiation in the Strengthening Families Program: For Parents and Youth Ages 10-14. *Prevention Science*, *20*, 852–862. https://doi-org.libproxy.ucl.ac.uk/10.1007/s11121-019-00994-7 1

Mindel, C. H., & Hoefer, R. A. (2006). An Evaluation of a Family Strengthening Program for Substance Abuse Offenders. *Journal of Social Service Research*, *32*(4), 23–38. https://doi.org/10.1300/J079v32n04_02 1 & 2

Pinheiro-Carozzo, N. P., Murta, S. G., Vinha, L. G. do A., Silva, I. M. da, & Fontaine, A. M. G. V. (2021). Beyond effectiveness of the Strengthening Families Program (10-14): A scoping RE-AIM-based review. *Psicologia: Reflexão e Crítica*, *34*(16). http://dx.doi.org/10.1186/s41155-021-00182-z 2

Segrott, J., Gillespie, D., Holliday, J.,

Humphreys, I., Murphy, S., Phillips, C.,

Reed, H., Rothwell, H., Foxcroft, D.,

Hood, K., Roberts, Z., (l)4 (iK)4 (iK)4 (iK)4 (iK)4 (K)4 (K)4 ee

Appendix C – WoE A coding protocol descriptions

The Kratochwill (2003) coding protocol was adapted for the purpose of this systematic literature review. The below highlights the elements of the coding protocol that were used, as well as the scoring/rating system used to determine the WoE A of each study

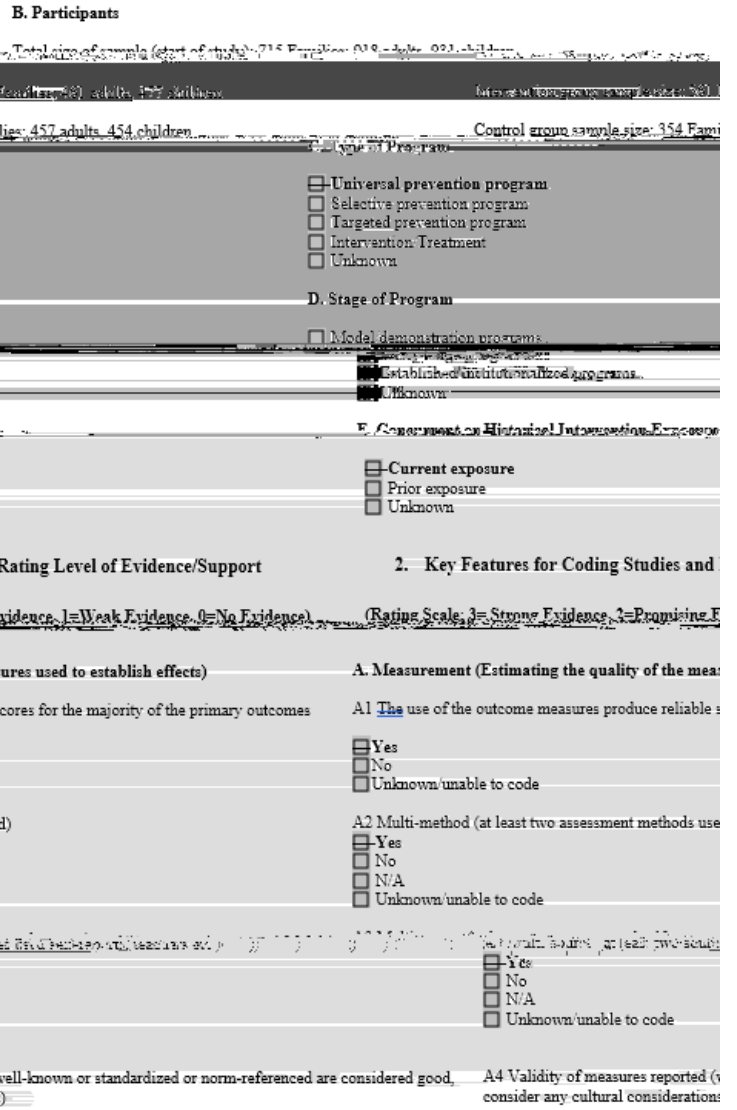
Title	Rating system	Rationale

	High/Strong (3)	Medium/Promising (2)	Low/Weak (1)
General characteristics	Completely randomised design High or very high confidence of judgment of how participants were assigned Established programmes	Randomised between or within participants Moderate confidence of judgment of how participants were assigned Early stage programmes	Non-randomised design Low, very low confidence (or cannot be determined) of judgemee emd

Appendix D – Kratochwill (2003) Coding protocol (completed) for Segrott et al. (2022): Weight of Evidence A (WoE A)

Full Study Reference in proper format:

1. General Characteristics



B. Participants

Universal prevention program
Selective prevention program
Targeted prevention program
Intervention Treatment
Unknown

D. Stage of Program

Current exposure
Prior exposure
Unknown

Rating Level of Evidence/Support

2. Key Features for Coding Studies and

A. Measurement (Estimating the quality of the mea

A1 The use of the outcome measures produce reliable

Yes
No
Unknown/unable to code

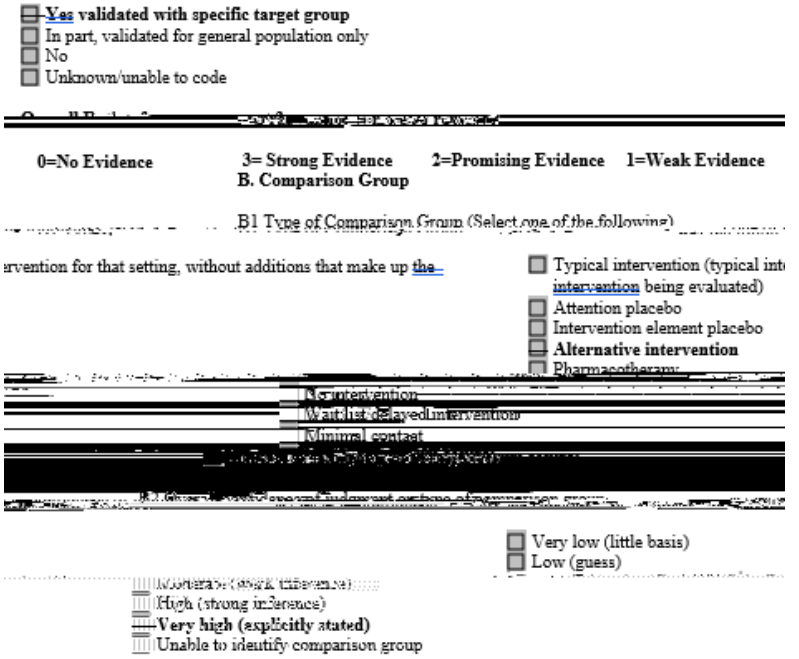
A2 Multi-method (at least two assessment methods use

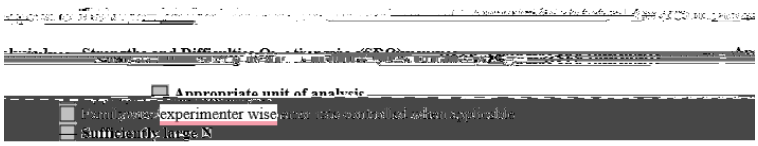
Yes
No
N/A
Unknown/unable to code

Yes
No
N/A
Unknown/unable to code

A4 Validity of measures reported (

consider any cultural considerations





Overall rating for Statistical Analysis _2_

Appendix E – Coding appraisal checklist created by Garside (2014), adapted from Dixon-Woods et al. (2004), including completed checklist: Weight of Evidence A (WoE A)

Descriptor	**Criteria**

		of the introduction, but not explicitly stated
2) Is the research question(s) suited to qualitative enquiry?	Partially	Based on the inferred research question looking at the effect of the SFP 10-14 UK on academic engagement and attainment, it may have been useful to do a mixed method design, gathering statistical data on engagement and attainment to date, to provide clear outcomes as a result of the intervention
Are the following clearly described:		
3) Context	Yes	Context of SFP 10-14 UK described clearly and process of the intervention in the school specific context explained
4) Sampling	Yes	Context of SFP 10-14 UK described clearly and process of the intervention in the school specific context explained, including recruitment methods
5) Data collection	Partially	Does not explicitly state whether interviews took place, and what type of interview. However, observations appear to have been noted from the duration of the intervention and towards the end. Mentioned "Child *seemed* more calm…" suggesting no interview took place with the child to gather true views.
6) Analysis	Partially	Highlights ways that community practitioners can support academic attainment and engagement, however, little analysis of specific

case study and the implications of this for practice or delivery of this in the school context. Also little discussion into the difference of delivery in a school setting in comparison to other comparisons or the implications of this.

Appendix F – Framework for Weight of Evidence B (WoE B) assessment

Descriptor	**Criteria**

Appendix G – Framework for Weight of Evidence C (WoE C) assessment

Criteria	**WoE C Rating 3**	**WoE C Rating 2**	**WoE C Rating 1**	**Rationale**
Type of participants attended	Families; both a caregiver and child and/or young person	Either caregiver or child and/or young person	Other; another group attended, or no attendance (e.g. ass. (e.)2 (g)10 (.) person gTw 6.	

					reliably linked to
Data collection/use of measures	Measures				