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Social Prescribing in Specialist Weight Management Clinics for Children and Young People

Megan Grace Garside

A thesis submitted in partial fulfilment of the requirements of
Sheffield Hallam University
for the degree of Doctor of Philosophy

March 2026

Candidate Declaration

I hereby declare that:

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2. None of the material contained in the thesis has been used in any other submission for an academic award.
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Ethics review reference number	Title of research study	Approval date	Date of any post-approval amendments (if applicable)
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Abstract

Complications of Excess Weight (CEW) clinics are Tier 3, specialist weight management services for children and young people living with severe obesity and related health complications. Social prescribing involves connecting individuals to community services for additional, non-medical support. Social prescribing may be helpful for young people accessing CEW but has not yet been formally used or evaluated with this population.

This study used a realist approach to explore how, in what ways and under what circumstances social prescribing may (or may not) work in CEW clinics to support the health and wellbeing of young people living with severe obesity.

Initial programme theories were developed over three stages, 1) mapping of community services local to one CEW clinic, 2) a national survey of CEW professionals, and 3) a realist review of relevant literature. These theories were then refined through interviews with young people accessing CEW and their parents/carers, staff from a CEW multidisciplinary team and representatives from community services. Recommendations for policy and practice were developed, drawing on the findings and subsequent discussions with key stakeholders.

This thesis shows that social prescribing can provide holistic, person-centred care, which empowers families, and helps to meet their wider, non-medical needs. Social prescribing can help to build trust between families and the CEW service, increasing engagement with the service and wider community support. However, challenges were identified in finding community activities which were accessible for young people living with obesity.

This study has developed theory to explain how social prescribing could work in weight management services like CEW clinics. This extends current understanding of social prescribing to a new population and clinical treatment pathway. Recommendations include embedding a social prescribing approach into CEW delivery and investing in community services to increase the availability of accessible opportunities for young people with complex health needs.

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Publications

Garside, M., Homer, C., Dayson, C., Dowrick, L., Pickering, K., & Wright, N. (2024). Mapping Community-based Services for Social Prescribing for Children and Young People living with Obesity across South Yorkshire. *Health and Social Care in the Community*, 2024(1), 3566729. <https://doi.org/10.1155/2024/3566729> (**Chapter 3, Phase 1 Mapping**)

Garside, M., Homer, C., Dayson, C., Dowrick, L., Pickering, K., Wright, N. (2025). Healthcare professionals' attitudes towards social prescribing in specialist children's weight management services. *BMC Primary Care* 26(1), 1-9. <https://doi.org/10.1186/s12875-025-02753-w> (**Chapter 4, Phase 2 Survey**)

Ioannou, E., **Garside, M.**, Sharman, K., Nield, L., Coulman, K., Woodward, C., Ells, L., and Homer, C. (2025). Engaging in purposeful patient and public involvement with young people living with obesity: recommendations from the ARROWS residential weekend. *BMC Research Involvement & Engagement* 11 106 <https://doi-org/10.1186/s40900-025-00776-2>

Ioannou, E., Coulman, K., Nobles, J., **Garside, M.**, Nield, L., Davies, P., Kinsella, K., Ells, and Homer, C. (*in review*). From Policy to Person-Centred Care: Insights into the Development of Complications of Excess Weight Clinics in England. (*Submitted October 2025 to BMC Health Services Research*)

Poster and Oral Presentations

Garside, M., Homer, C., Dayson, C., Dowrick, L., Wright, N. 19th-20th June (2024) Using Social Prescribing within Complications of Excess Weight (CEW) clinics for Children and Young People (CYP) - Results from Mapping and a Survey. National Academy of Social Prescribing International Conference, University of Westminster (June 2024). ***International Social Prescribing Conference, London, 2024***

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Garside, M., Homer, C., Dayson, C., Dowrick, L., & Wright, N. (2025, October). Social prescribing and complications of excess weight (CEW) clinics. In *Endocrine Abstracts* (Vol. 111). Bioscientifica. ***British Society for Paediatric Endocrinology and Diabetes, Sheffield, 2025***

Garside, M., Homer, C., Dayson, C., Dowrick, L., & Wright, N. (2026, February). Social prescribing and complications of excess weight (CEW) clinics. *Oral Presentation*. ***South Yorkshire Children and Young People's Health Research (SCYPHeR) Annual Research Day February 2026***

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Abbreviations

ASD	Autism Spectrum Disorder
AYPH	Association for Young People's Health
CAMHS	Child and Adolescent Mental Health Service
CEW	Complications from Excess Weight
CMO	Context Mechanism Outcome
CYP	Children and Young People
DHSC	Department of Health and Social Care
HCRW	Health and Care Research Wales
HRA	Health Research Authority
ICB	Integrated Care Board
ICS	Integrated Care System
IMD	Index of Multiple Deprivation
MDT	Multidisciplinary Team
NASP	National Academy for Social Prescribing
NCMP	National Child Measurement Programme
NHS	National Health Service
NHSE	National Health Service England
OHID	Office for Health Improvement and Disparities
PPI	Patient and Public Involvement
REC	Research Ethics Committee
SEND	Special Educational Needs and Disabilities
SY	South Yorkshire
UK	United Kingdom
VCSE	Voluntary Community and Social Enterprise
WHO	World Health Organisation

Structure of the Thesis

Chapter 1 introduces the background to both obesity and social prescribing, including rationale for implementing social prescribing within children's weight management services. The end of this chapter presents the research questions, aims and objectives guiding the thesis.

Chapter 2 describes the methodology, focusing on the realist approach. Specific methods for each phase, and stakeholder involvement are discussed. This chapter posits theories of how social prescribing may work in CEW clinics and how they were identified and then refined.

The following three chapters present in turn each phase of initial theory development. **Chapter 3** presents phase 1, which involved mapping community services and assessing these in terms of suitability for a population of young people living with severe obesity. This helped to develop initial theories based on understanding the role of community services in a social prescribing approach for young people living with obesity. **Chapter 4** describes phase 2, which included a national survey of CEW professionals to gather perspectives on social prescribing. This contributed to developing initial theories on understanding the role of clinical services. **Chapter 5** details phase 3, a realist review of social prescribing for young people, and weight management services for young people. This identified overlapping theories to explain how social prescribing works for young people and what works in weight management to support young people.

Chapter 6 synthesises the initial theories from phases 1, 2 and 3.

Chapter 7 presents a realist evaluation. Theories from Chapter 6 were refined through data collection with young people accessing CEW, their parents/carers and clinical and community staff. This chapter details how theories were refuted and refined and contains reflections on recruitment and methods.

Chapter 8 presents the final programme theories, consolidated from Chapter 7. This chapter describes how these theories were used to develop recommendations for policy and practice. These recommendations were sense checked and developed alongside wider stakeholders including staff involved in public health, commissioning and social prescribing at a local and national level. Finally, **Chapter 9** provides a discussion of the whole thesis, including key conclusions, reflections and contribution to knowledge.

1.0 Chapter 1. Introduction

This thesis aims to explore how social prescribing could work in specialist weight management services, such as CEW clinics, to support the health and wellbeing of young people living with severe obesity. This chapter will provide the rationale and background to this topic. First, an overview of obesity is provided, including contributing factors, impacts of obesity and current support services. Then, an overview of social prescribing and the current evidence base is discussed. The rationale for implementing social prescribing within children's weight management is then explored. Finally, the research questions, aims and objectives are presented at the end of this chapter.

1.1 Obesity

Obesity is a chronic and complex disease, outlined as accumulation of excess body fat which can cause significant risk to physical health and negative impacts on quality of life, mental health and wellbeing (WHO, 2024).

One way to diagnose overweight and obesity is through the use of body mass index (BMI) measurements. Whilst there are BMI cut-offs which can be used for adults, in children there is a need to consider age and sex as these can impact on growth rates meaning using a single cut-off figure is not appropriate (NCMP, 2025; NOO, 2011). Therefore, growth charts are used for children which show average BMI for girls and boys at different ages using distribution curves so that a child's BMI can be assessed in comparison to recommended thresholds or centiles, showing deviation from the mean (Cole et al., 2000).

In the UK, for children and young people, the UK90 BMI growth charts are used, with overweight defined as BMI centile between 85 and 95 and obesity defined as BMI centile between 95 and 100 (Cole, Freeman & Preece, 1995). A subset of obesity is categorised as severe obesity with a BMI centile over 99.6.

The National Child Measurement Programme (NCMP) annually collects height and weight data from Reception (4-5 years) and Year 6 (10-11 years) aged children from mainstream schools in England (NCMP, 2025). This data is used to provide national overviews of levels of weight and weight management needs for children. However, there are indications that further adjustments may be needed for more accurate use with ethnic minority populations (Hudda et al., 2017).

1.1.1 Prevalence

Globally, prevalence figures from 2022 suggest that 65.1 million girls and 94.2 million boys aged 5-19 years are living with obesity (Phelps et al., 2024). This demonstrates a large increase over the past 30 years, from 2% of children in 1990 to 8% in 2022 (WHO, 2024). Whilst rates vary between countries and regions, generally the number of children living with excess weight is increasing, including in low- and middle-income countries. As a result, childhood obesity has been identified as a global health crisis (WHO, 2024; Zhang et al., 2024).

In England, 1 in 5 children leave primary school living with obesity, and 1 in 20 living with severe obesity (NCMP, 2025). The most recent round of the WHO European Childhood Obesity Surveillance Initiative (COSI) collected data from children aged 6-9 years across 37 countries in the WHO European region (2025). Prevalence of children living with obesity ranged between 3% and 20% with an overall prevalence of 11% (European Childhood Obesity Surveillance Initiative, 2025). England was not included in this latest data round, but recent NCMP statistics collected in the 2024/2025 academic year show that 10.5% of reception aged children (4-5 years) and 22.2% of year 6 aged children (10-11 years) are living with obesity (BMI centile >95-100). These figures indicate that England has one of the highest rates of obesity in Europe. A subset of this group is classified as living with severe obesity (BMI centile >99.6-100) and includes 2.9% of reception aged children (3.1% of boys, 2.7% of girls) and 5.6% of year 6 aged children (6.6% of boys and 4.5% of girls). Prevalence also varies by sex, with a

greater difference between boys and girls in Year 6 in comparison to those in Reception.

Rates of obesity were impacted by the COVID-19 pandemic, with sharp increases reported in 2020/21 (Ochoa-Moreno et al., 2024). Whilst rates for reception aged children had previously decreased to meet pre-pandemic trends, the latest figures for both reception and primary school aged children are now higher than pre-pandemic levels (NCMP, 2025; Ochoa-Moreno et al., 2024). In reception aged children, rates of obesity are currently 10.5% in comparison to 9.9% in 2020 (prior to the pandemic), and in primary school aged children, rates are 22.5% in comparison to 21% in 2020 (NCMP, 2025).

NCMP data consistently show that children living in the most deprived areas of the country are more likely to be living with obesity with a prevalence rate of at least double that experienced by children living in less deprived areas (NCMP, 2025). Additionally, children living in the most deprived areas are four times as likely to be living with severe obesity than those in the least deprived areas. Since 2013/14, this prevalence gap between those living in the least and most deprived areas has continued to increase, from 4.6% in 2013/14 to 6.9% in 2024/25 (Year 6, severe obesity prevalence) (NCMP, 2025). This finding highlights a key inequality whereby families living in more deprived areas or facing poverty are experiencing poorer health and worse health outcomes.

1.1.2 Contributing factors to obesity

It is recognised that obesity is a complex issue with multiple overlapping causes and risk factors, including biological, psychological, environmental and societal factors (Campbell, 2016). The Foresight Systems Map (Vandenbroeck, Goossens & Clemens, 2007) was one of the first maps aiming to visually represent this complexity, with multiple interlinking relationships between each of these factors.

Many interventions for overweight and obesity are described as lifestyle interventions, which target diet and physical activity levels. However, it is increasingly recognised that diet and activity can be influenced and constrained by numerous wider biological, psychological, environmental and social factors (Public Health England, 2017). Therefore, interventions should incorporate wider psychosocial factors to address drivers of obesity (Newson & Abayomi, 2024).

There are multiple additional biological factors involved in obesity beyond a simple energy expenditure model (Baranowski, Motil & Moreno, 2019). This includes prenatal factors, and genetic factors affecting predisposition, such as impacts on hormones and metabolism (Karakitsiou et al., 2024). There have been many studies conducted which show that genetic factors can lead to predisposition for obesity, alongside environmental factors (Vourdoumpa, Paltoglou & Charmandari, 2023).

Living in more deprived areas has also been associated with increased prevalence of obesity (NCMP, 2025). It is estimated that approximately 4.3 million children in the UK live in poverty, which can impact on their access to food, safe housing and healthcare (Buckingham et al., 2025). The 'Marmot Review, 10 Years On' report highlights the growing number of families living with food insecurity, relying on food banks and facing increased challenges to accessing healthier foods (Marmot et al., 2020). It is reported that those families living in the most deprived decile would have to spend close to 75% of their disposable income to meet the Eatwell guide recommendations, compared to 6% for those living in the least deprived decile (Marmot et al., 2020). More deprived areas in comparison to higher socioeconomic areas also have increased prevalence of fast food outlets, and limited availability of fresher, healthier food (Department for Environment, Food and Rural Affairs, 2024). Poorer public transport infrastructure and the need to travel further distances to supermarkets can all contribute to increased reliance on ultra processed, longer lasting foods (Ball, Timperio & Crawford, 2009). These more deprived areas may also have reduced access to physical activity and recreational opportunities, such as safe green and blue spaces or accessible leisure centres (Estabrooks, Lee & Gyurcsik, 2003).

These inequalities are predicted to continue given the current cost of living crisis leading to more families facing financial difficulties and increasing levels of poverty (Joseph Rowntree Foundation, 2023). This report also highlighted inequalities in rates of poverty by ethnicity, with households of Pakistani or Black ethnicity having poverty rates of more than twice that of households of white ethnicity. These inequalities are reflected by NCMP data, which shows that rates of children living with obesity and severe obesity are highest for those of Black ethnicity across both reception and Year 6 age groups (NCMP, 2025).

For children and young people, the family environment can also have an impact on obesity (Kininmonth et al., 2022). Where parents are living with obesity, children are also more likely to be living with obesity (Lee, Jin & Lee, 2021). Children are influenced by wider family members in terms of food, physical activity, and lifestyle and are usually reliant on parents or carers for food shopping, food cooking, and access to activities. This access can include travel and transport to activities, as well as the cost of attending or buying equipment (Sung-Chan et al., 2013). Therefore, when supporting children and young people living with obesity, there is a need to consider a whole family approach (Watson et al., 2011).

1.1.3 Impact of obesity in childhood

Excess weight in childhood has been linked to a wide range of physical and mental health complications and to increased likelihood of living with obesity as an adult (Simmonds et al., 2016).

Physical Health

There is substantial research linking excess weight in childhood to physical co-morbidities such as cardiovascular disease, fatty liver disease (Sommer & Twig, 2018), musculoskeletal problems (Fortunato, Kruk & Júnior, 2021), sleep apnoea (Narang & Mathew, 2012), Type 2 diabetes (He et al., 2022), and high cholesterol

(Faenza et al., 2022; Reilly & Kelly, 2011). Additionally, there are suggestions of links between obesity and poor oral health, although results are often inconsistent due to significant heterogeneity of studies (Paisi et al., 2019). Physical comorbidities can lead to increased health needs across the lifespan and are associated with reduced quality of life and increased risk of mortality (Horesh et al., 2021).

Associations between obesity in childhood and long term health impacts can be difficult to quantify because many of these comorbidities do not routinely emerge until adulthood (Marcus, Danielsson & Hagman, 2022). However, emerging data from an evaluation of Complications of Excess Weight clinics in England highlights incidence of comorbidities within the patient group (Matu et al., 2025). Alongside this, there is evidence that earlier intervention, such as during childhood, can lead to improved health outcomes, particularly for cardiovascular disease (Apperley et al., 2022; Ells et al., 2018).

Mental Health and Wellbeing

In addition to physical health impacts, obesity in childhood has been linked to poor mental health outcomes, with a suggestion that there is a bi-directional relationship between the two (Cameron et al., 2012). Lower psychological wellbeing and lower health related quality of life is also more common among young people living with severe obesity (van de Pas et al., 2023; Putra et al., 2024).

Mental health and wellbeing are often used as overlapping concepts, although wellbeing focuses on wider social and subjective factors (Putra et al., 2024), commonly described as “how people feel and how they function both on a personal and social level, and how they evaluate their lives as a whole” (New Economics Foundation, 2012). Mental health then refers to a state in which individuals can “cope with the stresses of life, realise their abilities, learn well, work well and contribute to their community” (WHO, 2025). Good mental health is not only defined as the absence of mental health disorders (Fusar-Poli et al., 2020).

Young people living with obesity commonly experience low self-esteem and self-confidence (Goldfield et al., 2010), risk of anxiety and depression (Kanellopoulou et al., 2022) and negative body image (Blundell et al., 2024). It has been suggested that negative body image and weight dissatisfaction can increase risk of low mood and depression, particularly for young girls (Anderson et al., 2007; Sanderson et al., 2011). Young people living with severe obesity were found to have lower self-reported health related quality of life scores, not only in comparison to a population of healthy young people but also in comparison to young people living with other chronic childhood health conditions (Hawton et al., 2025; Matu et al., 2025; *in review*).

Weight Stigma

Weight stigma is where individuals face discrimination and negative bias due to their weight (Tomiya et al., 2018). This stigma can be prevalent in many settings, such as among peer groups, in the media, in school, and healthcare settings (Tanas et al., 2022). For young people, those living with obesity are at higher risk of being a victim of bullying and discrimination and often face social isolation as a result of weight stigma (Cheng et al., 2022; Janssen et al., 2004). Many young people and their families have significant negative experiences of weight stigma in healthcare settings and with healthcare professionals, leading to avoidance of these services and subsequent poorer health outcomes (Tanas et al., 2022). Many young people living with obesity are not regularly attending education settings, often as a result of bullying, meaning they can face poorer academic outcomes (An et al., 2017).

Weight stigma has been shown to lead to poorer mental health, social and educational outcomes, and is a noted barrier for engaging in health promoting activities such as physical activity and group based activities (Ells et al., 2025; Rigby, McKeown & Wortley, 2022). This negative cycle can lead to further unhealthy behaviours and even increased weight (Ells et al., 2025).

Economic Impacts

Alongside individual impacts, childhood obesity in the UK presents a wider cost to the NHS and public health. Given that children living with obesity are more likely to be living with obesity as adults, and many health conditions persist into adulthood, obesity can cause significant long term cost to the NHS (Horesh et al., 2021).

The estimated annual cost to the UK from obesity is £53.6 billion, with a cost to the NHS of £11.4 billion a year (Bradshaw & Dace, 2023), a figure which does not account for the rising rates of childhood obesity. Tackling obesity is therefore a significant priority and as such was included in the NHS Long Term Plan (2019) as well as the more recent NHS Ten Year Health Plan for England (UK Government, 2025). In this strategy, under aims to move from sickness to prevention there are ambitions to reduce the inequalities in health between the richest and poorest regions, to support healthy childhoods, and to end the childhood obesity epidemic.

1.1.4 Obesity support

Models of weight management support across England are commonly organised into Tiers (see Figure 1), depending on the type and intensity of support offered (Capehorn, Haslam & Welbourn, 2016; Welbourn et al., 2018). Recent NICE guidance recommends different approaches based on the individual needs of families, by developing services with input from local community engagement and multidisciplinary team members (NICE, 2025). Whilst there has been a recent move away from the use of specific ‘tiers’ to describe services, for the purpose of this thesis, these terms are still used as the Complications of Excess Weight (CEW) clinics currently fit within this structure.

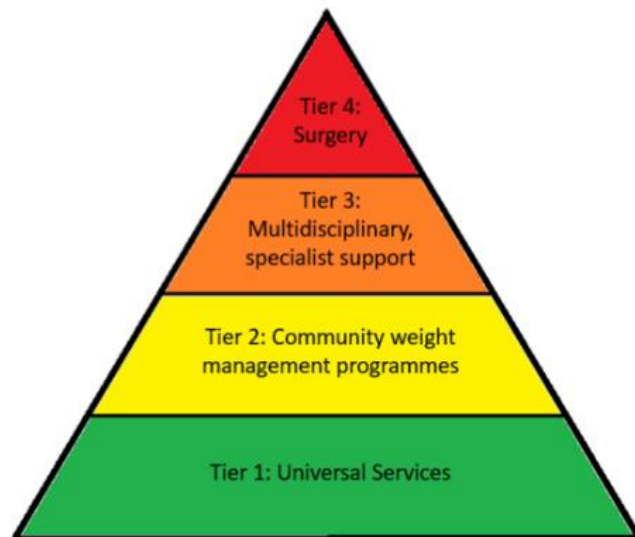


Figure 1. Diagram showing Tiers of weight management support (based on Wright & Wales, 2016)

Tier 1 services include universal public health measures and healthy living advice, such as national campaigns and advice from professionals like GPs and school nurses (Robertson, Murphy & Johnson, 2016). Referrals can then be made to Tier 2 services if an individual is identified as in need of further support.

Tier 2 weight management services, including community weight management programmes (Coulton et al., 2015), generally consist of time-limited group courses delivered to parent/carer and child with a focus on lifestyle changes such as healthy eating and physical activity (Aicken, Roberts & Arai, 2010). Although studies have shown positive benefits from these interventions in terms of reductions in BMI and improvements to self-esteem (Sacher et al., 2010; Visram, Hall & Geddes, 2013; Watson et al., 2015), there have been high levels of reported dropouts particularly for those from less socially advantaged areas and ethnic minority groups (Aicken, Roberts & Arai, 2010). Reasons for drop out from these interventions are complex, with psychological and motivational factors often reported alongside wider environmental factors (Staniford, Copeland & Breckon, 2018).

Tier 3 services are intensive, specialist weight management programmes delivered by a multidisciplinary team of healthcare professionals, including roles such as consultants, nurses, dieticians, nutritionists, physiotherapists and psychologists (NICE, 2025; Wright & Wales, 2016). Complications of Excess Weight (CEW clinics) are based at this level, with further detail about these presented below (section 1.1.4.1.). Tier 3 services are recommended when a young person requires further ongoing support after accessing Tier 2 services, after relapse, or if a young person experiences significant co-morbidities. The aim is to prevent the need for more invasive treatments at Tier 4 level (NICE, 2025; Wright & Wales, 2016). Nationally, there has been inconsistent provision of Tier 3 weight management services for children, resulting in a limited understanding of what a good service would involve and inequality of provision across localities (Coulton et al., 2015; Mears et al., 2019).

Tier 4 services include more invasive surgical and non-surgical medical treatments such as bariatric surgery, alongside pre- and post-operative support (Wright & Wales, 2016). It is expected that young people considered for Tier 4 will have received Tier 3 services (Coulton et al., 2015). Although research indicates that surgery may be a safe and helpful option for some children, there remains a risk of ongoing complications and NICE guidelines do not recommend surgical intervention for children and young people, stating they should only be considered in exceptional circumstances (Thenappan & Nadler, 2019; Bolling et al., 2019; NICE, 2025).

Weight Loss Medication

During the timeframe of this PhD study there were substantial developments in the use of GLP-1s (glucagon-like peptide-1 receptor agonists) as weight loss medication. There has been increased research into the use of weight loss medication for children, increased use of these within the NHS, and increased awareness from the public (Fox et al., 2025; Lang, 2025; Kumar, Olson & Kellogg, 2025).

Based on emerging research, Tier 3 clinics are most commonly prescribing semaglutide and liraglutide for children over 12 years (Van Boxel et al., 2025; Lang, 2025), although there are early studies exploring topiramate and tirzepatide for children (Salama et al., 2025; Hannon et al., 2025). There remains variability in access across the country and young people commonly experience some level of weight regain when reducing medication use (Kumar, Olson & Kellogg, 2025). There have been positive impacts seen in terms of weight loss (Sedenho-Prado et al., 2025), but medication is currently only recommended alongside support from a multidisciplinary team and lifestyle changes (NICE, 2025).

1.1.4.1 CEW clinics

Development of the Clinics

Based on increasing prevalence of obesity rates and lack of formal standards or provision at Tier 3 level, twenty-one Complications from Excess Weight (CEW) clinics were established across England in 2022 (NHS England, n.d.b; Ioannou et al., *in review*). As of November 2025, this number had increased to 38 clinics currently operating (see Figure 2). The CEW clinics were originally established and funded by NHS England as part of a pilot programme, with aims that funding would transition to local commissioners after the pilot phase. This pilot phase for the clinics allowed for flexibility in models of delivery, meaning clinics evolved their offer alongside local needs and priorities. This transfer to local commissioner funding was originally planned for March 2025 leading to a period of uncertainty for clinics in terms of future resource, funding and delivery. An extension to national ringfenced funding has been given to take clinics to March 2027 until the results of the national ENHANCE evaluation are available (ENHANCE, 2025). This thesis is therefore timely, as it takes place alongside work to develop and build service specifications and guidelines for CEW clinic delivery. Findings will therefore contribute to the national evaluation of CEW clinics.

Complications from Excess Weight (CEW) Clinics (full list)

1. Royal Cornwall Hospitals Trust
2. University Hospital Plymouth NHS Trust
3. University Hospitals Bristol and Weston NHS Foundation Trust
4. Cambridge University Hospital Foundation Trust
5. Norfolk and Norwich University Hospital NHS Foundation
6. East Suffolk and North Essex NHS Foundation Trust
7. Bedfordshire Hospitals NHS Foundation Trust
8. Portsmouth Hospitals University NHS Trust
9. Brighton and Sussex University Hospitals NHS Trust
10. University Hospital Southampton NHS Foundation Trust
11. Dartford and Gravesham NHS Trust
12. Oxford Health NHS Foundation Trust
13. King's College Hospital NHS Foundation Trust
14. TBC Healthcare
15. St George's University Hospitals NHS Foundation Trust
16. Barts Health NHS Trust
17. University Hospitals of Leicester NHS Trust
18. Birmingham Women's and Children's NHS Foundation Trust
19. Nottingham University Hospitals
20. University Hospitals Coventry and Warwickshire
21. Kettering General Hospital NHS Foundation Trust
22. South Tees Hospitals NHS Foundation Trust
23. Leeds Teaching Hospitals NHS Trust
24. Sheffield Teaching Hospitals NHS Foundation Trust
25. Newcastle upon Tyne Hospitals NHS Foundation Trust
26. Alder Hey Children's NHS Foundation Trust
27. Lancashire Teaching Hospitals NHS Foundation Trust
28. Manchester University NHS Foundation Trust
29. Frimley Health NHS Foundation Trust
30. Gloucestershire Health and Care and Gloucestershire Hospitals Foundation FT
31. Somerset NHS Foundation Trust
32. University Hospitals Dorset NHS Foundation Trust
33. Chelsea and Westminster Hospitals NHS Foundation Trust
34. Stoke - University Hospitals Birmingham
35. Kings Mill - Nottingham University Hospitals
36. Derby and Burton - Nottingham University Hospitals
37. Ashford and St Peters Hospitals NHS Foundation Trust

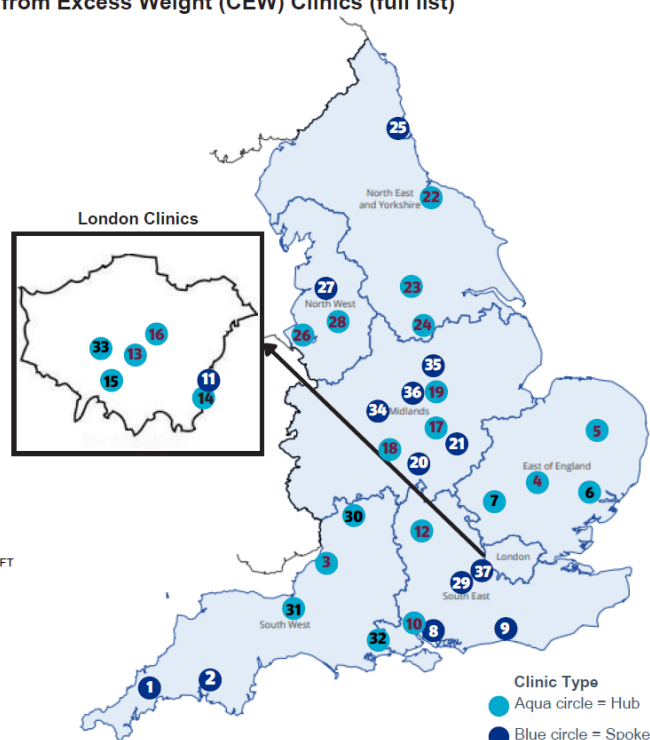


Figure 2. CEW clinic map (from ENHANCE data, shared through NHS England at, <https://www.england.nhs.uk/get-involved/cyp/specialist-clinics-for-children-and-young-people-living-with-obesity/>)

CEW clinics support children and young people aged 2-17 years old who have, or are at risk of developing, significant complications related to their weight. Eligibility criteria include a BMI >99.6th centile and approximately 2 weight-related co-morbidities (including both psychosocial difficulties and physical co-morbidities), or BMI SDS >+3.3 without co-morbidities, however exact criteria may vary between clinics based on local need. Although it is expected that young people will have already accessed a local community weight management programme before accessing a CEW clinic, this is dependent on availability as some areas do not offer Tier 2 programmes (Coulton et al., 2015). The aim was for these clinics to treat 1,000 children per year for physical and mental health complications and to prevent them reaching a need for more invasive treatment, based on ambitions outlined in the NHS Long Term Plan (2019).

In development of the CEW clinics, the Association for Young People's Health (AYPH) was commissioned to engage with families with experience of living with obesity to seek their views on what a 'good' service would involve (Rigby, McKeown & Wortley, 2022). The AYPH team engaged with six young people and six parents to gather their views, which were incorporated into a Delphi process to identify the most important outcomes for the CEW clinics to address. The key themes consistently identified from this work include the importance of patient-centred and non-judgemental services, which can provide peer support and holistic provision, delivered at trusted and accessible locations (Rigby, McKeown & Wortley, 2022).

The CEW clinics are built on a biopsychosocial and holistic approach, aiming to identify underlying factors which may contribute to the development of severe obesity as well as provide treatment for related health complications. This holistic focus means the clinics do not focus solely on weight but consider wider factors such as mental health, physical activity and family support. The service creates individualised plans, which are tailored to the specific needs of each young person as part of a person-centred care approach, with the support of a multidisciplinary team (Ioannou et al., *in review*). This team can include but is not limited to; consultants, specialist nurses, dieticians, nutritionists, physical activity therapists, physiotherapists, psychologists, support workers and social workers (Davies et al., *in preparation*).

Due the nature of the pilot programme the delivery models at each of the clinics vary based on local needs and context. Clinics include a mixture of models including hub and spoke, where there is one central site and delivery at multiple local centres in surrounding areas. To increase accessibility, some models employ youth workers and outreach services so that appointments can be accessed via home visits and in the community rather than at a clinic (Wood, 2024). There is a recognised need for this care to be personalised, acceptable and accessible to all families, based on data highlighting that those living with obesity are often living in the most deprived areas of the country, may be from ethnic minority groups and may face a range of barriers to accessing healthcare services (NCMP, 2025).

Outcome measures for CEW clinics were chosen with input from healthcare professionals as well as through the engagement work with families with lived experience (NHS England, n.d.b; Rigby, McKeown & Wortley, 2022; Stilwell et al., 2023). These outcomes include physical health measures and clinical measures of comorbidities (including BMI, blood pressure, height, weight, waist circumference, glucose tolerance, sleep apnoea) as well as a paediatric quality of life measure, PedsQoL (Varni, Seid & Kurtin, 2001).

ENHANCE

To evaluate the CEW clinics during this pilot phase, NIHR commissioned a national study, known as ENHANCE (Evaluating the NHS England Complications of Excess Weight services for children and young people; NIHR 158453; www.enhance-research.com/). ENHANCE aims to identify which CEW models work best and are cost-effective, to inform future delivery and local commissioning (ENHANCE, 2025).

ENHANCE is led by a team from Sheffield Hallam University, and as a researcher, I have been embedded into this project alongside this PhD. This has provided in depth knowledge of the context of the clinics, as well as an understanding of the development of the clinics, and challenges and issues faced nationally. Further detail of the embedded approach is provided in Chapter 2; *Methodology* (section 2.6).

CEW Patient Demographics

The ENHANCE study will complete in September 2026, but has already identified preliminary findings, such as detailed understanding of patient demographics. Analysis of baseline data for patients across 32 CEW clinics found that children living in the most deprived IMD (index of multiple deprivation) decile were significantly overrepresented, alongside children identifying as black or minority ethnic groups (Matu et al., 2025). In addition to this, almost a quarter of CEW patients were reported to have a learning disability or autism spectrum disorder

(ASD) (Matu et al., 2025). These groups were overrepresented both in comparison to a general population of young people, as well as in comparison to those included in NCMP data, highlighting the additional complexity of the CEW population (Matu et al., 2025; *in review*).

These findings are reflected in further research based on two CEW clinics, with an overrepresentation of patients living in the most deprived IMD decile, and with a high proportion who are neurodivergent (Hawton et al., 2025). A range of physical health comorbidities were identified, along with mental health difficulties. Self-reported health related quality of life scores were low, and a quarter of young people were reported to have anxiety (Hawton et al., 2025).

Therefore, recent data shows the significant complexity of the CEW clinic patients and highlights the importance of treatment and support that is accessible and able to reach a typically underserved population.

CEW Delivery Models

CEW clinics are commonly a consultant-designed service, with input from a dietician. Behaviour change theory and service user involvement was rarely reported by clinics when describing set up of their service, although it should be noted that the overall CEW clinic pilot was developed with involvement from families with lived experience through the AYPH work (Rigby, McKeown & Wortley, 2022).

Each CEW clinic was commissioned to see a certain number of new patients per year with numbers ranging between 25 – 120. Waiting lists for clinics also varies, between 0-200 patients, with average time to access the service ranging between 3 to over 24 months (Davies et al., *in preparation*).

Out of 30 clinics where data were available, the most common roles included on the multidisciplinary team were consultants (96.7%), dieticians (90%), nurses (76.7%) and psychologists (76.7%). Just over half (60%) of clinics had a physiotherapist and only one had an exercise therapist. Less commonly included were a range of additional roles including social workers (30%), youth workers

(30%), family therapists (16.6%) and family support workers (43.3%) (Davies et al., *in preparation*).

South Yorkshire CEW clinic

An example of one of these clinics is the South Yorkshire CEW clinic which covers Sheffield, Rotherham, Doncaster and Barnsley. Clinics run from Sheffield Children's Hospital and Northern General Hospital but are also co-located at Sheffield Hallam University's Advanced Wellbeing Research Centre and Doncaster Knights stadium. Co-locating healthcare clinics in leisure settings has been reported to support collaboration between staff in these settings and increase awareness of physical activity opportunities (Grinvalds et al., 2025).

The clinic is led by a multidisciplinary team and includes consultants, specialist nurses, a dietician and psychologist and family support workers. Staff (usually family support workers) conduct home visits with families in between consultant-led clinic appointments. The clinic was set up in the first wave of the CEW pilot in 2022, prior to which there was no formal Tier 3 service for children, only ad hoc weight management support by hospital clinicians. The clinic was commissioned to see approximately 100 young people per year. CEW clinics were established in the areas of greatest need nationally, and South Yorkshire has significant prevalence of child obesity. Reports show that the regions across South Yorkshire are all above the national average of 22.1% (prevalence of obesity, including severe obesity, at Year 6); Sheffield - 23.9%, Doncaster - 24.5%, Barnsley - 25.6% Rotherham - 27% (Fingertips Public Health Profiles, 2025).

The South Yorkshire CEW clinic is unique in that their service offer includes access to SHINE (*Self Help, Independence, Nutrition and Exercise*). SHINE is a not for profit tier 3 community weight management service for young people, providing a wide range of support services as part of a stepped care approach (Sharman & Nobles, 2015; Nobles et al., 2016). This includes 12-week programmes which deliver education sessions around nutrition and psychosocial issues, such as stress management and building self-esteem, and opportunities for physical activity. SHINE also delivers weekly online parent sessions, where

parents/carers are given an overview of the information their child will receive at each session, and they are given space to ask questions and seek advice. The weekly SHINE sessions for young people are delivered in community locations across Barnsley, Rotherham, Doncaster and Sheffield. The model varies in each locality, for example, in Rotherham, sessions have been delivered with Rotherham United Community Foundation, with Rotherham coaches delivering the physical activity element of the sessions.

SHINE was initially set up in 2003 as a voluntary service, receiving funding from various statutory and charitable sources from 2011. SHINE has developed throughout this time, learning from the lived experiences and voice of the Young Person's Management Committee (YPMC) who provide feedback on the delivery of SHINE. This group were also involved in discussions in 2019 with the Health Minister and the Healthcare Select Committee at Parliamentary level prior to COVID, to highlight the need for tier 3 services to support young people living with obesity.

1.2 Social Prescribing

1.2.1 What is Social Prescribing?

Social prescribing involves connecting an individual to community services for additional, non-medical support for their health and wellbeing (Muhl et al., 2023). This connection between an individual and community services can take place through direct referral between a healthcare professional and community-based service, or via a link worker, or community connector who works with the individual to co-produce access to a community service (Muhl et al., 2023). Social prescribing has developed from the understanding that wider social factors (such as education, housing, income, relationships) can have a significant influence on health behaviours and outcomes. These factors therefore need to be considered and addressed as part of supporting individuals to be able to manage their health (Drinkwater, Wildman & Moffatt, 2019).

A range of activities could be included as part of a social prescribing offer, such as gardening groups, physical activity, arts groups, walking groups, volunteering and referrals to advice services. The National Academy for Social Prescribing (www.socialprescribingacademy.org.uk/) commonly refers to four main pillars of social prescribing which activities fall into; advice and information, arts and heritage, natural environment, and physical activity. It has been suggested that these pillars are based on all-age or adult social prescribing and may not fully translate into youth social prescribing (Mitchell et al., 2025).

Whilst there is common understanding of the aims of social prescribing, there remains a wide variation of delivery models and settings. This is to be expected based on its application to different populations and reliance on local community provision (Husk et al., 2019). For example, whilst many social prescribing programmes are broad in focus and based on addressing social determinants such as isolation and wellbeing, social prescribing can also be used within healthcare services, with a more targeted focus on a certain health need, or long-term condition (Husk et al., 2019). In such cases these activities would need to be adapted to the needs of the specific patient group.

Social prescribing interventions have previously been described at four levels; *signposting*, *light*, *medium* and *holistic* (Kimberlee, 2013). Signposting would involve a health professional sharing information about local services and either referring patients or leaving them to self-refer. It has since been suggested that due to a lack of tailoring of activities or follow-up, signposting does not meet the criteria of social prescribing (Morse et al., 2022). In comparison, light, medium and holistic levels demonstrate increased tailoring to specific health needs, and an increasing amount of support provided by a link worker role (Bertotti et al., 2018). 'Holistic' is seen as the ideal model but is not always implemented (Kimberlee, 2013). This model is described as having a clear referral criteria from primary care to an external provider, no limits on number of link worker contacts and support which can be offered for any issues identified (such as financial, health or social challenges) (Kimberlee, 2013). Whilst holistic support is frequently deemed part of an ideal model within healthcare services, Moffatt and colleagues (2017) advise that this is not always feasible in practice, as it requires

regular, ongoing contact with patients and support with a broad range of non-medical issues, which healthcare staff do not always have capacity to facilitate.

Social prescribing has since become more commonly implemented as part of commissioned services, with most of these models meeting a 'holistic' approach. It has therefore been proposed that social prescribing 'plus' could be a way to further distinguish examples of high quality social prescribing approaches (Dayson, 2017). A social prescribing 'plus' model may be situated in a wide geographical area, include clear referral pathways from a range services, offer a broad range of community activities, and draw upon long term investment and strategic funding (Dayson, 2017).

1.2.2 How is social prescribing included in current UK policy?

Social prescribing has been included in the NHS Long Term Plan (2019) and is aligned with key components of health policy in England (NASP, 2023) which have increasingly focused on personalised and holistic models of care (NHS England, n.d.a). More recently, there has been a focus on shifting care from hospital to community and enhancing connections with wider community services, which are included as priorities in the Ten Year Health Plan (UK Government, 2025). This signals yet further alignment between health policy and the principles of social prescribing. As part of this, there is a move towards neighbourhood health models of care, where a range of health, social care and community services are integrated to provide improved access and better care for patients (NHS England, 2025; The King's Fund, 2025).

In England, social prescribing policy to date has mainly focused on a link worker model and provision within primary care. For example, a GP may identify that a patient has wider, non-medical needs and refer them to a link worker (Carnes et al., 2017). The patient then meets with the link worker who identifies 'what matters to them' and supports them to access relevant local community services (Griffiths, Hina & Jiang, 2022). Responsibilities of the link worker could also include developing relationships with, collaborating with, and supporting a range of

community organisations (NHS England, 2023) with recognition that a successful social prescribing offer also requires a broad range of community services (Hassan et al., 2023). Exact frequency and intensity of link worker contacts can vary significantly depending on service and need, from only one initial visit to contacts over two years (Sandhu et al., 2022).

There are many different terms used to describe the link worker role, such as navigator, coordinator, connector, or advisor (Mulholland et al., 2025). Whilst the role is often described in different ways, the main functions of the link worker include working with individuals to identify personal goals, connecting them to support and taking a holistic approach to health (Mulholland et al., 2025). Link workers are not required to have a clinical background but may have experience in social work or community services (NHS England, 2023). Given the nature of the role, communication and motivational skills are often prioritised (Sandhu et al., 2022). There is recognition that the role can involve supporting those with complex needs, and as such supervision and training is highlighted as vital (Frostick & Bertotti, 2021). Training is available for link workers (NHS England, 2023), and ongoing professional development is encouraged but courses can vary between being costly and time consuming or more light-touch online modules (e-learning for healthcare, 2020).

Link workers develop relationships and create networks with their communities and patients, which can take time to build up again if they are to leave their role (Tierney, Moore, et al., 2025). Staff turnover can therefore be a challenge, with link workers noting burnout, lack of supervision and unclear or inaccurate descriptions of what the job involves as reasons for leaving (Tierney, Moore, et al., 2025). Clearer job descriptions, improved training and regular supervision are recommended to support link worker retention (Tierney, Wong, et al., 2025; Mulholland et al., 2025).

1.2.3 Evidence base for social prescribing with adults

Social prescribing services can be dated back to 1990s and schemes such as Bromley-by-Bow (Catford, 1998), where a centre in East London began offering

a range of community-led activities such as arts and crafts, education, and physical activity to support patients. This scheme was recognised for its holistic approach, success in a deprived area and use of social connections to empower patients (Catford, 1998).

The first review of generic adult social prescribing services was published in 2015 (Kilgarriff-Foster & O’Cathain, 2015). Twenty-four studies were included in the review, the majority were published since 2004, with the exception of one study from 2000. Since then, numerous reviews have been conducted, with included studies mainly comprising adult social prescribing schemes conducted in the UK. A review from 2021 included 51 studies published between 2014 and 2020, from 7 countries, demonstrating an increase in research over recent years (Vidovic, Reinhardt & Hammerton, 2021). Reviews commonly report benefits of social prescribing across domains of wellbeing, physical health and reduced health resource use but highlight limitations such as poor reporting and heterogeneity of studies.

Studies to date have reported improved psychological wellbeing (Kilgarriff-Foster, & O’Cathain, 2015; Bickerdike et al., 2017) including for those with specific mental health problems such as anxiety and depression (Costa et al, 2021; Cooper et al., 2022). Specifically, patients have noted improved self-esteem, and confidence (Chatterjee et al., 2018). Social prescribing schemes have also been linked to reduced loneliness, reduced social isolation, and increased community engagement (Vidovic, Reinhardt & Hammerton, 2021; Pescheny, Randhawa & Pappas, 2020).

Exercise on prescription and referral to physical activity schemes are often more commonly implemented and therefore have increased representation in the literature. It is suggested that this may be because it is easier for clinicians to recognise and assess the benefits of activity, particularly for patients with long term health conditions (Chatterjee et al., 2018; Wilson et al., 2025). Studies report improvements to physical health from these schemes, including reduced blood pressure, weight loss, and increase in healthier behaviours (Chatterjee et al., 2018; Pescheny, Randhawa & Pappas, 2020).

Many reviews highlight impacts on health resource use and have linked this to initial considerations of cost-effectiveness of social prescribing (Polley et al., 2017). Participating in social prescribing is anticipated to reduce health care use (Kilgarriff-Foster, & O’Cathain, 2015), including reductions in GP visits (Chatterjee et al., 2018) and medication use (Cooper et al., 2022). Reductions in secondary care referrals and A&E attendance have also been reported (Bickerdike et al., 2017; Polley et al., 2017).

In recent years, social prescribing has become a global concept, with initiatives running in over 30 countries (Morse et al., 2022), and an International Social Prescribing Collaborative which has been established to share learning (Khan & Giurca, 2024). In 2025, the largest study of the impact of link workers in primary care was published (Wilding et al., 2025). Results showed increased numbers of link workers was linked to patients feeling more confident in managing their health condition, feeling as though their mental health needs have been addressed, and having a more positive GP experience.

This aligns with earlier findings for social prescribing but there remains a gap in understanding which specific patients were accessing social prescribing. This has implications for addressing health inequalities, with suggestions from some researchers that social prescribing for individuals alone is not sufficient to address the complex social issues faced by society and potentially does not address issues of health inequalities (Gibson, Pollard & Moffatt, 2021).

There have been further studies expanding social prescribing to wider settings, such as secondary care (Osei-Asemani & Bertotti, 2025; Wilson et al., 2025). Alongside this, the evidence in terms of cost-effectiveness is also building, with studies showing positive economic outcomes in terms of social return on investment, ‘SROI’ (Dayson et al., 2016; Polley et al., 2023). A large scale evaluation of green social prescribing, funded by DEFRA has demonstrated improvements to mental health and wellbeing, and positive SROI (Haywood et al., 2024). Additionally, a pilot exploring how social prescribing can support active travel is running across 11 local authorities (Active Travel England, n.d.).

1.2.4 Delivering social prescribing for children and young people

NHS guidance around social prescribing and link workers has often included ‘all-age’ social prescribing, which may not be directly applicable to social prescribing with children and young people. Research has shown that in comparison to adult social prescribing, social prescribing with children can include diverse referral pathways, variations on the link worker model and a broader range of activities (Mitchell et al., 2025). Working with children and young people can therefore require additional considerations, for example navigating working with different services, and taking a whole-family approach (Bertotti et al., 2022).

Current training courses for link workers may not always cover working with young people in sufficient detail, for example, the Social Prescribing Learning for Link Workers course provided on the NHS e-learning for healthcare site only has one module out of twelve dedicated to working with children and young people (e-learning for healthcare, 2020). Additionally, when working with those accessing clinical services and facing additional health challenges, there may need to be adaptations made to ensure safety, accessibility, and effectiveness of services included in a social prescribing offer. The Office of Health Improvements and Disparities (OHID) has developed standards and guidance alongside young people highlighting the need for ensuring health and care services are youth-friendly (OHID, 2023).

In 2020, NHS England commissioned the Social Prescribing Youth Network (to be led by Street Games) to develop a youth social prescribing proposal. Street Games (<https://www.streetgames.org/>) is a national charity which aims to support all young people to be able to access physical activity opportunities. Street Games established the Social Prescribing Youth Network in 2018, with an aim to have youth specific link workers available in all Primary Care Networks. Through consultation with stakeholders including young people, families and NHS and community staff, they developed a range of resources incorporating summaries, case studies, link worker job descriptions and safeguarding documents. Whilst the network shares a broad range of relevant information such as research, resources and training opportunities, its origins with Street Games may be

reflected in a focus on physical activity and a link worker model of social prescribing. In 2023, a 'living toolkit' with resources and guidance for designing and implementing youth social prescribing was developed to consolidate and share best practice (Jarvis & Mitchell, n.d.). From December 2024 the Social Prescribing Youth Network has been hosted by the Social Biobehavioural Research Group at University College London.

1.2.5 Evidence base for social prescribing with children and young people

The evidence base for social prescribing for children and young people is more limited compared to that for adults (Muhl, Cornish et al., 2025). However, in recent years, there had been recognition that young people stand to benefit from social prescribing and schemes have increasingly been implemented (Rice, 2023).

A systematic review of social prescribing for young people conducted in 2020 identified no studies eligible for inclusion (Hayes et al., 2020). The authors suggested this may reflect the lack of social prescribing work being conducted in youth populations. However, the inclusion criteria for this review comprised social prescribing programmes that used a link worker model, commonly through GPs which in comparison to adult services, may not be the only approach for youth to access social prescribing (Bertotti et al., 2022; Mitchell et al., 2025; Hayes, Burton et al., 2025).

This review was updated in 2023 (Hayes et al., 2023), where four publications met inclusion criteria. Additionally, a scoping review in 2025 (Muhl, Cornish et al., 2025) included nine studies, all published between 2020 and 2024, revealing an increase in research over recent years. Similar to reviews of adult social prescribing, literature was often unpublished or identified through grey literature searches. These reviews concluded that there is preliminary evidence to suggest improvements to wellbeing from social prescribing (Hayes et al., 2023), as well as increasing physical activity and a favourable return on investment in young people (Muhl, Cornish et al., 2025).

A range of models of social prescribing were included in these reviews, using varying referral routes. Unlike adult social prescribing, which has more commonly been implemented in primary care, youth social prescribing was also accessed via schools, youth clinics and charities (Muhl, Cornish et al., 2025). It is worth noting that included studies across these reviews all used a link worker model of social prescribing, most were targeted at supporting mental health and overall included young people with an average age over 15 years, highlighting a potential evidence gap for younger children.

1.2.6 Social prescribing in secondary care services for children and young people

Although the evidence for social prescribing for young people is still developing, based on positive findings around improvements to mental health, many specialist child and adolescent mental health services (such as CAMHS) have begun implementing schemes. There have been significant increases in mental health needs of young people in recent years, which has not aligned with increasing capacity in specialist mental health services, leading to long waits for treatment (Garside, Taylor et al., 2024). Therefore, social prescribing has been identified as a potential waiting list intervention, to support families and NHS secondary care services. Example programmes include 'Wellbeing While Waiting' (Fancourt et al., 2023; Hayes, Marshall, Wright et al., 2025; Hayes, Wright et al., 2026), and 'Safety Nets' (Dias et al., 2024; Garside, Taylor et al., 2024; Taylor et al., 2026).

Wellbeing While Waiting is a national study, developing a framework for integrating link workers into CAMHS. A social prescribing pathway was developed and implemented in 11 CAMHS sites, with acceptability and improvements to young people's mental health demonstrated (Hayes, Marshall, Wright et al., 2025; Hayes, Wright et al., 2026). Safety Nets is a programme incorporating mental health support and physical activity in partnership with Community Sport Foundations which uses a direct referral model, where clinicians refer young people directly to the programme, not via a link worker. Findings from evaluations

of Safety Nets found it was acceptable for young people, families and clinicians, and provided preliminary evidence in terms of improving mental health scores (on validated anxiety and depression scales) and increasing community engagement (Garside, Taylor et al., 2024; Taylor et al., 2026).

Recent research has also focused on the potential application of social prescribing to hospital or secondary care settings, specifically for families with children with neurodisability (Gordon et al., 2023). This was identified as a population who have unmet social needs, reduced community participation and commonly face financial challenges. A study of a hospital-based link worker social prescribing model for children with neurodisability demonstrated feasibility and acceptability of the offer. There were improvements in self-reported outcomes, particularly across domains of 'doing what matters to you', 'home and family', 'emotional wellbeing' and 'physical health'. It was also estimated that there was a Social Return on Investment (SROI) ratio of £2.75:£1 (Gordon et al., 2025).

The goals and activities the link workers supported families with in this study were often targeted at the parent as the primary beneficiary, and not solely the individual child. For example, activities included support with financial advice, advocacy and parental emotional support. Where goals were targeted to the individual child, this included accessible activities and physical activity opportunities (Gordon et al., 2025).

This study identified unique challenges when implementing social prescribing within a hospital setting, including limited understanding or awareness of social prescribing by hospital staff and patients, and added complexity from the increased severity of needs of patients. For this population of young people with neurodisability, this included communication difficulties and mobility considerations, meaning link workers often faced highly complex challenges. It was therefore recommended that link workers were embedded into the hospital team with access to supervision and clear boundaries over what their role involved.

Despite substantial developments in social prescribing for children and young people over recent years, there is still a need for more robust research to develop

the evidence base and further understanding of how social prescribing may work for young people. There is increasing awareness that young people are a unique population with specific needs (Bertotti et al., 2022). The link worker role can be more complex for young people given variation in referral pathways, and the need to work with parents and wider family members or carers as well as young people themselves (Bertotti et al., 2022; Gordon et al., 2025). It has been recommended that there is a need for additional policies and guidance documents to support those working with young people across various settings (Hayes et al., 2024).

Early findings from programmes in hospital and specialist care settings (such as CAMHS) have demonstrated positive findings, warranting further exploration of application of social prescribing to wider clinical services. There is an identified need for further research to explore what works, for whom and in what circumstances in youth social prescribing (Muhl, Cornish et al., 2025). This thesis will provide novel contributions by exploring the use of social prescribing in weight management services for children and young people living with severe and complex obesity.

1.2.7 Limitations of the current evidence base

There are consistent issues raised across current studies of social prescribing. Conclusions are commonly limited by heterogeneity, both in terms of social prescribing programmes and research methods used.

Studies often have poor reporting of participant samples (Costa et al., 2021; Bickerdike et al., 2017), a lack of control groups (Vidovic, Reinhardt & Hammerton, 2021; Chatterjee et al., 2018), high dropout rates (Cooper et al., 2022; Bickerdike et al., 2017) and low completion rates of outcome measures (Chatterjee et al., 2018). Studies do not always provide full details on ethnicity of participants, and where they do, there is often underrepresentation of minority ethnic groups (Wilson et al., 2025). There are a variety of outcome measures used, which can reduce the ability to compare outcomes between studies (Cooper et al., 2022), and limited assessment of long term outcomes (Chatterjee et al.,

2018). These issues are reflected in the literature for youth social prescribing (Muhl, Cornish et al., 2025).

A review found that less than half of 86 published social prescribing schemes had been evaluated, and qualitative methods were most commonly used (Thomson, Camic & Chatterjee, 2015). Where studies have reported positive qualitative outcomes, these are not always fully supported by the quantitative evidence (Bickerdike et al., 2017; Kiely et al., 2022). This may be because many of the qualitative outcome measures can be hard to quantify, such as psychosocial measures based on social connection and self-esteem (Pescheny, Randhawa & Pappas, 2020).

Many social prescribing schemes are developed 'bottom-up' as they evolve and are agile based on local need, funding and opportunity (Polley et al., 2017). This can make it challenging to standardise outcomes and processes based on the person-centred, diverse nature of social prescribing (Husk et al., 2019). It may therefore be that a traditional randomised controlled trial is not the most appropriate way to evaluate social prescribing (Pescheny, Randhawa & Pappas, 2020), although it is recommended that further, robust evaluation is built into schemes to allow effectiveness and impact to be assessed and to support comparisons and building of effectiveness evidence (Polley et al., 2017). Alongside this, there has been calls to further explore what works, for whom and why (Bickerdike et al, 2017; Muhl, Cornish et al., 2025).

1.2.8 Social prescribing in realist research

Based on the high level of flexibility in delivery models, tailoring to diverse patient groups, inclusion of multiple potential outcome measures and dependence on local context, social prescribing can be described as complex (Calderón-Larrañaga et al., 2021; Petticrew, 2011). More recent reviews published within the last five years (Husk et al., 2020; Tierney et al., 2020; Calderón-Larrañaga et al., 2021) have therefore used a realist approach which can help to better understand how social prescribing works, for whom, and in what ways.

There are a number of mechanisms that have been highlighted at an individual level. These include development of social connections through peer support, leading to reduced isolation and access to a wider support system (Calderón-Larrañaga et al., 2021; Tierney et al., 2020). Developing self-esteem and confidence is reported to empower patients to feel as though they have control over and are capable of self-managing their health and wellbeing (Bertotti et al., 2018; Tierney et al., 2020).

At an organisational level, reviews commonly focus on the role of the link worker and staff at community-based organisations, with the mechanism of trust consistently identified. It is suggested that trust between patients and staff develops from a non-judgemental approach and strong interpersonal and motivational skills (Bertotti et al., 2018; Calderón-Larrañaga et al., 2021; Husk et al., 2020). If patients trust link workers and community staff, then they are more likely to feel confident to engage with social prescribing (Husk et al., 2020). It is recommended that link workers are embedded within services, such as GP settings, and that ongoing training and supervision is provided for link workers to support this relationship (Calderón-Larrañaga et al., 2021).

These realist reviews focus on adult schemes and link worker models of social prescribing, limiting the generalisability of findings to wider settings, and youth populations. A further in depth analysis of the realist literature for social prescribing and the literature on social prescribing for children and young people is included as part of the realist review in this thesis, in Chapter 5.

1.3 How can social prescribing be used in the context of specialist weight management services?

Obesity is a highly complex, long term condition which can be impacted by social determinants of health (Suárez Carmona, Carrillo Álvarez & Sánchez Oliver, 2018; Wilson et al., 2025). Although recognised as an important component of weight management support (Ells et al., 2022), CEW clinics have limited capacity to support families with wider, complex social issues. Social prescribing has the potential to support families accessing CEW with a range of additional, non-

medical needs. Social prescribing aligns with the needs and priorities of young people living with obesity, the holistic, person-centred approach of CEW clinics, and NICE guidelines for obesity care (Rigby, McKeown & Wortley, 2022; NHS England, n.d.b; NICE, 2025).

For example, although physical activity is a core component of weight management, CEW clinics do not always have a specific staff role to support this, such as a physiotherapist or exercise therapist (Davies et al., *in preparation*). As such, CEW staff are often reliant on community provision or more generic advice (Davies, 2022). Social prescribing offers the potential for community services to provide access to physical activity, in non-stigmatising, accessible locations which can continue to be accessed after families have been discharged from CEW.

Social prescribing has been used to support adults with weight management, through programmes such as exercise on prescription (Wilson et al., 2025; Jayasinghe et al., 2023). Despite this, social prescribing has not yet been formally implemented or evaluated in weight management services for children. Working with the CEW clinics offers a novel opportunity to develop original contributions to inform how social prescribing may work with this population, furthering understanding of both weight management services and social prescribing for children and young people. As the CEW population is highly complex, and there is significant diversity in clinic delivery models across the country, there is a need to first explore theories of how social prescribing may work, for whom, in what ways and under what circumstances in specialist weight management services to support appropriate future implementation.

Section 1.4 below presents the overall research question guiding the thesis, as well as the aims and objectives.

1.4 Research Question, Aims and Objectives of Thesis

Research Question

How can social prescribing work in specialist weight management services, such as national Tier 3 Complications from Excess Weight (CEW) clinics to address the health and wellbeing needs of children and young people (CYP) living with severe obesity?

Aim

To explain how, in what ways and under what circumstances social prescribing may (or may not) work in specialist weight management services such as CEW clinics, to support the health and wellbeing of children and young people living with severe obesity.

Objectives

To address the overall aim, five phases were conducted to meet six overarching study objectives:

1. Map the range of sub-regional community-based services that could link to a local CEW clinic (Phase 1)
2. Explore current understanding and practice relating to social prescribing within CEW clinics across the country via a survey (Phase 2)
3. Identify theories about how, why and in what circumstances social prescribing may work in a CEW population based on current literature in a realist review (Phase 3)
4. Through primary research, refine theories of how, why and in what circumstances social prescribing may or may not work with a CEW population (Phase 4)
5. Consolidate findings from phases 1-4 to create recommendations for how CEW clinics can design and deliver social prescribing in their service, with key stakeholders (Phase 5)

6. Engage with key CEW stakeholders (CEW staff, community organisations, and families with lived experience) throughout each phase to ensure the research is embedded in an understanding of need and context (Phases 1-5)

Table 1 presents the specific research questions and objectives guiding each phase, and a link to the relevant chapter. A flowchart providing an overview of the structure of the thesis is presented below in Figure 3.

Table 1. The research question and objectives guiding each phase, and link to relevant chapters

Phase	Research Question	Phase Objectives	Chapter(s)
Phase 1	What existing regional community services are available that young people attending a CEW clinic could be referred to, as part of a model of social prescribing?	• Explore the process for mapping community services which could be part of a model of social prescribing within children's specialist weight management services in one region of the UK (South Yorkshire) • Provide an understanding of the availability of community services in this region that are accessible for this population • Contribute to the development of initial programme theories	Chapter 3
Phase 2	What is the current understanding and practice relating to social prescribing within CEW services nationally?	• Provide an overview of the understanding and use of social prescribing by staff in CEW clinics nationally • Identify perceived benefits and barriers to future implementation of social prescribing • Contribute to the development of initial programme theories	Chapter 4
Phase 3	How, why, and in what circumstances could social prescribing work (or not work) in specialist weight management services to support young people living with severe obesity?	• Review the existing literature relating to youth social prescribing and child weight management services • Contribute to the development of initial programme theories	Chapter 5

Phase 4	How, why, and in what circumstances could social prescribing work or not work in CEW clinics?	Through primary research, refine theories of how, why and in what circumstances social prescribing may or may not work with a CEW population to support the health and wellbeing of young people living with severe obesity	Chapter 7
Phase 5	What are the key recommendations to specialist weight management services, such as CEW clinics, for how they can optimally design and deliver social prescribing within their service?	Consolidate findings from phases 1-4 to create recommendations for how CEW clinics can design and deliver social prescribing in their service, with key stakeholders	Chapter 8
Phases 1-5		Engage with key CEW stakeholders (CEW staff, community organisations, and families with lived experience) throughout each phase to ensure the research is embedded in an understanding of need and context	Chapters 2-9

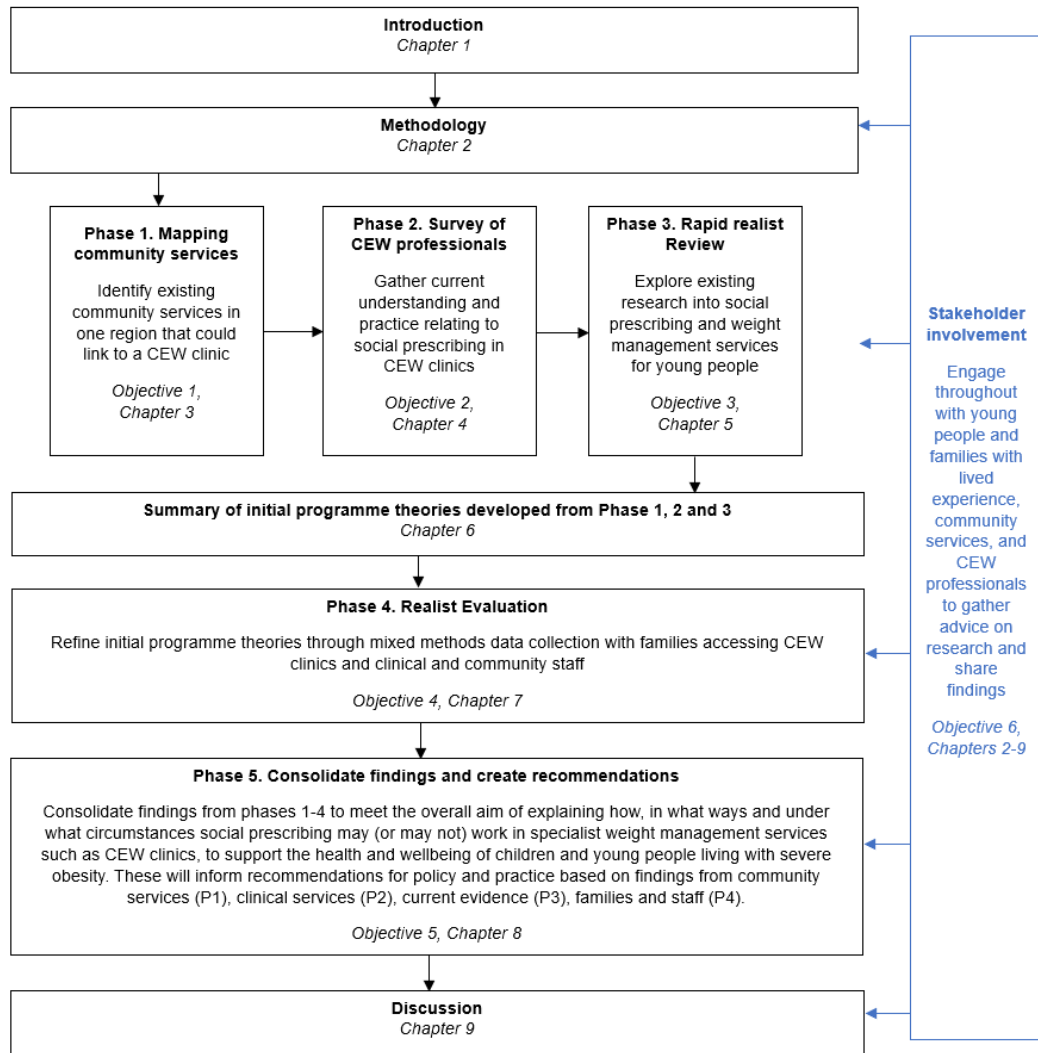


Figure 3. Flowchart detailing thesis structure

1.5 Chapter Summary

This chapter presented the background literature to both child obesity and social prescribing. The rationale for exploring social prescribing within children's specialist weight management services, such as CEW clinics, was demonstrated. This thesis aims to explore how social prescribing may (or may not) work in CEW clinics to support the health and wellbeing of children and young people living with severe obesity. This provides contribution to knowledge by extending current understanding of social prescribing to a new population and clinical treatment pathway. Findings will develop recommendations to inform future implementation of social prescribing in CEW services.

2.0 Chapter 2. Methodology

2.1 Introduction to Chapter

Using a realist approach, this thesis aims to explain how, in what ways and under what circumstances social prescribing may (or may not) work in specialist weight management such as CEW clinics, to support the health and wellbeing of children and young people living with severe obesity. This chapter provides further detail on the realist approach, and the methods used at each phase of the study. The patient and public involvement and stakeholder engagement throughout the study are also described.

2.2 Ontology and Epistemology

The underlying ontology and epistemology can have implications for research design, methodology and understanding of outcomes. Both should be considered in the early stages of the research process (Kant, 2014; Grix, 2002). Ontology relates to assumptions about the world and what is 'reality' (Killam, 2013). For example, these assumptions may vary between there being one single true reality, which exists independently of our own perspectives, in contrast to the assumption that there are multiple realities, which exist based on each individual's own interpretation and experiences. Epistemology relates to how we can know and understand this reality (Killam, 2013). The assumptions about what reality is (ontology) will therefore influence how to understand this reality (epistemology), as well as guide methodological assumptions for the research. This combination of assumptions is referred to as 'research paradigms' (Guba & Lincoln, 1994).

At a broad level, there are three distinct research paradigms with differing views in terms of ontology and epistemology. These include positivism, constructivism, and realism, although it should be noted that even within these there are many overlapping and distinct philosophies (Davies & Fisher, 2018).

In general, positivism suggests that there is one universal reality, existing outside of human perspectives (ontology) which can be measured objectively to produce generalisable knowledge (epistemology) (Davies & Fisher, 2018). Positivist study designs may include controlled trials, based on the assumption that a range of variables can be controlled to measure a true effect of an intervention. For example, for this study, this could involve a randomised controlled trial of a social prescribing programme for children and young people accessing weight management services. Controlled studies like this have been conducted in this population, to test the effectiveness of weight management programmes by randomly assigning children to intervention or control groups (Sacher et al., 2010, Hughes et al., 2008; Ells et al., 2018). However, these studies often conclude that findings are limited due to the presence of complex social factors which cannot be controlled for, which may impact on outcomes. For example, randomised controlled trials often do not incorporate aspects of the local context (Ells et al., 2018). There can also be a lack of understanding of which families drop out and why, which may reduce applicability of findings to a real-world population (Sacher et al., 2010; Fagg et al., 2015). As a result, there remains a need to explore more closely what works, for whom and under what circumstances (Pawson, 2024).

In contrast to the positivist position, constructivism suggests there is no one single reality (ontology), and knowledge about this is constructed from each individual's own beliefs and experiences (epistemology). This may lead to the use of study designs with a more qualitative focus, and methods such as interviews or observations with participants, which are commonly based on the assumption that we understand realities through each individuals' experiences and interpretations (Malagon-Maldonado, 2014). For this topic, this may include in-depth, unstructured interviews and observations to explore participant's lived experience of obesity, or their perspectives on weight management services they have accessed. These studies can provide rich insights but may present limitations in terms of generalising findings as they often include small, highly specific participant samples (Sides, Pringle & Newson, 2024; Haga et al., 2020).

Realism builds on both positivist and constructivist approaches, by suggesting there is one external reality which exists independently from our beliefs (ontology) but that we can only gain knowledge of this through our own individual experiences and perceptions (epistemology) (Mukumbang et al., 2023). In broad terms, realism is often described as sitting in between both positivist and constructivist philosophy, with similarities to a positivist ontology (by proposing a mind-independent reality), and similarities to a constructivist epistemology (by suggesting we can understand this reality through exploring individuals' beliefs and perspectives) (Pawson & Tilley, 1997). A realist approach may use a variety of data types, both quantitative and qualitative, to gather different beliefs and perspectives to build our understanding about reality. In this way, knowledge is never final but is consistently refined and iteratively tested to develop the best explanation possible based on the available evidence at the time (Kazi, 2003).

2.3 Realist Evaluation

The scientific realist approach to evaluation was developed by Pawson and Tilley (1997), underpinned by a Realism philosophy. There are two main forms of Realism, including scientific and critical realism. Realist evaluation is specifically aligned with scientific realism but given both are underpinned by Realism, there are similar principles shared between the two approaches (Mukumbang et al., 2023). This thesis follows the scientific realist approach detailed by Pawson and Tilley, which is distinct from critical realism based on its more pragmatic and applied approach to evaluation (Mukumbang et al., 2023).

Realist evaluation is a theory-driven approach, suggesting that programmes and interventions are in themselves theories. Developing an intervention should therefore involve developing a programme theory; by forming hypotheses that if an intervention provides certain resources or opportunities to participants (X), then this will result in a change or specific outcomes (Y). Realist evaluation states that it is not an intervention itself (X) that causes a change (Y), but rather the resources and opportunities offered by an intervention change the reasoning and

choices of participants (Z), which then leads to changes in outcomes (Pawson & Tilley, 1997) (see Figure 4).

The underlying process or interaction between the intervention resources and the reasoning of participants which leads to outcomes is known as a 'programme mechanism' (RAMESES Project, 2017a). The choices that participants make are constrained and influenced by the wider context and so interventions can work differently for different people and in different circumstances. In this way, mechanisms are said to be 'triggered' or 'activated' in some contexts compared to others (Pawson & Tilley, 1997). Realist evaluation takes a generative view of causality, aiming to uncover the unobservable, underlying mechanisms (Z) to explore in more depth *how* and *why* an intervention leads to outcomes (see Figure 4).

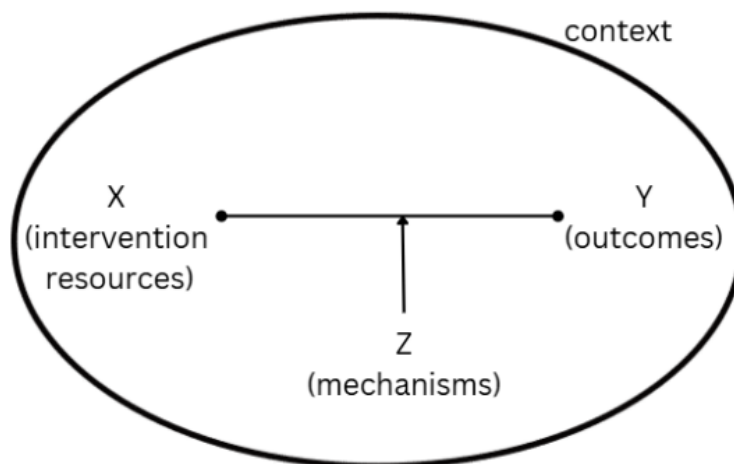


Figure 4. Diagram showing the relationship between interventions, mechanisms, outcomes and context (based on Pawson & Tilley, 1997)

For example, if delivering a weight management intervention to a group of young people, it is unlikely that they will all experience the same outcomes equally, but rather it will work better for some compared to others, based on different contexts. It is important to understand these differences to develop an intervention. Instead

of asking '*does this intervention work*' a realist evaluation would ask '*what works for whom, in what circumstances and why?*' (Pawson & Tilley, 1997).

Whilst traditionally, positivist research approaches may aim to control aspects of context, such as through randomised controlled trial designs, context is an integral part of realist evaluation as programme mechanisms are directly related to context. This means realist evaluation is commonly used to evaluate complex social programmes. Realist evaluation has previously been used to explore social prescribing models for adults (Husk et al., 2020; Tierney et al., 2020; Calderón-Larrañaga et al., 2021) and given the complex nature of childhood obesity and CEW clinics (Hawton et al., 2025), is appropriate for this topic.

2.3.1 Context

Whilst context is a central element of realist approaches, there are multiple definitions and interpretations of this in the literature (Greenhalgh & Manzano, 2021). In this thesis, in keeping with the Pawson and Tilley approach, context represents the pre-existing background to the intervention or programme, which is not intended as part of the intervention but can influence how an intervention works, and for whom (Greenhalgh & Manzano, 2021; Pawson, 2013).

Context is complex and does not only relate to the location in which an intervention is delivered but can also encompass the social structures of these settings, such as characteristics and experiences of the individual taking part, relationships between stakeholders involved in delivery, the culture of organisations, societal norms and national healthcare policy. Context can impact how different participants respond to interventions, as well as impact on how interventions are delivered, which can then influence how participants respond (RAMESES Project, 2017b). As such, context is often described in layers or levels. There are multiple reported ways to conceptualise these layers of context (Shearn et al., 2017). Notably, Pawson (2013) describes these layers as four I's, relating to individual, interpersonal, institutional and infrastructural levels (Figure 5), but with an understanding that these layers can also overlap and interact with each other (Greenhalgh & Manzano, 2021).

The layers described by Pawson are similar to those included in the socio-ecological model (Bronfenbrenner, 1977; McLeroy et al., 1988). Bronfenbrenner's model (1977) incorporates four levels which can influence behaviour; micro-, meso-, exo- and macro-systems. These levels have been further developed into the socio-ecological model including intrapersonal, interpersonal, institutional, community and policy factors (McLeroy et al., 1988). This model has commonly been applied to health promotion, including physical activity and obesity, based on the understanding that health behaviour is influenced by numerous wider factors (Stokols, 1996; Mehtälä et al., 2014; Ohri-Vachaspati et al., 2015). For this thesis, Pawson's '4 I's' was selected as a framework for layers of context, to align with the Pawson and Tilley approach to realist evaluation, and because this provides an appropriate, accessible structure for the topic of social prescribing within weight management services.

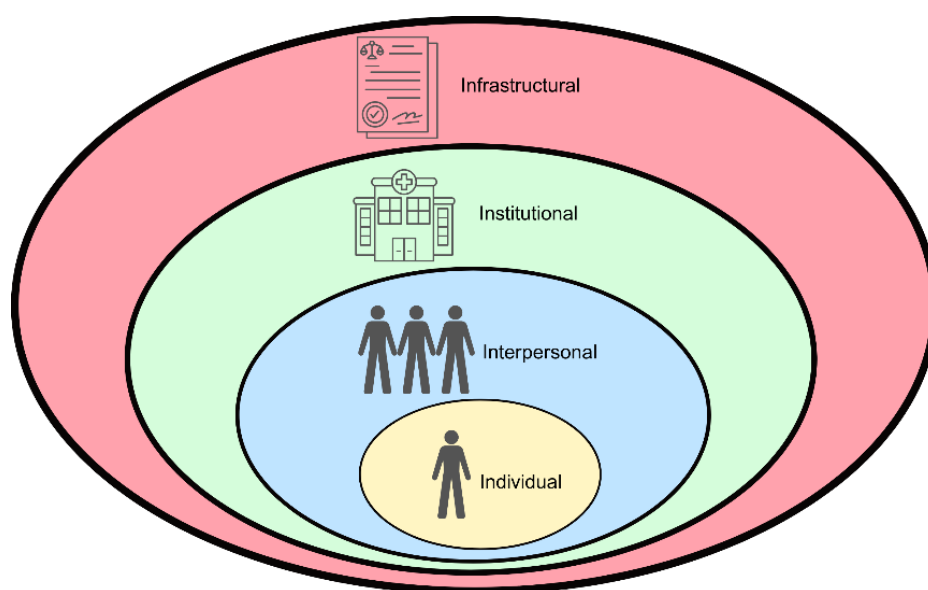


Figure 5. Layers of context corresponding to '4 I's' (based on Pawson, 2013)

The ***individual*** layer relates to the internal characteristics and values of a person, which can influence how they might respond to interventions. In contrast to the general population, young people accessing CEW have been shown to have high rates of mental health difficulties, including anxiety and low mood, self-esteem and confidence (Hawton et al., 2025; Matu et al., 2025). Many young people living with obesity have experienced bullying, weight stigma, and have negative experiences of seeking healthcare support and participation in physical activity. Those living in more deprived areas are more likely to be living with obesity (NCMP, 2025; Hawton et al., 2025), meaning the CEW population includes many families who may have wider social and financial needs. The CEW population also includes a high proportion of young people who are neurodivergent, and who may have complex additional needs relating to this (Matu et al., 2025). These individual characteristics may all influence how different individuals respond to social prescribing.

The ***interpersonal*** layer refers to the relationships between different stakeholders involved in a programme. For social prescribing, this could involve young people and their peers, family members, clinical staff and community staff delivering social prescribing, as well as link workers or connector roles. Wider family members may also be experiencing complex needs, with parents and carers often struggling with their own mental or physical health challenges, and their own previous experiences of stigma, particularly in healthcare settings (Tomayko et al., 2021; Parks et al., 2012). This may impact on engagement with CEW and social prescribing.

The ***institutional*** layer can include the culture and set-up of an organisation, such as that of the CEW clinics. The CEW clinics were established based on a holistic, person-centred approach to treating the complications linked to severe obesity (NHS England, n.d.b). Up to 38 clinics have been operating across England, and whilst they all aim to holistically identify and treat complications relating to severe obesity, each clinic can vary significantly in terms of location, local population needs, delivery model, partners, interventions and workforce. The ENHANCE evaluation has established the variation in MDT structures and whole time equivalents of team members (Davies et al., *in preparation*). These

contextual differences need to be considered as they could lead to different outcomes for how, for whom and under what circumstances social prescribing may work in each clinic.

The ***infrastructural*** layer relates to national policies and Governmental level structures. These are wider contextual factors that can influence change such as funding allocations and priorities for health policy. The clinics were originally funded as a pilot with central NHS England funding planned to end in March 2025, which was extended to March 2026, and then later 2027. This uncertainty around longer term funding can impact clinics in terms of their ability to recruit staff and put into place long term plans for their clinics (Ioannou et al., *in review*; Davies et al., *in preparation*). This can then impact on how social prescribing may work within clinics.

It is important to note that context is always changing, both within the duration of the PhD study, as well as over a longer time period. There have been noted changes in the context surrounding CEW clinics during the time of this PhD, including a change in Government, leading to transformation in health policy and funding. This includes plans to remove NHS England, who fund the CEW clinic pilot, and a move to increasing responsibility of local integrated care boards (ICBs) in relation to health strategies and commissioning of services. Additionally, there have been developments in weight loss medication in terms of awareness, research and availability. As a result, theories will constantly be adapted based on changing contexts over time (Greenhalgh & Manzano, 2021). This further supports the use of a realist approach, as this approach enables these wider complex contextual factors to be considered throughout.

2.3.2 Programme Theory

The programme theory of an intervention is commonly expressed in terms of context-mechanism-outcome (CMO) configurations, to articulate the relationship between the mechanism and context, which leads to an outcome (Pawson & Tilley, 1997). This configuration is intended to be used as a heuristic, and as a result many variations have emerged depending on application to each research

topic explored; such as MCO, mechanism-context-outcome; MCC, mechanism-context-change; SCMO, strategy-context-mechanism-outcome; ICAMO, intervention-context-actor-mechanism-outcome (De Weger et al., 2020; Pawson, 2024).

'If-then-because' statements are also commonly used as this is anticipated to be more accessible and understandable, especially for non-academic populations (Mukumbang et al., 2025). This aligns with the context-mechanism-outcome, CMO heuristic as the 'if' statement can help to highlight aspects of context, with the 'then' statement detailing outcomes. The 'because' statement then supports identification of mechanisms. Throughout this thesis, if-then-because statements were chosen, based on the need to discuss theories with children, young people, families and non-academic staff. If-then-because was expected to be more accessible and to more closely align with the overall aim of informing recommendations for future delivery of social prescribing in CEW clinics (Pearson, Brand et al., 2015; Bunn et al., 2018). In particular, because initial programme theories were to be presented to children and young people in interviews in phase 4, the if-then-because statements were a simpler way of communicating these theories. These statements were easier to articulate and describe to participants compared to a context-mechanism-outcome configuration which can often require more abstract thinking. It was anticipated that this would help to make the interviews more accessible for participants. The approach to developing initial theories in phases 1, 2 and 3 also focused on if-then-because statements, to provide consistency to the analytical approach throughout the study. If-then statements have also previously been used in realist reviews of social prescribing; for example "*IF the activity is accessible to the patient, THEN they may be more likely to attend*" (Husk et al., 2020).

2.3.3 Substantive theory

Substantive theory (or formal theory) refers to more abstracted theory, situated between programme theories and grand theories (Merton, 1968). While programme theories are based on a specific intervention, grand theories are more

abstract and are often used as explanations of complex, global social and political structures (Pawson, 2024). Substantive or formal theories lie between these, as they are more abstract than programme theories, but still more specific to a certain programme than grand theories. As such they can be useful for conceptualising social phenomenon, providing insights to develop programme theories based on how other similar programmes have worked, and to explore generalisation across programmes (Jagosh et al., 2014; Shearn et al., 2017; Pawson, 2024). It is likely that one single substantive theory will not completely explain how a programme works, but multiple may be drawn on to explain various aspects of a programme (Pawson, 2024).

A recent scoping review by Evers and colleagues (2024) explored how substantive or formal theories were used in social prescribing intervention studies and found overall limited or poor reporting of theories. For example, theories may be mentioned but not always discussed in detail or followed through to the results. There is limited guidance on processes for identifying substantive theories, but in practice they are commonly identified from reviews of the literature (Tierney et al., 2020; Shearn et al., 2017). For this thesis, the review (Chapter 5; *Phase 3*) included a search for social prescribing research using realist methods. These papers were scoped for information on reported substantive theories across different social prescribing programmes. Reported theories were identified and considered throughout phases 4 and 5 to contribute to developing understanding of and refining if-then-because theories.

2.3.4 Development of Interventions

Realist evaluation is commonly used to evaluate interventions that are currently being implemented. It can, however, also be used to explore prospective interventions, or inform intervention design, by developing a programme theory around theoretical or presumed outcomes.

There are examples of realist studies where the quantitative outcomes of effectiveness may be tentative, but there is existing discussion of mechanisms

and theory of how the intervention works (Kirsh et al., 2017; Pearson, Chilton et al., 2015). This may also include instances where the same or a similar intervention has been used in another population. For this study, whilst social prescribing is not yet formally implemented in CEW clinics, there are examples of similar work involving referrals to community services, such as community cooking sessions, community physical activity sessions and links to information and advice services which can be explored to prospectively inform how social prescribing may work in this service.

The aim of this thesis is not to address the question 'is social prescribing effective at improving the health and wellbeing of young people accessing CEW clinics' but rather to gather an understanding of how social prescribing may work, in what ways and in what circumstances, for young people living with obesity. There is existing understanding that social prescribing can be helpful for young people, by developing their confidence, social connections and wellbeing (Hayes et al., 2023; Muhl, Cornish et al., 2025; Fancourt et al., 2023), and this support aligns with the needs of CEW patients (as discussed in Chapter 1; *Introduction*). However, there is limited understanding of how social prescribing might work to support young people with more complex needs, such as those experienced by young people living with obesity (Muhl, Cornish et al., 2025). Recent research has highlighted the need for more research to explore what works for whom in youth social prescribing, as well as to focus on what works for underserved populations (Muhl, Cornish et al., 2025).

It is recommended to develop programme theory and understanding of how a programme works early in the research process (Skivington et al., 2021). This thesis aims to explore how social prescribing may (or may not) work in specialist weight management services, such as CEW clinics to support the health and wellbeing of children and young people living with severe obesity. This will allow for the development of recommendations for policy and practice as to how they could best deliver this within their service to help lead to positive outcomes.

2.4 Methods

Realist evaluations commonly follow three stages including ‘theory gleaning’ where candidate, or potential programme theories are identified, ‘theory refinement’, where these initial programme theories are refined, refuted and tested, then ‘theory consolidation’ where resulting theories are further refined and articulated (Mirzoev et al., 2020; Manzano, 2016). It should be noted that this is not a linear process but is iterative and flexible, and can involve various methods such as reviewing literature, programme documentation and insights from individuals involved in delivering or receiving the intervention (Shearn et al., 2017). This PhD study therefore uses a variety of methods in each phase. Phases 1, 2 and 3 ‘glean’ or ‘develop’ initial programme theories, which are refined in phase 4 and consolidated in phase 5. This is detailed in Figure 6.

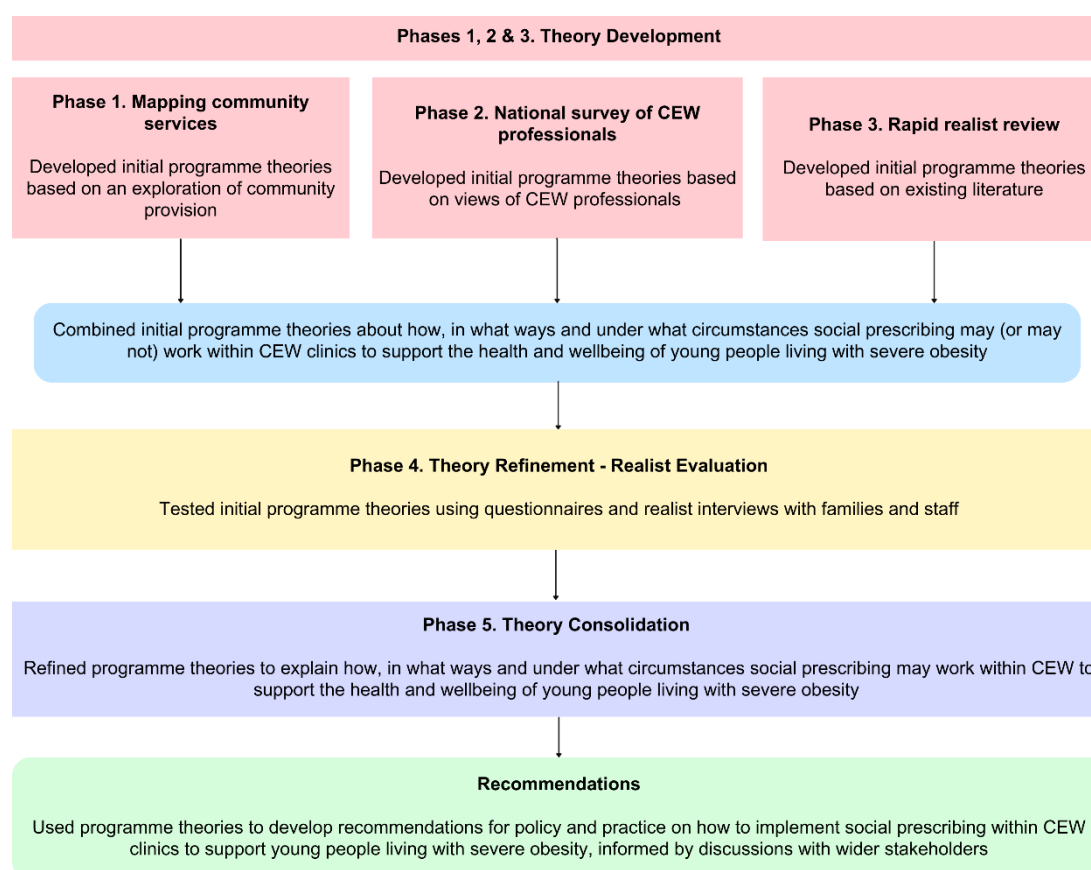


Figure 6. Overview of development of theories through the thesis

The following sections provide an overview of the aims, methods and contribution of each of the phases. Full details of the methods relating to each phase can be found in the corresponding chapter. Table 2 comprises a summary of the different methods used across each of the phases.

Table 2. Summary of methods used in each phase

Phase	Methods	Scope
Phase 1	Mapping of community based services	933 community services identified and assessed for suitability
Phase 2	National survey of CEW clinic professionals	38 survey responses, representing over 75% of clinics
Phase 3	Realist review comprising 3 separate searches	1,460 papers screened, with 39 records included for data extraction and synthesis
Phase 4	Mixed methods data collection including questionnaires and semi structured realist interviews	2 longitudinal questionnaires and 20 interviews which comprised of young people accessing CEW and their parents, all members of a CEW MDT team and staff from community services

2.4.1 Theory Development

Phase 1 – Mapping community services (Chapter 3)

Phase 1 involved mapping local community services which provided physical activity and cooking opportunities to children and young people across South Yorkshire. This was based on the needs of families accessing CEW identified by clinical staff and families with lived experience (Garside, Homer et al., 2024). There were no existing standardised frameworks available for mapping community services, and so a sampling approach was used, informed by similar work (Walker, Waterhouse-Bradley & Armour, 2020). Community services were identified through online databases and directories, websites, and through direct engagement with relevant contacts via meetings and emails. These services were then assessed in terms of their suitability against criteria developed through engagement sessions with young people with lived experience of obesity.

Phase 1 contributed to the development of initial programme theories about how, in what ways and under what circumstances social prescribing may (or may not) work in CEW clinics to support the health and wellbeing of young people living with obesity.

Phase 2 – National survey (Chapter 4)

Phase 2 aimed to explore the views, understanding and current use of social prescribing, as well as perceived benefit, and barriers to future implementation of professionals working within Complications of Excess Weight (CEW) clinics (Garside et al., 2025). A short online survey was circulated to CEW clinic staff based across England. Descriptive analysis was used to summarise the results of this survey, including frequency, counts and percentages (Phillips, Phillips & Aaron, 2013).

Phase 2 also contributed to the development of initial programme theories. This included understanding the needs of the families accessing CEW, and how social prescribing is expected to benefit these families. As the models of CEW clinics

vary across England, this phase also helped to develop understanding of the context of CEW clinics nationally.

Phase 3 – Rapid realist review (Chapter 5)

Phase 3 comprised a rapid realist review. A realist review uses a realist approach to bring together evidence from secondary data, appraising findings from existing literature to understand the underlying programme theory of how an intervention might work (Hunter et al., 2022). In comparison to a traditional systematic review methodology, there is often a wider inclusion criterion, with a broader range of studies that can be included (Jagosh et al., 2019). Whereas a systematic review may often prioritise what is seen as ‘more robust’ or more positivist methodologies, and include only randomised controlled trial designs for example, realist reviews include all levels of study design including qualitative and case studies. This is because the aim is to gather understanding of mechanisms and theories, rather than to combine findings of effect, meaning more detailed qualitative inquiries can provide more useful ‘nuggets’ of information (Pawson, 2006).

A realist review is appropriate for considering complex interventions, which often include multiple components, settings, contexts, or flexibility in delivery (Skivington et al., 2021). Given the inclusion of multiple stakeholders, delivery and evaluation methods, settings, and intervention components of social prescribing, a realist review was appropriate for this topic. A rapid review was chosen as there was a need to incorporate realist methodology and theory alongside aligning with timescales of a real-world service and developing policy (Saul et al., 2013), as well as to be achievable within the timescales of this study.

Phase 3 contributed to the development of initial programme theories based on the existing literature to identify theories to explain how social prescribing works for children and young people and how weight management services work for children and young people.

2.4.2 Theory Refinement

Phase 4 – Realist Evaluation (Chapter 7)

Phase 4 comprised a realist evaluation to refine the initial programme theories identified from Phases 1, 2 and 3. These theories seek to explain how social prescribing may work to support children and young people living with severe obesity attending CEW clinics.

Realist evaluation uses a realist approach to collecting and analysing primary data (Pawson, 2013). The realist approach encourages iteration and flexibility in analysis, and there is an avoidance of using standardised checklists and frameworks to guide the analysis process based on the understanding that the approach should be tailored to each specific research question. Realist evaluation commonly uses mixed methods data collection (Pawson & Manzano-Santaella, 2012; Pawson & Tilley, 1997; Westhorp, & Feeny, 2024). Quantitative outcomes such as completion of questionnaires, or collection of health outcome data can help to identify patterns and explore intended and unintended outcomes. Qualitative methods are then beneficial for exploring the mechanisms and underlying processes which explain these outcomes. Using mixed methods therefore provides a comprehensive understanding and integration of both quantitative and qualitative outcomes.

This study used questionnaires with young people who are accessing CEW, using measures based on existing social prescribing studies, to explore if there were any differences in outcomes between those accessing community services alongside CEW treatment compared to those who did not. Demographic information was also collected to begin to explore patterns in who may benefit from social prescribing.

Semi-structured realist interviews were conducted with young people accessing CEW, their parents/carers, CEW staff and community based staff. The aim of these interviews was to explore how referral and access to community services worked, participants' experiences of these activities, and to test and refine the initial programme theories.

Realist interviews differ from more traditional constructivist interviews, which commonly focus on understanding participants' experiences of an intervention. Realist interviews aim to refine, refute and develop theories about why an intervention works, and for whom and in what circumstances. Therefore the theory is focus of the interview (Manzano, 2016). These theories may be presented explicitly to the participant, and they are asked to draw on their own experiences to test these theories. This is often referred to as a 'teacher-learner cycle', where the interviewee and interviewer switch roles throughout the conversation (Pawson & Tilley, 1997). For example, in this study, the interviewer may take the teacher role when presenting one of the 'if-then-because' statements to the interviewee, and the interviewee then takes the role of teacher when explaining how that theory has (or has not) worked in practice for them.

Phase 4 contributed to the development of programme theories through refining initial theories with families with lived experience and staff.

2.4.3 Theory Consolidation

Phase 5 – Developing Recommendations (Chapter 8)

Phase 5 consolidated programme theories from Phases 1, 2, 3 and 4 to explain how, in what ways and under what circumstances social prescribing may (or may not) work in CEW clinics to support children and young people living with severe obesity. These theories were then used to inform recommendations for policy and practice.

Phase 5 involved discussions with wider stakeholders from NHS England, Office for Health Improvement and Disparities (OHID), Local Authorities, Voluntary Community and Social Enterprise (VCSE), Active Partnerships and those involved in social prescribing at a local and national level to refine these recommendations. Findings from this phase will contribute to the development of a national best practice framework for CEW clinics developed as part of the ENHANCE evaluation.

2.5 Stakeholder Involvement

Patient and public involvement (PPI) requires doing research 'with' or 'by' members of the public, not 'for' or 'to' them (HRA, n.d.). The value of involving those with lived experience in developing, designing, implementing and disseminating research is widely recognised (HRA, n.d.) and is crucial in ensuring research is accessible, acceptable and appropriate. This includes PPI in realist research (Abrams et al., 2020; Mandoh et al., 2024).

Relevant stakeholders for this study include young people living with obesity and their families, as well as CEW professionals and staff working in community organisations. PPI sessions took place at the beginning of the study prior to phase 1, and again when developing the research plan for phase 4. PPI was conducted through attendance at a multiple different community-based weight management programmes for children and young people and their families. PPI activities involved discussions with young people with lived experience of obesity, their parents/carers, and staff running these services. Discussions provided feedback on participant facing documents and reflections on acceptability of proposed study procedures such as recruitment and eligibility criteria.

Consultations with members of a CEW multidisciplinary team (MDT) were held when developing the survey for CEW staff in phase 2 and during development of phase 4 and phase 5. Feedback was provided on participant documents, proposed recruitment methods and outcome measures.

Changes made based on patient and public involvement (PPI)

For the mapping work in phase 1, PPI with young people identified that they were unsure of what community services were available in their local area, and how they would find this information. This was one of the reasons for conducting the mapping work, as well as for focusing on the use of publicly accessible websites and forums to reflect the process that a family (or clinician) may use to find local community services. In addition, these PPI sessions with young people helped to refine the criteria to assess suitability of services for young people living with

obesity in stage 2 of the mapping phase. In particular, young people consistently mentioned concerns around costs of services, and so this was built into the suitability criteria.

Prior to beginning the mapping work, discussions with staff working at a CEW clinic identified cooking opportunities as something that they wanted to refer young people to, alongside physical activity. Therefore, cooking related services were also included in searches. Staff were also interested in services that catered for young people with additional needs, such as Autism, and so this was recorded when reviewing services.

When designing the survey in phase 2, further engagement with CEW staff noted that it was valuable to have higher numbers of completions from a broader range of staff. Staff recommended keeping the survey shorter in length to allow busy clinical staff to take part, and as a result the survey was limited to 10 questions.

PPI sessions were conducted specifically with young people and families when designing the evaluation in phase 4. These sessions highlighted a need to increase the voucher amount for reimbursing participants and indicated that online participation would be more appealing for young people and families. As a result, electronic consent options were included in the ethics application, to increase accessibility for those who wanted to complete data collection and interviews virtually. On review of the participant information forms, these were revised to reduce the text on the young person's versions of the form.

Discussions were also held with CEW staff when planning this evaluation. These confirmed that proposed age range and recruitment procedures were appropriate. A poster/flyer was added to the ethics application, as staff advised that these could be used in waiting rooms at different clinic locations.

2.6 Embedded Research Approach

Whilst there are many different models of embedded research, this commonly involves a researcher working closely with and collaborating with a non-academic organisation, often a clinical or public health team (Ward et al., 2021). This allows

for researchers to gain insight into the real world workings of the service and supports involvement of the service deliverers and decision makers in the early stages of the research process, ensuring that outcomes are usable and useful (Cheetham et al., 2018; Holding et al., 2024).

This PhD used an embedded research approach to link into a CEW multidisciplinary team (MDT). I shadowed clinics at the start of the PhD and during phases 4 and 5 I spoke individually with consultants, specialist nurses and support workers weekly prior to their clinics. I attended the monthly MDT meetings, where staff would share updates, challenges and reflections on the service. I also joined the annual away day, which included a summary of outcomes of the service so far, as well as reflections from staff about what was working well, what challenges they faced and what they wanted to implement in the future. Through this, I developed a deeper understanding of the context of the service, as well as challenges faced and experiences of the team, and how this evolved and changed over time.

Through the embedded nature of this work I also attended community sessions linked to the CEW clinics, and in-person and online community weight management sessions for families. Those attending these sessions had existing trusting relationships with the delivery staff, which meant I was able to meet and speak with families in an environment in which they felt comfortable.

This embedded approach was particularly useful in the theory gleaning and development phases. Through informal conversations with the CEW MDT staff, this provided an understanding of the key issues they faced within their roles. This informed the interviews in terms of knowing what topics to probe and what would be useful to gather further insights on. This approach aligns with reports and guidance around conducting realist research and realist interviews (Manzano, 2016).

In addition, a clinical lead for a CEW clinic was also part of the supervisory team, which helped ensure the study was relevant to current practice and accessible to clinical teams. Further reflections on the embedded approach throughout the study are detailed in Chapter 9; *Discussion*.

ENHANCE

I have been involved as a researcher in the ENHANCE (Evaluating the NHs engLAND Complications of Excess Weight Services for Children and Young People) study (ENHANCE, 2025), which is a NIHR funded national evaluation of the CEW clinics (NIHR158453). This provided further insights into the varying delivery models of the CEW clinics nationally, views of policy makers and funders, and insights into outcomes. Through ENHANCE, I was involved in PPI sessions, both at the grant application stage and during the running of the study. I was part of a team which organised a residential trip for the study PPI group, including young people and families who attend CEW clinics nationally (Ioannou et al., 2025). I worked with PPI members, community leads and other researchers to design this weekend residential trip and attended this. This provided further, deeper understanding of the needs and personal lived experiences of families attending CEW.

Safety Nets

Prior to beginning the PhD, I coordinated a service evaluation and feasibility study to explore 'Safety Nets', a social prescribing intervention for young people on CAMHS waiting lists (Dias et al., 2024, Garside, Taylor et al., 2024; Taylor et al., 2026). Safety Nets involves collaboration with community foundations to provide psychoeducation and multi-sport physical activity sessions at local professional football and rugby clubs. I attended sessions and completed questionnaires and interviews with young people and staff as part of my role on this study, meaning I had prior understanding of social prescribing for young people. This included awareness of potential challenges with implementing social prescribing into clinical services, and feedback from young people about their experiences. Safety Nets was included as part of the National Academy of Social Prescribing's flipbook, which shares examples of youth social prescribing (NASP, 2025a). Reflections on how this previous experience impacted the study are detailed in Chapter 9; *Discussion*.

2.7 Chapter Summary

This chapter provided a discussion of the overall realist approach of the thesis, as well as the specific methodologies used in each phase of the study. This chapter also detailed patient and public involvement. The following chapters will focus on each of the phases in turn, with further detail provided on the specific methodology and methods used within each phase.

Throughout the thesis, significant attempts have been made to ensure anonymity. Where there is reference to any services, service leads have checked and confirmed they are happy with the level of anonymity and information provided.

3.0 Chapter 3. Mapping

This chapter is based on the publication, 'Garside, M., Homer, C., Dayson, C., Dowrick, L., Pickering, K., & Wright, N. (2024). Mapping Community-based Services for Social Prescribing for Children and Young People living with Obesity across South Yorkshire. Health and Social Care in the Community, 2024(1), 3566729.' <https://doi.org/10.1155/2024/3566729>.

3.1 Introduction to Chapter

This chapter details phase 1, which centres on understanding the current provision of community services that could be included in a social prescribing offer for CEW clinics. This phase involves mapping community services across the South Yorkshire CEW clinic region and assessing these in terms of suitability for young people living with severe obesity and attending a CEW clinic. The chapter discusses the background and rationale, describes the methods used, summarises the results and identifies contributions to initial programme theories. Findings and implications are discussed and links to future phases of work are presented.

3.2 Background

As highlighted in Chapter 1; *Introduction*, there are significant health inequalities in childhood obesity. Young people accessing CEW clinics in England are commonly living in the most deprived areas of England and facing complex additional needs (Matu et al., 2025). Living with obesity in childhood has been linked to multiple physical comorbidities (Reilly & Kelly, 2011) alongside poor mental health and psychosocial impacts such as experiencing stigma, bullying, low mood, low self-esteem and social isolation (Brandreth et al., 2024). In

addition, children living with obesity can experience barriers to engaging in physical activity groups (Pont et al., 2017).

A key component of social prescribing is connecting individuals to community services (Muhl et al., 2023). Therefore, to explore how CEW clinics could implement social prescribing into their service, there is a need to consider what makes community services accessible and acceptable for a population of young people living with severe obesity. This includes understanding how many services are available and appropriate for this population, and what barriers and constraints these services face in relation to delivering social prescribing.

This phase addressed this need by mapping community services local to a CEW clinic in South Yorkshire. The mapping sought to assess the suitability of services using criteria developed through PPI sessions with families with lived experience of obesity and staff working at CEW clinics. This understanding of how and why young people access (or do not access) community services, also informed initial programme theories exploring how social prescribing may work with CEW clinics to support young people living with severe and complex obesity.

3.3 Research Question and Aims of Phase 1

The research question underpinning phase 1 asks;

What existing regional community services are available that young people attending a CEW clinic could be referred to, as part of a model of social prescribing?

The objectives of phase 1 were to:

- Explore the process for mapping community services which could be part of a model of social prescribing within children's specialist weight management services in one region of the UK (South Yorkshire).
- Provide an understanding of the availability of community services in this region that are accessible for this population.

- Contribute to the development of initial programme theories about how social prescribing may work in specialist weight management services to support the health and wellbeing of young people living with severe obesity.

3.4 Method

3.4.1 Design

There is a lack of standardised protocols for mapping community-based assets. As a result, the design of this phase was informed by similar work involving scoping of voluntary organisations and providing methodological guidance (Walker, Waterhouse-Bradley & Armour, 2020; Turin, Shahid & Vaska, 2019). All information gathered through the mapping was publicly accessible, meaning ethical approval was not required for this phase.

The work by Walker involved mapping military-based voluntary organisations in Northern Ireland and noted challenges and guidance for future similar work to scope organisations (Walker, Waterhouse-Bradley & Armour, 2020). Walker and colleagues recommend a flexible approach to mapping, using both online searches and engagement with relevant stakeholders.

Turin's work provides guidelines for the process of developing an asset map and suggests that this should focus on a community's strengths rather than weaknesses (Turin, Shahid & Vaska, 2019). Turin and colleagues outline five steps as a guide for conducting asset maps. These are based on determining the aim of the mapping (step one), defining geographical boundaries (step two), engaging with stakeholders (step three) and refining which types of assets should be included (step four), before creating a list of the community assets meeting these criteria in step five. Step six is the creation of a visual map of the assets, but this step is optional based on the aim of the work.

The mapping work of this thesis aligned with these guidelines. The aim of the mapping was defined as identifying community services which could be part of a social prescribing offer for young people living with severe obesity attending the South Yorkshire CEW clinic. The geographical boundaries were tied to the areas of the South Yorkshire CEW clinic; Sheffield, Rotherham, Barnsley and Doncaster (see Figure 7). Stakeholders were CEW clinic staff and families with lived experience of severe obesity, and they were involved in developing criteria for which types of community services should be identified in step 5.



Image: Contains Ordnance Survey data © Crown copyright and database right. This file is licensed under the Creative Commons Attribution-Share Alike 3.0 Unported license.
commons.wikimedia.org/wiki/File:South_Yorkshire_UK_district_map_%28blank%29.svg

Figure 7. Map showing each of the four localities of South Yorkshire

3.4.2 Procedure

There were two stages to this phase. Stage 1 identified community services delivering a range of physical activity and cooking opportunities for children and young people across South Yorkshire; Sheffield, Rotherham, Barnsley, and Doncaster.

Stage 2 assessed these services against criteria developed through stakeholder engagement, to determine if they met the specific needs of the population (children and young people living with severe obesity). These criteria are presented later in Table 4, in section 3.4.5.

3.4.3 Stakeholder Involvement

Similar scoping work advises the involvement of stakeholders at an early stage (Walker, Waterhouse-Bradley & Armour, 2020; Turin, Shahid & Vaska, 2019). Prior to starting to scope community services for this study, both young people with lived experience of obesity and professionals working in CEW clinics were consulted as part of public involvement work.

I met with young people and staff at a community-based weight management service for young people. I attended a group session, at which there were 5-6 young people aged 10-17 years old, with several of the young people also having prior experience of attending a CEW clinic. I participated in the session activities and then held a group discussion about the planned scoping work.

I explained the aim of the research, and what social prescribing could involve, then asked the young people questions to explore if they had any local groups or physical activity opportunities in their community. We talked about what types of groups they liked to attend and why, as well as any barriers they faced to accessing groups. Young people liked the idea of going to leisure centres for activities such as football and swimming and had found these easier to get to when this had been organised as part of a service, like the community weight management service. Young people also highlighted that they were not aware of what groups were available for them locally and did not know how they would find these. They raised concerns around travelling to sessions, which might require taking public transport and the potential additional cost of this.

Alongside this, I also attended and held discussions with a CEW clinic multidisciplinary team (MDT). These discussions explored awareness of

community services based in their region, and any specific factors they felt needed to be considered when referring families to these.

Rationale for the focus on physical activity and cooking opportunities

Initial engagement work with staff from a CEW clinic MDT identified that they wanted to use social prescribing to refer families to services which supported the health and wellbeing of the young person. This may include supporting young people to increase activity levels, take part in cooking classes, and to develop social connections in an accessible, community-based setting.

The survey of CEW professionals (Chapter 4; phase 2) supports this. Concurrently with phase 1, phase 2 involved a national survey of staff working in CEW clinics. Responses to this survey confirmed that CEW staff felt they were aware of what social prescribing involved and would be interested in delivering it through their service. CEW staff reported that they felt social prescribing would be beneficial for the families they worked with for providing opportunities for 1) physical activity, 2) social support and 3) developing self-esteem. As these phases took place concurrently, the three elements identified by CEW staff were considered in the design of the mapping work in phase 1, to focus the scope of the mapping to be as directly relevant to the CEW service as possible.

This also aligns closely with the findings from the AYPH work which was conducted alongside development of the CEW clinics (Rigby, McKeown & Wortley, 2022). The AYPH team engaged with six young people and six parents to gather their views on the most important outcomes for the CEW clinics to address. For young people, mental health was seen as the most important focus for the clinics, with young people recognising that challenges they faced with their mental health created barriers for accessing other activities, such as physical activity. Whilst parents agreed with the importance of mental health support, they were also keen to see a focus on physical health outcomes and weight loss. Additionally, this work highlighted the need for patient-centred, non-judgemental services, delivered at trusted and accessible locations.

Physical activity is defined as ‘a broad range of movement, covering a variety of skill and intensity levels’ (WHO, 2022). Activities can include traditional sports (e.g. football, dance, rugby, cricket), but also performing arts, nature-based activities and low intensity activities such as yoga which also promote movement. This broad definition allows for a range of activities to be chosen by the young person based on their interests as well as their cultural, mental health and physical health needs and capabilities.

The mapping work therefore aimed to identify services which addressed criteria including meeting the needs identified by CEW staff, and young people and families with lived experience.

3.4.4 Stage 1 of Mapping

Initial search criteria at stage 1 included community services which offered physical activity and/or cooking skills for young people. This was intentionally broad and inclusive to identify as many services as possible as identified services would be scoped in further detail at stage 2.

Stage 1 used a mixed approach to identifying relevant services, including searching existing online databases and directories, websites, and social media sites (noted below) and through engagement with relevant contacts via meetings and emails. A template was developed (see Table 3) containing the basic information to be recorded about each service.

There are some existing online tools to support with identifying community and charity services, and these were used to explore available services. This includes the Damm Charity Explorer Tool (Damm, n.d.; Damm & Kane, 2021) which contains information for charities registered within each local authority and allows them to be filtered based on criteria. Additionally, there are Voluntary Action networks across local areas, providing support for the third sector. Often these networks will have knowledge of local community groups with available opportunities for volunteering or attending, however the exact structure of these networks can vary across localities.

Local authority and Council websites for each of the localities (Sheffield, Doncaster, Rotherham, Barnsley) were searched between January to March 2023, using terms related to 'children and young people', 'families', 'community' and 'physical activity', 'sport', 'leisure', 'recreation' and 'wellbeing'. Relevant links to services and opportunities were commonly found under specific sections on these websites such as; 'Parks, Sport and Recreation', 'Physical Activity and Sport' or 'Public Health', 'Community Wellbeing', 'Children's Health and Wellbeing'.

In addition, managers or lead workers at these local councils, such as Physical Activity Leads, Children and Young People Service Leads, and Social Prescribing teams (where available) were contacted via email. Virtual meetings were arranged to discuss any mapping work that already existed, how to access this and any other recommended or relevant links to public online databases which held this information.

The relevant South Yorkshire lead workers at regional and national organisations were also identified and contacted, including Yorkshire Sport Foundation, This Girl Can, Healthy Holidays, Children's University, Voluntary Community and Social Enterprise (VCSE) Alliance, Voluntary Group Networks, Creative Minds Foundation. National sports governing body websites were also identified comprising of; archery, athletics, basketball, bowls, boxing, canoeing, cricket, cycling, equestrian, football, golf, gymnastics, hockey, netball, rugby league and union, running, squash, swimming. Websites were scoped, and where relevant, meetings were held with contacts from the organisation to gather additional information. Where websites held an online directory of services, these were searched using the terms 'any' physical activity or sport or activity, with 'any' distance from each location (Sheffield, Barnsley, Rotherham, Doncaster). All results were recorded using an Excel database, with separate tabs for each district.

Table 3. Information about community-based services gathered at Stage 1

Category	Description
Service Name	Name of the service
Online link	Link to website or online information. Usually this was an official webpage, or social media page (e.g., Facebook)
Sport	The type of activity offered by the service. Consistent naming was used, such as Football, Dance, Performing Arts etc.
Age	The age range of children or young people catered for by the service
Location	A postcode was recorded. If a range of venues were available these were all noted
Notes	This section was open text and recorded further information about what the service offered, such as day/time the sessions ran and if they catered for any additional needs, such as neurodiversity, learning disabilities, physical disabilities

3.4.5 Stage 2 of the mapping

The services identified at stage 1 were then scoped in further detail in stage 2 to gather more in-depth information about their offer and assess their suitability for children and young people living with severe obesity. A set of criteria (Table 4) was developed to assess this suitability, based on current literature, engagement work with families described in the AYPH report (Rigby, McKeown & Wortley, 2022) and the stakeholder involvement work conducted with young people and staff at the start of this phase (section 3.4.3). Reflections from young people around what types of services they wanted to access, and what barriers they had experienced were incorporated into the criteria, alongside feedback from staff regarding what they looked for in services they could refer families to.

Ten criteria were developed, linked to the need for:

- accessible services (local, low cost)
- trusted staff (training, experience, holistic approach)
- peer support (specific groups solely for children and young people)
- understanding of experience of weight stigma (recreational offer, group-based with others with similar experiences)

Table 4 contains further detail about each of these.

Each community service identified at stage 1 was assessed against these criteria. To do this, a flexible approach was taken, by using online searches and stakeholder engagement, as recommended by similar scoping work (Walker, Waterhouse-Bradley & Armour, 2020). Websites, and social media sites (such as Facebook groups and Instagram pages) were explored and further engagement with key contacts from local authorities, Yorkshire Sport Foundation and Sheffield Children's Hospital were used to provide additional information where needed.

Table 4. Information gathered at stage 2 for assessing suitability of services

Category	Description
Location	Is the organisation based close to the city / town centre or near public transport, or is it further away, requiring car travel?
Cost	Are the sessions free to attend or is there associated cost? If there is a cost, how much is this (e.g., annual membership costs or per session costs)?
Experienced/trained staff	Are staff leading the sessions qualified, DBS checked, or experienced in running groups with children and young people?
Holistic Approach	Does the service focus on supporting a young persons' mental health, wellbeing or developing wider skills such as communication and self-esteem?
Children and young people group specific offer	Are sessions provided by the service open to all young people or are they targeted at a more specific group (e.g., religious organisations, those with additional needs)? Additionally, does the service offer sessions just for children and young people (and are these split by age or developmentally appropriate groups, rather than including all ages together in one session)?
Recreational or development offer	Does the service offer recreational or development sessions or are sessions more intensive and high commitment (for example, those focused on regular competitions, leagues, or races)?
Ongoing/Running	Is there evidence that the service is currently running or is it closed?
Focus on physical activity or cooking	Do sessions include physical activity or cooking as part of their main offer?
Potential for additional group	Does the organisation run multiple groups, and have the potential for setting up an additional group specifically for young people attending CEW clinics only?
Type	Recording any information on what type of organisation it is, e.g., charity, CASC (community amateur sports club), company, CIC, voluntary organisation.

3.4.6 Analysis

Basic descriptive statistics including simple frequency distributions and counts were used to consider the data. Frequency tabulation and distribution, such as the use of percentages is widely noted as an effective way to summarise datasets and to note initial patterns and trends (Cooksey, 2020).

Each category from the suitability criteria in stage 2 was included as a column on the Excel spreadsheet (example included in [appendix 1](#)). Filters were used on each column to identify what kind of activities were offered, and to count how many services met each of the criteria. These counts were used to calculate percentages to summarise the types of activities available in each locality and how many, and which services met each of the ten criteria.

Given that many of these services and their specific offers can change in short time scales due to staffing changes and short-term funding (Morse, 2022; Morrison & Boys, 2022; Walker, Waterhouse-Bradley & Armour, 2020), the list of services identified is likely to be out of date within a short time frame. However, the aim of this work was to provide an overview of the mapping process and an understanding of the extent and types of available services suitable for CEW clinics to link with. The aim was not to provide an up to date, comprehensive list of services. This approach to analysis met the aims of this phase and meant further in-depth inferential statistical analysis was not appropriate for this phase.

3.5 Results

3.5.1 Mapping Process

Stage 1 took place from January to March 2023, taking approximately 3 months. Almost 1,000 ($n = 933$) services were identified across each of the four localities. Sheffield had the highest number of services identified, then Doncaster, Barnsley and Rotherham ($n=152$). This aligns with the population size (ONS, 2022) of each

of the localities, however, is less aligned with the population density (ONS, 2022), as shown in Table 5.

Table 5. Number of services identified in each locality compared to population size and population density

Locality	Number of services	Population size	Population density (residents per square km)
Sheffield	356	556,500	1,513
Doncaster	226	308,100	542
Barnsley	199	244,600	743
Rotherham	152	265,800	928

Stage 2 took place between April and June 2023, also taking approximately three months. In total, identifying and assessing services for suitability took approximately six months to complete.

During meetings with staff at local councils, there was consistent positive feedback that there was a need for this work in identifying available services, with information often known by a few members of staff but not available to access publicly anywhere. This was also highlighted in the survey of CEW professionals (Phase 2, *Chapter 4*), with staff commonly reporting a gap in knowing what appropriate community services were available in their local area.

Generally, it was time-consuming to complete this work due to challenges in finding detailed information about community services. Often services required an expression of interest to receive full information about costs or session availability. If a service hosted their own website, this was helpful for identifying core details about a service (such as location, time, age ranges), however social media pages were more common, where this core information was harder to find. In contrast, social media pages were more likely to show if a service was still

active as dates of the latest posts and updates were visible, whereas it was often unclear from websites if a service was still running.

Each locality varied in how community services were organised and structured, and which directories and contacts were available, meaning that a scoping approach that worked in one locality may not necessarily work in another. The mixed approach to scoping (Walker, Waterhouse-Bradley & Armour, 2020) using online directories, websites, alongside meetings was helpful to ensure relevant information was gathered, and then discussions with contacts via meetings could supplement online information.

3.5.2 Types of services identified – Stage 1

The top 5 activities for each locality, and the percentage of the total number of services relating to this activity are presented in Table 6. For each of the four localities the most common sport offered was football, comprising approximately 20% of the total number of services in each locality. Cricket was also in the top 5 most offered sports for each locality, as well as ‘general sport’ activities which were part of leisure centres and community centres. Dance clubs were in the top 5 for three of the four areas. There were a wide range of sports provided overall, with 82 different activities identified including less traditional opportunities such as circus skills, fencing, skateboarding, cheerleading, roller-skating, and weightlifting available.

Table 6. Top 5 activities for each locality

Sheffield		Doncaster		Rotherham		Barnsley	
Activity	Percentage of services (%)	Locality	Percentage of services (%)	Locality	Percentage of services (%)	Locality	Percentage of services (%)
Football	20%	Football	21%	Football	18%	Football	20%
General Sport	8%	Leisure Centres	5%	Community Groups	11%	Cricket	10%
Cricket	8%	General Sport	5%	Cricket	10%	Dance	8%
Tennis	4%	Cricket	5%	Golf	5%	General Sport	8%
Dance	4%	Dance	4%	General Sport	5%	Running	4%

3.5.3 Suitability Assessment – Stage 2

Services were assessed in terms of their suitability for children and young people living with severe obesity based on the ten criteria identified. There were few services which met all criteria of being low cost, having a holistic approach, having a specific children and young people's offer, being in an accessible location, having trained and experienced staff and being a running, active service. Overall, across each locality there were 19 services that met all of these criteria. It is important to note however, that services other than these 19 may not have met the criteria due to a lack of information provided, and so this number may be higher.

Across all localities, Community Football Foundations met all criteria. These Foundations have existing infrastructure (including locations, staff and equipment) and funding which allow them to offer a range of low cost sessions at multiple locations. The Foundations often had prior experience of delivering tailored groups to vulnerable populations, such as individuals with disability or with mental health needs, meaning staff were trained and experienced working with young people. Alongside these Foundations across the region, boxing centres commonly offered low cost, regular fitness classes and considered mental health needs, as well as several charities that provided youth clubs with a focus on sports and activity.

Services were not equally distributed across the four localities in South Yorkshire. Eight activities met all the criteria in Sheffield, six in Barnsley, three in Rotherham and two in Doncaster (Figure 8). Some specialist clubs noted that they were able to support young people with additional needs, such as learning disabilities, and some clubs reported offering girls only sessions, although these were often time-limited or one-off opportunities rather than regular, ongoing sessions.



Image: Contains Ordnance Survey data © Crown copyright and database right. This file is licensed under the Creative Commons Attribution-Share Alike 3.0 Unported license. commons.wikimedia.org/wiki/File:South_Yorkshire_UK_district_map_%28blank%29.svg

Figure 8. Map showing number of services which met all criteria in each locality

Services did not always offer a recreational or development opportunity, with many requiring young people to work towards gradings, competitions, matches or public performances. Classes often increased in skill and intensity with age, which may make it more challenging to begin a new sport when older in age compared to the wider range of ‘beginner’ opportunities that were available for younger children.

Each locality was assessed in terms of how many active services were available which focused on physical activity or cooking as their main offer. Services meeting this first assessment were then reviewed in terms of how many met additional criteria such as; having a recreational element, offering specific groups just for children and young people, working holistically or being low cost (see Table 4 above for further information about these criteria). Results are presented in Table 7.

For cost, services were categorised into either Low Cost (Free or Under £4 per session), Medium Cost (£4-£10 per session), High Cost (£10-£20 per session) or Very High Cost (Over £20 per session). Some services did not provide information about costs, and these were marked as ‘No Information’ or ‘NI’.

There were similar distributions of services meeting each criterion across each locality, although Barnsley had a higher proportion of services which offered recreational or development sessions. Services often lacked reporting a specific wellbeing element or were not free or low-cost to access. Many of the services that were free were one-off sessions or short term offers, such as provision in the school holidays. These findings should be taken with caution, as only services that explicitly stated costs were included for this. There were many services that did not provide any costing information and so this number of services may be higher.

Table 7. Number and percentage (%) of services in each locality meeting criteria

Locality	Active service with a focus on physical activity or cooking	Percentage of services meeting criteria (%)	Active service with a focus on physical activity or cooking AND Recreational or development offer	Percentage of services meeting criteria (%)	Active service with a focus on physical activity or cooking AND Specific children and young people's offer	Percentage of services meeting criteria (%)	Active service with a focus on physical activity or cooking AND Holistic approach	Percentage of services meeting criteria (%)	Active service with a focus on physical activity or cooking AND Low cost	Percentage of services meeting criteria (%)
Sheffield (n=356)	261	73%	152	43%	207	58%	70	20%	35 10 Free	9% 3% Free
Doncaster (n=226)	150	66%	109	48%	115	51%	26	12%	29 1 Free	13% <1% Free
Rotherham (n=152)	90	59%	68	45%	65	43%	22	14%	18 6 Free	12% 4% Free
Barnsley (n=199)	156	78%	114	75%	121	80%	39	26%	21 6 Free	14% 4% Free

3.6 Discussion

The aim of phase 1 was to explore the process for mapping community services that could be part of a social prescribing offer within a specialist weight management service. This phase sought to provide an understanding of the availability of community services in South Yorkshire that would be accessible for this population. Finally, the mapping informed development of initial programme theories about how social prescribing may (or may not) work to support the health and wellbeing of young people attending CEW clinics.

3.6.1 Overall provision of community services

Identifying local community services is an important element of developing a successful social prescribing offer (Rice, 2023). However, as demonstrated by work conducted in this phase, there can be challenges finding up to date information and a significant time resource required to undertake this task. Overall, this phase found a high number of community services which offered physical activity and/or cooking skills for children and young people but with a limited number of these meeting suitability criteria for a population of young people living with obesity. This included 19 out of 933 services overall, approximately 2%.

The survey of CEW professionals which was run concurrently with this phase as part of phase 2 (*Chapter 4*), found that whilst staff reported they were willing to use social prescribing in their service, they were unsure of which available community groups existed in their local areas which they could support families to access. This could reflect limited capacity from healthcare professionals for scoping what services are available but may also reflect the limited number of suitable services which exist in the local community. This mapping work found that although there are high numbers of services in general, there are a limited number of services which are suitable for the young people these professionals work with through their clinics.

Community Foundation Football Clubs and Leisure Centres consistently met criteria across localities, offering multi-sport opportunities. However, it should also be considered that many young people living with obesity have negative experiences of weight stigma and bullying, particularly related to sport and PE at school (Rigby, McKeown & Wortley, 2022). Therefore, traditional sports clubs and gym settings such as football clubs may cause a barrier for young people living with obesity, as noted through engagement work with young people and families (Rigby, McKeown & Wortley, 2022). The services young people will want to access are highly individualised. What is accessible for one person may not be accessible for all and not all young people will have the same preferences over what and how they want to access.

In practice, social prescribing involves working with each individual young person to identify what matters to them. Where there are gaps in community provision, a social prescribing service could work with young people to create a new activity or could work with community providers to improve accessibility of their services. In this way, creating a database of local services is important, but does not mean that opportunities have to be limited to only those services identified.

3.6.2 Additional considerations for youth social prescribing compared to adults

There may be additional considerations needed when referring young people to community services compared to referrals for adults. For example, when working with young people, a whole family approach may be required, with a need to support parents and carers as well as the young person directly. It may be the case that parents and carers are also facing their own challenges and have additional mental health or physical health needs of their own to take into consideration (Bertotti et al., 2022).

There are additional specific skills and training required when working with young people, especially for those with additional needs (Hayes et al., 2024; Bertotti et al., 2022). This may require training or building knowledge around supporting young people with mental health difficulties, or Autism awareness for example.

This is particularly relevant for a CEW clinic population, where high numbers of young people in clinics have been found to have learning difficulties or neurodiversity (Matu et al., 2025).

Furthermore, young people are often reliant on family members to support their attendance at groups, based on aspects such as travel, cost and time. Accessibility factors such as access to a car, provision of safe and reliable public transport, cost requirements (including session fees, travel costs, membership fees or any cost of equipment), perceptions of an inclusive environment, as well as timing of sessions can all impact on ability to attend (Husk et al., 2020). Again, this is particularly relevant when considering social prescribing in CEW services, where data has shown that families are commonly living in the most deprived areas of the country (Matu et al., 2025). If this causes barriers to access for families, there is the potential to exacerbate existing health inequalities.

3.6.3 Needs of community-based services

Supporting young people to access community-based services through social prescribing can provide helpful opportunities for young people, but while it is useful to explore how young people can be supported to access these services, it is also important to consider how services can be supported to meet the needs of young people. This includes young people attending CEW clinics, who are experiencing complex physical and psychosocial health impacts relating to their weight. Clinical staff need to trust that the community services will be able to offer appropriate support to their patients (Woodall et al., 2018; Pescheny, Pappas & Randhawa, 2018), and equally, community staff need to trust that clinical services are referring appropriate cases, and with mutual understanding around what the service can offer (Rice, 2023). Staff within community services may require time and financial support to be able to access training, or supervision. Community services are central to social prescribing; however resources are often directed to link workers and connector roles rather than community services themselves (Jopling, 2024).

Services other than the 19 identified in this phase may not be completely 'unsuitable' but rather did not meet all criteria or may have had insufficient information provided to determine this. Social prescribing offers the opportunity for new sessions to be created, for existing sessions to be adapted, or for additional support to be provided to increase accessibility. For example, in this population, this might include funding to provide an additional group solely for young people accessing CEW, or CEW staff support to provide training to community staff about how to work with young people living with obesity and additional needs.

3.6.4 Protocols and methods for mapping services

At the time this work was conducted, there were limited standardised protocols for the process of mapping voluntary and community services. This scoping study followed a similar approach to that of Walker and Turin, following guidelines around the recommended steps involved in asset mapping and using a mixed approach of scoping online information and holding meetings with relevant stakeholders. This allowed for a broad range of services to be identified, but also to gather further information from key stakeholders to supplement where information may have been challenging to collate from online resources. There remains an opportunity for future research to consider a wider variety of methods in which to map community assets, such as using survey or focus group methods with service providers and service users, which may provide more reliable and up to date information.

Information about local community services might be best accessed through a central organisation which holds information about local opportunities, for example using online directories. Hosting a website and keeping this up to date can require funds and staff capacity, which individual community services can struggle with securing (Jopling, 2024).

Online directories existed in some areas hosted by local councils, voluntary action networks or Active Partnerships; however, they varied across localities in terms of where they could be found, who they were held by, and the depth of information

provided. This is important to consider in relation to CEW clinics, as the variation seen across one region is also likely to exist across different regions of England. Each CEW clinic locality will vary in terms of how much existing work has been done to map community assets.

3.6.5 Strengths and Limitations

A limitation to this mapping work is that this is likely not an exhaustive or up to date list and is highly specific to the local area. Community services can change in short time scales due to staffing changes and short-term funding, meaning this list is already likely out of date (Morse et al., 2022). It has been suggested that for these reasons, national directories of community services are less beneficial to link workers than developing more personal relationships with those in community networks (Morrison & Boys, 2022).

Despite this, the mapping was able to provide an overview of the number and type of community-based services offering physical activity and cooking opportunities for children and young people in South Yorkshire and consider the appropriateness of these activities for children and young people attending specialist weight management clinics. This achieves the aims of the phase and provides a realistic understanding of the process that clinical staff and families would take to find local services.

Analyses conducted were based on the availability of information reported by the services themselves. For example, where numbers of services are categorised as 'low cost' such as in Table 7, only services that explicitly stated costs were included for this analysis. There were many services that did not provide any costing information and so this number of services may be higher. Additionally, where services reported using a holistic approach, this might not reflect what happens in practice. This information was recorded based on what services reported about their offer, and it may be that there is a more objective way to classify this, such as training requirements, however this again demands time

and cost implications to services. It may also be better recorded through feedback with service users or more individual, in depth discussions with providers.

Individual providers were not contacted for further information about their service in this phase. This would have been too time consuming given the number of services, and the focus was on providing an overview of provision. Again, this reflects the information that a family or CEW staff member would have available if searching for relevant services.

3.6.6 Implications for practice

In practice, when identifying available services to be part of a CEW clinic social prescribing offer, there is a need to consider how this information about community services could be identified and kept up to date to ensure families are not referred or signposted to services which are no longer running, or which have changed their provision.

If clinics are considering starting to map community services within their own localities, they should first consider the context of the local area. Some areas may have more pre-existing mapping work that has been completed, for example online directories and databases that can be of use to support this process, whereas others may not have this in place. Children and Young People Leads at local councils and Active Partnerships are the best placed contacts to identify if these directories exist.

All areas will have local community services, but exact provision will vary and reflect the characteristics and needs of the local community. Therefore, it is important to understand the needs of the population and the suitability criteria. CEW clinics should consider the specific needs of their CEW population, what their young people want to access and any local barriers. It would be expected that this suitability criteria would be similar to what is described in this chapter, as this was developed with insight from CEW professionals (PPI work; Chapter 4 - *survey*), and engagement work with families nationally (Rigby, McKeown & Wortley, 2022). However, this may still vary between CEW clinics.

If CEW clinics are aiming to identify local services which they can support young people to attend through social prescribing, it is recommended that they contact Children and Young People Leads at local authorities and Active Partnerships, who were identified through this mapping work to be most helpful in identifying and setting up contact with key services within the local area. The Yorkshire Active Partnership has a place-based approach, with delivery managers for each of the localities (Sheffield, Doncaster, Rotherham and Barnsley), which means each of these contacts has knowledge and existing links with key groups in the community on which to build.

There is also the possibility that CEW clinics could develop a new group if limited appropriate services were identified. Based on findings from this phase, Community Football Foundations and Leisure Centres were the most likely services to support this, as they had existing infrastructure (including staff, capacity, equipment and locations) to support additional multi-sport groups. This could also include training or advice from the CEW multidisciplinary team, to support community providers to adapt their offers to be accessible and acceptable for young people living with obesity.

The mapping work in this phase was found to take approximately 6 months, and additional ongoing work would be required to keep this information up to date. Therefore, this is unlikely to be completed by clinical staff with limited capacity, such as consultants, based on engagement work and responses to the survey of CEW staff (Chapter 4; *phase 2*). There is the possibility that this work could be part of the role of support workers or social workers, who are often included within CEW MDT and provide support to families in their home and community environments (NHS England, n.d.b). This requires further exploration with CEW clinics and would be dependent on which staff roles and resource are included in the CEW MDT team.

This work may also fall under the role of a link worker, who takes responsibility for scoping community services, building relationships between services, and who can take the time to support young people to choose and access a range of groups. Primary Care Networks are now required to offer access to an all-age link worker resource. However, there is an understanding that link workers need

additional skills to work effectively with young people and their families compared to an all-age approach and so this current provision may not be suitable for working with CEW clinics (Jones et al., 2024; Bertotti et al., 2022). For more young people to be able to benefit from social prescribing, there may need to be improved access to youth specific link workers. Investment in link workers who are well equipped to work with diverse groups of young people could help support integration of social prescribing into wider clinical services. Whilst these link workers could use mapping databases initially as a tool to support development of networks of local services, their role offers increased time and capacity to build relationships with community services and gather more in depth understanding of their offer, for example through feedback from service users and interactions with delivery staff (Farina et al., 2024).

There is also a need to provide investment and support for community providers, and VCSE organisations. This is particularly important if expecting these providers to support young people with more complex health needs. This support may be financial, but may also be in the form of training, supervision or resources.

3.6.7 Impact

The findings from this work have had impact on current practice. Findings were shared with the local Integrated Care Board (ICB) and were used to inform their social prescribing and obesity work within the region. Findings were also shared with the South Yorkshire CEW MDT team to ensure relevance to current practice, and which supported development of networks with wider services in the community.

3.6.8 Research Progression

Phase 1 was conducted concurrently with phases 2 and 3. Phase 2 (Chapter 4) focused on the perspectives of CEW staff towards social prescribing, and phase 3 (Chapter 5) included a review of the current evidence base.

Initial Programme Theories

Phase 1 contributed to the development of initial programme theories about how, in what ways and under what circumstances social prescribing may (or may not) work in CEW clinics to support the health and wellbeing of young people living with severe obesity. Phase 1 contributed theories which are presented below (Table 8), however, as phases 1, 2 and 3 were conducted concurrently, there was some overlap and shared learning between the phases.

The initial theories were informed from understanding what motivated young people to attend community services alongside furthering understanding of what the important and relevant aspects of context are for understanding how social prescribing may work in CEW clinics.

Table 8. Initial Programme Theories identified through phase 1

Theory	If	Then	Because
Accessibility	If services are accessible (low cost, local, accessible via public transport, held at convenient times)	Then families are more likely to attend sessions through social prescribing	Because they feel more capable of attending, perceive less barriers and have increased motivation to attend
Peer Support	If sessions are organised specifically for groups of young people with similar experiences of living with obesity	Then young people are more likely to attend and engage with social prescribing and experience improved wellbeing (self-esteem, reduced isolation)	Because young people will feel less isolated and less anxious about attending if there are others who understand their experiences, and who will be accepting and non-judgemental
Tailored Sessions as part of person centred care	If sessions are tailored to the needs, capabilities and interests of young people living with obesity	Then young people are more likely to engage with social prescribing and increase participation in physical activity	Because they feel more confident and capable to participate, and feel a sense of achievement and enjoyment
Staff Qualities	If community staff involved in delivering social prescribing sessions are knowledgeable, compassionate and non-judgemental	Then young people are more likely to engage with social prescribing	Because they feel they trust the staff leading the sessions, have a sense of enjoyment and have more belief that it will be helpful

Investment into community services	If community services receive investment and support (such as funding, staff time, knowledge, training, supervision)	Then more young people will engage with social prescribing	Because community services feel more capable and confident to offer more sessions and support more young people, including those with additional needs. A wider range of opportunities means that more sessions can be tailored to a diverse range of needs and interests, and young people have choice over what they can access
Physical Activity	If there is the opportunity to take part in physical activity through social prescribing	Then young people are more likely to see improved physical and mental health, as well as continue participation in physical activity	Because a young person increases their levels of physical activity, and can experience a sense of enjoyment and achievement, and feel more capable and motivated to continue to take part in physical activity

3.7 Chapter Summary

Identifying community services that are accessible for young people is a key part of developing a social prescribing offer. Understanding the availability of these services can be challenging, and time consuming to find and maintain.

This phase contributed to the understanding of the process involved in mapping community services. Further support is needed to develop collaborations between clinical and community services, particularly when working with young people with more complex needs such as obesity. Consideration should be given to how young people can be supported to access services, as well as how community services can be supported to meet the needs of young people living with obesity.

This phase contributed to the development of initial programme theories of how social prescribing may work to support young people attending specialist weight management services like CEW clinics. This included the importance of investment and support for services to increase accessibility for families, and the need to provide safe spaces for young people, achieved through cohesive groups which are tailored to the needs of the young people.

The next chapter (Chapter 4) presents the results of a national survey which explored the views of staff working in CEW clinics towards social prescribing.

4.0 Chapter 4. Survey of CEW Professionals

This chapter is based on the publication, ‘Garside, M., Homer, C., Dayson, C., Dowrick, L., Pickering, K., Wright, N. (2025). Healthcare professionals’ attitudes towards social prescribing in specialist children’s weight management services. BMC Primary Care, 26(1), 1-9.’ <https://doi.org/10.1186/s12875-025-02753-w>

4.1 Introduction to Chapter

This chapter discusses phase 2, which included a national survey of professionals working within Complications of Excess Weight (CEW) clinics, aiming to explore their understanding and current use of social prescribing, as well as perceived benefits and barriers to future implementation. This chapter presents a summary of the background to this phase and outlines the methods used and the results. The implications of these findings are discussed alongside how these findings link with and feed into the other phases of work.

4.2 Background

Social prescribing involves healthcare professionals connecting individuals to community services for additional support for their health and wellbeing. These community services may include those explored in phase 1. In order to understand how social prescribing could be integrated into CEW clinics, it is important to also consider the role of the healthcare service, and the professionals working within these services who may be referring individuals to social prescribing opportunities.

In phase 2, a survey for professionals working within these services was developed to gather information about professionals’ current use of social prescribing, as well as any anticipated benefits or barriers to implementation. These findings contribute to development of initial programme theories and

understanding of context which may influence how social prescribing could work in CEW clinics.

The focus of phase 2 includes clinics across England to consider how findings may be relevant to wider clinics and policy makers. This is different to phases 1 and 4 which each focused on one clinic. This was in part due to the constraints of the resources of a PhD study.

4.3 Research Question and Aims of Phase 2

The research question underpinning phase 2 asks;

What is the current understanding and practice relating to social prescribing within CEW services nationally?

The objectives of phase 2 were to:

- Provide an overview of the understanding and use of social prescribing by staff in CEW clinics nationally,
- Identify perceived benefits and barriers to future implementation of social prescribing,
- Contribute to the development of initial programme theories about how social prescribing may work in specialist weight management services to support the health and wellbeing of young people living with severe obesity.

4.4 Method

4.4.1 Design

Phase 2 used a cross-sectional survey design. Surveys are a commonly used method for gathering views and understanding of a particular topic (Groves et al., 2011), as well for gleaning initial theories in realist research (Westhorp & Feeny, 2024).

A copy of the survey was shared with staff from one CEW clinic prior to ethical approval to ensure that wording was appropriate and understandable, and that the length was acceptable. Ethical approval was obtained from Sheffield Hallam University Ethics Committee (ID: ER52876797) in April 2023. The survey was developed and delivered online using Qualtrics (Qualtrics, Provo, UT).

A brief survey with approximately 10 questions, allowing for simple completion by busy clinical staff, was created with the aim of maximising the number of respondents (Groves et al., 2011). The survey was mainly quantitative, with closed, tick-box questions. Some qualitative, optional, open-text questions were included to allow for further detail to be provided by respondents (Gideon, 2012). This approach was taken as it was more beneficial to have more completions from a broader range of clinics rather than in-depth data from a smaller number of clinics to address the aims of the survey.

4.4.2 Survey Questions

The final survey is included in appendices ([appendix 2](#)). Questions were bespoke to meet the specific aims of the survey but were informed by a national survey exploring attitudes to green social prescribing survey (Department of Health and Social Care & IFF research, 2023) and through discussions with staff at a CEW clinic.

The first page of the survey provided information about the survey, including its scope and aims, and contact details for the researcher. Participants were informed that they could contact the researcher with any questions they had about the research. An information sheet was available to read and download, and consent was required before the survey could be accessed. Participants were reminded in the information sheet to not disclose any personal information about themselves, their service or patients. The survey was expected to take no more than 10 minutes to complete. The survey was live for 4 months in total, between April and July 2023.

The survey was anonymous, and responses remained confidential. The opening survey questions asked respondents to report their job role, type of organisation and which CEW clinic they were part of. This information was used to check the breadth of responses geographically across CEW clinics and job roles nationally and was not linked to their later responses. The next group of questions explored professionals' *current understanding of social prescribing*, by asking them to define what they thought social prescribing was, if they had heard of the term before, and how much they knew about it.

Questions then focused on the professionals' *current use of social prescribing*. A definition of social prescribing was provided, and questions asked if they use social prescribing currently in their role or not based on this. If yes, they were asked how many children and young people they referred through social prescribing and for examples of the types of services they referred to. If not, they were asked for reasons why they do not currently use it.

Next, respondents were asked about what they thought were the *potential benefits of social prescribing*. Regardless of if they reported currently using social prescribing or not, all respondents were asked if they thought social prescribing could be helpful for the children and young people they worked with, and what specific aspects they felt would be most beneficial.

Finally, questions focused on *potential barriers to using social prescribing* in their service. Respondents were asked if they would be likely to use social prescribing in future, and what barriers they may face to implementing it, as well as if they were aware of community services in the area local to their CEW clinic that they could refer families to.

4.4.3 Procedure

Respondents to the survey were professionals linked to a CEW clinic.

At the end of April 2023, the link to the survey was shared with the following contacts via email and meetings, who were also asked to circulate the link to their own CEW networks:

- Existing staff contacts within the CEW clinics nationally (including through colleagues working across other CEW research studies)
- NHS England CEW delivery board meetings (through existing CEW staff contacts who attend these meetings)
- CEW psychologist network
- CEW dietetic network

The initial email distribution list contained approximately 130 contacts nationally. A consultant from a CEW clinic sent this initial email to prevent the email link going to contacts' junk folders, and to avoid this being perceived as spam. The PhD researcher then sent a reminder two weeks later, and a final reminder was sent by the researcher again a month later, two weeks before the survey closed at the end of July.

4.4.4 Analysis

Raw survey responses were downloaded from Qualtrics into an Excel file. Descriptive analysis consisting of percentages and mean scores were used to summarise distribution of responses to the closed, tick box, quantitative questions (Groves et al., 2011). Graphs were created where appropriate to visually present responses. Due to the small sample size and nature of the questions, more in-depth inferential statistical analysis was not appropriate (Phillips, Phillips & Aaron, 2013).

Open-text questions were analysed through qualitative thematic analysis (Braun & Clarke, 2006). This method has been used for analysing open-ended questions in other surveys (Turk et al., 2020). Responses were reviewed, and consistent themes were identified and coded. Descriptive summaries were provided for these questions and numbers of responses meeting each theme were recorded, with key quotes identified. The open-text questions were not mandatory to complete and were used as a way of gathering further detail to support responses

given to closed text questions (LaDonna, Taylor & Lingard, 2018) as well as to gather further detail where possible to support initial theory development.

4.5 Results

Summaries of the responses to each of the survey questions are presented here, organised by each section of the survey. This includes the reported *Demographics* of the respondents, their *Current Understanding of Social Prescribing*, and their *Current Use of Social Prescribing*.

For *Current Use of Social Prescribing*, this is separated into *Referrals and Services* for those that reported using social prescribing and *Reasons for not using Social Prescribing* for those that reported not yet implementing it. Finally, the responses for *Potential Benefits* and *Potential Barriers* are presented.

4.5.1 Demographics

The survey received 42 responses in total. Of this number, 38 completed all questions in the survey and four opened the survey but did not complete any questions. Of the 38 who completed the full survey, the survey link was open for a minimum recorded time of two minutes, and the maximum was recorded as 64 hours. The median time to complete was five minutes. 84% (n=32) completed the survey in the expected time of under ten minutes, with 11% (n=4) completing in 10-20 minutes.

As this phase took place prior to the set-up of additional CEW clinics in Wave 2 of the NHS England funded roll out, respondents were recruited from Wave 1 (21 clinics nationally in total). There were responses from over 75% of these clinics nationally (16 out of 21 clinics) and an additional respondent from NHS England. Of the five clinics that had no respondents, four of these were from the South region, and one was from the East of England. All other regions had respondents from each of their clinics.

Most of the clinics (n=14) had 1-3 respondents complete the survey, apart from two clinics which had seven and eight respondents completing. The majority of respondents reported their role to be NHS, apart from one who worked as part of a charity.

27 professionals reported their job role. Respondents included consultants (n=7), dieticians (n=5), psychologists (n=4), family support workers or youth workers (n=4), paediatricians (n=1), nurses (n=1), clinical fellows (n=1), physiotherapists (n=1), project managers (n=2) and staff from an Integrated Care System in one of the CEW regions (n=1).

Additional demographics beyond respondents' job role and which clinic they worked in were not collected, and job role was not linked to clinic name to allow respondents to remain anonymous.

4.5.2 Current understanding of Social Prescribing

95% of respondents had previously heard of the term 'social prescribing'. Approximately three quarters of all respondents (76%) felt they knew 'a bit about it', with the remaining 24% reporting that they 'didn't really know much about it'. None of the respondents felt that they either knew 'a lot' about it or that they 'didn't know anything' (Figure 9).

30 professionals provided a text response to 'what do you consider social prescribing to be'? A high proportion of these noted that social prescribing was a 'non-medical' or 'non-drug intervention', specifically involving local community services (n=21). There was a general understanding that the aims of social prescribing are wider and more holistic than just physical health with specific references to 'mental health', 'wellbeing', 'isolation', 'lifestyle changes' and supporting a 'full' or 'fulfilling' life (n=13).

Respondents commonly mentioned signposting or providing links to families to local services in the community (n=9), with few mentioning any kind of active support or directly working with the young person to identify what their interests

are (n=2). Models of social prescribing can vary, including both direct referral from a professional to a service within the community as well as referral from the professional to a connector or link worker, who then supports the individual to choose and access a service (Muhl et al., 2023). It is suggested that while there is this variation in models of social prescribing, it involves more support than signposting (Muhl et al., 2023; Morse et al., 2022), such as helping the individual to make their own choice about what services would benefit them or facilitating access to the first sessions. Therefore, whilst a high proportion of respondents had heard of social prescribing and felt they knew what it involved, there may still be variability in understanding and inconsistency of definitions used within services.

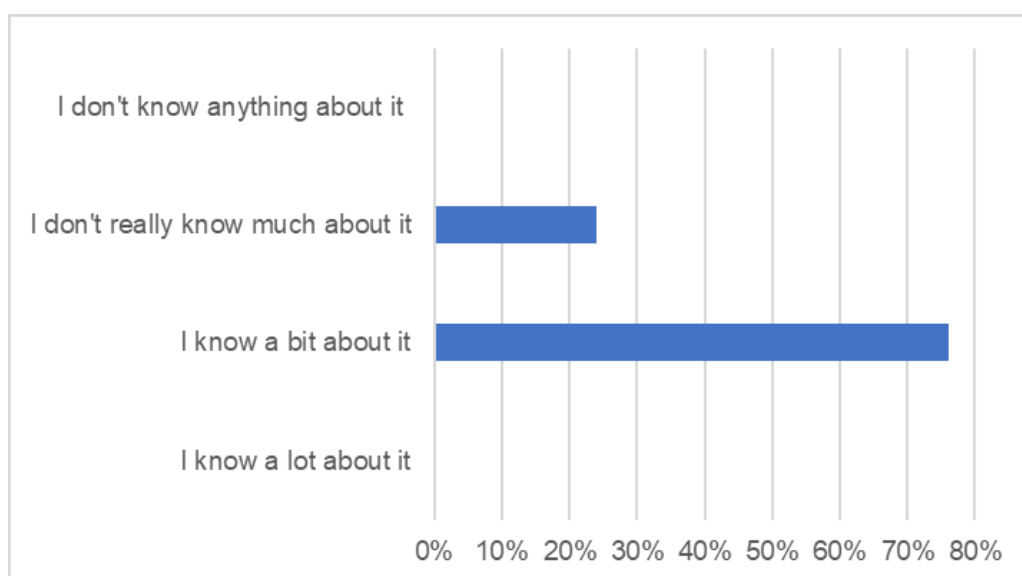


Figure 9. How much do you feel you know about social prescribing?

4.5.3 Current use of Social Prescribing

In the following section, the following definition of social prescribing was provided: *'For this project, we describe social prescribing as healthcare professionals referring individuals to access local community-based groups (such as sports clubs, arts and crafts groups, nature-based activities) which can support them with their health and wellbeing. This can be done in different ways, including through direct referral from a healthcare professional to a community-based group, or through referral to a 'link worker' who works with an individual to support them to choose and access a local community-based group.'*

This definition was written for the survey but was informed by existing online information about social prescribing that was available at the time (The King's Fund, 2020; NHS England, 2023). Based on this definition, just over half of respondents (55%) felt they used social prescribing in their job role. 45% of respondents did not feel they were using social prescribing.

4.5.3.1 Referrals and services used

For those that reported using social prescribing in their role (n=21), 90% referred less than 10 children and young people on average in a month. 10% (n=2) referred between 10-20 and no respondents were referring more than 20 young people a month. Each CEW clinic was commissioned to support between 25-120 new patients a year (Davies et al., *in preparation*). This exact number varies across models and clinics depending on the size of the locality but based on this, referring less than 10 young people a month is proportionate to the number of patients likely seen within a service.

Most respondents noted a direct referral model, with a youth worker or social worker taking the lead on this, or they asked GPs to refer families. No respondents described referring directly to a specific social prescribing link worker or connector role.

18 professionals provided examples of what activities their service referred young people to. The majority (n=17) of free text comments identified some form of physical activity including community sports clubs, leisure centres, community football foundations and local gyms. Seven professionals referred to youth groups, which provided sessions specifically for children and young people. Two professionals included art and craft sessions as part of the services they referred young people to. Two professionals mentioned cooking groups or dietary education, and three professionals reported therapies, mental health support or sessions specifically for those with additional needs.

4.5.3.2 Reasons for not using social prescribing

For those professionals who stated they did not currently use social prescribing within their role (n=17), they were asked for reasons for this, selecting as many options as applied (Figure 10). The main reasons were due to not knowing the available community-based services to refer to (21%), the need for a link worker role to support referrals (18%) and a lack of funding (13%). No professionals felt that the young people they worked with would not want to access social prescribing.

Nine professionals provided additional text responses for this question. Some professionals (n=5) reported they did not always have a direct role working with children and young people, and felt social prescribing was the role of other colleagues in their team. These respondents included a range of staff roles, including psychologists, dieticians and project managers.

Other professionals (n=3) raised an issue of the lack of available services specifically for children and young people, who felt social prescribing was aimed at adults.

“Lack of support for young people in the areas I work. Social prescribing seems to be aimed at adults.” (P02)

Another professional (n=1) identified a bespoke programme delivered in collaboration with community groups which they used in their service. Although they did not feel this aligned with the definition of social prescribing as it was specifically designed for their patients, as explored in phase 1, social prescribing can involve adapting existing sessions or developing new sessions to fill an identified gap in provision.

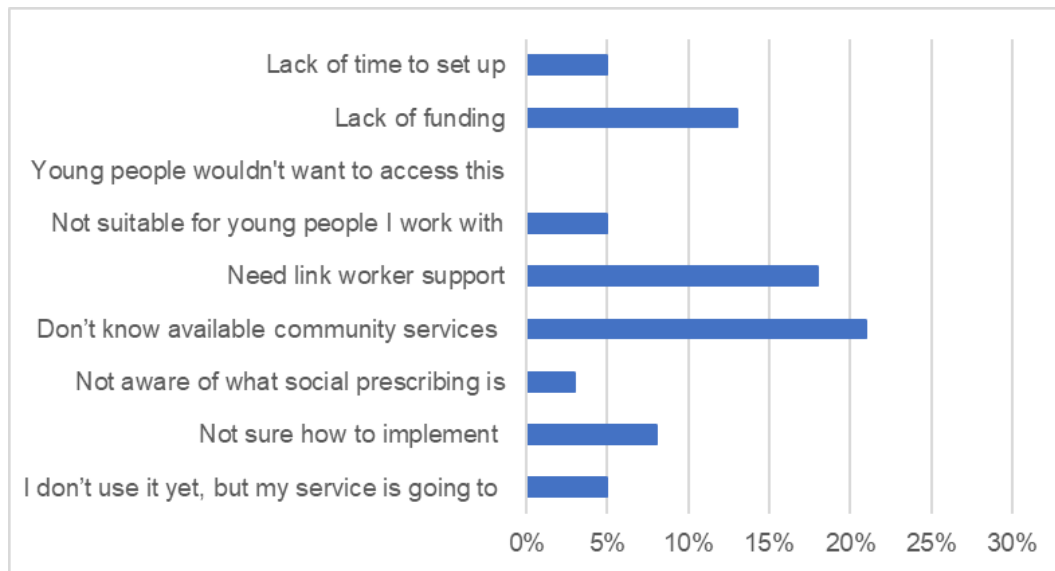


Figure 10. Why do you not use social prescribing currently in your role?

4.5.4 Anticipated benefits

All respondents, regardless of if they did or did not currently use social prescribing in their role, were asked if they thought social prescribing could be helpful for children and young people. Most (82%) professionals answered 'yes'. 8% of professionals responded as 'not sure' and 8% responded as 'sometimes'. No professionals responded as 'no'. One professional responded as 'other' and provided a free text comment again highlighting that there were limited community services available for children.

Professionals were first asked what they felt would be beneficial for the young people and families they worked with, as part of a social prescribing offer. They

could select as many options as they liked (Figure 11). All options were rated equally beneficial when professionals could select any option.

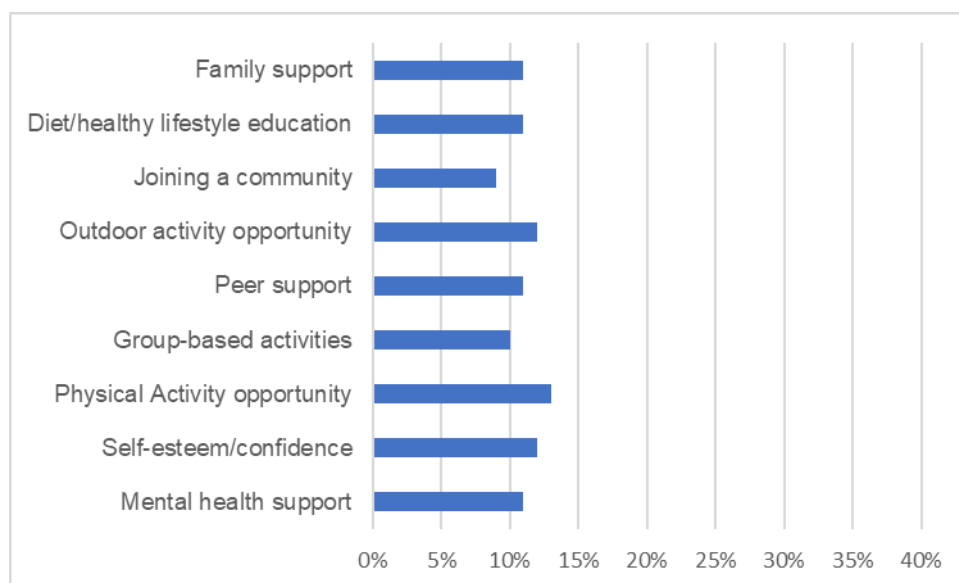


Figure 11. What do you think would be most beneficial for the young people and families you work with, as part of a social prescribing offering? Select as many options as apply.

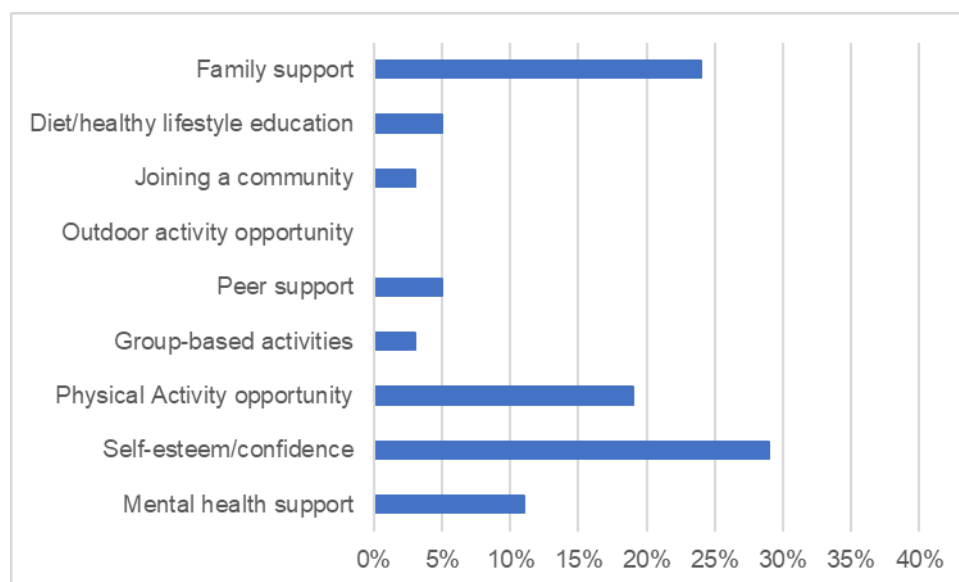


Figure 12. What do you think would be most beneficial for the young people and families you work with, as part of a social prescribing offering? Select only one option.

Professionals were then asked to consider what would be most beneficial for the young people and families they worked with by choosing just **one** option (Figure 12). Professionals most commonly selected 'improving self-esteem and confidence' (29%), 'family support – involving children and parents/carers together' (24%) and 'opportunities for physical activity' (18%). Outdoor activity was rated highly when professionals could select any option, but when asked to pick only one option, no professionals selected this.

Free text comments reinforced the benefits of social prescribing to family members and wider determinants of health. Three additional comments were provided, mentioning a whole family approach, social support, support for the home and the complexity of family needs:

“social prescribing could help with the wider determinants around obesity and weight management of CYP as well as offer social support” (P13)

The majority of professionals responded that they would be either 'very likely' or 'fairly likely' to use social prescribing in their role in the future (87%). 8% of professionals responded as 'not very likely' and 5% did not know. No professionals felt they were 'not at all likely' to use social prescribing in the future.

4.5.5 Barriers to implementation in services

Professionals were asked what support they might need to set up social prescribing in their service (Figure 13).

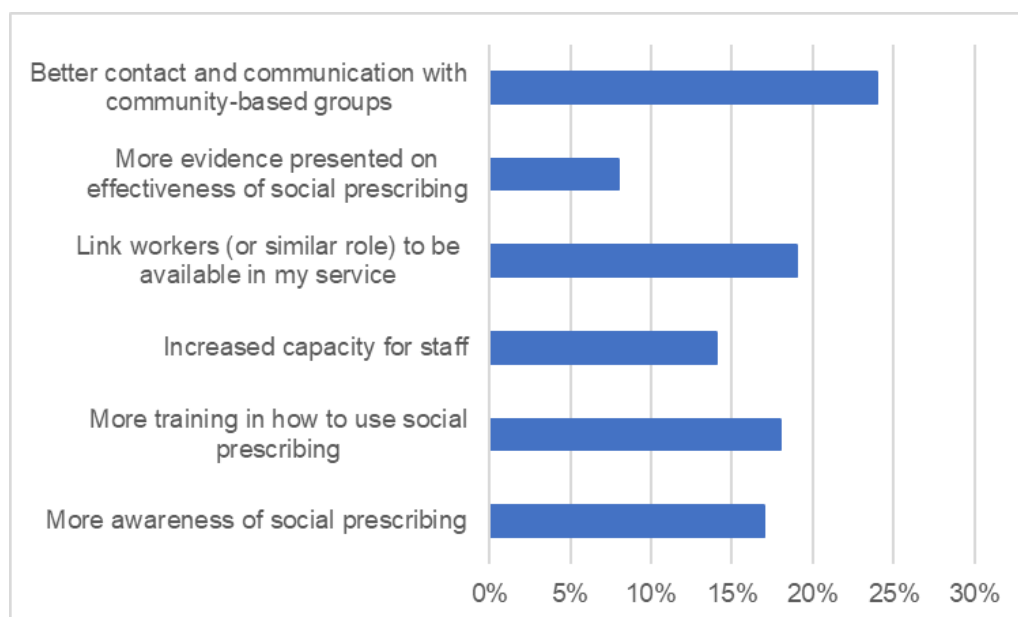


Figure 13. What support would be needed to set up a social prescribing offering in your service?

Almost a quarter (24%) of respondents felt they needed better contact and communication with community groups to support social prescribing. 19% also identified a need for a link worker or similar role to support with referrals and 18% wanted more training on how to use social prescribing.

When asked if they knew which community services they could refer young people to in their local area, responses were equally split between 'yes' (29%), 'no' (26%) and 'not sure' (24%). Eight professionals (21%) responded as 'other' and provided additional comments, most commonly reporting they felt they knew some community services but needed to know more and identifying challenges around having time and capacity to find these (n=8). For many staff, their service covered a large geographical area, and there were reports that where they might know services within the local area, it was harder to know what was available in wider areas.

"I know some, however as we provide care for a very large area this is extremely hard to collate" (P24)

"We work in other cities but aren't aware of what is available" (P04)

“No other community services I know of other than Tier 2 WM to refer to for young people. If there were, I would be referring” (P33)

Free text comments throughout the survey often mentioned that social prescribing was more likely to be the role of nurses, social workers, or support workers in the MDT. These comments were from various staff roles including consultants, dieticians and psychologists. There were four completed surveys from family support workers, youth workers and social workers. Of these, two felt link worker support would be helpful, all four wanted better contact and communication with community services and three wanted more training in how to use social prescribing.

Final additional comments to the survey were provided by seven professionals. These generally highlighted issues around knowing what community services are available and identifying a lack of services specifically for children and young people (n=4). For some staff they only had a certain amount of allocated time with families, and exploring access to other services took time that many did not have available in their job plan.

“someone needs to do a piece of work to find out what is available so we can direct people to services, this takes time and communication most don't have in their job plan to do due to clinical demand” (P20)

“feels like an 'extra' rather than an essential part of the time with allotted time.” (P17)

“I've tried to find options on my area but they're all over 18s only” (P22)

4.6 Discussion

4.6.1 Overview

This survey provides an overview of the current understanding and use of social prescribing in CEW clinics across England, as well as perceived benefits and barriers to future implementation. Social prescribing is increasingly being implemented within healthcare services in the UK. Despite this, social prescribing is not regularly integrated within certain clinical populations such as children's weight management, and there is a gap in understanding how it could work to support these groups.

Understanding of Social Prescribing

The increase in use of social prescribing across UK services may be reflected in the survey results, with responses showing that most CEW clinic professionals had heard of social prescribing and felt they understood what it involved. This aligns with the wider evidence base, which shows an increase in studies of youth social prescribing in recent years (Hayes et al., 2020; 2023; Muhl, Cornish et al., 2025). Descriptive responses consistently mentioned 'non-medical' support and outcomes relating to meeting wider wellbeing and lifestyle needs of families. These responses match the ethos of the CEW clinics, which aim to provide holistic, individualised support to families and take a biopsychosocial approach to obesity (NHS England, n.d.b).

Despite this, no respondents reported that they felt they knew a lot about social prescribing, and there was variability in understanding and inconsistency of definitions provided, suggesting there may still be some uncertainty around what social prescribing is and how it could be delivered. This may link to uncertainty around who has the role of supporting social prescribing within the service. Comments often suggested it was the role of support workers and social workers, yet professionals in these roles reported needing more training and support in using social prescribing. Additionally, early findings from the ENHANCE study

shows that not all clinics have a support worker or social worker included on their multidisciplinary team (Davies et al., *in preparation*). Other research of social prescribing schemes in hospitals have found a limited understanding of the term ‘social prescribing’ among healthcare staff, with suggestions that this can lead to reduced buy-in from staff and fewer referrals (Gordon et al., 2025).

4.6.2 Potential delivery models of social prescribing within CEW clinics

Respondents’ descriptions of social prescribing generally focused on a direct referral model, with professionals referring individuals to community services themselves, rather than referring on to a ‘link worker’ or similar role. Only one respondent mentioned referral to a local service which then links families to community groups, similar to a link worker model of social prescribing. Whilst primary care networks are now required to offer access to an all-age social prescribing link worker (NHS England, 2023), this may not be sufficient for supporting access to social prescribing for all those who may benefit from it. In particular, an all-age link worker may be less experienced in supporting and working with children and young people. Given that young people accessing CEW also have additional complex needs (Matu et al., 2025; *in review*), it may be that an all-age link worker is not appropriate to work with this population without additional training or support. This is reflected in the mapping work in Chapter 3; *phase 1* which identified the need for additional support for community services to be able to appropriately support young people with more complex health needs such as obesity.

With limited or no access to youth link workers, professionals working in CEW clinics are often referring direct to community services they know, rather than to a dedicated link worker who supports this process. Social prescribing can still work through this direct referral model, with professionals referring to services they know and trust, but there can be challenges to this. This includes not knowing and not having capacity within their role to identify appropriate community services, as noted by respondents to this survey. Additionally, as

discussed in phase 1, link workers often have a wider knowledge of local services that are available and can help find a service that is more tailored to the young person's needs and interests (Farina et al., 2024). In addition, link workers may have more capacity to support the young person to access this service, either through developing their confidence to attend a new group or by supporting with practical aspects, such as how to travel to the group (Farina et al., 2024).

4.6.3 Potential benefits of social prescribing in CEW clinics

Based on current knowledge, social prescribing has not yet been formally used in the UK to support young people living with severe obesity, however there was recognition from CEW clinic professionals that it would be beneficial. The potential benefits suggested by respondents align with the current evidence for youth social prescribing, particularly around improvements to mental health and wellbeing, improved confidence and reduced isolation (Rice, 2023; Hayes et al., 2023).

The potential benefits of social prescribing, particularly developing confidence, social connection and providing opportunities for physical activity were also reflected in the examples professionals provided of services they refer families to. Just over half of respondents were using social prescribing in their role, and this was mainly through referrals to local community groups or leisure centres and gyms which provided opportunities for physical activity, commonly in groups. In a recent social prescribing study for young people accessing mental health services, group physical activity was shown to help facilitate development of trusting relationships and support improvements to mental wellbeing (Yorkshire Sport Foundation, 2023; Dias et al., 2024; Garside, Taylor et al., 2024).

4.6.4 Needs and barriers

The main barriers reported by professionals in implementing social prescribing in their role were not being aware of the available community services to refer to

and a need for an additional role in their service to support with this, such as a link worker. However, not knowing the available local services may not be solely due to a lack of time and capacity but may be due to a lack of suitable community services to participate in social prescribing, as reported in phase 1. Professionals felt there was a lack of services for younger children, with many being adult-focused or for those aged 18 + years. This is reflected in the literature, with a recent systematic review of social prescribing for children and young people highlighting studies commonly targeted those over 15 years old (Hayes et al., 2023). There may therefore be a gap in provision of suitable community services, limiting the potential for social prescribing referrals for younger children. This also links to phase 1, which found a high number of community services, but a limited number which were felt to be appropriate for young people living with obesity.

Free text comments throughout the survey emphasised the workload involved in developing an understanding of what community services exist and to develop connections with them. Current training for link workers who deliver social prescribing can be variable across areas but often includes e-learning modules (e-learning for healthcare, 2020). This NHS e-learning is all-age focused, including 12 modules but with only one focused on children and young people. It is therefore unlikely to include sufficient detail to reflect the complexity of working with young people, or with those with additional health needs, such as obesity. In addition, the CEW e-learning modules for clinical staff do not currently discuss social prescribing.

4.6.5 Strengths and Limitations

The survey was limited by a fairly small sample size, with 38 full completions of the survey. Not all clinics were represented through completion of the survey. Despite this, geographical coverage and completion by various multidisciplinary team members was sufficient to allow the aims of the survey to be achieved, by providing a current overview of CEW professionals understanding of and attitudes to social prescribing in their service.

Furthermore, the survey was reliant on self-reported responses from professionals. For example, professionals reported how much they felt they knew about social prescribing, but this may not mean that their understanding of social prescribing is correct or accurate. This is reflected in the early questions of the survey, where over three quarters of professionals felt they knew about social prescribing, but when asked to provide a definition, this varied between respondents. Similarly, if professionals have not gone through the process of trying to implement or use social prescribing within their service, then there may be further unforeseen barriers, or benefits, which they are unable to report on.

Since the survey has been completed, the CEW clinics have expanded and increased in number from 21 up to 38 operating as of November 2025. Therefore, the understanding developed from this survey may now be a less strong representation of CEW clinics nationally. However, these newer clinics are likely using similar models and approaches to existing delivery clinics. For example, many of the recently established clinics are additional spoke sites to existing hub and spoke models.

4.6.6 Implications for Practice

Findings provide an understanding of the practical needs of the CEW clinics in terms of delivering social prescribing in their service. This includes improved understanding of social prescribing, what appropriate community services are available locally for families, and increased training and capacity in how to support families to access these.

The challenge highlighted by respondents in identifying appropriate local community services may reflect a lack of available services that meet the needs of young people living with obesity. As discussed in phase 1, more support for community services may be required, including increased staff capacity, funding, training and supervision, especially if these services are expected to support young people with specialised or additional needs. Improved provision of information about available community services is also required. As reported in

phase 1, provision of an online database or directory, hosted by local partners such as Active Partnerships or local councils might support this. Improved reporting of community services could help CEW professionals to identify appropriate services. A staff role with the time and capacity to explore local provision and to support young people to attend may be required. This may be a link worker who is embedded into team or accessed through local social prescribing services but should be an individual who has the necessary skills for working with young people and families. This role would also need to be aware of the specific needs of young people living with obesity to provide suitable, safe and effective support.

Where there are limited appropriate services or a gap in meeting the needs of young people, social prescribing provides the opportunity for setting up new sessions or adapting existing sessions. For example, this could involve sessions at existing community organisations being supported by CEW professionals to better meet the needs of young people living with obesity. A similar approach has been explored for young people with mental health needs, where CAMHS clinicians co-deliver sessions at professional sports grounds with sports coaches, specifically for young people waiting for mental health treatment (Garside, Taylor et al., 2024). This approach was noted in phase 1 and also in this phase, with some free text comments describing collaborating with an existing community service to set up groups specific for CEW patients.

4.6.7 Research Progression

Social prescribing involves connection between both clinical and community services to support individuals. While phase 1 focused on understanding the role of community services in a social prescribing offer for young people living with obesity, phase 2 focused on understanding the role of clinical services.

Initial Programme Theories

Phase 2 contributed to the development of initial programme theories about how, in what ways and under what circumstances social prescribing may (or may not) work to support the health and wellbeing of young people living with obesity, accessing CEW clinics (Table 9). The initial theories were informed from understanding the context of CEW clinics and the needs of the families that access these, as well as how social prescribing would be expected to work in CEW clinics (including but not limited to; opportunities for physical activity and social support, to develop confidence and to provide a whole family approach to support). Practical learnings from phases 1 and 2 will also be incorporated into the recommendations in phase 5.

Table 9. Initial programme theories identified through phase 2

Theory	If	Then	Because
Social Support	If young people have the opportunity to meet and spend time with other young people with similar experiences	Then young people are more likely to see improvements to their self-esteem and wellbeing	Because young people feel less isolated and have others to share their feelings and experiences with
Family Support	If there is the opportunity for parents/carers and young people to attend sessions together	Then young people are more likely to see improved physical and mental health outcomes	Because families often have complex needs, with parents/carers needing support as well as the young people. Parents/carers make many of the decisions in the home and so increased knowledge, understanding and support on the young person's weight management journey can lead to making healthier choices as a family
Knowledge of community services	If the CEW team have knowledge of a wide range of community-based services that are appropriate for young people living with obesity	Then there are more likely to be increased referrals to social prescribing	Because healthcare staff have increased trust in the services they refer families to and feel it will be beneficial
Understanding of social prescribing	If there are clear processes within the MDT of who can refer families to social	Then there are more likely to be increased referrals to social prescribing	Because staff feel more confident about referring families to sessions and feel it aligns with their role

	prescribing, what it is and where it works best within the CEW model		
Holistic, personalised care approach of CEW clinics	If social prescribing aligns with the ethos of the CEW clinic (holistic, personalised care)	Then there are more likely to be increased referrals to social prescribing	Because staff feel social prescribing aligns with their values, feels like social prescribing is part of their role and service offer, feel supported to use social prescribing rather than it being an additional task
Physical Activity	If there is the opportunity to take part in physical activity (which is fun and tailored to the young person's needs and capabilities)	Then young people are more likely to see improved physical and mental health, as well as continue participation in physical activity	Because a young person increases their levels of physical activity, and can experience a sense of enjoyment and achievement, and feel more capable and motivated to continue to take part in physical activity

4.7 Chapter Summary

Phase 2 developed understanding of how and if social prescribing is currently used in CEW clinics, the potential benefits for families and what clinics may need to support implementation. Results contributed to understanding that nationally, CEW staff would be willing to use social prescribing within their service as a way of supporting physical activity, wellbeing and family support.

The survey showed that CEW professionals felt they had a good understanding of and were willing to use social prescribing in their service. This phase contributed to the development of initial programme theories of how social prescribing may work to support young people attending CEW clinics. This includes through improving wellbeing, providing opportunities for physical activity, social support and providing family support. However, to allow for implementation into services, there is a need for resource to support this. This support is needed both in terms of investment into community services specifically for children and young people, and staff time and training to identify and develop working relationships with these services.

The next chapter details a rapid realist review to explore how social prescribing may (or may not) work to support young people living with severe obesity, based on the current literature.

5.0 Chapter 5. Phase 3 Review

5.1 Introduction to Chapter

Chapter 5 summarises phase 3, which includes a rapid realist review to explore how and in what ways social prescribing may (or may not) work in specialist weight management services, like CEW clinics, to support young people living with severe obesity. This phase was conducted concurrently with phases 1 and 2. This chapter provides a summary of the rationale for this phase, an overview of the methods used, and the results. The methods and underpinning realist approach are previously discussed in detail in Chapter 2; *Methodology*.

5.2 Background

Since 2019, there has been increasing investment in research and policy for social prescribing within the UK. However, this has mainly focused on adult populations rather than children and young people. Whilst there is an understanding that social prescribing works differently for young people compared to adults (Bertotti et al., 2022; Hayes et al., 2024; Muhl, Cornish et al., 2025), there remains limited research in this area. Furthermore, it is likely that there are supplementary considerations for delivering social prescribing with young people who have additional physical and mental health needs (such as those living with obesity) compared to a wider, universal youth population (Gordon et al., 2025). This is currently underexplored in research. Phase 3 involved scoping the existing literature to inform understanding of how social prescribing works for young people, and how it could work for young people living with severe obesity.

5.3 Research Question and Aims of Phase 3

The research question underpinning phase 3 asks;

How, why, and in what circumstances could social prescribing work (or not work) in specialist weight management services, to support young people living with severe obesity?

The objectives of phase 3 were to:

- Review the existing literature relating to youth social prescribing and child weight management services,
- Contribute to the development of initial programme theories about how social prescribing may work in specialist weight management services to support the health and wellbeing of young people living with severe obesity.

5.4 Design

Chapter 2; *Methodology* provides further detail on the realist approach, which guides the overall thesis. The realist approach is underpinned by applied and theory-driven principles, aiming to understand the underlying causal processes (or mechanisms) involved in how programmes lead to outcomes (Pawson & Tilley, 1997). These mechanisms may be triggered in some contexts but not others. Rather than focusing on if an intervention is effective, realist approaches aim to explain what about the intervention works (or does not work), for whom, in what circumstances and why (Pawson & Tilley, 1997).

5.5 Rapid Realist Review

A realist review involves synthesising evidence from secondary data to understand the underlying programme theory of how an intervention might work (Hunter et al., 2022). A realist review can be used to develop initial programme

theories, or gather initial understanding of context, mechanisms and outcomes, based on existing research (Hunter et al., 2022).

Realist reviews have previously been used to explore adult social prescribing and given the complex nature of both social prescribing and childhood obesity, is an appropriate method to explore how social prescribing may work within CEW clinics. Whilst there are existing realist reviews of adult social prescribing, at the time of this review, a realist review of youth social prescribing was not available. As a result, there were no existing theories as to how social prescribing may work specifically for children and young people, or children and young people living with obesity.

A rapid review was chosen as there was a need to align with the timeframe of this study. The review process was informed by existing research (Saul et al., 2013), RAMESES guidance, specifically the publication standards (Wong et al., 2013), as well as relevant training courses with realist experts (Jagosh, 2023; Realist Hub; Howe, 2025).

5.6 Methods

5.6.1 Search Strategy

The search strategy was informed by RAMESES guidance (Wong et al., 2013). At the time, initial pilot searches identified no studies exploring social prescribing within UK weight management services for children and young people. Therefore, three main searches were conducted:

- Realist research into social prescribing (focusing on social prescribing with adults),
- Social prescribing for children and young people,
- Weight management services for children and young people.

These searches were chosen to explore how, in what ways, and in what circumstances social prescribing works to support young people, as well as what works within weight management services for young people. The overlapping theories identified from the literature in these two areas were then explored to consider how social prescribing might work to support young people living with obesity and identify any adaptations that may be required to meet the needs of this group.

This aligns with realist approaches which recommend exploring literature from a broader scope than a single programme, where there is understanding that that there may be relevant, or shared underlying theory with other programmes (Wong et al., 2013). For example, for this review, there was no existing theory to explain how social prescribing could work within children's weight management services. There was also limited theory explaining how social prescribing works for children, although there are existing theories and mechanisms for how social prescribing works for adults from realist research, and suggestions that core mechanisms could translate between adult and child populations (Bertotti et al., 2022).

Database searches were conducted in August 2023. Four main databases were searched; PsycINFO, Embase, Medline, Social Policy and Practice. These were supplemented by scoping of relevant websites, such as the Social Prescribing Network research database with archives of grey literature (socialprescribingnetwork.com), and identification of publications by key authors.

Key Terms

Key terms, including '*social prescribing*', '*realist*', '*children and young people*' and '*weight management*' were expanded to create search terms (Table 10). These were piloted and checked to ensure relevant literature was identified.

Table 10. Key terms included in the search strategy

Name	Search Terms
Social Prescribing	"social prescri*" OR "social referr*" OR "communit* referr*" OR "communit* prescri*" OR "care navigat*" OR "wellbeing coordinat*" OR "link* worker*" OR "community connector*"
Realist	"realis* OR "realis* review*" OR "realis* evaluat*" OR "realis* synthesi*" OR "realis* approach*" OR "realis* method*"
Children and young people	child* OR adolescent* OR young* OR youth* OR teen* OR pupil* OR student*
Weight Management	(obes* OR "severe* obes*") AND ("weight management intervention*" OR "weight management service*" OR "Tier 3" OR "multidisciplinary weight management" OR "specialis* weight management") AND ("UK" OR "United Kingdom" or "England" or "English")

A combination of these terms was used to scope the literature for each of the searches:

- For the **realist social prescribing** searches, the expanded terms for *social prescribing* and *realist* were used. A date restriction of 2000 was applied.
- For the **children and young people's social prescribing** searches, the expanded terms for *social prescribing* and *children and young people* were used, again with a date restriction of 2000.

- For the **children's weight management** searches, the expanded terms for *children and young people* and *weight management* were used. A date restriction of 2005 was applied to ensure records were relevant to a current UK health service context.

Searches were restricted to UK based services or studies and were date restricted to align with the rapid review methodology and to ensure studies were relevant to current UK practice. The restrictions used were informed by other reviews of social prescribing (Hayes et al., 2023) and weight management services (Brown et al., 2018).

Only English language papers were included based on rapid review timeframes. There were no restrictions in terms of study design, or methodology. Studies were not limited to research publications but could also include reports and reviews where relevant. An exception to this is the realist social prescribing search, which was limited in terms of studies using a realist approach. This was because the aim of this search was to identify the existing programme theories reported in the literature.

5.6.2 Screening Process

All identified records were uploaded into an Excel database, with a separate tab for each search ('realist social prescribing'; 'child social prescribing'; 'child weight management'). Search results were then de-duplicated.

Records were first screened based on title and abstract against inclusion/exclusion criteria for relevance to the research question. For those records meeting the criteria, the reference and citation list of each was scoped, and any additional relevant records were added. This then left 283 records for full text-screening, where the full publication was obtained and reviewed in further detail (Wong et al., 2013). Further information about the screening and data extraction process is provided in the sections below.

5.6.3 First screen - title and abstract

From the initial search results, after de-duplication, the title and abstracts of all records were screened based on relevance to the research question for each search using inclusion/exclusion criteria (Table 11), informed by RAMESES and rapid realist review guidance (Wong et al., 2013; Saul et al., 2013). Relevance refers to how much the record aligns with the topic of the review as well as how much it can contribute to programme theory development (Saul et al., 2013; Wong et al., 2013).

Table 11. Inclusion/Exclusion Criteria

Criteria	Realist Social Prescribing	Child Social Prescribing	Child Weight Management
Population	Any	<18 years (aligning with the age of young people eligible for CEW clinics)	<18 years, young people living with obesity
Intervention	Social prescribing - individuals receiving support to access community-based services for additional support	Social prescribing - individuals receiving support to access community-based services for additional support	Weight management services in UK context
Comparator	Any	Any	Any
Outcome	Any	Any	Any
Study Design	Underpinned by realist principles	Any	Any

5.6.4 Second screen - full text

For those records meeting the inclusion criteria, they were taken through to full text screening, where the full record was obtained and appraised in terms of relevance, richness and rigour (Wong et al., 2013; Dada et al., 2023). The numbers of records included at each stage are provided in Figure 14 and Table 13 in section 5.7.1.

Given the broad range of records that can contribute to a realist review in comparison to a traditional systematic review, there is a need to refine the overall number of records included, both to make the process manageable and align with the focus of the review (Wong et al., 2013). Rigour relates to “whether the methods used to generate the relevant data are credible and trustworthy” (Wong et al., 2013) although in practice there are many interpretations of how to apply this (Dada et al., 2023). Richness is often linked to relevance and refers to the amount of detail provided on aspects relating to context or mechanisms (Dada et al., 2023).

Records were rated as high, moderate or low, or were excluded (Table 12), an approach informed by other realist reviews and realist review training (Pearson, Chilton et al., 2015; Dada et al., 2023; Jagosh, 2023).

Any red flags in records were identified, such as concern over limitations in methods used, or discrepancies in definition of key terms, such as ‘social prescribing’. Records were not excluded based on use of any particular methodology but rather the credibility or ability of the data to inform programme theory (Pawson, 2006).

Those records identified as ‘high’ were included in the review. The decision was made to only include those rated ‘high’ based on the number of records identified due to three searches being conducted, and the need to review these in detail within the rapid review timeframe. Those rated as ‘moderate’ were re-reviewed at data extraction stage. Papers would be pulled through to inclusion if they contributed something new to the theories, in line with guidance from realist experts (Realist Training Hub).

Table 12. Appraisal guidance (from CARES training, Jagosh, 2023)

Category	Description
High	Framing and research questions are matched to the review questions; the empirical findings are clearly described and there is a rich description of the process and context that can greatly advance the theoretical output of the review
Moderate	The record reports on a different (but related) intervention working toward similar outcomes of interest. It has a few areas that are of interest even if it is not entirely clear whether they will be used in the review
Low	The record met the selection criteria in terms of relevance to the review questions but is relatively thin on the description of context and mechanism. It contains at least one idea or statement about the context, about the mechanisms or about conceptualising outcomes that can be used for refining the theory
Exclude	Showed promise on reading the title and abstract but upon reading the full text does not correspond to the review questions, initial programme theories, or does not describe the context

5.6.5 Data Extraction and Synthesis

An Excel database was used for sifting and screening of records. Included papers after full text screen were added to a reference manager (Zotero version 6.0.36), in separate folders for each search ('realist social prescribing'; 'child social prescribing'; 'child weight management'). This software allowed for papers to be stored and for relevant information relating to programme theories to be highlighted and colour coded.

For the realist social prescribing papers, the reported mechanisms were identified, and summarised. During analysis of the included papers relating to

child social prescribing and child weight management services, each paper was read in full numerous times, with key sections highlighted and coded where relevant information of context, mechanism or outcome was reported. The highlighted sections were noted in a separate Excel database and if-then-because statements were developed based on reports of context, mechanisms and outcomes. Inferences were made by theorising the links between contexts, outcomes and the mechanisms that might be involved (Jagosh, 2020; Kirsh et al., 2017). Initial programme theories were therefore developed using abductive (developing the most likely assumption to explain observations) and retroductive (finding explanations based on unseen processes) methods (Jagosh, 2020). These statements were then consolidated, by combining similar theories. The use of Excel allowed for visual oversight and comparison across social prescribing and weight management literature.

These initial theories were iteratively refined and presented as if-then-because statements, which is a common way to present initial programme theories (Hunter et al., 2022). If-then-because statements can be more understandable and accessible to individuals who may not be familiar with realist terminology (Mukumbang et al., 2025). This is particularly important for this study, which will refine the initial theories from phases 1, 2 and 3 with diverse groups of stakeholders, including healthcare professionals, community staff, families and young people. The 'if' statement relates to the context or conditions, the 'then' statement relates to the outcomes and the 'because' statement relates to the explanation, or the mechanisms which lead to this outcome (Hunter et al., 2022).

There are noted challenges with building initial programme theory from the literature, such as the possibility of identifying high numbers of potential theories which may lack coherence or be repetitive or prioritising those theories that are more commonly reported and therefore become more familiar (Shearn et al., 2017). To address this, realist guidance advises adding structure to the review by using a framework, such as organising theories according to social layers (Shearn et al., 2017; Wong et al., 2013; Hunter et al., 2022). For this review, the theories were structured according to layers of context, described by Pawson

(2013) as 'four I's'; Individual, Interpersonal, Institutional and Infrastructural. These layers correspond to the following examples:

- Individual: a young person's motivation to engage with social prescribing, or a young persons' level of confidence and self-esteem
- Interpersonal: relationships between the young person and staff delivering social prescribing
- Institutional: organisational culture at a CEW level, such as the ethos or approach of the service
- Infrastructural: Government level funding and national health policy

References to substantive theories were also highlighted, particularly for the realist social prescribing papers. Substantive, or formal theories sit between programme theories, which are specific to a programme, and grand unified theories (RAMESES Project, 2017c). They can be useful for conceptualising social phenomenon, providing insights to support and develop programme theories, and providing a level of generalisation (Jagosh et al., 2014). See Chapter 2; *Methodology* (section 2.3.3) for further detail about substantive theories.

5.7 Results

5.7.1 Included records

Figure 14 shows the CONSORT diagram, detailing the flow of records throughout the review and Table 13 shows the number of records at each stage for each separate search. Overall, 39 records were included; 8 records relating to realist social prescribing, 11 records for social prescribing for children and young people, and 20 records for weight management services for children and young people.

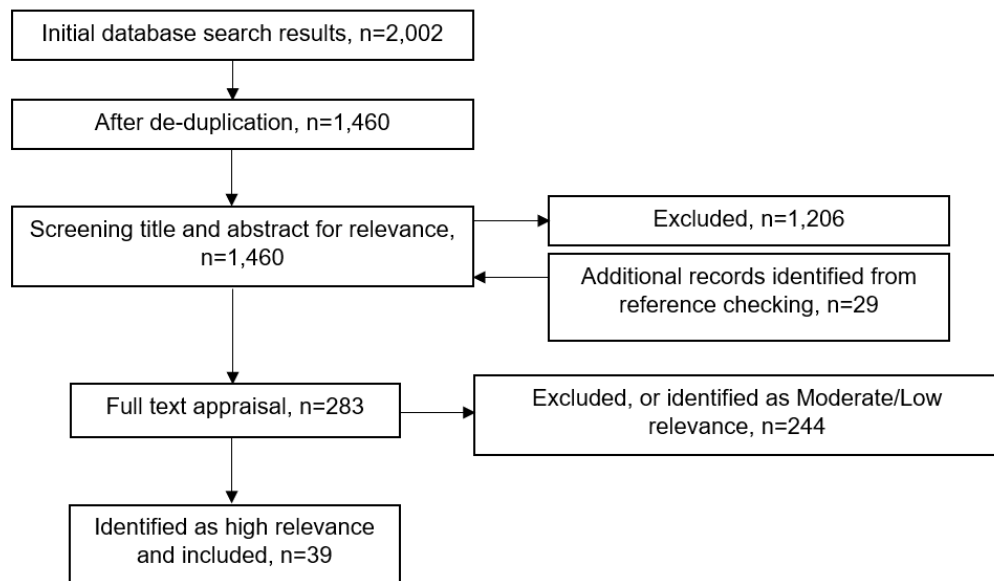


Figure 14. CONSORT showing number of records identified at each stage of the review

5.7.2 Characteristics of included records

Table 25 provides an overview of the characteristics of the studies (full reference, study design and contribution to theories) that were included in the review split by each search. This table is included in the appendices ([appendix 3](#)). The reference list of papers included in the review is also included in the appendices ([appendix 4](#)).

Table 13. Number of records identified at each stage of the review split by search

Search Name	Number of records identified					
	From searches	After de-duplication	After first sift	From reference checking	For full text screening	Included for data extraction
Realist social prescribing	107	90	20	4	24	8
Child social prescribing	1,011	647	111	14	125	11
Child weight management	884	723	123	11	134	20

5.7.3 Initial Programme Theories

This section details the initial programme theories developed from each search ('realist social prescribing'; 'child social prescribing'; 'child weight management'). These theories are presented in tables, including theory name, if-then-because statement and the included studies that contributed to the development of each theory. It should be noted that each record's level of contribution to each of the theories may vary. For example, records may have varied in the level of discussion that was provided in relation to potential contexts and mechanisms compared to other records, and some may have contributed by presenting rival theories.

5.7.4 Social prescribing realist research

In total, there were 8 records included which comprised realist research of social prescribing (see Table 25, [appendix 3](#)). This included realist reviews (n=3), a review of mechanisms of action (n=1), realist evaluations (n=2) and a qualitative and longitudinal study that were underpinned by realist principles and included a theoretical focus (n=2). All records focused on adult populations.

The reported theories were highlighted and compiled in an Excel document. These theories were then synthesised to identify those that were most commonly reported across each of the studies. This led to 6 main theories (see Table 14), relating to:

- empowering individuals
- patient-choice
- social connectedness
- trust
- accessibility of community services
- collaborative working between clinical and community services (facilitated by the role of the link worker)

The aim of this search was not to provide a comprehensive overview of all possible theories of social prescribing, but to provide an overview of the programme theories that are commonly reported in the current literature. This was used to inform initial programme theories for this review, guide the data extraction for the youth social prescribing searches, and to explore differences between how adult and youth social prescribing may (or may not) work. Additionally, this search identified substantive theories. These are noted here, and discussed in further detail in Chapter 6, section 6.4.

Table 14. *If then, because statements from realist social prescribing studies*

Name	IF	THEN	BECAUSE	Contributing Records
Individual				
Empowerment	If social prescribing is offered to individuals with health needs (such as long-term conditions), and provides an opportunity for them to learn more about their health condition	Then individuals are more likely to see improved behaviour change and improved health outcomes	Because individuals feel empowered to have control over their own health	Bertotti et al., 2018; Calderón-Larrañaga et al., 2021; Fancourt et al., 2021; Husk et al., 2020; Tierney et al., 2020; Turk et al., 2022; Wood et al., 2021
Patient Choice	If social prescribing offers individuals the opportunity to choose and attend a service based on what matters to them	Then individuals are more likely to engage with social prescribing, and see improved health outcomes	Because individuals feel a sense of confidence and motivation to take part in activities that interest them, or that they have prior experience in, and gain confidence in making choices about their own health	Bertotti et al., 2018; Calderón-Larrañaga et al., 2021; Fancourt et al., 2021; Husk et al., 2020; Tierney et al., 2020; Turk et al., 2022; Wood et al., 2021

Interpersonal				
Social Connectedness	If social prescribing offers an opportunity to meet other individuals, both within and outside of their usual social circle	Then individuals are more likely to improve their wellbeing and quality of life	Because they feel a sense of belonging in their community, feel less lonely and feel that they have other people to support them	Bertotti et al., 2018; Calderón-Larrañaga et al., 2021; Fancourt et al., 2021; Husk et al., 2020; Tierney et al., 2020; Turk et al., 2022; Wakefield et al., 2022; Wood et al., 2021
Trust	If social prescribing facilitators (including link workers and staff at community services) are knowledgeable, compassionate, and non-judgemental	Then individuals are more likely to engage with, and continue to attend sessions	Because they feel more motivated and supported to attend, and trust the staff delivering social prescribing	Bertotti et al., 2018; Calderón-Larrañaga et al., 2021; Husk et al., 2020; Tierney et al., 2020; Wood et al., 2021
Institutional				
Accessibility	If social prescribing involves supporting individuals to access services that are located within the local community, and which are accessible (e.g. can be reached via public	Then this can then lead to increased attendance, and improved health outcomes	Because there are reduced barriers to attending, and local community settings may be seen as less stigmatising than clinical environments	Bertotti et al., 2018; Calderón-Larrañaga et al., 2021; Husk et al., 2020; Tierney et al., 2020; Turk et al., 2022; Wakefield et al., 2022; Wood et al., 2021

	transport, low cost for attending)			
Infrastructural				
Collaborative working	If GPs and healthcare professionals buy-in to social prescribing, and implement social prescribing as part of their service offer (e.g. integrating link workers into service, developing links to community groups, clarity over the role of social prescribing and seeing outcomes)	Then there is more likely to be increased uptake and referrals to social prescribing programmes	Because GPs (and other healthcare professionals) have more belief in the benefits of social prescribing and feel more confident referring patients	Bertotti et al., 2018; Calderón-Larrañaga et al., 2021; Tierney et al., 2020; Wood et al., 2021

Social prescribing was commonly offered to adults attending primary care with non-medical needs, such as social issues or low-level mental health challenges, as well as those with long term conditions (Bertotti et al., 2018; Calderón-Larrañaga et al., 2021; Husk et al., 2020; Tierney et al., 2020; Wakefield et al., 2022; Wood et al., 2021). Most papers reported social prescribing schemes based in primary care, with a link worker model where individuals would be referred to a connector, case worker or social prescribing coordinator, who would then support them to access services within their communities (Bertotti et al., 2018; Calderón-Larrañaga et al., 2021; Husk et al., 2020; Tierney et al., 2020; Wakefield et al., 2022; Wood et al., 2021).

The most commonly reported mechanisms related to how social prescribing worked included empowerment and social support. Empowerment was described as helping individuals to feel more able to control their own health and wellbeing (Bertotti et al., 2018). As social prescribing was offered to individuals attending their GP with social needs such as isolation, building their networks was suggested to offer a sense of belonging, and improve wellbeing and quality of life. This was also linked to substantive theories, such as the social cure perspective (Wakefield et al., 2022) and social capital (Tierney et al., 2020). For those individuals with long term conditions, social prescribing was described as supporting them to have more control over their own health, through physical activity and health education (Wood et al., 2021). This was linked to substantive theories such as models of salutogenesis (Wood et al., 2021) and self-efficacy (Bertotti et al., 2018).

Mechanisms were also reported at institutional and infrastructural levels. For example, there was a need for collaborative working between GPs and community services to allow for referrals to social prescribing programmes (Tierney et al., 2020). Buy-in from GPs was needed to implement social prescribing in their service, and this was facilitated by positive feedback from link workers, helping to build trust and increase referrals (Tierney et al., 2020).

5.7.5 Social prescribing for children and young people

Overall, 11 studies were included relating to social prescribing for children and young people (see Table 25, [appendix 3](#)). The studies comprised a range of methodologies, most commonly, pre post mixed methods data collection (n=4), and qualitative methods (n=2). There was also a systematic review, a study protocol, a longitudinal study, a discussion paper and a realist evaluation. The realist evaluation was included within the child social prescribing analysis rather than the realist social prescribing analysis based on its relevance to a population of children and young people.

12 theories (see Table 15) were developed which were structured according to the 4 I's (Pawson, 2013).

Table 15. If then, because statements from child social prescribing literature

Name	IF	THEN	BECAUSE	Contributing Records
Individual				
Empowering individuals	If young people can learn more about their health condition and self-management strategies	Then young people will be better able to manage their own health	Because they feel empowered and capable of having more control over their own health	Bertotti et al., 2022; Bowden et al., 2020; Brettell et al., 2022; Fancourt et al., 2023; Hayes et al., 2024; Bertotti et al., 2020; Yorkshire Sport Foundation, 2023
Physical activity	If young people can take part in appropriate, accessible physical activity	Then young people will have increased participation in physical activity, leading to physical and mental health benefits	Because they experience a sense of achievement and enjoyment from positive experiences of physical activity	Dias et al., 2024; Fancourt et al., 2023; Bertotti et al., 2020; Yorkshire Sport Foundation, 2023
Holistic, Strength-Based Approach	If a holistic, and strength-based approach is taken	Then young people are more likely to engage with social prescribing and experience improved wellbeing	Because young people can focus on what they can do and what opportunities are available to meet their own goals, rather than focusing on the	Bertotti et al., 2022; Bowden et al., 2020; Brettell et al., 2022; Fancourt et al., 2023; Bertotti et al., 2020

			negative impacts of their health	
Patient-choice	If young people can co-produce their social prescription	Then they are more likely to attend sessions, and experience improved wellbeing	Because they feel as though they have been listened to, and are more motivated to take part in activities that they enjoy	Bertotti et al., 2022; Charlton et al., 2022; Dias et al., 2024; Efstathopoulou & Bungay, 2021, Fancourt et al., 2023; Hayes et al., 2024; Bertotti et al., 2020; Yorkshire Sport Foundation, 2023
Interpersonal				
Social Connectedness	If young people can meet others with similar experiences (of similar age, or with lived experience of mental health challenges)	Then they are more likely to experience improved wellbeing, and reduced isolation	Because young people can share their experiences with each other and feel less alone, which increases their confidence and self-esteem	Bowden et al., 2020; Brettell et al., 2022; Dias et al., 2024; Efstathopoulou & Bungay, 2021; Fancourt et al., 2023; Hayes et al., 2024; Bertotti et al., 2020; Yorkshire Sport Foundation, 2023
Approach of staff	If staff involved in delivering social	Then young people are more motivated to	Because the informal, non-hierarchical nature	Bowden et al., 2020; Dias et al., 2024;

	prescribing sessions take an informal approach, are confident and trained to work with young people, and are compassionate, non-judgemental and knowledgeable	attend, and engage with sessions	facilitates the development of trusting relationships between staff and young people. Young people and their parents/carers feel like the group is a safe space if staff are knowledgeable about different health conditions	Efstathopoulou & Bungay, 2021; Fancourt et al., 2023; Hayes et al., 2024; Hayes et al., 2020; Bertotti et al., 2020; Yorkshire Sport Foundation, 2023
Whole family approach	If wider family members are invited to also attend social prescribing (such as parents/carers or siblings)	Then young people are more likely to attend sessions, and there will be increased knowledge within the family, which can lead to better physical and mental health outcomes	Because this reduces barriers for young people who are often reliant on parents/carers for traveling to sessions or paying for attending. Young people may also feel more supported and understood if families also attend sessions and learn about their health needs	Bertotti et al., 2022; Charlton et al., 2022; Hayes et al., 2024; Hayes et al., 2020; Bertotti et al., 2020

Collaboration between healthcare and community staff	If there are good collaborative relationships between healthcare staff/referrers to social prescribing and those delivering community activities	Then healthcare staff are more likely to refer participants to social prescribing, and are more likely to make appropriate referrals	Because referral staff understand what social prescribing can support young people with, and see the benefits, which increases their motivation to refer young people	Charlton et al., 2022; Fancourt et al., 2023; Hayes et al., 2024; Hayes et al., 2020; Bertotti et al., 2020
Institutional				
Exciting locations	If social prescribing sessions are delivered in exciting, community locations	Then young people are more motivated to attend, and engage with sessions	Because they have reduced feelings of stigma compared to sessions held at clinical environments, and young people are more motivated to go to a more exciting location (for example the 'pull of the badge')	Dias et al., 2024; Yorkshire Sport Foundation, 2023
Community-based services	If social prescribing involves supporting families to access community services which are low-cost and easily accessible	Then young people are more likely to attend sessions	Because they face reduced barriers to attending, and feel more supported to attend	Bertotti et al., 2022; Dias et al., 2024; Hayes et al., 2024; Bertotti et al., 2020

Infrastructural				
Interest, policy from NHSE	If NHSE recognises social prescribing as a priority, and includes it within health policies	Then there will be increased use of social prescribing within services, and increased referrals	Because more staff are aware of what social prescribing is, and feel encouraged and supported to use it in their service	Bowden et al., 2020; Brettell et al., 2022; Charlton et al., 2022; Hayes et al., 2024; Bertotti et al., 2020
Need for investing into community services	If there is appropriate investment into local community services	Then there will be increased opportunities for young people to access social prescribing	Because increased funding, training, resources and support means community services can offer more sessions, more sessions tailored to different needs of young people, and can upskill their staff	Bertotti et al., 2022; Charlton et al., 2022; Fancourt et al., 2023; Hayes et al., 2024; Bertotti et al., 2020

Social prescribing was most commonly offered to young people to support their mental health (Brettell et al., 2022; Charlton et al., 2022; Efstathopoulou & Bungay, 2021; Hayes et al., 2024; Hayes et al., 2020; Bertotti et al., 2020; Bertotti et al., 2022; Fancourt et al., 2023; Dias et al., 2024; Yorkshire Sport Foundation, 2023). One study used social prescribing to support young people with asthma (Bowden et al., 2020).

There was a range of referral routes, including GPs (Brettell et al., 2022), schools (Efstathopoulou & Bungay, 2021), self-referral, and child and adolescent mental health services or CAMHS (Dias et al., 2024; Yorkshire Sport Foundation, 2023; Fancourt et al., 2023). Most studies used a link worker model of social prescribing, although there were a number of programmes which included direct referral into a community service or activity (Bowden et al., 2020; Dias et al., 2024; Efstathopoulou & Bungay, 2021; Yorkshire Sport Foundation, 2023).

Many studies noted a gap in mental health support, particularly post-pandemic, with long waiting lists to access NHS mental health services and increased eligibility thresholds (Dias et al., 2024; Fancourt et al., 2023). This was reported to motivate families to take up alternative or additional offers of support that became available, such as through social prescribing. Additionally, studies noted that the increased focus from NHS England on social prescribing, and models of care which included integration of services had supported the development and implementation of programmes (Charlton et al., 2022; Fancourt et al., 2023).

Whilst both adult and youth social prescribing focused strongly on the importance of social support, for young people there was a greater focus on providing the opportunity to develop relationships between young people with similar experiences. For example, groups were commonly designed specifically with those of similar age groups or with experience of similar mental health needs to facilitate cohesion and the development of trusting relationships between peers (Bowden et al., 2020; Dias et al., 2024; Yorkshire Sport Foundation, 2023; Brettell et al., 2022).

Similarly to adult social prescribing, it was noted that being able to offer the young person a choice of activities based on 'what matters to them' is reliant on there

being an existing, diverse range of opportunities available to access in the community. However, this may be more noteworthy for youth social prescribing in comparison to adults, as previous work has shown the limited availability of services specifically for children and young people, and the limited awareness of these services in healthcare professionals in comparison to adult services (Hayes et al., 2024; Bertotti et al., 2020). This was reflected in both the mapping (Chapter 3; *phase 1*) and survey (Chapter 4; *phase 2*), where there was reported limited availability of, and knowledge of, local community services for young people.

Provision and accessibility of these community services also has further implications for young people. In comparison to adults, young people are more likely to be reliant on family members such as parents/carers for travel to sessions, or there may be increased safety concerns from using public transport, or traveling in the evenings when it is dark, especially based on their age (Bertotti et al., 2020; Hayes et al., 2020). If young people are reliant on parents/carers for travel, this may then need to fit around existing commitments within the family, such as other activities that siblings may attend.

Additionally, it was noted that there were potential dangers of overburdening small-scale organisations, with a risk that staff may not be trained or experienced in working with children and young people with more complex health needs (Fancourt et al., 2023). There was therefore a reported need for trust, and strong communication between community staff and clinical or other referral staff (such as link workers), to help ensure that referrals were appropriate and that there was a shared understanding of what the community activities could offer and support with (Hayes et al., 2024). Most of the included studies focused on young people with mental health difficulties and so there remains a gap in understanding training considerations needed for supporting young people with other needs, such as physical health challenges.

5.7.6 Child weight management services

In total, 20 records relating to child weight management programmes were included in full text screening (see Table 25, [appendix 3](#)). Included studies used mainly qualitative methods (n=11), with two mixed methods and three pre-post data collection. The remaining methods included observational reports (n=3) and a Delphi consensus (n=1).

References to relevant contexts, mechanisms and outcomes from each of the papers were identified and synthesised to develop initial theories. Again, the four levels described by Pawson (2013) were used to provide structure to these. This led to 18 theories (presented in Table 16).

Table 16. If then, because statements from child weight management literature

Name	IF	THEN	BECAUSE	Contributing Records
Individual				
Understanding of obesity	If families are more aware of the health impacts of obesity, and are more able to recognise that their child might be living with obesity	Then they are more likely to attend and engage with an intervention	Because they have increased motivation, psychological readiness and increased awareness of health impacts	Avery et al., 2012; Daley et al., 2008; Dixey et al., 2006; Newson et al., 2013; Reece et al., 2016; Stewart et al., 2008; Visram et al., 2013
Physical Activity	If the intervention provides opportunity for appropriate physical activity (fun and in a safe and non-judgemental space)	Then this can lead to increased participation in physical activity and improved wellbeing	Because they feel more energetic, happier, enjoy the activity, increase their self-esteem, and feel more capable of taking part in physical activity	Avery et al., 2012; Daley et al., 2008; Fassihi et al., 2012; Owen et al., 2009; Newson et al., 2013; Peña et al., 2022; Visram et al., 2013; Watson et al., 2015; Rigby et al., 2022
Empowering Individuals	If the intervention focuses on developing autonomy, independence and coping skills for the young person	Then young people are more likely to experience positive health outcomes and sustain these in the long term	Because the young person feels empowered to have control over their health and has increased resilience to continue after intervention support has ended	Daley et al., 2008; Dixey et al., 2006; Jinks et al., 2013; Owen et al., 2009; Lucas et al., 2014; Murdoch et al., 2011; Newson et al., 2013; Nobles et al., 2016; Reece et al., 2016; Stewart et al.,

				n.d.; Twiddy et al., 2012; Watson et al., 2015
Tailored	If the intervention is tailored to the needs of families, and considers their local environment	Then this can increase engagement and sustainability of successful outcomes in the long term	Because this helps families with strategies for navigating their environment, and there are reduced barriers for implementing changes	Avery et al., 2012; Daley et al., 2008; Dixey et al., 2006; Fagg et al., 2014; Fagg et al., 2015; Fassihi et al., 2012; Owen et al., 2009; Lucas et al., 2014; Nobles et al., 2016; Peña et al., 2022; Reece et al., 2016; Visram et al., 2013; Rigby et al., 2022
Holistic Approach	If the intervention includes a strong focus on mental health and wellbeing, rather than just weight loss	Then families are more likely to attend	Because young people and families feel listened to and feel as though their personal needs are being met. Mental health is a key motivator for young people and their families, and poor mental health can act as a barrier for engagement with other services, or physical activity	Dixey et al., 2006; Fassihi et al., 2012; Jinks et al., 2013; Owen et al., 2009; Nobles et al., 2016; Reece et al., 2016; Stewart et al., n.d.; Stewart et al., 2008; Twiddy et al., 2012; Visram et al., 2013; Watson et al., 2015; Rigby et al., 2022

Seeing or anticipating physical and mental changes	If young people experience changes in their weight, or how they feel physically	Then they are more likely to continue with an intervention	Because they feel more confident, and feel they are capable of improving their health	Avery et al., 2012; Daley et al., 2008; Dixey et al., 2006; Reece et al., 2016; Twiddy et al., 2012; Visram et al., 2013; Watson et al., 2015
Interpersonal				
Social Support	If the intervention allows families to meet others with similar experiences (similar ages, lived experience of weight challenges)	Then families are more likely to attend, and see improved mental and physical health outcomes	Because they feel it is a safe environment with a lack of judgement or stigma, and peer support can provide inspiration and increased confidence	Avery et al., 2012; Daley et al., 2008; Dixey et al., 2006; Lucas et al., 2014; Murdoch et al., 2011; Newson et al., 2013; Nobles et al., 2016; Peña et al., 2022; Reece et al., 2016; Visram et al., 2013; Watson et al., 2015; Rigby et al., 2022
Whole Family Approach	If the whole family is involved in the intervention, including in physical activity	Then this leads to improved engagement and outcomes for weight loss and mental health	Because young people are often reliant on their parents for attending groups, and family diet. If the focus was solely on the young person, this added feelings of pressure and risk of failure. Where there was not support from wider family	Avery et al., 2012; Dixey et al., 2006; Fagg et al., 2015; Fassihi et al., 2012; Jinks et al., 2013; Owen et al., 2009; Lucas et al., 2014; Murdoch et al., 2011; Newson et al., 2013; Peña et al., 2022; Stewart et al., n.d.; Stewart et al., 2008; Twiddy et al., 2012; Visram et al., 2013;

			members this led to tensions and stress	Watson et al., 2015; Rigby et al., 2022
Skills of intervention staff	If the intervention delivery staff are skilled and trained (e.g. knowledgeable about health needs, interpersonal and motivational skills)	Then this can increase motivation to attend, and improve outcomes	Because families feel the intervention is a safe and non-judgemental space, and trust that the staff can understand and deal with complex needs	Dixey et al., 2006; Fagg et al., 2014; Fagg et al., 2015; Owen et al., 2009; Lucas et al., 2014; Murdoch et al., 2011; Stewart et al., n.d.; Stewart et al., 2008; Twiddy et al., 2012; Watson et al., 2015; Rigby et al., 2022
Institutional				
Communication and collaboration between services	If there is not good communication between healthcare professionals and those staff delivering the programme	Then this can reduce attendance	Because there is a lack of trust in the services, and confusion or unawareness for the families about what services they are able to access	Owen et al., 2009; Lucas et al., 2014; Murdoch et al., 2011; Visram et al., 2013; Rigby et al., 2022
Accessibility	If the intervention can be adapted to local needs, (e.g. rolling joining options, evening delivery, culturally diverse food	Then this can increase attendance	Because of increased relevance to families, they feel as though their needs are met and there are reduced barriers to attending. If sessions are not accessible, this has	Avery et al., 2012; Daley et al., 2008; Dixey et al., 2006; Fagg et al., 2014; Fagg et al., 2015; Jinks et al., 2013; Lucas et al., 2014; Murdoch et al., 2011; Newson et al., 2013; Peña et al., 2022;

	provision, community locations)		the potential to widen existing inequalities	Visram et al., 2013; Watson et al., 2015; Rigby et al., 2022
Infrastructural				
Investment into local community services	If there are no accessible services within the local community	Then this can reduce attendance, and reduce the likelihood of successful outcomes in the long term	Because families do not have continued opportunities for peer support and appropriate physical activity after the intervention has ended	Dixey et al., 2006; Fagg et al., 2014; Jinks et al., 2013; Lucas et al., 2014; Newson et al., 2013; Peña et al., 2022; Twiddy et al., 2012; Visram et al., 2013
Wider health messaging	If wider health messages in society focuses on personal responsibility (eating less, exercising more)	Then this can lead to worsening health outcomes, and disengagement with services	Because this approach can evoke blame and feelings of weakness, as well as feelings of stigma from healthcare services	Newson et al., 2013; Visram et al., 2013; Rigby et al., 2022

The papers included in the child weight management literature commonly discussed time limited, community-based group interventions for young people living with obesity. In general, the outcomes focused on physical health outcomes such as weight loss, and weight maintenance in comparison to the social prescribing literature which focused more on mental health and wellbeing outcomes.

A whole family approach was consistently reported as important for supporting young people living with obesity (see Table 16 above for papers contributing to this theory). Whilst the child social prescribing literature included a whole family approach based on supporting young people to attend sessions, in the weight management literature there was added reference to providing support for parents as well as the young person, who may also be struggling with their own weight or with their own health needs (Avery et al., 2012; Dixey et al., 2006; Fagg et al., 2015). Additionally, if there was a lack support of wider family members, this was reported to create tension and stress within the family environment, as the young person can feel unsupported, and isolated in their weight loss journey (Dixey et al., 2006).

Potential discrepancies were noted between what works for parents and what works for young people. For example, it was suggested that young people are more motivated to attend an intervention that will support their mental health, whereas parents were more motivated to attend an intervention which supported physical health outcomes (Rigby, McKeown & Wortley, 2022; Visram, Hall & Geddes, 2013). Additionally, in terms of the qualities of the staff delivering sessions, young people preferred younger staff who had a more informal approach to sessions, whereas parents preferred staff to have more knowledge and life experience, such as experience of their own weight management challenges (Twiddy et al., 2012). These discrepancies need to be considered for a whole family approach as the support provided needs to meet the needs of both parents and young people to support engagement with social prescribing. Whilst social prescribing sessions may not include parents directly, for young people to attend and engage with social prescribing, they are likely reliant on parents for

access (in terms of attendance costs or travel), and so parents need to 'buy-in' to the opportunity as well as the young person.

5.7.7 Child social prescribing and child weight management services

The if-then-because statements from the child social prescribing literature were compared with those from the child weight management service literature. Overlapping or similar theories from 'what works' in social prescribing for children and 'what works' in child weight management were synthesised to develop initial programme theories of how social prescribing could be expected to work (or not work) within CEW services to support the health and wellbeing of young people living with obesity. This provided insights into how a social prescribing model may need to be adapted to meet the needs of young people living with obesity.

12 theories were identified from the youth social prescribing literature, and 13 identified from the child weight management literature. After synthesis, there were 11 initial programme theories of how social prescribing may work within CEW services. An overview of the comparison and synthesis of theories is shown in Table 17, with detailed if-then-because statements presented in Table 18.

Overlapping theories

There were nine theories which were the same or highly similar, including:

1. Empowering individuals to have more control over their own health
2. Reducing barriers for participating in physical activity
3. Using a holistic approach to support wider psychosocial needs
4. Tailoring support to the individual, and supporting them to be involved in decisions about their health
5. Provision of peer support and developing social relationships
6. Involving the whole family in support
7. Developing trust between families and staff (both healthcare and community staff)

8. Developing strong collaborative relationships between clinical and community services
9. Supporting and investing in local community based services

Similar theories

There were five theories that were similar, and which were synthesised into two theories:

- Accessibility of community based services

‘Exciting locations’ and ‘Community-based services’ from the youth social prescribing search were merged with ‘Accessibility’ from the weight management search.

Social prescribing literature discussed the benefits of services based at community locations, which may be exciting and lead to increased motivation and reduced stigma for young people (Bertotti et al., 2022). In comparison, the weight management literature discussed having services based at community locations to increase accessibility for families (Murdoch et al., 2011). These were felt to be similar and were integrated into one theory to describe how the use of local, non-clinical, community settings could reduce barriers to attending, leading to increased engagement with community services from families.

- Wider health messaging

The theory of ‘Interest, policy from NHSE’ from the child social prescribing search was merged with the theory of ‘Wider Health Messaging’ from the weight management search.

In the social prescribing literature, there were multiple references across papers to how increased recognition of social prescribing (and specifically personalised, holistic care) supported the development and implementation of social prescribing programmes (Brettell et al., 2022; Fancourt et al., 2023). The weight management literature recognised that the wider health messaging around

obesity (such as prioritising holistic, psychosocial support rather than solely personal responsibility) could impact on the type of support that was provided by services, as well as impact on engagement from families (Dixey et al., 2006; Visram, Hall & Geddes, 2013).

These theories were combined, to reflect how the wider health messaging and policy at a government level (including NHS England) can impact on service provision, and engagement with services from families. For example, if social prescribing is recognised within national health policy, then this has increased potential to lead to more support such as frameworks and guidance for implementation, which can increase staff confidence and motivation for using social prescribing in their service.

Differing theories

Two theories that were only identified from the weight management literature were not taken forward as separate theories. These were:

- Understanding and awareness of obesity

In comparison to the social prescribing papers, the weight management papers had a greater focus on outcomes relating to physical health. Papers often reported that many families were not aware of the health impacts of obesity or did not recognise that their child was living with obesity, and this influenced their motivation to attend and engage with programmes (Newson et al., 2013). Improving knowledge of health, obesity, diet and physical activity was suggested to increase motivation, and readiness of families to attend and engage with weight management services (Twiddy et al., 2012).

However, alongside improving knowledge of health, these papers also noted that for weight management programmes to be successful, there was a need to empower young people to feel they have control over their own health and to consider wider psychosocial needs alongside physical health (Murdoch et al., 2011; Reece et al., 2016). These theories of empowerment and holistic support were more closely aligned to the theories of how social prescribing works to

support young people. Therefore, the explicit theory of increasing knowledge around obesity and diet was not taken forward at this stage as it was felt to be more applicable to only the weight management literature. However, the theories relating to the underlying mechanisms of empowerment and holistic support are taken forward as these were identified in both the child social prescribing and weight management literature. Whilst empowering young people to have control over their own health is positive, it is important to still acknowledge wider determinants of health (and obesity) that may be out of the young person's control.

- Seeing or anticipating physical and mental changes

Records from the weight management literature proposed that if a young person saw or felt they were beginning to see positive changes in themselves (either physical or mental health changes), then this encouraged them to continue with an intervention. This could include feeling more energised or capable of partaking in activities or beginning to feel more confident or happier. If mental or physical health outcomes were not experienced as quickly as the individual hoped, then they could become frustrated and disengaged. It was commonly reported that outcomes, such as weight changes or feeling healthier and happier, was then also a mechanism for continued involvement and engagement with the intervention (Daley et al., 2008). Similarly, one paper noted that it was unclear whether improving self-esteem was a mechanism for weight loss, or whether weight loss was a mechanism for improving self-esteem (Watson et al., 2015). This ripple effect has commonly been noted in other realist work, whereby an outcome from one theory may also be a context for another (Jagosh et al., 2015; Wood et al., 2021). Again, as this was only raised in the weight management literature this was not included as a specific theory at this stage. However, the non-linear relationships between mechanisms and outcomes are to be considered as the theories are further refined through later phases.

Table 17. Overview of synthesis of theories

Youth Social Prescribing Theories	Child Weight Management Theories
Overlapping Theories	
Empowering individuals	Empowering individuals
Physical activity	Physical activity
Holistic, Strength-Based Approach	Holistic Approach
Patient-choice	Tailored
Social Connectedness	Social Support
Approach of staff	Skills of intervention staff
Whole family approach	Whole Family Approach
Collaboration between healthcare and community staff	Communication and collaboration between services
Need for investing into community services	Investment into local community services
Similar, merged theories	
Exciting locations	Accessibility
Community-based services	<i>(also merged into Accessibility)</i>
Interest, policy from NHSE	Wider Health Messaging
Differing theories	
	Understanding of obesity
	Physical Changes

Table 18. If then because theories from 'what works' in child social prescribing and child weight management

Name	If	Then	Because
Individual			
Empowering Individuals	If social prescribing offers the opportunity to develop the young person's autonomy, independence and coping skills	Then young people are more likely to improve their wellbeing, and sustain this in the long term	Because the young person feels empowered to have control over their health, and experiences increased resilience and confidence
Physical Activity	If social prescribing provides opportunity for appropriate physical activity (fun, in a safe and non-judgemental space)	Then this can lead to improved confidence and increased physical activity	Because the young person feels more energetic, happier, has increased self-esteem, and feels more capable of taking part in physical activity
Holistic, Strength-based Approach	If social prescribing focuses on supporting mental health and wellbeing using a strength-based approach	Then young people are more likely to attend and improve their wellbeing	Because this helps young people to focus on what they can do, rather than the negative impacts of their health. Mental health support is a key motivator for young people
Patient Choice	If social prescribing offers young people a choice over what activities they can access and what their own	Then they are more likely to engage with social prescribing, experience	Because they feel as though they have been listened to, are more motivated to take part in activities that they enjoy, and can

	goals are, using a person-centred care approach	improved confidence and sustain this in the long term	choose activities which are more relevant to their lives, which reduces barriers to involvement
Interpersonal			
Social Support	If social prescribing offers the opportunity to meet others with similar experiences (e.g. lived experience of physical or mental health difficulties, similar ages)	Then young people are more likely to attend, and see improved mental and physical health outcomes	Because young people feel it is a safe environment with a lack of stigma, and this provides peer support which can increase confidence and self-esteem
Staff Qualities	If staff are skilled and trained (e.g. knowledgeable about health needs, interpersonal and motivational skills), take an informal approach, are confident and trained to work with young people, and are compassionate, non-judgemental and knowledgeable	Then young people are more likely to attend, and see improved mental health outcomes	Because young people trust that the staff can understand complex needs. An informal, non-hierarchical approach facilitates the development of trusting relationships between staff and young people
Whole Family Approach	If social prescribing allows the whole family to be involved	Then young people are more likely to attend sessions, and there will be increased knowledge within the family,	Because young people are often reliant on their parents/carers for attending groups, and will feel

		which can lead to better mental health outcomes	supported and accepted within the family
Institutional			
Communication and collaboration between services	If there are good collaborative relationships between healthcare staff and community staff, including feedback about how groups run and experiences of young people	Then this can increase attendance and referrals to social prescribing	Because staff understand what social prescribing can support young people with, and see benefits of it, which increases their motivation to refer young people. This can increase the feelings of trust between referrers and community services
Accessibility	If the intervention can be adapted to local needs, (e.g. rolling joining options, evening delivery, culturally diverse foods, community locations)	Then this can increase attendance	Because of increased relevance to families, they feel as though their needs are met and there are reduced barriers to attending. If sessions are not accessible, this has potential to widen existing inequalities
Infrastructural			
Investment into local community services	If there are a range of accessible services within the local community	Then there will be increased opportunities for young people to access social prescribing, and increased	Because increased funding, training, resources and support means community services are more able to offer more

		referrals	sessions, including more sessions tailored to different needs of young people, and upskill their staff
Wider health messaging	If NHSE recognises social prescribing and holistic, patient-centred support and includes this within health policies	Then there will be increased use of social prescribing within services, and increased referrals	Because more staff are aware of what social prescribing is, there are increased pathways for using social prescribing and increased confidence to use it within their service

5.8 Discussion

This rapid realist review contributed to the development of initial programme theories about how social prescribing may (or may not) work in specialist weight management services to support children and young people living with obesity.

5.8.1 Summary of included papers

Overall, 39 papers were included across the three searches, based on meeting inclusion criteria and high relevance to the research question. This included 8 papers based on realist social prescribing, 11 papers for child social prescribing and 20 papers for children's weight management services. Papers most commonly used qualitative, or mixed-methods data collection, excluding the adult realist literature which specifically identified papers using a realist methodology.

All the child social prescribing papers were published post-2020, and the weight management papers were published between 2008-2022, with most published between 2012-2016. This reflects the recent increase in research studies of social prescribing, particularly for children and young people.

5.8.2 Development of initial programme theories

Eleven theories were developed from overlapping theories between the child social prescribing and child weight management literature. These are highlighted and discussed in section 5.7.7 above and propose mechanisms such as; empowering young people, increasing confidence and self-esteem, increasing motivation to attend and engage with social prescribing activities, reducing barriers to access, and developing trust between young people, families and staff.

The resulting theories are based on literature which included similar interventions and contexts rather than specific examples of implementing social prescribing within CEW clinics. CEW clinics are a relatively new service within England and

social prescribing has not been formally tested within youth weight management services before, meaning there may be unknowns and unintended outcomes that have not been identified through the current literature. The population of young people attending CEW clinics may vary compared to those included in the weight management literature through this review, with additional healthcare complexity and need seen at a Tier 3 level. However, the theories developed through this review are not intended to be final and will be synthesised with theories from phase 1 and 2 which were more aligned to the specific context and populations of the CEW service. These combined theories from all three initial phases will then be refined through interviews with families accessing CEW clinics, and staff working within CEW clinics. This aligns with the realist approach which encourages iterative development of theories (Pawson & Tilley, 1997).

The interviews with stakeholders in phase 4 will explore the initial programme theories and further consider what works for whom. For example, social prescribing may work differently for young people of different ages, with older children preferring more independence compared to younger children who may prefer and require more involvement from wider family members. Some young people may also face increased barriers to engaging with social prescribing compared to others, such as for those living in more deprived neighbourhoods or for those with additional complex healthcare needs or for neurodivergent young people.

5.8.3 Strengths and limitations

Given the rapid review methodology, some restrictions were used for searches, such as date of publication. This leads to the potential for some papers which may have been relevant not being included. Despite this, there were sufficient numbers of papers included for each search to allow for theory development, with consistent themes and theories identified. It has been indicated that for realist reviews, saturation may be more of a priority over comprehensiveness in comparison to a traditional systematic review, based on the theory-driven focus of realist reviews (Wong et al., 2013).

At the time of the search, no other realist reviews of child social prescribing, and no realist reviews of social prescribing for young people living with obesity were published. This review therefore contributes novel understanding of how social prescribing works for young people and how this compares to models of adult social prescribing. It also identifies additional considerations or adaptations that may be required for specific populations such as those living with obesity.

Research interest around the potential application of social prescribing into clinical pathways is increasing, and this review provides an initial realist exploration of social prescribing within clinical settings for children and young people. This is an approach that could be explored in other populations, for example by comparing what works in youth social prescribing to what works in other healthcare services (such as neurodiversity pathways) to explore how best to implement social prescribing in these contexts.

5.8.4 Implications for practice

Results showed a high level of similarity between the theories of how social prescribing is expected to work for children and young people and what works within weight management services for children and young people. Additionally, the core values of the CEW clinics align closely with these theories, particularly in terms of offering holistic, personalised care (NHS England, n.d.b).

Based on the initial theories at the end of this phase, it is suggested that social prescribing works by empowering young people and developing their confidence, self-esteem, capabilities and resilience. This was supported by providing opportunities to meet with other young people and opportunities to take part in accessible physical activities. Therefore, if implemented within CEW clinics, social prescribing could prioritise supporting young people's wellbeing rather than solely focusing on weight management. This can be achieved through group activities, but groups should be organised where possible for those with similar experiences (for example, for young people of similar ages, or with similar lived experience of physical or mental health challenges) to allow for shared

experiences and peer support. Physical activity should also be flexible, tailored to the interests and capabilities of the young people and used to facilitate developing social connections and a sense of achievement, rather than focusing solely on improving physical fitness.

This aligns with how CEW professionals felt social prescribing could benefit the families they worked with, as reported in the national survey (Chapter 4; *phase 2*). However, it may be that further clarity and awareness over the role of social prescribing, and what benefits it can offer for young people, is needed to further support motivation of healthcare staff to implement it within their service.

5.9 Chapter Summary

Phase 3 contributed to the development of initial programme theories about how, in what ways and under what circumstances social prescribing may (or may not) work in CEW clinics to support the health and wellbeing of young people living with obesity. These theories were based on exploring the literature for what works in child social prescribing and what works in child weight management services. This led to 11 initial theories which will be synthesised with those from phases 1 and 2 in Chapter 6.

6.0 Chapter 6. Initial Programme Theories

6.1 Introduction to Chapter

This chapter presents a summary of the combined initial programme theories from phases 1, 2 and 3. Figure 15 shows how this chapter is situated within the thesis. This current chapter is indicated in orange.

Phase 1 (Chapter 3) scoped community-based physical activity and/or cookery services local to one CEW clinic and explored what makes services accessible to young people living with obesity. This contributed to the development of programme theories through understanding the specific needs of young people living with obesity, what support community services can provide and what resources community services need to deliver this.

Phase 2 (Chapter 4) explored CEW professionals' views towards social prescribing using a national survey. This contributed to the development of programme theories of how social prescribing may work in CEW clinics from the perspective of CEW clinic staff. For example; how do clinical staff anticipate social prescribing could work to support the families they worked with, and what would facilitate implementation of a social prescribing offer in their clinic.

Phase 3 (Chapter 5) examined the current literature to understand 'what works' for young people in both social prescribing and weight management services, using a rapid realist review. This contributed to the development of programmes theories of how social prescribing may work in CEW clinics using current research and knowledge. For example; what is already known about the mechanisms involved in social prescribing and how much does this overlap with what is known about the best ways to support young people living with obesity.

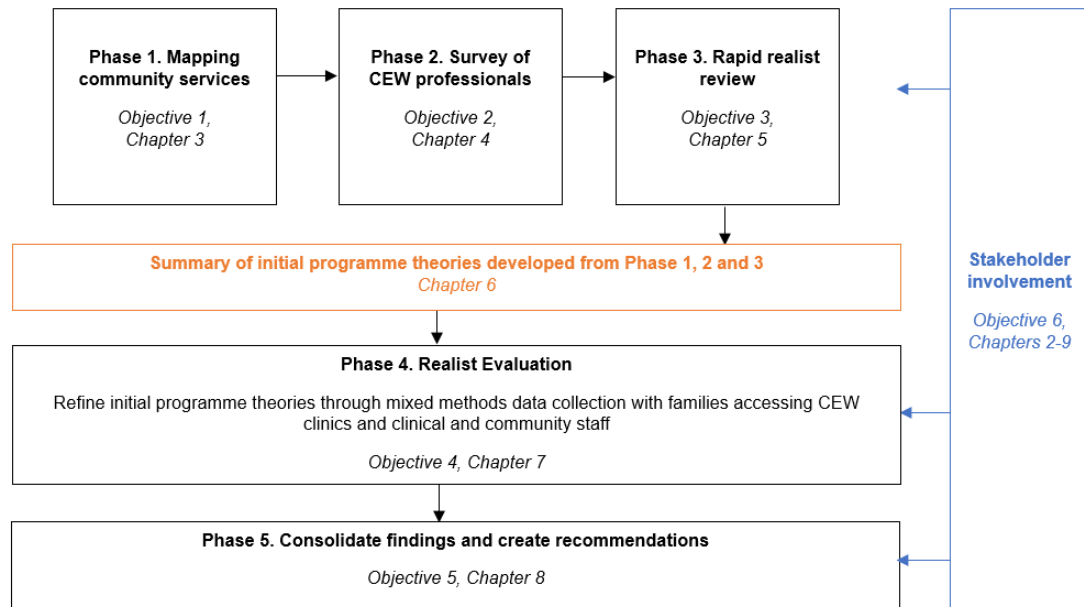


Figure 15. Position of chapter 6 within thesis

6.2 Methods to develop initial programme theories from Phases 1, 2 and 3

The theories identified from each of the first 3 phases were initially presented in separate tables, which can be found at the end of each relevant chapter. These theories were added in to an Excel database to allow for visual oversight and comparison between all the theories across each of the phases. There were six theories identified from the mapping work in phase 1, six theories identified from the survey of CEW professionals in phase 2, and 11 theories identified from the realist review in phase 3.

The process of synthesising the theories between phases was informed by guidance described for synthesising data from multiple sources in a realist review (Pearson, Chilton et al., 2015). This included;

- consolidating, where similar theories were combined and used to add detail
- juxtaposing, where insights from one theory helped to add to understanding about another theory

- reconciling, where there may be rival theories and different potential outcomes described from similar programme strategies
- situating, where rival theories inform how outcomes may differ for different young people or different circumstances
- adjudicating, where the source of the theory and the potential methodological strengths and weaknesses of how it was developed helps to prioritise some theories over others.

The aim was to take an inclusive approach at this stage, as the theories would undergo refinement with key stakeholders in the next phase (phase 4).

After synthesis, there were a total of 11 initial programme theories. Four theories were discussed in some way across all three phases; person-centred care, holistic approach, physical activity and social support. The other seven theories were all identified in at least two of the phases. These are presented in Table 19 at the end of this chapter, along with notes of which phases contributed to the theory.

There was only one theory which was identified in one phase. This was ‘empowering individuals’ that was identified as its own separate theory in the review (phase 3). However, this mechanism of empowering young people to have control over their own health was noted across other theories within the community mapping (phase 1) and national survey (phase 2). These phases noted that tailoring sessions to the young person’s needs, and offering personalised, person-centred care helped young people to feel more capable, particularly for taking part in physical activity. Therefore, empowerment was incorporated as a mechanism in a theory based around person-centred care.

During initial phases, particularly in phase 3, ideas around person-centred care and offering participants choice were combined into one theory. These were separated into two distinct theories as part of the synthesis as they were felt to explore different mechanisms. Person-centred care was more commonly reported as a way to help young people feel capable of managing their health, and reduce barriers to accessing care, whereas offering young people choice

was discussed in relation to increasing their motivation to participate in social prescribing activities, because the activities aligned with their interests.

Further discussion around each of the theories is presented below. Each theory is presented in a summary box containing the theory name, if-then-because statement and the contributing phases. Theories have been structured according to layers of context based on Pawson's 4 I's (Pawson, 2013) as discussed in Chapter 2; *Methodology* and Chapter 5; *Review*. It is important to note that some of the theories could fall under multiple layers and so these have been selected based on best fit based on understanding of the theories at this initial stage and in consultation between the researcher and supervisory team. Each if-then-because theory and mechanisms will be further explored and refined through interviews with young people and their families, and clinical and community staff in phase 4.

6.3 Initial Programme Theories

6.3.1 Individual

These theories relate to mechanisms at the individual level. These were commonly reported across all three phases. They align with what is known about how social prescribing works in adult populations based on the current literature and build on this understanding by demonstrating application to a specific, clinical population of children and young people.

Person-centred care

If social prescribing offers the opportunity to address the young person's own personal goals, and they are involved in decisions about their care	Then young people are more likely to attend sessions, improve and their wellbeing and sustain this in the long term	Because the support is more aligned to the young person, which can reduce barriers to involvement. They feel they have been listened to and feel empowered to have control over their care	Mapping, Survey, Review

This theory suggests that involving young people in decisions about their own care and tailoring support to their personal goals helps them to feel more capable of managing their own health. This is expected to lead to positive outcomes in terms of engaging with services and improving their physical and mental health. Research has shown that where young people are not involved in decisions, or where their personal goals are disregarded, this can lead to lack of engagement with services and increased feelings of isolation (Gondek et al., 2017).

This theory was informed by each of the three phases. The review highlighted the importance of empowering young people to help sustain positive outcomes in the long term. It was reported that when successful outcomes were attributed to a specific intervention, rather than acknowledging the role of the young person, this could undermine their self-esteem and motivation (Reece et al., 2016). In the survey, clinicians reported that social prescribing aligned with the values of CEW, particularly in terms of offering holistic, personalised care. Clinicians recognised that young people may have various personal goals, wider than solely weight management, and social prescribing could help to support these. Similarly, the mapping work highlighted the importance of tailoring sessions to meet the individual needs of young people.

Social prescribing within a CEW clinic should involve young people directly in making decisions about what community activities would be beneficial for them to join based on their personal goals. It may be that this depends on the young person's age. Older children may have more autonomy compared to younger children, who are more reliant on involvement of parents/carers.

There have been suggestions that young people and their parents can have different goals for their weight management journey, with young people focusing on mental health outcomes and parents (and healthcare professionals) focusing on physical health outcomes (Rigby, McKeown & Wortley, 2022). Additionally, whilst the CEW clinics were set up based on a biopsychosocial approach, commissioners may be more focused on physical health outcomes, such as weight loss and reduced BMI SDS. This understanding of the wider context was informed by work on the ENHANCE study and through attendance at CEW MDT

meetings. These different perceptions of important outcomes for young people will be explored further in Phase 4.

Choice

If social prescribing offers young people a choice over what activities they can be involved in	Then young people are more likely to attend sessions, and improve in confidence and self-esteem	Because the young person is more motivated to take part if they have a sense of control over activities and it aligns to their interests	Mapping, Review

The theory of choice suggests that young people are more likely to be motivated to attend social prescribing sessions when they have been able to choose the activity themselves. This means they can choose an activity that matches their interests, which is more exciting and fun for them. This aligns to the key element of social prescribing which involves having a ‘what matters to you’ conversation with individuals (Jarvis & Mitchell, n.d.). Increased motivation to attend is more likely to lead to increased attendance at groups and engagement with services.

This was supported by the review, in particular the child social prescribing literature highlighted that co-producing a social prescription based on what matters to the young person motivated them to attend sessions (Charlton et al., 2022). This was further discussed in the mapping work, which showed that young people living with obesity had a wide variety of interests and physical capabilities and so being able to choose an activity that mattered to them was important.

Social prescribing should be able to provide access to a range of opportunities, so that young people can choose activities that they enjoy. However, it may not always be possible to offer a wide range of choice. The mapping work (phase 1) found that there was a limited number of activities that were fully accessible to a population of young people living with obesity. If a young person is unable to find

activities that meet their needs, this has the potential to lead to further feelings of isolation.

Using a holistic, strength-based approach

If social prescribing takes a holistic approach, and focuses on the opportunities for young people, rather than negative impacts of their health	Then young people are more likely to attend sessions, and improve in confidence and self-esteem	Because this considers the wider, social determinants of health, which can be barriers for other support (e.g. poor mental health can be a barrier for involvement in physical activity)	Mapping, Survey, Review

Obesity is complex, and involves a variety of underlying social, genetic, and environmental factors (Browne, 2021). Therefore, support needs to be holistic and consider wider social needs alongside physical health (Hawton et al., 2025). Social prescribing is commonly referred to as a ‘non-medical’ intervention, and one which avoids focusing on the problems that individuals face but instead focuses on what they can achieve. This is reported to help increase an individuals’ confidence and self-esteem (NASP, n.d.). This may be particularly relevant for young people living with obesity, many of whom report previous experiences of weight stigma and feeling reduced to their obesity (Tomiya et al., 2018).

This theory was noted in all three phases, with references to the need to consider wider, underlying factors relating to obesity as part of a holistic approach. It was noted through the mapping work and the review that there may be wider barriers for engaging in physical activity, such as financial, social and psychological factors (Daley et al., 2008; Dixey et al., 2008). The survey respondents noted the holistic approach of the CEW clinics, and how social prescribing was felt to align closely with this.

For CEW, a social prescribing offer would therefore be best placed to support young people with wider social needs, mental health and wellbeing. By providing

non-medical support, this may mean that a family is better able to engage with weight management support from the clinics. Supporting the wellbeing of young people and developing their self-esteem may help to reduce barriers for involvement in physical activity and other health promoting activities, leading to improved health outcomes.

The extent to which social prescribing can achieve this may depend on the additional needs of the family. The survey identified that families accessing CEW face a wide range of complex additional factors, including neurodiversity and mental health challenges, meaning social prescribing activities need to be accessible for a diverse population.

Physical activity

If social prescribing provides the opportunity for the young person to take part in appropriate physical activity (fun, in a safe and non-judgemental space)	Then this can lead to improved confidence, increased physical activity and improved physical health	Because the young person feels more energetic, happier, has increased self-esteem, and feels more capable of taking part in physical activity	Mapping, Survey, Review

Throughout each of the phases, social prescribing was noted to support engagement with physical activity opportunities. NICE guidelines (NG246) recommend increasing physical activity levels and reducing sedentary time as a key element of obesity treatment. Physical activity is recommended not solely for weight loss but based on a range of wider health benefits of activity (NICE, 2025). Research has demonstrated that sport and physical activity can have a positive impact for young people with mental health difficulties (Smith et al., 2024).

The survey of CEW staff identified increasing physical activity as one of the main benefits they felt social prescribing could offer to families. This was further

supported by the review and mapping which found taking part in physical activity can lead to a sense of achievement and increased feelings of capability to do physical activity (Daley et al., 2008).

Social prescribing in CEW clinics may be a helpful way to increase opportunities for physical activity for young people, both for supporting physical health and fitness, but also for the additional benefits of developing young people's confidence, increasing feelings of capability and improving their mental health. It is important that these opportunities are accessible in terms of location, cost and are adaptable to individual needs and capabilities. Many young people living with obesity have previous negative experiences of activity, and so this may impact on their motivation to take part in a group physical activity intervention. Creating groups for young people with similar lived experience of overweight and obesity may be one way to overcome this and will be explored further through interviews in phase 4.

6.3.2 Interpersonal

Theories at this level relate to relationships between stakeholders involved in social prescribing, which could include young people, their parents/carers, healthcare professionals and staff working in community services. It may also include a link worker, if a connector model of social prescribing is used.

Social support

If social prescribing offers the young person the opportunity to meet others with similar experiences	Then young people are more likely to attend sessions, and experience improved wellbeing	Because young people feel they have a safe environment with a lack of judgement or stigma, and this provides peer support and increases confidence and self-esteem	Mapping, Survey, Review

A fundamental element of social prescribing is the connection between an individual and their community (Muhl et al., 2023). Meeting and spending time with others has been shown to reduce feelings of isolation and support wellbeing (Polley et al., 2022).

The mapping work indicated that peer support can increase a young person's motivation to engage with physical activity and can lead to improvements in wellbeing. The survey supported this, however it was also recognised that this may not work for all young people, such as those with more complex mental health needs or those facing social anxiety, who may prefer individual support. The review found that social support may be most helpful when groups are designed with others with similar lived experience, to reduce feelings of judgement. This is particularly important for young people with obesity, many of whom report previous negative experiences of bullying and weight stigma.

Creating groups specifically for young people who are accessing CEW could allow for shared experiences between those attending and to reduce fear of stigma from a group setting. Insights from work on ENHANCE when organising a residential for the PPI group also informed this theory, as young people and families discussed the benefits of spending time with other families who had similar experiences. They noted feeling accepted and that the group was a safe space (Ioannou et al., 2025). However, if groups are run solely for CEW patients, this can potentially limit the range and choice of activities available.

Staff qualities

If staff are skilled (e.g. knowledgeable about health needs, have motivational skills), and take an informal approach, are confident working with young people, and are compassionate and non-judgemental	Then young people are more likely to attend sessions, and experience improved wellbeing	Because young people trust that the staff can understand and deal with complex needs. An informal, non-hierarchical approach helps facilitate the development of trusting relationships between staff and young people	Mapping, Review

The staff involved in social prescribing may include a link worker, or community connector who supports a young person to choose and access services. It may also include healthcare staff who refer young people to social prescribing, as well as staff at the community service who deliver the sessions. This theory suggests that young people are more motivated to attend sessions if link workers and community staff delivering social prescribing have an informal, compassionate approach. This helps to reduce feelings of judgement and offers a non-hierarchical relationship which facilitates trust between the young person and staff.

This was reported in the review, consistently across both youth social prescribing literature and weight management literature (Dias et al., 2024; Twiddy et al., 2012). The mapping work further emphasised the need for a compassionate and non-judgemental approach. There were reported differences however between what staff qualities young people preferred in comparison to what parents/carers preferred. Whilst young people were more likely to favour an informal, friendly approach, parents/carers would rather older staff with more life experience, especially valuing previous personal experience of weight management (Lucas et al., 2013).

Given the complex nature of families attending CEW, and the high levels of young people with mental health and additional needs, staff at community services need to have experience working with young people, and knowledge of health conditions to ensure safety of the groups, as well as the ability to manage the needs of young people alongside their parents/carers. It may be that additional training is required to upskill the workforce to work with young people living with obesity.

Whole family approach

If social prescribing involves the whole family (e.g. parents/carers, siblings)	Then young people are more likely to attend social prescribing sessions, and there will be increased knowledge within the family, and improved wellbeing for the young person	Because young people are often reliant on their parents/carers for traveling to and attending sessions, and gain a sense of support and feeling accepted within their family	Survey, Review

For a young person living with obesity, it is important to have a supportive environment including wider family members such as parents/carers, siblings and grandparents (NICE, 2025). Young people are often reliant on their parents/carers for attending community sessions, including costs and travel, and so a lack of support can cause barriers to engagement with social prescribing. Additionally, if there is a lack of support from wider family members, this undermines weight management efforts that have taken place and can lead to feelings of isolation and lack of motivation (Dixey et al., 2008; Twiddy et al., 2012).

Involvement of parents may vary for different young people. For example, younger children or those with additional needs such as Autism or learning difficulties may be more reliant on their parents/carers and want them present in

sessions. However, older children or those experiencing mental health difficulties may prefer to be in a group with peers only and would feel more comfortable sharing their feelings without family members present (Dias et al., 2024; Bowden et al., 2020).

The review found that where there was a lack of support from wider family members, this created tension within the family environment (Dixey et al., 2008). Additionally, parents/carers were often struggling with their own weight (Avery et al., 2012). For some, this meant they were more likely to attend sessions with their child because they wanted the opportunity to meet with other parents (Rigby, McKeown & Wortley, 2022). For others, it meant they were less likely to attend because they had their own reservations about being involved in group activities (Newson et al., 2013).

CEW professionals completing the survey recognised that the families they worked with had highly complex and diverse needs, and that often parents needed support as well as the young person. The interviews will explore whether social prescribing in CEW could provide a flexible approach, with the offer for family involvement but also time for parents and young people to meet separately.

6.3.3 Institutional

These theories focus on the organisational level and include the culture, approach and processes of the CEW clinic.

Communication and collaboration between services

If there are good collaborative relationships between healthcare staff and community staff, including feedback about how groups run and experiences of young people	Then this can increase referrals to social prescribing, and attendance at sessions by young people	Because staff have increased understanding of what social prescribing can support young people with, and see benefits of it, which increases their motivation and confidence to refer young people	Survey, Review

Social prescribing requires CEW staff to refer and link families to community services. If there is a lack of understanding about what social prescribing is, what benefits it can offer to families and what sessions are like, then this can reduce the confidence of healthcare staff to refer families, as they may not trust that it will be helpful for families (Tierney et al., 2020).

One way in which this trust can be developed is through the relationships with the community groups that they work with through social prescribing. Good communication between clinicians and community staff allows the opportunity for feedback about how groups run and which families it works for. This can then increase the likelihood of more appropriate referrals, because staff can target the offer to those who are most likely to benefit (Tierney et al., 2020; Calderón-Larrañaga et al., 2021).

The review indicated that where there was hesitation from staff about referring families to community activities, this could cause confusion from families about what services they could access (Visram, Hall & Geddes, 2013). Survey responses indicated that CEW professionals were unclear about who's role it was

within the CEW MDT to refer families to social prescribing and there was a lack of knowledge about what services they could refer families to in their local community. Improving understanding of social prescribing, by building relationships with the community groups that deliver these opportunities may facilitate implementation within their service. Therefore, clear guidelines are needed about what social prescribing is and how to implement it within CEW, as well as which young people and families it works best for. These recommendations will be developed and refined as an output of this study.

Accessibility

If social prescribing can include referral to local services that are adapted to local and personal needs, (e.g. rolling joining options, evening delivery, culturally diverse, community locations, public transport)	Then this can increase attendance at sessions by young people	Because of increased relevance to families, they feel as though their needs are met and there are less perceived and actual barriers to attending	Mapping, Review

CEW clinics are situated in the most deprived areas of the country, based on data which shows high prevalence of obesity in these areas (NHS Digital, 2023). To support the intended aims of CEW clinics, services within the local area need to be accessible for families, such as being low cost or free to access and reached via public transport for those who may not have access to a car. Services also need to be appropriate to those from different ethnic and cultural backgrounds (e.g. activities available, language). When services are accessible, and adapted to the needs of families, this can help to make families feel supported and reduce barriers to attending.

This was supported in the mapping work, with more accessible services linked to increased motivation to attend. Findings from the review also suggested that

where sessions were not accessible, it had the potential to widen existing health inequalities (Fagg et al., 2015; Lucas et al., 2013). Community services may vary in their ability to put on additional sessions or to run sessions at a lower cost based on factors such as their staffing, resources, infrastructure, funding and running costs (Bertotti et al., 2018).

It is important that sessions are low cost, accessible via public transport routes, run at appropriate times, in safe locations. Community services may require support to enable them to increase their accessibility, which may involve financial support, training, supervision, or increased staff capacity.

6.3.4 Infrastructural

The infrastructural level includes theories relating to the wider, national system, such as health policy from NHS England, or funding at a regional or national level. In comparison to those at an individual level, theories at an infrastructural level are less commonly reported in the literature.

Investment into local community services

If there is a diverse range of accessible opportunities within the local community, and awareness of these	Then there will be increased referrals to social prescribing, and increased attendance	Because community services can offer more sessions which can be tailored to different needs of young people, and young people are more likely to be motivated to attend sessions which align with their interests	Mapping, Review

There has been a lack of investment into local community services in recent years, meaning that community services are commonly reliant on short term

funding. This can lead to a lack of sustainable access, with services unable to continue to deliver sessions after funding runs out, as well as inequal provision across different areas (NASP, 2024; Munro & Dayson, 2025). This may reduce the amount of young people who are referred to community groups through social prescribing, because there are fewer opportunities available and staff face challenges in keeping up to date with what is available.

In contrast, if local community services receive long term investment, this is likely to increase the opportunities that are available for young people, allow for sustainable provision and may mean there are more services which meet their needs. This support may be financial investment, which could allow for more low-cost sessions to be available, or upskilling staff, through training or supervision. The mapping and review highlighted that when services are available for families to access in the long term (after clinic support has ended), this is more likely to support continued attendance, which has impacts on sustaining weight management and longer-term outcomes (Avery et al., 2012; Jinks et al. 2013).

To enable community services to provide accessible activities for young people living with obesity, this requires investment. This may include financial investment, supporting collaborations with CEW staff, or training and supervision. The type and amount of support required may depend on each community service and their existing infrastructure.

Wider health messaging and understanding of social prescribing

If NHSE recognises social prescribing and holistic, patient centred support as priorities within healthcare provision and includes this within health policies	Then there will be increased use of and knowledge of social prescribing within services, and increased referrals	Because more staff are aware of what social prescribing is and have increased motivation and confidence to refer young people, especially if aligning with the ethos of the CEW clinics	Survey, Review

The wider context of societal views and health promotion can also impact on how social prescribing works in CEW. It has been suggested that where there is a focus on personal responsibility around obesity (for example, ‘eat less, move more’), then this can lead to feelings of stigma and lack of engagement with services (Reece et al., 2016). But if a holistic approach is taken and person-centred care is prioritised, then this can reduce feelings of stigma and support engagement (Visram, Hall & Geddes, 2013). As CEW has a holistic approach to supporting young people living with obesity, considering physical activity, mental health and family support alongside weight, this could facilitate the implementation of social prescribing within services. This may also impact on the motivation and confidence of CEW staff to implement and refer to social prescribing, as it aligns with the service aims and their role. The survey highlighted that aligning with approach of the CEW clinic was important for supporting implementation and buy-in from staff. The review also highlighted the importance of addressing the social determinants of health and not solely focusing on personal responsibility in managing weight (Reece et al., 2016).

For social prescribing to work in CEW it may therefore be helpful to provide guidance around what social prescribing is and what benefits it can offer, targeted specifically at healthcare professionals (Moore et al., 2022). However, it should be noted that inclusion of social prescribing in national health policy and guidelines does not guarantee costs or resources will be available to support implementation.

6.4 Substantive theories

Substantive theories lie between individual, minor theories that are specific to individual programmes and grand unified theories (Merton, 1968; Jagosh et al., 2014). They are more abstract from specific interventions but can be used to provide links to pre-existing knowledge, helping to add rigour and explanatory depth to initial theories (Shearn et al., 2017; Pawson, 2024). Further detail is provided in Chapter 2; *Methodology*.

Of the eight realist records included in the review, six mentioned specific links to overarching or substantive theories. These theories were extracted from the realist records, listed, and included; social cognitive theory (Bandura, 1986), self-efficacy (Coulter & Ellins, 2006; Aljasem et al., 2001; Bandura, 1978, 2008), patient activation (Hibbard & Gilbert, 2014), The Health Belief Model (Mills, 2008), Leventhal's common sense model of illness (Diefenbach & Leventhal, 1996), social capital (Ellison, Steinfield & Lampe, 2010; Putnam, 2000; Bourdieu, 1986; Carpiano, 2006), self-actualisation (Maslow, 1943), social cure (Haslam et al., 2018; Wakefield et al., 2019) and salutogenesis (Antonovsky, 1979).

Each substantive theory was explored in further detail by searching for and reading the relevant literature for each of them. This was used to examine relevance to the initial programme theories. The following four were selected as these were most relevant to, and most able to further refine and inform understanding across each level of the 4 I's (individual, interpersonal, institutional, infrastructural) when consolidating initial programme theories.

Patient Activation

Patient activation relates to the “knowledge, skills and confidence a person has in managing their own health and health care” (Hibbard et al., 2005; Hibbard & Gilbert, 2014). Participants who are ‘more activated’ may feel more confident and capable of being involved in their own care and are more likely to attend services and engage in positive health behaviours. Patient activation incorporates aspects of self-efficacy and readiness to change, by developing confidence and empowering individuals (Hibbard & Gilbert, 2014). If patients believe they can play a role in managing their health, they are more likely to engage with services and healthcare advice.

Patient activation was discussed in papers by Bertotti (2018) and Tierney (2020). Bertotti (2018) referenced patient activation as increasing motivation to attend social prescribing activities and noted that this activation developed from the support offered by social prescribing coordinators (or link workers). Tierney

(2020) discussed the importance of tailoring support to an individuals' level of activation, and by reaching their goals, this provides a sense of achievement and motivates them to continue to engage with social prescribing. This links to theories such as person-centred care, offering choice and physical activity, which focus on empowering individuals to have confidence to make positive choices around their own health.

Social Cure

Wakefield and colleagues (2022) considered social cure theory (Haslam et al., 2018), and its application to social prescribing. Social cure theory is developed from the social identity approach, which suggests that group memberships influence thoughts and behaviours of members, but only if they identify with them. Social cure furthers this by suggesting that social identities support wellbeing and offer resources, such as trust, meaning, purpose, and resilience. This understanding of social relationships and identity relates to multiple theories identified in this study, especially social support, staff qualities, and using a whole family approach.

Social Capital

Similarly, Tierney (2020) explored social theories in terms of social capital. This was also applied to the relationship between staff included in social prescribing, including those in clinical and community roles. This includes sharing ideas to facilitate trust, developing a shared language and creating innovative ways of working. Bourdieu (1986) advised that these social connections do not always develop organically but often require time and effort to make them successful.

This theory of social capital therefore links to the need to for strong collaboration between clinical and community services, and the benefits of social support and shared working. This is reflected in the if-then-because theories exploring communication and collaboration between services, investment into local

community services, wider health messaging and understanding of social prescribing.

Salutogenesis

The theory of salutogenesis was referenced in Wood (2021) and has previously been noted as part of a theoretical perspective to social prescribing (Jackson, 2016). It is based on Antonovsky's asset-based approach to health, where assets are factors which support health and wellbeing. These assets include individual factors but also resources such as communities and organisations (1979). A central concept of salutogenesis is an individual's 'sense of coherence', relating to how well someone is able to cope with stress, similar to resilience (Mittelmark et al., 2022). Other aspects include a focus on origins of health and promoting good health rather than focusing on disease. For social prescribing, this means taking a proactive approach, by focusing on health and strengths rather than disease, and using person-centred, holistic support to increase confidence and feelings of empowerment.

Use of Substantive Theories

These substantive theories were used to provide additional insights and detail when synthesising programme theories, based on how social prescribing has worked in wider contexts. For example, exploration of 'patient activation' helped to provide further insights to the theory of 'person-centred care', including how tailoring support to young people's needs and capabilities helped them reach their goals, providing a sense of achievement and motivation to engage with the service and social prescribing.

At this stage, substantive theories were selected from the literature based on relevance to the initial theories. These substantive theories will be further considered through phases 4 and 5, to help develop explanations and interpretation of the analysis from interviews. Further detail is provided about how these theories were used in Chapter 7 (section 7.5.4)

6.5 Chapter Summary

This chapter detailed the initial programme theories, consolidated from phases 1, 2 and 3. These are presented together in one table (Table 19) below. These initial programme theories will then be refined in Phase 4 (Chapter 7) through interviews with young people accessing CEW, their parents/carers, CEW staff and staff working in community services.

Table 19. Combined If Then Because statements from Phases 1, 2 and 3

Name	If	Then	Because	Phase
<i>Individual</i>				
Person-centred care	If social prescribing offers the opportunity to address the young person's own personal goals, and they are involved in decisions about their care	Then young people are more likely to attend sessions, improve and their wellbeing and sustain this in the long term	Because the support is more aligned to the young person, which can reduce barriers to involvement. They feel they have been listened to and feel empowered to have control over their care	Mapping, Survey, Review
Choice	If social prescribing offers young people a choice over what activities they can be involved in	Then young people are more likely to attend sessions, and improve in confidence and self-esteem	Because the young person is more motivated to take part if they have a sense of control over activities and it aligns to their interests	Mapping, Review
Holistic, strength-based approach	If social prescribing takes a holistic approach, and focuses on the opportunities for young people, rather than negative impacts of their health	Then young people are more likely to attend sessions, and improve in confidence and self-esteem	Because this considers the wider, social determinants of health, which can be barriers for other support (e.g. poor mental health can be a barrier for involvement in physical activity)	Mapping, Survey, Review
Physical activity	If social prescribing provides the opportunity for the young person to take part in appropriate physical	Then this can lead to improved confidence, increased physical activity and improved physical health	Because the young person feels more energetic, happier, has increased self-esteem, and feels more capable of taking part in physical activity	Mapping, Survey, Review

	activity (fun, in a safe and non-judgemental space)			
<i>Interpersonal</i>				
Social support	If social prescribing offers the young person the opportunity to meet others with similar experiences	Then young people are more likely to attend sessions, and experience improved wellbeing	Because young people feel they have a safe environment with a lack of judgement or stigma, and this provides peer support and increases confidence and self-esteem	Mapping, Survey, Review
Staff qualities	If staff are skilled (e.g. knowledgeable about health needs, have motivational skills), and take an informal approach, are confident working with young people, and are compassionate and non-judgemental	Then young people are more likely to attend sessions, and experience improved wellbeing	Because young people trust that the staff can understand and deal with complex needs. An informal, non-hierarchical approach helps facilitate the development of trusting relationships between staff and young people	Mapping, Review
Whole family approach	If social prescribing involves the whole family (e.g. parents/carers, siblings)	Then young people are more likely to attend social prescribing sessions, and there will be increased knowledge within the family, and improved	Because young people are often reliant on their parents/carers for traveling to and attending sessions, and gain a sense of support and feeling accepted within their family	Survey, Review

		wellbeing for the young person		
<i>Institutional</i>				
Communication and collaboration between services	If there are good collaborative relationships between healthcare staff and community staff, including feedback about how groups run and experiences of young people	Then this can increase referrals to social prescribing, and attendance at sessions by young people	Because staff have increased understanding of what social prescribing can support young people with, and see benefits of it, which increases their motivation and confidence to refer young people	Survey, Review
Accessibility	If social prescribing can include referral to local services that are adapted to local and personal needs, (e.g. rolling joining options, evening delivery, culturally diverse, community locations, public transport)	Then this can increase attendance at sessions by young people	Because of increased relevance to families, they feel as though their needs are met and there are less perceived and actual barriers to attending	Mapping, Review
<i>Infrastructural</i>				
Investment into local community services	If there is a diverse range of accessible opportunities within the local community, and awareness of these	Then there will be increased referrals to social prescribing, and increased attendance	Because community services can offer more sessions which can be tailored to different needs of young people, and young people are more likely to be	Mapping, Review

			motivated to attend sessions which align with their interests	
Wider health messaging and understanding of social prescribing	If NHSE recognises social prescribing and holistic, patient centred support as priorities within healthcare provision and includes this within health policies	Then there will be increased use of and knowledge of social prescribing within services, and increased referrals	Because more staff are aware of what social prescribing is and have increased motivation and confidence to refer young people, especially if aligning with the ethos of the CEW clinics	Survey, Review

7.0 Chapter 7. Evaluation

7.1 Introduction to Chapter

Chapter 7 summarises phase 4, which uses mixed methods data collection as part of a realist evaluation to refine the initial programme theories of how and in what ways social prescribing may work in CEW clinics to support young people living with severe obesity. These initial theories were developed from phases 1, 2 and 3 and are summarised in chapter 6. This chapter provides an overview of the rationale and methods for phase 4 and presents the results.

7.2 Background

The CEW clinics take a holistic approach to treating complications related to severe obesity, with wider factors such as mental health, family environment and activity considered alongside weight. The aim is to deliver person-centred and individualised care to families. This approach means that treatment is tailored to the specific needs of each individual young person and their family, and as such, each CEW clinic model varies in terms of workforce and service provision (Davies et al., *in preparation*).

Social prescribing involves healthcare professionals linking patients into community support for additional non-medical help with their health and wellbeing. Families accessing CEW clinics are often living in more deprived areas of England, and commonly experience challenges around mental health, wellbeing and social isolation (Hawton et al., 2025). Therefore, social prescribing may align to the holistic approach of the clinics by focusing on supporting young people and families with their wider, non-medical needs. This could include issues with housing, finances, or access to physical activity, wellbeing support and social connections.

To date, social prescribing has more commonly been used with children and young people to support low to moderate mental health needs and has not yet been formally used or evaluated within CEW services (Muhl, Cornish et al., 2025; Garside et al., 2025). Whilst still more limited than for adult populations, there is increasing evidence that social prescribing is beneficial for children and young people, but there remains a need to understand further how it works, for whom and under what circumstances (Muhl, Cornish et al., 2025). The survey in phase 2 indicated that 87% of CEW professionals felt that they would be very, or fairly likely to use social prescribing in their role in the future, demonstrating the importance of ensuring that it is designed and implemented in a way that is helpful and accessible for young people living with severe obesity.

7.3 Research Question and Aim of Phase 4

The research question underpinning phase 4 asks;

How, why, and in what circumstances could social prescribing work (or not work) in CEW clinics?

The aim of phase 4 was to:

- Through primary research, refine theories of how, why and in what circumstances social prescribing may or may not work with a CEW population to support the health and wellbeing of young people living with severe obesity

7.4 Method

7.4.1 Design

This phase used a realist evaluation design, incorporating mixed methods data collection. This included questionnaires completed with young people attending a Complications of Excess Weight (CEW) clinic, and qualitative semi-structured, realist interviews conducted with young people attending CEW and their parents/carers, staff working as part of a CEW MDT and staff working at relevant community services.

Ethical approval was obtained through both University and NHS ethics review. Sheffield Hallam University Ethics approval (ER61832265) was confirmed on 19th April 2024. NHS research ethics committee (REC), Health Research Authority (HRA) and Health and Care Research Wales (HCRW) approval (IRAS 334930) was confirmed on 25th June 2024.

7.4.2 Patient and Public Involvement (PPI)

Patient and public involvement was a key part of the design of the study and influenced the ethics application. Sessions were undertaken with members of the CEW MDT where recruitment would take place to confirm feasibility of proposed age range, sample size and recruitment methods. In addition, I attended a community weight management service and spoke to five families. This service ran sessions with children aged 5-17 years old and their parents/carers. At these sessions, I shared an overview of the study and gathered feedback. Families noted that they preferred an online option for meetings and suggested that the reimbursement amount should be increased from £10 overall to £15 for questionnaire completion and £15 for interview completion. Both parents, young people and CEW clinic staff reviewed information sheets for accessibility and acceptability of terminology.

7.4.3 Sampling

Participants for phase 4 included:

- Young people living with severe obesity and accessing a CEW clinic
- Parents/carers of young people living with severe obesity who were accessing a CEW clinic
- Clinical staff working as part of one CEW clinic multidisciplinary team
- Staff working at community services with experience of working with CEW clinics

Only young people were recruited to complete quantitative measures (questionnaires). All participants were recruited to take part in qualitative interviews. This meant all participants could contribute to refining the initial programme theories based on their varied experiences.

Participant sample size was realist informed and was based on recruiting sufficient numbers to refine the initial programme theories (RAMESES Project, 2017*d*). It was estimated that a maximum of 30 young people would be recruited to complete the quantitative measures (questionnaires), and 9-12 young people, 9-12 parents and 6-10 staff would complete qualitative interviews.

These were estimates, rather than specific targets based on the realist approach. Realist interviews focus on developing theories based on relevance and rigour and as such there is no strict minimum sample size based on power calculations, and less focus on saturation compared to traditional qualitative studies (Manzano, 2016). Estimated sample size was therefore based on including broad and diverse respondents who would be able to provide sufficient data to refine programme theories (Manzano, 2016).

The estimate of 6-10 members of staff was based on the workforce of the local CEW team and aimed to include consultants (n=~2-3), support workers (n=~2-3) and community-based staff (n=~2-4). However, as staff interviews were conducted, they were felt to be rich and highly relevant to the discussion of theories, particularly at the institutional and infrastructural levels. Therefore, the

number of staff interviews were increased to allow for broader perspectives of different roles to be included. This reflects realist good practice guidelines which encourage refining the sample as data is collected and widening recruitment to increase diversity of respondents (Wong et al., 2016; Manzano, 2016).

7.4.4 Inclusion/Exclusion Criteria

Families:

Inclusion criteria:

- Young people aged 11-17 years old attending a CEW clinic were eligible to participate in completing questionnaires and interviews
- Parents/carers of young people attending a CEW clinic were eligible to participate in interviews

Exclusion criteria:

- If the participant was unable to complete the English language outcome measure, or interview due to a language barrier which could not be overcome (for example with the support of translators)

Staff:

Inclusion criteria:

- Staff members from one CEW multidisciplinary team (MDT)
- Staff working at community services who had experience working with a CEW clinic

Exclusion criteria:

- If the participant was unable to complete the interview due to a language barrier which could not be overcome (for example with the support of translators)

7.4.5 Confidentiality

Research was planned and undertaken in accordance with Sheffield Hallam University guidelines, aligning to commonly agreed standards of good clinical practice (GCP) such as the Declaration of Helsinki, The Economic and Social Research Council (ESRC) Research Ethics Framework, by the Medical Research Council (MRC) and Research Councils UK (RCUK). A Data Management Plan and Data Protection Impact Assessment was completed as part of ethical approval processes in line with Sheffield Hallam University policy.

All data including questionnaires, interview files and transcripts were pseudonymised with the use of individual participant codes. No personal identifying data was included in transcripts, analysis or outputs (including the thesis and any resulting publications or dissemination).

7.4.6 Recruitment Process for Families

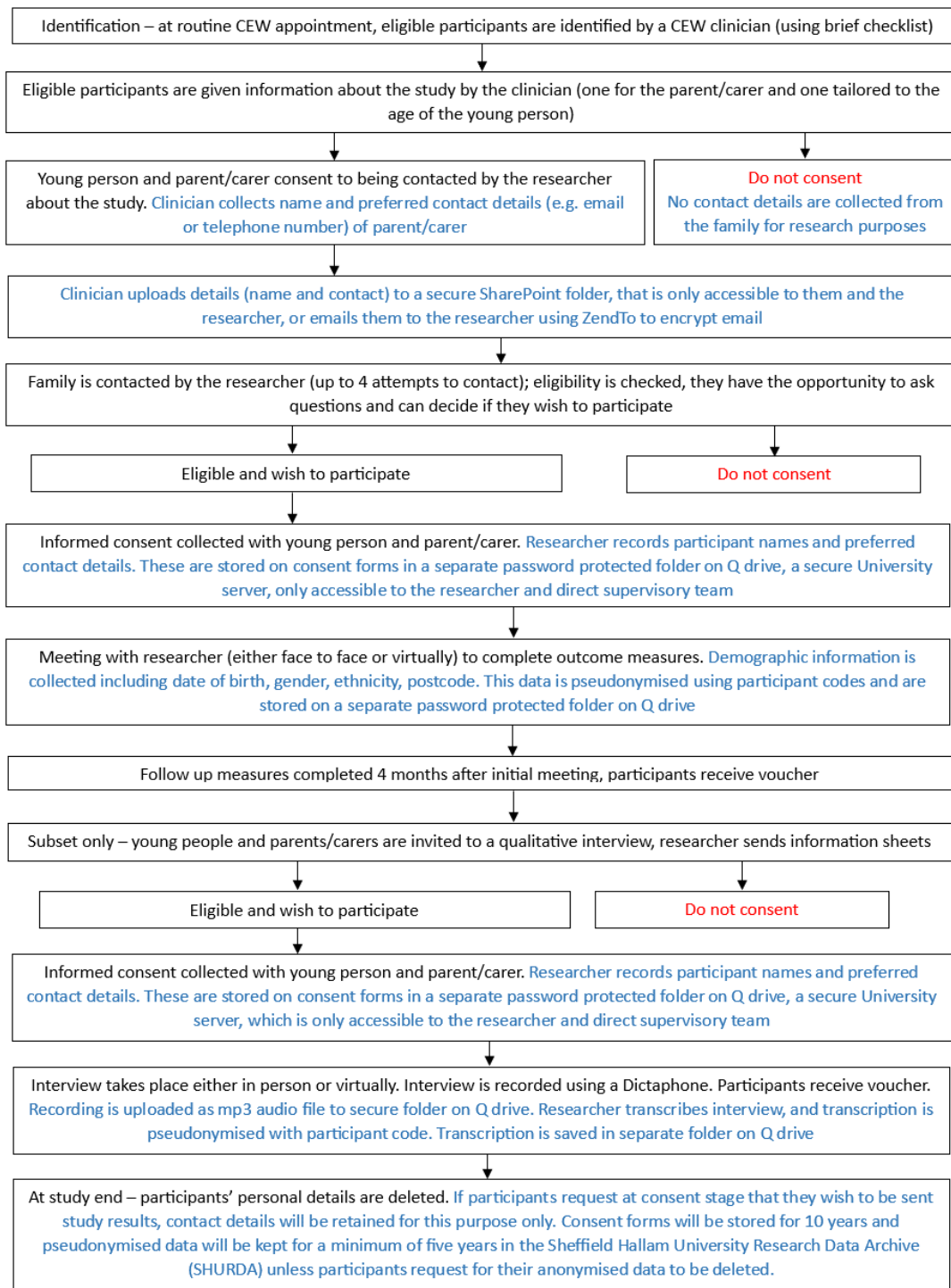


Figure 16. Flowchart detailing the recruitment process for families (approved as part of IRAS ethics application)

Figure 16 outlines the recruitment process for young people and their parents. The following sections provide further detail on the participant recruitment process. This is separated into recruitment for quantitative data collection (questionnaire completion with young people), and then qualitative data collection (interviews with young people, parents and staff).

7.4.6.1 Quantitative Participant Recruitment – Questionnaires

Young People

Eligible young people and their families were approached by clinicians as part of their routine appointments and contacts through CEW (including clinic appointments, home visits and CEW community sessions). CEW staff provided families with information about the study both verbally and with a printed flyer or information sheet and asked if they would be happy to be contacted by a researcher. CEW clinicians collected opt-out consent to be contacted by a researcher. This meant that unless a family stated that they did not wish to be contacted about the study, clinicians securely passed preferred contact details (usually either email or mobile number) to the researcher either directly in person or through encrypted email.

The researcher was present in the building where some of the CEW clinic appointments are located, meaning there was the opportunity for families to speak in person to the researcher whilst they were attending their routine appointments if preferred. If so, CEW clinicians would call the researcher, who then met the family in the waiting room and explained the study to them. Posters were also placed in waiting rooms at CEW clinics, with information about the study and the researcher's contact details so that families could contact them directly if they were interested. The poster is included in [appendix 5](#).

When contacting interested families, the researcher was then able to provide further information about the study, ensure young people and parents had received age appropriate information sheets (with separate versions available for

young people aged 11-15 years, young people aged over 16 years, and parents/carers), answer any questions they had and allow them to decide whether they want to participate. Families had the participant information sheets for at least 24 hours before being contacted for participation. Examples of the participant information sheets are provided in [appendix 6](#).

If families were happy to take part, a meeting was arranged, either in person or online, depending on participant preference. Prior to any data collection, participants completed consent forms. These could be completed electronically, given the low risk nature of the study and the potential for online data collection methods. Young people aged 16 years and over were able to provide informed consent for themselves. For those aged 11-15 years, assent was collected from the young person, and consent was collected from a parent/carer. Examples of the consent forms are included in [appendix 7](#).

Young people then completed validated questionnaires with the help of the researcher (measures are described in section 7.4.9.1 below). They completed these measures at two time points; at an initial meeting at Time Point 1, and four months later at Time Point 2. Participants received a £15 voucher to thank them for their time after completing the questionnaires at the second time point. All quantitative data was added into a secure Excel spreadsheet from the raw questionnaire immediately following the data collection meetings. Participant codes were used to ensure anonymity.

7.4.6.2 Qualitative Participant Recruitment – Interviews

Young People and Parents/Carers

At Time Point 2, when young people completed the questionnaires a second time (see Figure 16, and section above), young people and their parents/carers were invited to take part in a qualitative interview. Again, age appropriate information sheets for interviews were shared with young people and their parents/carers, and they were given at least 24 hours to decide if they wanted to take part before being contacted by a researcher.

If they wanted to participate, each participant then completed electronic consent forms, specific to the interviews, prior to participating in the interview. Families could also be recruited to participate via their routine CEW clinic contacts (e.g. through home visits and community activities). They did not need to have completed the questionnaires to take part in an interview. To collect diverse views, maximum variation sampling was used where possible, by including those from different geographical locations and of different gender, age and ethnicity.

Interviews could be conducted either online via Microsoft Teams or in person at an existing CEW clinic location. A private room was booked at one of the sites if selected to be in person. Interviews could be held with young people and parents separately, or together in one interview, depending on participant preference. Interviews were recorded using an encrypted Dictaphone and transcribed by the researcher.

Participants were reminded at the interview that they could withdraw at any time or choose not to answer any questions without consequence. The interview was audio recorded only (not visually to help participants feel more comfortable), and they were reminded that the interviewer would transcribe the recording and would remove any identifiable information, meaning they would remain anonymous. Participants then provided further verbal consent to confirm they were happy to take part and did not have any additional questions. At the end of the interview, they were again asked if they had any questions, or if they wanted to add to anything that had been discussed in the interview. A debrief was available, with signposting to additional support if needed. Due to the low-risk nature of the discussions in interviews, which were focused on their experiences of community activities, there were no concerns around distress raised.

Staff

Clinical staff were approached in person, either at a monthly multidisciplinary team meeting, other meeting (such as the annual Away Day) or before their clinics. Community staff were also first approached in person, at face to face

meetings. This was then followed up with an email, including an information sheet. If they were happy to participate in an interview, staff could then book a time when they were available to meet. This could either be in person at an existing CEW clinic location or online via Microsoft Teams. Staff completed consent forms prior to taking part in an interview. As with family interviews, these were recorded using an encrypted Dictaphone and transcribed by the researcher. Transcripts were anonymised by the researcher.

Reflections on the recruitment process are included in section 7.6.5. Examples of participant information sheets and consent forms for the interviews are included in [appendix 6](#) and [appendix 7](#).

7.4.7 Ethical Considerations

A strategy was developed with the supervisory team to mitigate any distress that may arise for young people during data collection or after. This included the option for young people to not answer any questions if they felt uncomfortable, and ensuring they were aware that they could stop taking part or withdraw from the study at any point without consequence.

There were also standard procedures in place for reporting if any young person disclosed information of concern for example, escalating concerns to direct supervisors and clinical staff if required. Families were informed of this process in information sheets and by the researcher prior to consenting to participate. I have a background in child mental health research with prior experience of completing measures and interviews with young people with additional mental health needs.

7.4.8 Timeline

Table 20 shows activity during the recruitment period. There were multiple strategies used to support recruitment across the study timeframe, some of which are indicated in Table 20 below. These include attending monthly clinic MDT meetings, joining community sessions through CEW, attending and speaking to clinicians prior to their weekly clinics, and submitting an ethics amendment for a mail out to participants. This letter is included in [appendix 8](#). Detailed reflections on recruitment processes and challenges are presented later in this Chapter (section 7.6.5).

Table 20. Details of activity during recruitment timeframe

Date	Activity
1 st June 2024	Planned start date
9 th August 2024	Recruitment opened, due to short delay in ethics approval and site sign-off
12 th August 2024	Emailed information to the CEW MDT around identifying and approaching families
3 rd September 2024	Presented recruitment information to the CEW MDT team in person, alongside sharing information sheets and flyers
11 th September 2024	Information was shared to families via clinical staff using the mobile health app used by the service
20 th September 2024	Met with other researchers who were working with this population and this CEW clinic, to check for any potential overlap to reduce burden for participants and to share recruitment strategies
September 2024 – May 2025	Attended monthly MDT meetings, and met clinicians prior to their clinics, to provide regular

	updates on recruitment and discuss strategies with staff
October 2024	Attended four community sessions to share information with families
5 th February 2025	Submitted an ethics amendment to include a direct mail out to participants by clinicians. The letter for mail out included the researcher's contact details, and a QR code which sent an automated message to the researcher so families could easily get in touch if they were interested in participating. The aim of this additional approach was to support recruitment but to also facilitate participation by eligible families who may not have had a routine CEW contact point within the recruitment timeframe.
19 th February 2025	Attended a holiday community activity session linked to CEW to share information with families
7 th March 2025	Ethics approval and site approval for mail out amendment confirmed
31 st May 2025	End of recruitment

7.4.9 Data Collection

This section summarises data collection. First, the quantitative data collection is presented, involving questionnaire completion with young people. Then, the qualitative realist interview process is described.

7.4.9.1 Quantitative Data Collection – Questionnaires

Young People

The questionnaires aimed to help explore patterns relating to initial programme theories by measuring outcomes where social prescribing is expected to impact. This is detailed further in Chapter 1; *Introduction* but includes areas such as wellbeing, physical activity and social connections (Muhl, Cornish et al., 2025; Polley, n.d.).

The outcome measures selected met recommendations from both social prescribing (NHSE Social Prescribing Reference Guide) and obesity research (Association for Young People's Health, AYPH). The NHSE Social Prescribing Reference Guide (NHS England, 2023) advises using measures of wellbeing, such as ONS4 Wellbeing Scale. Although this guide is currently tailored to adult services, similar outcomes of interest such as mental health, confidence, behaviour change, and increased connections are recommended between the Social Prescribing Youth Network (Polley, n.d.) and adult social prescribing (Polley et al., 2020). During development of the CEW clinics, AYPH conducted engagement work with young people and parents with lived experience and identified wellbeing as main outcomes for the clinics to consider (Rigby, McKeown & Wortley, 2022). Despite this, there are limited measures relating to wellbeing included in the final CEW dataset, other than the quality of life measure, PedsQL.

Physical health measures such as BMI or weight were not felt to be appropriate to collect in this study, both given the option for online data collection methods and the context of this population, who can find weight measures distressing and often experience weight stigma in health services (Pont et al., 2017). This decision to not collect physical health measures was supported by engagement work with young people and CEW staff.

For this study, measures included the following:

1. Demographics (completed at baseline only): date of birth, ethnicity, number of siblings, postcode, family access to a car, school attendance. These were included with the aim of helping to understand if outcomes from social prescribing differed for different families, understanding what works for whom
2. Current use of community services: exploring ways community services were accessed, and if so, what these were and how long they had been attending
3. PACE+ (Hardie Murphy et al., 2015): assessing how much physical activity young people did over a typical week
4. Short Warwick-Edinburgh Mental Wellbeing Scale (SWEMWBS, 2008): short measure of wellbeing
5. ONS 4-item UCLA Loneliness Scale (ONS, 2018): to assess changes in social connectedness
6. Paediatric Quality of Life (PedsQL) (Varni, Seid & Kurtin, 2001): a quality of life measure, which is currently used within CEW, providing comparative data
7. Goal-based outcomes (Law & Jacob, 2015): to explore individual goals of those attending the clinics

Measures were validated for the age range of eligible children, with different versions of questionnaires used depending on the age of the child. Measures selected were non-diagnostic and low intensity to avoid burden or distress for young people.

7.4.9.2 Qualitative Data Collection – Interviews

Young people, parents/carers and staff

Interviews were semi-structured and theory-driven, in line with the realist approach. Whilst interviews contained some discussion of barriers and enablers, and participants' experiences of community services, the initial programme theories were also explicitly presented and discussed with respondents as part of the teacher-learner cycle (Manzano, 2016). Participants were encouraged where relevant to share specific examples of their experiences or challenges they faced in accessing or working with community services. Further information about the realist approach to interviewing is provided in Chapter 2; *Methodology*.

A generic topic guide was created which outlined the structure of the interview and example questions and wording, informed by the RAMESES training resource, 'starter set of questions' (RAMESES Project, 2017e). This is included in [appendix 9](#). This topic guide was then adapted prior to each interview to include specific questions, and specific programme theories for discussion based on the participant's knowledge and experiences. For example, a young person would be more likely to comment on theories based at the individual or interpersonal level, whereas staff would be more able to comment on institutional or infrastructural level (Pawson & Tilley, 1997).

After each interview, the researcher transcribed the recording, to allow for reflection on the interviewing technique and to review the theories discussed. Notes were taken in relation to any refinements to programme theories, or any new theories or rival theories that were identified. In this way, subsequent interviews could be tailored to reflect developments in theories and new insights, aligning with the iterative nature of realist evaluation (Pawson, 2006; RAMESES Project, 2017d). All data was anonymised using pseudonymised ID numbers and any names or identifying phrases were anonymised in the transcript.

To support the process of realist interviewing, I completed CARES Realist Interviewing training (realistmethodology-cares.org/) in October 2024, which included reviewing the realist approach, and multiple practices and role plays of

interviews (Jagosh, 2024). After this training, I continued to attend monthly meetings with a small group of students from this course for further peer support, sharing of ideas and experiences, and further interview practice.

7.4.10 Data Analysis

This section describes the data analysis. The analysis of quantitative measures is presented first, and then the qualitative analysis of the realist interviews is summarised.

7.4.10.1 Quantitative Analysis – Questionnaires

Young people

Data analysis of quantitative outcomes measures included descriptive statistics summarising differences in change between young people, and over time (comparison between Time Point 1 and Time Point 2). As a small sample size was expected, and the aim was to summarise data to explore patterns, descriptive statistics were most appropriate (Marshall & Jonker, 2010).

7.4.10.2 Qualitative Analysis – Interviews

Young people, parents/carers and staff

Data analysis of qualitative interviews followed RAMESES standards (RAMESES Project, 2017d) and used an overall retroductive approach. Retroduction aims to go deeper, to uncover the underlying hidden causal forces behind patterns or outcomes (Jagosh, 2020). Retroduction uses both inductive and deductive logic when analysing interviews. Inductive logic involves building theory from observations, for example using participants' discussions of their experiences to develop a theory. Deductive logic proposes theories and tests these by seeing if associations or outcomes match expectations (RAMESES Project, 2017d).

Analysis was conducted using NVivo version 12 (Lumivero, 2023) and was informed by guidance from CARES Realist Interviewing training, RAMESES quality standards (Jagosh, 2024; Wong et al., 2016; RAMESES Project, 2017d), and work by other researchers (Gilmore et al., 2019; Dziruni et al., 2025).

Each transcript was added into NVivo as an individual file or 'source'. There was one exception, where one family participated in an interview together and so three participants (one child and two parents) were included within one source.

Nodes were then created for each initial programme theory, alongside one node for context, and one node for new theories which did not fit within initial programme theories. All transcripts were read in full and then re-read, highlighting relevant sections for each node.

Each node was then reviewed in detail, adding sub-nodes or child nodes to summarise breadth of discussion. The initial programme theories were edited where relevant based on these, for example, by splitting one theory into multiple theories, by adding further detail to an existing theory or by adding new theories, including rival theories.

7.5 Results

7.5.1 Participant Characteristics

7.5.1.1 Quantitative Participants - Questionnaires

Young People

Two participants completed the survey at both time points (Time Point 1 and Time Point 2, four months later) and also agreed to take part in an interview. Demographics of participants are included in Table 21. These participants reflect those attending CEW in terms of their age and geographical location. The average age of young people attending CEW is 12.4 years (range 8.9-14.7), and approximately 27% are reported to be living in the most deprived decile (Matu et

al., *in review*). However, these participants potentially do not represent more broadly the diversity of the CEW population, who are often not in regular education and with 40.1% from Black or ethnic minority backgrounds (Hawton et al., 2025; Matu et al., 2025). This, alongside the small sample size, means quantitative data should be taken and interpreted with significant caution. Challenges and reflections on recruitment are presented in this Chapter, in section 7.6.5).

Table 21. Demographics of participants recruited to complete quantitative measures

Participant ID	Age (years)	Gender	Ethnicity	IMD of area	Access to car	Attending school/ college	Accessing community services
C01	13	Female	White English	1	Yes	Yes	Yes
C02	17	Female	Other White Background	1	Yes	Yes	No

7.5.1.2 Qualitative Participants - Interviews

In total, 20 participants were recruited, including 11 clinical staff, three community staff, three young people and three parents/carers. One family (two parents and one child) chose to complete their interview together, meaning a total of 18 interviews were conducted. See Table 22 for an overview of participant roles.

Young People and Parents/Carers

Three families were recruited for interviews. This included three young people (all female), aged between 13-17 years and three parents, including one father and two mothers. All families chose to complete interviews virtually via Microsoft

Teams. It was anticipated that for those families who had previously completed questionnaires the interviews may be more in depth because previous contact with the researcher would help to build rapport. However, there was no difference in depth of interview based on whether they completed questionnaires or only interview.

Clinical Staff

All members of one CEW multidisciplinary team (MDT) (n=11) were recruited. Staff roles included consultants (n=3), support workers (n=3), nurses (n=3), a dietician (n=1), and a psychologist (n=1). The number of CEW MDT staff eligible for interviews was expanded during data collection via an ethics amendment based on the breadth and richness of earlier staff interviews. Five interviews were completed in person, and six online. In person interviews were held in a private room at a clinic location and were scheduled either after a clinic or before an MDT meeting, which were held at the same venue.

Community Staff

Three interviews were conducted with staff from community services who had experience working with a CEW clinic. All staff had a broad range of experience, roles, and length of time working with CEW. Roles included an advisor from an information and advice service, a leader at a physical activity community club and a leader at a community weight management programme. All community based staff chose to complete interviews virtually via Microsoft Teams.

Table 22. Roles of participants recruited to complete a qualitative interview

Participant ID	Role
C01	Young person (female) Family 1
C02	Young person (female) Family 2
C03	Young person (female) Family 3
P01	Parent (Mother) Family 1
P02	Parent (Mother) Family 3
P03	Parent (Father) Family 3
S01	CEW MDT staff
S02	CEW MDT staff
S03	Community staff
S04	CEW MDT staff
S05	CEW MDT staff
S06	CEW MDT staff
S07	Community staff
S08	CEW MDT staff
S09	CEW MDT staff
S10	CEW MDT staff
S11	CEW MDT staff
S12	CEW MDT staff
S13	Community staff
S14	CEW MDT staff

7.5.2 Quantitative Results - Questionnaires

Young People

In depth inferential statistics and analysis were not appropriate due to the small sample size of survey completions (Phillips, Phillips & Aaron, 2013). C01 had been accessing a charitable youth organisation for a number of years, and continued to access this alongside CEW support, as well as attending CEW community sessions. C02 was not accessing any community services at both time points. Both young people were living within the region of this CEW clinic, but C02 was living further from the central CEW site. Both participants had

positive experiences during their time with the CEW service (both were still attending education settings, were on weight loss medication, and reported they were doing well in terms of weight management). C01 was earlier in their CEW journey, compared to C02 who was older, and closer to discharge. It was therefore not anticipated that substantial differences would be seen between these participants or between time points. Table 23 presents a summary of participants' scores on each of the questionnaires.

Table 23. Results on each of the questionnaires for each participant

Measure	C01		C02	
	Time Point 1	Time Point 2	Time Point 1	Time Point 2
PACE	2	5	7	7
SWEMWBS	28	28	33	26
ONS Indirect measure	4	3	4	3
ONS Direct measure	5	5	4	4
PedsQL Psychosocial Health Score	74	75	87	90
PedsQL Physical Health Score	66	91	91	94
PedsQL Total Score	71	82	88	91
Goal based outcome measure	0 4	10 10	6	9

The **PACE** questionnaire asks young people two questions; for self-reported number of days that they were active for 60 minutes, within the past week and over a typical week. The average of these two values indicates how many days per week that they were active. 60 minutes of at least moderate physical activity per day is the UK recommended guidelines (Department of Health and Social Care, 2020). Results showed that average levels of physical activity increased for participant C01 and remained high for C02 between time point 1 and time point 2.

The **SWEMWBS** explores wellbeing, based on responses to 7 statements summarising a young person's feelings over the past two weeks. A higher score indicates higher wellbeing. Both participants scored highly at baseline and whilst scores increased for C01 at time point 2, scores dropped slightly for C02.

The **ONS loneliness scale** was split into three questions which ask about loneliness indirectly, and one direct question of how often a young person feels lonely. For the indirect measure, a sum of the scores is calculated, with responses able to range from 3-9. A lower score indicates less feelings of loneliness. The direct measure is one score, ranging from 1-5. In comparison to the indirect measure, a higher score indicates less feelings of loneliness. For both participants, scores were maintained between time point 1 and 2.

The **PedsQL** contains 23 items, across four scales (physical functioning, emotional functioning, social functioning and school functioning). Summary scores that can be calculated include the psychosocial health score (based on the mean of the emotional, social and school scales), the physical health score (the physical functioning scale) and a total score (based on the mean of all subscales). Higher scores on each scale indicate higher self-reported quality of life. Both participants improved on all scales between time point 1 and 2, with slightly higher increases for C01. The PedsQL is routinely used within CEW services, and it should be noted that both participants scored higher at baseline than an average of young people across two clinics. Recent data gathered from patients across 32 clinics shows mean total and subdomain PedsQL scores range from 50.7 and 58.7 (Matu et al., *in review*).

For the **goal based outcome measure**, C01 set two goals and C02 set one. All goals were focused on healthy lifestyle changes, with two focused on physical activity and one focused on diet. All goal ratings had increased at time point 2, with participants feeling these had been achieved.

Overall, there were limited changes found between time point one and time point two for both participants, and limited variations between participant scores. This was anticipated given small sample size and recruitment challenges. It should be noted that scores indicate that the participants were scoring higher at baseline

than expected for the overall CEW population. All questionnaires took no longer than 15 minutes to complete, and there were no issues raised when completing.

At the time of the evaluation, the PedsQL was the only quality of life measure included in the CEW minimum dataset. Given the focus on a holistic, person-centred care approach of CEW, it may be that CEW clinics could consider including a wellbeing measure in their dataset. This would allow for further impacts and changes in wellbeing to be monitored and recorded. This is considered as part of the recommendations developed in phase 5.

7.5.3 Qualitative Results – Interviews

Young People, Parents/Carers and Staff

Interviews were analysed together in an iterative process in line with realist guidance (Manzano, 2016; RAMESES Project, 2017d). See section 7.4.10.2 for further detail on the approach to realist analysis.

Overview

Eleven initial programme theories were developed from phases 1, 2 and 3. This number increased to 16 programme theories after the interviews. Three were added as new theories ('Dietary Knowledge and Skills', 'Quick Wins' and 'Lack of Engagement') and two were split out from existing theories ('Clinical Staff Qualities' and 'Community Staff Qualities', 'Understanding of Social Prescribing' and 'Promotion of Social Prescribing'). These 16 theories are summarised below:

Individual

1. Person-centred Care
2. Choice
3. Holistic Approach
4. Physical Activity
5. Dietary Knowledge and Skills

Interpersonal

6. Social Support
7. Clinical Staff Qualities
8. Community Staff Qualities
9. Whole Family Approach

Institutional

10. Collaboration between services
11. Accessibility

Infrastructural

12. Investment into community service
13. Understanding of social prescribing
14. Promotion of social prescribing

Ripple Effect

15. Quick Wins
16. Lack of Engagement

Each theory and its refinement are presented in detail below, structured according to the levels of context. The initial if-then-because statement is provided, then discussion and supporting quotes, and then the refined if-then-because statement is shown, with changes from the initial indicated in blue text. The number of interviews (and whether these were family or staff participants) contributing to the theory refinement is also presented. This number should be interpreted with caution. This is included to show in general which theories were

refined with more overall input from staff, which had more input from families, and which had more discussion from participants overall. However, it is not intended to prioritise any theories, and may not be an exact representation, as some references in interviews were based on rival theories or contradictions which provided further detail, and some interviews may not be included but contained wider discussion of relevant context.

Reference to relevant substantive theories is detailed in section 7.5.4. Further detail about substantive theories can be found in Chapter 6; section 6.4. A table ([Table 24](#)) comprising of the final refined theories with reference to the supporting phase is included in Chapter 8.

7.5.3.1 Individual

1. Person-centred Care

Initial IF-THEN-BECAUSE

If social prescribing offers the opportunity to address the young person's own personal goals, and they are involved in decisions about their care	Then young people are more likely to attend sessions, improve and their wellbeing and sustain this in the long term	Because the support is more aligned to the young person, which can reduce barriers to involvement. They feel they have been listened to and feel empowered to have control over their care

This theory suggested that by involving young people in decisions about their own care and tailoring support to their personal goals they would be more likely to engage with the service and improve their physical and mental health. This is because they would feel listened to and empowered to be capable of managing their own health.

This was supported across 16 interviews (2 young people, 2 parents, 3 community staff and 9 clinical staff). The interviews indicated that the person centred care approach of helping families to access relevant community support for their needs helped them to feel like they had been listened to. This then supported their wellbeing, motivation to engage in the service and wider social prescribing opportunities.

“a lot of the things they like about us is the listening, because we listen to them, we listen to the reasons, we listen to the struggles, and we offer help and loads of them are like oh it’s so lovely for people to just listen to us and not be judging” (S08)

“It’s showing that people actually care and often we’re seeing families where they don’t believe anyone cares so that in itself is a really powerful intervention” (S09)

The mechanism of families feeling listened to and understood by staff, was suggested to help build trust and support engagement with the service and social

prescribing. Developing trust was particularly important for this population, where many families had negative previous experiences of weight stigma in healthcare settings.

Participants commented on the importance of tailoring support to the needs of the individual family, one particular way in which this was done was by going at the pace of the young person and helping them to set manageable goals.

“And then like I say when you start to see, she started to see some of the benefits of it, of the weight loss, actually it’s not so bad it’s not about dieting it’s about little changes that actually, you know it became a little bit more easier and manageable to do rather than a lot of the things that are given towards them” (P01)

There were a range of opportunities involving linking to community services within this CEW clinic, including referral to an advice and information service, as well as referral to physical activity opportunities and cooking sessions. Where these referrals aligned with a family’s priorities, it was felt that engagement was greater.

“I think for a lot of families, the families we see, a lot of them are in really difficult situations with finance, housing and those kind of things and actually that probably is playing on their mind a lot, that probably is a real priority for them so I guess that may be why, it feels to me that that’s probably better engaged with than other things we’ve offered” (S12)

The theory was supported but was refined by adding further detail around the importance of tailoring support to families’ priorities, and the mechanism of families feeling listened to within the service. The needs of the ‘family’ were noted rather than the ‘young person’ based on the inclusion of offers like an information and advice service, which was targeted at a whole family and not just the young person.

Refined IF-THEN-BECAUSE

Changes from the initial if-then-because statement are highlighted in blue text.

If social prescribing focuses on what is important to the family, and support is adapted to the needs of the family and goes at the pace of the young person	Then young people are more likely to attend and engage with social prescribing, as well as with the CEW service . This will also improve their wellbeing and help to sustain outcomes in the long term	Because the support meets their needs and is tailored to the family which can reduce barriers and increase motivation . It helps to develop trust with the CEW service, because they feel listened to and understood and they are empowered to make decisions and changes for their own health

2. Choice

Initial IF-THEN-BECAUSE

If social prescribing offers young people a choice over what activities they can be involved in	Then young people are more likely to attend sessions, and improve in confidence and self-esteem	Because the young person is more motivated to take part if they have a sense of control over activities and it aligns to their interests

This theory is based on the idea that if young people can choose an activity through social prescribing, they will be more motivated to engage because they can select something that they are interested in. This was supported in nine interviews (1 parents, 2 community staff and 6 clinical staff).

Both staff and parents commented on how if the young person made the decision about which activities they took part in, then they would be more motivated to join these, and this would help to overcome barriers to engagement.

“I think if it’s something that the child has expressed an interest in themselves, like that one, he would really like to try this boxing, then you’ve already won haven’t you because he wants to do it so I don’t think there would be any issue with him going over there and joining in because it’s what he would want to do” (S08)

“Whereas if she thinks oh I might like to try that then it’s half the battle of getting her to something” (P01)

Similar to the mechanisms discussed in the theory of person-centred care, if families and young people were given a choice, this helped them feel listened to and empowered to make their own decisions.

“like oh she’s actually giving me a choice, she’s listening to me, do you know what I mean, rather than me saying I think you should go, it’s really important that you do go. Like my strategy is more, it is of benefit for you, however if you feel okay to do that and then I just say explain the benefits of it, and then leave it with them because that’s giving them the independence to make that choice” (S01)

Interviews also provided further understanding of context, with staff and parents noting that many families had previous negative experiences of healthcare services, where they had not been involved in decisions about their care, or had healthcare professionals telling them what not to do. As a result, many families often came to clinic appointments with pre-existing barriers.

“What I’ve found in the past it’s always been about, it’s diet and it’s you’ve got to change this, you can’t have that, you can’t do this and that doesn’t help because the first thing you do is you want that don’t you. Someone tells you can’t have it, you want it all the more” (P01)

“you’re hit with that resistance because you know is it another professional that’s telling me what to do and how to do” (S07)

The theory was supported but refined by including the mechanism of how offering a choice empowered families to have control over their health.

Refined IF-THEN-BECAUSE

If social prescribing supports young people and families to choose what activities they can be involved in	Then young people are more likely to attend sessions, improve their confidence and self-esteem	Because the young person is more motivated to take part if activities align to their interests and needs (rather than if they've been told to do it) and they feel empowered to make decisions about their own health

3. Holistic Approach

Initial IF-THEN-BECAUSE

If social prescribing takes a holistic approach, and focuses on the opportunities for young people, rather than negative impacts of their health	Then young people are more likely to attend sessions, and improve in confidence and self-esteem	Because this considers the wider, social determinants of health, which can be barriers for other support (e.g. poor mental health can be a barrier for involvement in physical activity)

This theory suggests that if social prescribing addresses the wider non-medical needs of families, this can help them to engage with CEW and lead to improved health outcomes. Additionally, focusing on what individuals can achieve through a strength-based approach can help improve young people's confidence and self-esteem. The holistic approach was discussed in 13 interviews (3 community staff and 10 clinical staff).

Staff commented on the importance of understanding wider aspects of obesity such as mental health or financial issues. Addressing these was felt to improve outcomes, by overcoming contributing factors to obesity.

“the relationship between sort of mental health and impact on weight, previous experiences and impact on body is obviously very very meshed and therefore being quite hard lined with that would be to ignore quite large parts of people and their experiences and contributing factors” (S09)

“I think the greatest impact we’ve seen and I haven’t heard this from families directly but from [name] data is that impact and that must be huge, if you can bring in an extra £1,000 or not realise you’ve been entitled to stuff, that must make a huge difference” (S05)

It was noted that without addressing these underlying causes, there was a risk that young people would continue to struggle with weight management in the long term, even alongside medication.

“so for instance if we just give Wegovy, Semaglutide, whatever the new ones are going to be, Trizeptatide and all that jazz, it’s the same as giving them an antidepressant to someone, you’re giving them a plaster for a broken leg, yes it might cover up the top bit but ultimately, it’s not addressing the underlying cause. And eventually that will remanifest so you might get a dip, but then it will come back” (S09)

Using social prescribing, and in particular referral to an information and advice service, was reported to help address some of these wider issues, allowing families to then focus on health. Similarly, referring to a specialist advice service for support with these issues then gave CEW staff more time and capacity to focus on weight management with families.

“And it’s better as well since we’ve got [name] people on board because you know things like housing issues and stuff like that. I know it sounds silly but when you’re so focused on trying to get out of a home that you’re not happy in, you can’t tackle weight loss, not even as a parent, you can’t focus on it and so little things like that we do have to help but that’s so time consuming” (S08)

Whilst the importance of holistic support in obesity management was consistently noted by staff, there were some discussions within the CEW team around how much of this was part of their role, and the overarching need for them to focus on weight. This may support the use of social prescribing within CEW, as this means that clinical staff can use wider community services to provide more specific non-medical support (such as referral to an information and advice service, physical activity or for low level mental health support) allowing them to focus on weight management.

“I think it’s needed but I don’t think it would be our job to do that, nor the support workers either. We’ll support psychologically as much as we can but we’re there for the weight and not for everything else, I know it goes hand in hand a lot of the times, but I do think we have to sort of really concentrate” (S10)

This theory was therefore refined. The ‘strength-based approach’ was moved to theory 4 - Physical Activity, as it more closely aligned with the mechanisms of increasing capability. This theory then focuses on the holistic approach, and how using social prescribing to address wider, non-medical needs can help families focus on health. Additionally, this helps to increase CEW staff capacity to focus on weight management, which was expected to lead to improved outcomes for young people. By addressing underlying contributing factors to obesity, this was reported by staff to allow for more sustained, long-term outcomes.

Refined IF-THEN-BECAUSE

If social prescribing takes a holistic approach, and supports families with non-medical needs	Then families are more likely to engage in CEW clinic support, and young people are more likely to see improved health outcomes (e.g. physical health outcomes from engaging with clinics, wellbeing outcomes from support with wider, social issues). This can lead to improved long term health outcomes	Because this helps to address wider barriers to support so that CEW staff can focus on weight management and families are more able to focus on health with CEW staff. This also considers social determinants of health which helps to address underlying causes or contributing factors to obesity (including mental health)

4. Physical Activity

Initial IF-THEN-BECAUSE

If social prescribing provides the opportunity for the young person to take part in appropriate physical activity (fun, in a safe and non-judgemental space)	Then this can lead to improved confidence, increased physical activity and improved physical health	Because the young person feels more energetic, happier, has increased self-esteem, and feels more capable of taking part in physical activity

This theory centres around the use of social prescribing to provide opportunities for physical activity. It is anticipated that this leads to improved health outcomes, based on increasing physical activity levels. This was discussed in 17 interviews (3 young people, 2 parents, 2 community staff and 10 clinical staff).

The mechanism of strengthening young people's beliefs that they were capable of taking part in physical activity was commonly noted by staff. If sessions were adapted to meet the needs and capabilities of young people living with obesity, this helped to give them a sense of achievement.

“our little rounders are like 5 jumps this way and 5 jumps that way but they get around it and they get a rounder and they think god I've got a rounder that's fantastic, it's adapting the sports so that they feel as if they're achieving rather than failing and then building up that stamina” (S07)

Young people noted that they preferred, and were more motivated to take part in, activities that were fun and games-based, rather than circuits or heavily fitness-focused exercises when joining community sessions through CEW.

“Yes, we did more like games and that's what I enjoy more. I think everyone enjoyed that more” (C01)

Referral to community services in this CEW clinic has commonly been used to provide access to physical activity as this is a noted gap in their provision. Nationally, the survey (phase 2) identified that CEW staff felt increasing physical activity was one of the main benefits social prescribing could offer their patients. Through interviews, the aim of physical activity was often viewed by staff to support weight management and physical health outcomes rather than in terms of benefits to mental health, or for developing confidence and facilitating social interaction.

“I see diet as, 80-90% of the gain is going to come from dietary change or modification. 10-20% is going to come from physical activity and I'd always encourage people to be physically active, but you have to do an awful lot of exercise to lose weight by exercise alone” (S11)

There were rival theories identified here, based on the idea that if social prescribing focuses only on physical activity opportunities, then this may cause barriers for this population. Many young people accessing CEW have previous negative experiences of physical activity such as bullying, stigma and feeling self-conscious leading to increased anxiety around engaging in physical activity. This

was reported to reduce motivation and confidence in attending sports groups. The mapping work conducted in phase 1 found that although there was a high number of local community physical activity opportunities for children and young people local to this CEW clinic, few of these were accessible for young people living with severe obesity.

Whilst using social prescribing for physical activity opportunities was reported to help young people feel more capable of taking part in activity, potentially supporting healthier lifestyle changes, it may also pose a significant barrier for many young people in the service.

“I know we’ve focused quite a lot on physical activity and I suppose in the context of weight management that’s more of our focus but I do think for some of these young people, perhaps more with our teenagers, things that would get them out, even if it’s not actually being physically active but we know that doing something is better than watching TV, and if they’re going out to a craft group or something and they’re meeting people, that group I expect will be really good for their mental health and their general wellbeing and there may be positives that they’re not snacking and they’re not just sat watching TV not moving and things but, so I think there is probably a role for other activities as well” (S12)

Physical activity can include ‘a broad range of movement, covering a variety of skill and intensity levels’ (WHO, 2022). This definition was used in phase 1 to include a wide range of potential activities when mapping provision. For many young people accessing CEW, physical activity at the higher intensity level of this definition may be less accessible. Examples from interviews with young people showed they were less interested in activities like fitness circuits or rugby sessions in comparison to group games, rock climbing, or walking groups. Games, or less traditional sports may increase accessibility. Physical activity could also be embedded into social sessions or youth sessions to reduce barriers to engaging and help develop young people’s confidence. The importance of both social interactions and physical work in sessions was noted by community staff.

“We make exercise safe and optional, scalable, we have a lot of fun, we play games, we laugh, we have sort of debriefs and conversations and so out of an hour and a half session you’re probably only working physically for a third of it and you’ve got other sort of interactions and social components.” (S11)

If social prescribing aims to address wider, holistic needs of young people, then a broad range of activity groups may reduce barriers to attending and may still provide positive outcomes such as increased confidence and social interaction. Small amounts of low intensity movement can still provide a significant increase in physical activity levels for this population.

“Whereas if you are plugging people into situations that they are then able to engage with, so just a lot of our kids by nature have gone into a group and been stood up for 20 minutes. That will increase their exercise by a significant margin. You know it sounds really silly to say but their physical energy expenditure would go up significantly. It also means they’re at home less, or they’re not sat in their environment where they’re getting paired associations of any sensations be it boredom, frustration, anger, whatever, and they then interpret that as right I’ll go and eat something then. So we’re breaking those chains and those associations just by being in a different environment” (S09)

The initial programme theory of physical activity was supported, with interviews noting that accessible activities helped young people to feel capable of taking part in physical activity, which was anticipated to improve and health outcomes, and have long term impact.

Refined IF-THEN-BECAUSE

If social prescribing provides the opportunity for the young person to take part in appropriate physical activity (fun, in a safe and non-judgemental space, tailored to their physical capabilities)	Then this can lead to improved confidence, increased physical activity and improved physical health in the long term	Because the young person increases their self-esteem, they feel a sense of achievement, and feel more capable of taking part in physical activity

An additional rival theory was also added, based on the potential barriers of focusing solely on using social prescribing for high intensity or more traditional forms of physical activity. This theory suggests that this could reduce motivation and engagement from young people. Wider social prescribing activities that embed accessible, lower intensity physical activity, such as youth groups or arts groups, could be considered to support engagement. However, there may be less support for this within CEW services as a weight management focused service.

If social prescribing focuses too heavily, or solely on physical activity sessions	This can lead to reduced engagement with social prescribing	Because many young people accessing CEW have significant negative experiences and barriers for engaging in physical activity, which can reduce motivation and confidence in attending these groups

5. Dietary Knowledge and Skills

An additional theory was added based on the use of social prescribing to provide families with access to community cooking sessions. This was included based on the significant role of diet alongside physical activity in weight management support (NICE, 2025) and from discussions in five interviews (1 parent, 4 clinical staff).

Staff reported that social prescribing could facilitate knowledge around diet and develop practical cooking skills which could improve health outcomes for families. In particular, in comparison to a CEW appointment with a dietician, social prescribing provided the opportunity for families to learn practical skills, bringing advice to life in a more engaging way. Sessions involved cooking along with a chef and so the recipe could be adapted to families' preferences, providing person-centred, tailored support.

It was anticipated that families were more motivated to attend and engage with dietary advice if it was led by an external organisation, including staff like chefs rather than an NHS dietician, because families may see them as less judgemental and more knowledgeable.

“Plus you’ve got a professional chef, and I don’t know. I can imagine you would respond to a professional chef teaching you how to cook very differently to how you’d respond to a dietician from the NHS” (S06)

However, it was noted that CEW staff often struggled to attract patients and their families to the cooking sessions, and it took a significant amount of time and effort to encourage families to attend. This led to a rival theory, suggesting families may feel judged or patronised by being invited to a cooking session, which may lead reduced engagement.

“Maybe they feel like they’re being patronised, being taught how to cook, they’re seeing it more as they need the session than the child, even though it’s like a different way of cooking” (S04)

Therefore, both a new theory and rival theory were added to reflect these discussions through interviews.

IF-THEN-BECAUSE

If social prescribing offers the opportunity to learn about nutrition and practice cooking skills in a fun and accessible way (e.g. in a professional kitchen, with a chef, adapted to families' preferences, budget and equipment)	Then this can lead to improved health outcomes and increased knowledge	Because the cooking classes are more aligned with families' lives, and the dietary advice feels less judgemental coming from a chef or community staff

RIVAL THEORY - IF-THEN-BECAUSE

If social prescribing opportunities are presented as dietary education and teaching families how to cook	Then this could lead to lack of attendance and engagement from families	Because families feel judged or stigmatised by the offer of a cooking class

7.5.3.2 Interpersonal

6. Social Support

Initial IF-THEN-BECAUSE

If social prescribing offers the young person the opportunity to meet others with similar experiences	Then young people are more likely to attend sessions, and experience improved wellbeing	Because young people feel they have a safe environment with a lack of judgement or stigma, and this provides peer support and increases confidence and self-esteem

This initial programme theory states that if social prescribing can provide opportunities for social support, young people will experience improved wellbeing outcomes, because they feel groups are a safe space without judgement. This was discussed in 18 interviews, which includes nearly all participants (3 young people, 2 parents, 2 community staff and 11 clinical staff).

Participants commented on the benefits from meeting with others as facilitated through social prescribing. The idea that providing opportunities to join groups made up of young people with similar lived experiences led to improved wellbeing and increased motivation to attend was confirmed.

“When we’ve looked at the data there’s a real improvement in mental health. Why I think that is personally is that there’s a togetherness so on the evaluation sheets we often have comments about we’ve made more friends, we’ve felt listened to, we’ve felt heard, it was nice being with other people in similar situations because I didn’t feel as if I was the only one, you know it was good to talk about things that were bothering me without having parents and teachers there” (S07)

“I think they enjoyed it and making friends has been something to keep them going or wanting to go back. Because I think they do enjoy that peer support” (S12)

However, interviews also furthered understanding of the context, and the significant challenges this population faced accessing social environments, specifically, the impact of COVID and lockdowns, non-regular attendance at school, social anxiety, neurodiversity, social media use and weight stigma.

“as a child she were a very outgoing child who would go out all the time, and socialise and want to play out and things like that but then COVID hit and that had a massive impact on a lot of children’s mental health I think and we never really came back out of that so to speak” (P01)

“As well there’s that, I use the phrase a lot, the sense of social othering. So I’m going to walk into this group and everyone’s going to look at me, everyone’s going to think X, Y and Z about me” (S09)

“if they’re not at school how can we expect them to be going into an environment where they’re mixing with lots of other people and you know it’s traumatic for them isn’t it. Getting on buses for some of them. And of course, a lot of our children have got ADHD, ASD which again often causes with anxiety and often causes problems” (S10)

It may be that the group setting of social prescribing is more accessible for those young people who are still attending school, or who have more confidence compared to those who may be more socially anxious.

“I would recommend [session] to them, but if they’re quite like a nervous person as such I would not recommend it to them because don’t get me wrong I think it’s good and it helps lose a lot of weight, but I just feel like the social side, if they’re quite anxious they wouldn’t really get on with it too much” (C01)

Both community and clinical staff noted that learning to be in a social environment was important for improving health and wellbeing outcomes and sustaining these in the long term. This was due to developing confidence in young people to help them to engage with their community. It was expected that this would have a positive impact on mental health but also on weight as well.

“The thing is if you are creating people who are more engaged in their world, they might still be overweight, but they might not be, sort of if I just say eligible for the CEW clinic, they’re very different things. So you might make people who can lead a more fulfilled and hopefully longer life and

have impact on their physical health but you're, it's coming about via the underlying things of isolation, managing and tolerating their own feelings and being able to engage with the world. That would have a huge impact on weight" (S09)

This theory of social support was confirmed through interviews and was refined by adding how learning to navigate social environments could improve long term health outcomes.

The interviews also provided considerable discussion around the diverse barriers young people living with obesity face in accessing social groups, which should be considered when developing a social prescribing offer in CEW. Young people felt safer in smaller, CEW-specific groups, however this can limit the accessibility and range of social prescribing activities available.

Refined IF-THEN-BECAUSE

If social prescribing offers the young person the opportunity to meet others with similar lived experiences (e.g. age, weight, mental health experiences)	Then young people are more likely to attend and continue to attend sessions, and experience improved wellbeing. This can lead to improved long term outcomes	Because young people feel they have a safe environment with a lack of judgement or stigma, and this provides peer support and increases confidence and self-esteem, as well as increased social connections, reduced isolation and loneliness, and increased motivation from shared experiences. Young people develop confidence being in social environments, and learn how to deal with negative experiences

Staff Qualities

This theory was originally based around all staff (clinical and community staff), and the idea that young people would be more motivated to attend and engage with social prescribing if staff fostered an informal, compassionate approach. This is because it creates a safe space for young people and facilitates a trusting relationship. However, after interviews this was split into two separate theories for clinical staff and community staff to allow for more specific considerations of their different roles in social prescribing. The initial theory is presented and is then refined for clinical and community staff separately.

Initial IF-THEN-BECAUSE

If staff are skilled (e.g. knowledgeable about health needs, have motivational skills), and take an informal approach, are confident working with young people, and are compassionate and non-judgemental	Then young people are more likely to attend sessions, and experience improved wellbeing	Because young people trust that the staff can understand and deal with complex needs. An informal, non-hierarchical approach helps facilitate the development of trusting relationships between staff and young people

7. Clinical staff

The above theory based on 'Staff Qualities' was split into separate theories for 'clinical staff' and 'community staff'. This section presents the refined theory focusing on the role of clinical staff. This was discussed in 13 interviews (1 young person, 2 parents, 1 community staff and 9 clinical staff).

There was further understanding provided around the context of this population, in particular relating to significant negative experiences of weight stigma from healthcare professionals.

“But then people who aren’t used to interacting with professionals or when they are, when they do interact with professionals they’ve had bad experiences. I know lots of young people who tell me about well I saw this doctor and they basically called me fat, or I saw this doctor and he was awful or I saw this person for a week and then they went off and I never saw them again, so you’re having to repair those relationships, you’re trying to make that work with people” (S09)

Developing trust between families and CEW staff was therefore viewed as extremely important. This was facilitated by the non-judgemental approach of all clinical staff, and in particular the home visits from nurses or support workers. Home visits meant staff had time to listen to families and speak to them in a more informal setting compared to clinical appointments.

“whereas if you see someone that’s in your own home and depending on what our days are like with home visits, we’re not always having to rush off, you know there’s not another someone I’ve got to go see like there is sometimes with clinics. I think that helps, yeah it gains that trust” (S04)

“I think families feel much more at ease when they know that they’re not being judged and that they’re being helped in the way that they need help and that that person is there in clinic, definitely that makes a huge difference. I think it would not be the same if they just came to see a doctor every 3 months” (S05)

This trust was predicted to increase engagement with the service, including attendance at wider social prescribing activities. This is because families believed it would be worthwhile if they had a good relationship with the staff referring them. Additionally, families were often motivated to go to a session if a support worker was also attending, as a familiar face there helped young people feel more comfortable.

“because I’d been selling it to them in clinic and saying I’ll be there don’t worry and you’ll know people and [name] going to come, that was what made them go” (S02)

Over time, alongside changes in the wider context such as increasing use of weight loss medication and changes in funding for CEW clinics, it may be that

home visits are reduced to maintain efficiency as they can be time consuming and costly. However, it is worth noting that taking time to meet families through home visits is a crucial part of developing trust and supporting engagement with the service.

“I think they are the key to our service success and if you move it much more to remote and not having a human in your environment, firstly we wouldn’t understand so much about the families but I just don’t think the whole thing would be as effective” (S05)

Therefore, this theory was focused on the importance of the relational aspects of care that CEW provided, particularly around non-judgement approaches and providing home visits to families, which supports trust and engagement both with the service and with wider opportunities such as social prescribing.

Refined IF-THEN-BECAUSE

If staff are non-judgemental, listen to families and engage with families through home visits	Then young people are more likely to attend and engage with social prescribing and the CEW service and experience improved wellbeing	Because young people feel listened to and like the staff , which helps to build up trust with the CEW service. If there is a familiar face at community sessions, then this helps them feel more confident to attend social prescribing activities

8. Community staff

The theory based on 'Staff Qualities' was split into 'clinical staff' and 'community staff'. This section presents the refined theory focusing on the role of community staff. This was discussed in 12 interviews (2 young people, 2 parents, 3 community staff and 5 clinical staff).

For families, they valued community staff who were able to engage with young people and make them feel welcomed into sessions. In developing the initial programme theories, it was suggested that parents and young people may have varying views on what qualities they preferred in staff running community services and activities, but overall in interviews, an informal, friendly approach was prioritised more than knowledge or training for both parents and young people.

"It's like, right happy talking to kids and right enthusiastic and making the kids happy, then when all kids are playing then they come and talk to us, and then they went back to kids and laughing and all kids were laughing. It were nice to see all the kids laughing and joking" (P02)

"I don't know why, I just didn't really like her, but I quite liked who was her helper as such, [name] I quite liked her, I think it's because it's like when you're at school and you get a teacher but then you get a teaching assistant, they're just more calmer and they just more actually understand you as well" (C01)

Community staff felt that being understanding and non-judgemental supported engagement with their services. Through their roles, they often saw families regularly which was also felt to help develop relationships.

"There isn't anything in particular I can think of that I do other than just trying to, just show empathy and understanding" (S03)

"because we're non-judgemental there's a lot of support, we listen, it's regular contact it's every week, so you build that relationship up, I think that that definitely makes a difference" (S07)

"Once they've come through the door and they've found us to be a safe place with trusted positive people to support them, do on the whole feel supported and cared for, feel safe, and they attend. And they attend and they exercise and they get stronger but they have sort of social benefits and wider reaching positive impacts on their life" (S13)

The approach of the community staff also had an impact on clinical staff, and their motivation to refer families to social prescribing opportunities. Clinical staff needed to trust that the service would be a safe space for families, for them to feel confident referring them on.

“I think when something’s being offered that clearly really has thought about the logistic difficulties for these families, it’s easier to buy into it because, it almost makes you think well if this doesn’t work you’re not going to get them to anything, but I guess also, you really sort of see that someone has a good understanding, setting up their intervention or whatever it is programme thing, set up for the families and therefore you hope that when they do attend they’re really well understood” (S12)

The theory was refined to focus on the qualities of community staff. For families, it was reported that if community staff were welcoming and friendly then they were more likely to attend sessions, because they felt accepted. For CEW clinicians, if the community staff had a good awareness of the challenges of obesity, this supported their motivation to refer families to these services. It can take time for CEW staff to develop trust with families, and they did not want to impact on this by families having a negative experience with any services.

Refined IF-THEN-BECAUSE

If staff at community services are confident, skilled, and experienced in working with young people, and are welcoming, compassionate, non-judgemental and relatable	Then clinical staff are more likely to refer families to these community services. Additionally, young people are more likely to attend and engage with social prescribing sessions, and continue to attend, and experience improved wellbeing	Because clinical staff believe it will be a helpful, safe space for families, and because young people like and also trust in the community staff. An informal, non-hierarchical approach helps facilitate the development of trusting relationships between staff and young people

9. Whole Family Approach

Initial IF-THEN-BECAUSE

If social prescribing involves the whole family (e.g. parents/carers, siblings)	Then young people are more likely to attend social prescribing sessions, and there will be increased knowledge within the family, and improved wellbeing for the young person	Because young people are often reliant on their parents/carers for traveling to and attending sessions, and gain a sense of support and feeling accepted within their family

The initial programme theory highlighted the importance of a supportive family environment for the young person, both to increase their ability to access social prescribing, and for emotional support. This was discussed in 18 interviews, including almost all participants (3 young people, 2 parents, 3 community staff and 10 clinical staff).

The initial theory that a whole family approach increased engagement with social prescribing because young people are reliant on their parents/carers for transport and costs was confirmed through interviews. For the initial theory, it was felt that this parental involvement may vary for children of different ages, but staff reported that most of those they saw through clinics would still need support from their parents/carers.

"I suppose you would argue that when our patients are getting to 16 you know even before that, in paediatric practice generally we should be starting to offer to see them by themselves or in conjunction with the parents but have some time by themselves, I think the population of patients we see in CEW are mainly not so typical of 15, 16 year olds a lot of them are quite vulnerable, young people a lot of them are not in education, a lot of them have some additional needs so we probably don't follow that model so well" (S12)

This theory was particularly relevant for the cooking sessions, as it was reported that young people would be reliant on their parents/carers for shopping, buying food, and cooking.

“Really which 13, 14-year-old does the shopping, does the cooking, decides what’s for tea, you need the parents involved and I do think sometimes we don’t engage and involve parents as much as we should” (S11)

Alongside this, it was reported that parents also experienced their own social anxiety, weight challenges, and experiences of weight stigma, which could prevent them wanting to be involved in CEW and social prescribing.

“You are very unlikely, in my experience, to go to your GP and say I’m worried about my child’s weight because often it’s generational so there’s stigma that’s been experienced by parents, there’s guilt probably, there’s denial” (S05)

“Yeah to get mum and dad out of their comfort zone, a lot of the time they have health issues of their own, difficult, difficult” (S08)

If parents were involved in social prescribing, this was anticipated to lead to better outcomes for the whole family, because parents would also benefit from emotional and peer support.

“it was nice to listen to other people and think I’m not failing her you know, because sometimes that’s how you feel, that you’ve failed a little bit really as well so” (P01)

“mum had been so worried, like deeply worried about her daughters weight and thinking it would never, and she says I’m going to [session] and talking to other parents and even them just saying, oh mine’s on the medication, talking through it she was like well she’s too young for it now but that’s an option in the future, it’s not forever, she might be able to do that one day and she said it was just an absolute light at the end of the tunnel, it just gave her that bit of hope” (S04)

Some discrepancies remained between whether parents should be involved in the same group as the young people. Some young people liked that they were all

involved in physical activity together, but for others, they preferred to be independent. It may be that for those sessions which involved talking and sharing personal experiences with their peers, it is better for young people to be separate from their parents.

“I think some of it together because it shows the support that I give [name] but sometimes I think she, when I’m present she probably relies on me a lot more than when I’m not present and actually it’s about her doing rather than me telling her to do and her being able to make steps going forwards so I like the mixture of it if I’m going to be honest” (P01)

“but all our young people adamantly said we don’t want families in with us, we can’t talk openly we don’t, we feel that when you ask us a question, parents will answer it, you know we want to just be with our own little group and that’s why we decided to do a separate parent group” (S07)

The initial theory was supported through interviews but was further refined by adding the importance of involving parents to allow them to also benefit from social prescribing, as well as providing an option for independent support for young people.

Refined IF-THEN-BECAUSE

If social prescribing involves the whole family, and includes options for support for parents/carers as well as individual support for young people	Then young people are more likely to attend social prescribing sessions, and there will be increased knowledge within the family, and improved wellbeing for the young person	Because young people are reliant on their parents/carers for traveling to and attending sessions, as well as finance, food, shopping, transport, lifestyle, values. If there are options for parents to be involved, young people feel supported within their family but can also gain a sense of independence. This can reduce practical and psychological barriers for parents/carers to support themselves and their young person

7.5.3.3 Institutional

10. Collaboration between services

Initial IF-THEN-BECAUSE

If there are good collaborative relationships between healthcare staff and community staff, including feedback about how groups run and experiences of young people	Then this can increase referrals to social prescribing, and attendance at sessions by young people	Because staff have increased understanding of what social prescribing can support young people with, and see benefits of it, which increases their motivation and confidence to refer young people

This theory highlights the importance of good communication and collaborative working between clinical and community services to support referrals to social prescribing. It was suggested that if clinical staff have a good understanding of what local community services exists and the potential benefits, this increases their confidence to refer families. This theory was discussed in 13 interviews (3 community staff and 10 clinical staff).

Interviews with CEW staff confirmed that their motivation to refer families came from having an in depth understanding of the community service they were referring to, to be able to encourage families that it would be worthwhile.

“Because I think, families when they’re anxious and nervous about these things, do benefit from one of the family workers saying well so and so runs this and this is what they do and they do it like this and you know that sort of real understanding of what’s going to happen before you even get there and clearly they can’t know about everything, and even if you’ve got a list of, this youth club on this day or whatever they aren’t going to know exactly how it works” (S12)

Both clinical and community staff suggested that if the clinical staff could attend and observe a session, this helped to develop collaborative working and also helped clinical staff to understand the service.

"I don't think we are fully connected with what is available in every area for every child, or know the eligibility, and that information is really hard to get on a database because it's changing all of the time, so I do it effectively with the services I know about so I've been on a [session] course and I can talk about it with a parent and family so I think I'm more likely to persuade somebody to go to that and knowing what [name] does and has helped families with I'm, you know I can say several sentences about that but when it's an external agency and I don't have any contact then it's literally signposting and it's probably not that effective" (S05)

There were some noted discrepancies between the needs of community services and the needs of the families in the clinical service.

"But yeah, a lot of, basically they want to run it with more people but then some of the feedback I get is can we have it with less people because then you can get more 1:1 time with me and the chef. So the wants of the people isn't necessarily the requirement of the venue" (S06)

There were also some examples of where communication had not worked positively for both services, and it had led to challenges with delivery.

"We went to a meeting at the [location], and it was, it was somewhat terrifying, like entering the lion's den and I felt that it wasn't the simple conversation, it was a bit more challenging and I felt a little bit of scrutiny" (S13)

"So there was a bit of a back of forth and equally every time I put something forwards I'm guessing that had to go to a board or a group and there was a chain in the emails behind my conversation because the person I was dealing with wasn't a decision maker. So there was a bit of formality and bit of sort of officious bureaucracy which slowed down the pace and didn't leave a real comfortable feeling" (S13)

The initial programme theory was confirmed through interviews but was further developed. Clinical staff needed to be aware of community services and what social prescribing is, for them to be motivated to refer families. This needed to be more in depth understanding rather than simply knowing logistics of services, as they might get from an online database. The mapping work in phase 1 and the survey in phase 2 highlighted that knowing what services were available was a

barrier from CEW staff in implementing social prescribing and suggested that a centrally held database that was kept up to date would help with this. However, the interviews indicate that personal relationships between staff at different services, and observing sessions is required for clinical staff to be able to encourage families to attend.

Refined IF-THEN-BECAUSE

If there are good collaborative relationships between healthcare staff and community staff, and clinical staff have an in depth awareness and understanding of the offers of community services	Then this can increase referrals to social prescribing, and support family attendance and engagement with social prescribing	Because clinical staff are more motivated and confident to refer young people to services if they know the service and trust that it is going to be helpful, safe and accessible, and if they have an understanding of what social prescribing can support young people with

11. Accessibility

Initial IF-THEN-BECAUSE

If social prescribing can include referral to local services that are adapted to local and personal needs, (e.g. rolling joining options, evening delivery, culturally diverse, community locations, public transport)	Then this can increase attendance at sessions by young people	Because of increased relevance to families, they feel as though their needs are met and there are less perceived and actual barriers to attending

Families attending CEW clinics are often living in the most deprived areas of the country and experience complex additional needs, and so this theory highlights the importance of community services being accessible. This was discussed in 16 interviews (1 young people, 3 parents, 3 community staff and 9 clinical staff).

Barriers to attending community services were identified, particularly around cost and travel to groups, as well as language barriers, and groups that may not be suitable for those with neurodiversity. If clinical staff did not feel that a group was accessible for a family in the long term, then this reduced their motivation for referring families. Particularly for physical activity groups, where the aim is to increase and sustain young people's physical activity levels, it is important that they can continue to attend groups after CEW support has ended. If families are reliant on the CEW service for travel and funding to access community groups, then this reduces sustainability.

"I just felt with the [session] thing it was a bit bad for me to send them because I knew that most of them wouldn't be able to afford to carry on and that's heartbreaking for parents isn't it" (S08)

Whilst travel and cost were noted as a barrier, staff also felt that underlying motivation could impact on engagement.

“But anything that is suggested needs will and motivation and agency, doesn’t it? So, I think that’s the main barrier rather than the other things. So, there are all the obvious things, transport, cost, location, time, but actually if the underlying motivation is not there then you can patch up all of those other things” (S05)

A particular challenge within the context of this CEW service was the fact that it covered a large region, meaning that staff often knew more about provision in, and were more able to set up groups closer to the central site, but this meant reduced access for those families living in surrounding areas.

“I had a message off someone yesterday saying, thank you for the invite but when you start doing a session in [location] then I’ll come. And I think that’s one of the problems with our service, is that because it’s regional” (S06)

It was noted that there potentially was not equity of access to groups for all young people in clinics. Staff felt that those who attended and benefitted from social prescribing were those young people who were doing well on medication, still attending school, with parents who were able to drive them to sessions.

“you couldn’t ever say there’s equity of access for every person, it’s really random, it feels random who can get what. You know with [session] for instance there is a bit more equity but there isn’t full equity, so if you’ve got learning difficulties you wouldn’t be able to access it, if you have no transport you wouldn’t be able to get free transport there, if you’ve got a language barrier that wouldn’t be suitable so in general they’re a good idea but it doesn’t feel that everybody has that opportunity” (S05)

Often the considerations around accessibility were targeted at the physical activity opportunities as families needed to attend these in person. In contrast, the information and advice support service was well engaged with by families. This was a service where families would be contacted by an advice worker, meaning they could access it from home, and using online language translators if needed. It may be that the high level of accessibility of this service is one of the reasons which helped families engage with this support.

Therefore, the theory was refined, to better reflect the range of opportunities that social prescribing offered within CEW, including the information and advice support. There was also further understanding added around how the perceived lack of accessibility by clinical staff can influence their motivation to encourage families to attend. Despite increasing accessibility, it is noted that motivation and willingness of the families is needed to support attendance.

Refined IF-THEN-BECAUSE

If barriers to social prescribing can be overcome (travel, cost, language, timing), and offers can be accessible for diverse populations, e.g. neurodiversity, culture, language	Then this can increase attendance and engagement with social prescribing	Because there are less perceived and actual barriers to attending. Clinical staff were less motivated to refer families to services if they did not think the service is accessible to families in the long term (e.g. due to cost, location).

7.5.3.4 Infrastructural

12. Investment into local community services

Initial IF-THEN-BECAUSE

If there is a diverse range of accessible opportunities within the local community, and awareness of these	Then there will be increased referrals to social prescribing, and increased attendance	Because community services can offer more sessions which can be tailored to different needs of young people, and young people are more likely to be motivated to attend sessions which align with their interests

This initial theory focused on the importance of investing in community based services to allow there to be more opportunities available for young people to access. This was discussed in 18 interviews (2 young people, 2 parents, 3 community staff and 11 clinical staff).

Clinical staff reported barriers around keeping up to date with knowing which available services they could refer families to. There were suggestions that a connector role or a link worker might be helpful with this.

“Where I do think there needs to be some investment is around the coordination, so letting me as someone working within the space know what’s there. Because they’re voluntary sector organisations they tend to sort of come and go, because they’re often dependent on charitable funding, short term funding or the enthusiasm of one individual who’s the life and soul of it and then moves on or moves away or something like that”
(S11)

In this CEW clinic, many of the social prescribing offers were pilots, or ad hoc sessions such as holiday provision. It was commonly identified that an ongoing, rolling offer would be helpful and more likely to improve attendance. This would mean that sessions could be offered to families, and staff would have time to

address any barriers to attendance. Additionally, some families were keen to take up all offers of support at their first appointment, but others needed more time to build trust with the service before accessing additional support. A rolling offer would mean that social prescribing could be offered at the most appropriate time for each family.

“sometimes perhaps they do need to gain a little bit of confidence to do that so yeah I think being able to say, we offer this, some of them might take it straight away, there might be something like, or we can revisit that in a few months’ time. How would you feel about it now kind of thing because like you say it’s an ongoing programme, would probably be quite a good set up” (S12)

The idea of a rolling offer was also supported by families, with suggestions that this would support development of friendships and confidence if young people had the opportunity to see others regularly each week.

“If it was carrying on, carrying on, carrying on then it’d be good because it’d give the kids something every week to look forward to. And keep that friendship as well, and keep the exercise” (P02)

It may be that it is more important to invest in community services before investing in a link worker role, to support these services to develop capacity, to tailor their offer to young people with additional needs, to upskill staff and to support sustainable, long term offers. This could overcome challenges raised by clinical staff in terms of needing adapted and accessible offers and support the development of collaborative relationships with specific services.

“Community organisations are bootstrapped and limited with capacity and resource and therefore have to make decisions about where they deploy their limited services. If you’ve got a vulnerable audience that comes with some additional challenges from a more general audience, who might have more challenge but not more finances to support them, taking care of those individuals is perhaps not a space that a lot of organisations will jump to lean into. I don’t think most community organisations would be fully aware of social prescribing or logistics of how to engage with it and benefit” (S13)

“I don’t particularly think we need to be putting money into having more of these organisations I think there’s actually quite a lot out there, it’s linking them to us. Perhaps a little bit sometimes around the adaptation of the programme to those who are overweight, and adapting their sort of standard offering if you like” (S11)

Therefore, the theory was refined to focus less on increasing the number and diversity of community services, but to support existing services to provide a more sustainable and tailored offer, linking to theory 11 - Accessibility. This also links to the theories of 8 - Community staff qualities and 10 - Collaboration between services.

Refined IF-THEN-BECAUSE

If local community services receive investment and support to sustain and develop their offer (upskill staff, consistent long term offer, adapt sessions to needs, increase number of sessions), and there is awareness of what these sessions are	Then there will be increased referrals to social prescribing, and increased opportunities for young people in CEW	Because community services can offer more sessions which can be tailored to different needs of young people in terms of physical needs, group sizes and cost (e.g. subsidised or lower cost places). Clinical and community staff have time to develop trusting relationships which improves understanding of social prescribing offers, and motivation to refer

Wider health messaging and understanding of social prescribing

This was originally one theory focused on the wider health messaging around obesity, and promotion of social prescribing from organisations such as NHS England. Based on interviews, this was split into two theories, one which focused on staff understanding of social prescribing and one which focused on promotion of social prescribing within a wider health system.

Initial IF-THEN-BECAUSE

If NHSE recognises social prescribing and holistic, patient centred support as priorities within healthcare provision and includes this within health policies	Then there will be increased use of and knowledge of social prescribing within services, and increased referrals	Because more staff are aware of what social prescribing is and have increased motivation and confidence to refer young people, especially if aligning with the ethos of the CEW clinics

13. Understanding of social prescribing

The above theory, 'wider health messaging' was split into separate theories. This section presents the refined theory focusing on staff understanding of social prescribing. This was discussed in 5 interviews (1 community staff and 4 clinical staff).

Clinical staff reported that they did not feel social prescribing was well understood by healthcare professionals, and therefore was not commonly used, particularly in paediatric services.

"it's certainly something we hear about and I think it's more of an adult, GP, kind of thing, you sort of hear it used more in that sort of way. But I think there is a sort of understanding but I'm not sure that people massively are using it in paediatrics" (S12)

Some clinical staff noted support they offered for patients, but did not think it was social prescribing, despite meeting similar aims. This links to the results of the survey in phase 2, where 76% of CEW staff nationally felt they knew a bit about social prescribing, but none reported that they felt they knew a lot about social prescribing, and there was inconsistency of definitions provided. It could be argued that staff may not need to know significant detail about what social prescribing is, for families to still benefit from it.

“I’m not thinking in social prescribing in that, it’s more these are things that you can do in your community and that will help you and that’s just the thing, it’s not social prescribing” (S09)

However, a limited understanding of the benefits of social prescribing or how, and whom it may work for can restrict motivation of staff to use it within their service. It may be that without an understanding of how it aligns with the approach of the CEW service, it becomes less of a priority within CEW, especially as capacity and funding become challenges.

“It’s not because you don’t want to or don’t see it as important, it’s just that the clinics are taking over so much of the time that you just, can’t stretch to the other bits yeah which is a shame” (S14)

Therefore the theory was refined, by focusing more on how understanding social prescribing can support motivation of staff to include it within their service.

Refined IF-THEN-BECAUSE

If clinical and community staff have an awareness of what social prescribing is and how to implement it	Then it is more likely that there will be increased use of social prescribing within services, and increased referrals	Because staff have increased motivation and confidence to refer young people if they have increased knowledge of how to use it, and have increased awareness that it aligns with their role and the ethos of the CEW clinics

14. Promotion of social prescribing

The theory of 'wider health messaging' was split into two separate theories. This section presents the second of these refined theories focusing on promotion of social prescribing. This theory was also mainly discussed in staff interviews (1 community staff, 2 clinical staff).

Clinical staff noted that they did not feel that social prescribing was a priority, or even well understood, by the wider policy makers in the health service. It was felt that even if it was noted as a priority, it would take investment and financial support for it to be implemented.

“so yeah I don't think ICS, ICBs, NHS England particularly see it as a priority if I'm honest, I don't think the commissioners particularly understand it either” (S11)

The wider impact of the context of CEW was discussed, in terms of changing funding for the CEW service, and disbanding of NHS England. Clinical staff reported feeling demotivated, and held back by the uncertainty of funding, which impacted their ability to implement new programmes like social prescribing.

“And it's difficult to have a vision, like we're trying to chat about the future and longevity of the service and what should we do, like an exercise therapist would be wonderful but it's difficult to have that vision when you're not sure what you're going to get and especially at the minute when they're really on it aren't they with the changes. I feel like we're just plodding at the moment, doing whatever” (S08)

Therefore this theory focused on the need for support and promotion of social prescribing by larger national organisations and policy makers, such as NHS England (NHSE), Department of Health and Social Care (DHSC) and Integrated Care Boards (ICBs). This includes the need for financial support to help staff implement social prescribing within their service.

Refined IF-THEN-BECAUSE

If social prescribing is recognised and promoted by NHSE, DHSC, and local policy makers and commissioners (such as ICBs), alongside financial support, investment and guidance	Then it is more likely that there will be increased use of social prescribing within services, and increased referrals	Because clinical staff are more motivated to implement social prescribing within services if it is viewed as a priority and this may reduce barriers to implementation (through financial support, guidance and policy)

7.5.3.5 Ripple Effect

Two new theories were added. These were linked to the ripple effect concept, which is commonly noted within realist research, due to the complex nature of services and consideration of context which changes over time (Jagosh et al., 2015). The ripple effect concept suggests that a mechanism or outcome from one theory may become the context for another theory.

15. Quick Wins

This theory was supported in 4 interviews (1 parent, 2 community staff and 1 clinical staff). Participants noted how the outcome of a positive impact, such as seeing changes in weight or financial benefits, could then be a mechanism for continued engagement and supporting trust with the service.

“I’ve also noted when things tend to go right with clients, then they’re quite encouraged with a successful outcome, to then think right, well I trust this service and they engage more fully” (S03)

“so there’s loads of literature in psychotherapy that if you can get someone to have a quick win, regardless of how small that is, their outcomes are significantly better across the board. So if you could get someone to go and engage in something, it might be small, it might seem really little, but if they go and they have an experience that they find worthwhile then for whatever reason that may be, or if they can take some positive out of it, then they are much more likely to continue to engage and do more” (S09)

This reinforces the importance of creating manageable, realistic personal goals and tailoring support to go at the pace of the young person, similar to theory 1 - Person-centred care.

IF-THEN-BECAUSE

If families see 'quick wins' and short term outcomes from engaging with social prescribing	Then this increases engagement with the CEW service and with social prescribing activities	Because this develops trust with the service, and provides families with a sense of achievement and increase in confidence

16. Lack of Engagement

This was supported in seven interviews (1 young people, 2 parents, 4 clinical staff). In contrast to the theory of 'quick wins', which reflects a positive ripple effect, there was noted discussion around lack of engagement, which reflects a negative ripple effect. An outcome of lack of attendance from families at social prescribing offers was noted to then become the context for non-engagement from both families and staff.

For those families that did attend sessions, they sometimes felt like they were the only ones there, meaning they would not benefit from social support in groups, or often missed out on opportunities all together because there were not enough people joining.

"But then they did a cooking thing but I put [name]'s name down for it as well but they phoned me back and said we haven't got enough kids to do it, it's not happening now" (P02)

"So I'm meant to have another 12 weeks but because there's only me that's like continued through they're not putting it on" (C01)

"I would sit about in the first 12 weeks, I sat about in the parents' room because they do offer tea and coffee so you can have a drink and things like that but like I say I would find that probably I was the only person. A lot of people went back to their cars, just waited on site for the kids so that's what I tended to do towards the end as well" (P01)

For clinical staff in particular, if there was limited engagement from families, they became less likely to invest time and capacity into organising further sessions. They often reported feeling demotivated and disheartened by this.

“I think it’s, probably my ideas have changed over the last few years I think I was very enthusiastic about all the things we could offer these families and you get a little bit disheartened when people have organised things and you’re not really getting the uptake” (S12)

“And it doesn’t give us that motivation to invest hugely in it. I mean we did because initially because we thought well this sounds great but then each time we’ve done something else, we’ve gone yeah well how well will this work and how long will this work for? And the interest, it’s really really difficult to get the interest” (S10)

This is important as it shows that if social prescribing is not accessible for families, or not used appropriately within services, there is a risk that this creates negative experiences, and a lack of motivation from staff to attempt to implement it.

IF-THEN-BECAUSE

If there is a lack of engagement from families with social prescribing	Then this can lead to further reduced attendance and engagement from families, and reduced referrals and use of social prescribing by CEW staff	Because families that do attend are often the only ones turning up, meaning they do not benefit from social support. Clinical staff can feel demotivated and unable to justify expanding social prescribing offers

7.5.4 Substantive Theories

As discussed in Chapter 6 (section 6.4) substantive theories are more abstract than individual theories that are specific to individual programmes and can therefore provide useful insights to further conceptualise theories. The four theories identified and explored from the realist review were considered during the analysis of interviews and helped to refine theories through providing explanatory depth; patient activation, social cure, social capital and salutogenesis. These theories were identified from the review in phase 3 and then were used in this phase (phase 4), to help interpret findings from interviews, and refine the programme theories. They supported uncovering mechanisms as part of retroductive thinking, by exploring how certain contexts or programme strategies led to outcomes based on understanding from pre-existing theories.

Patient Activation

Social prescribing research by Tierney (2020) noted how tailoring support to individuals' level of activation supported them to reach their goals, provided a sense of achievement and increased motivation for engaging with social prescribing. This particularly helped to develop the theory of *person-centred care* and *accessibility* in terms of understanding the importance of adapting support to the needs of each individual young person and each individual family to enable them to engage. For example, staff and parents commonly noted in interviews how support should go at the pace of the young person, by setting small, manageable goals rather than overwhelming families with advice and targets. This was linked to wider understanding from the substantive theory of patient activation, based on how small goals can lead to feelings of achievement and motivation to continue. As a result, '*increased motivation*' was added into the 'because' statement to provide further explanatory depth to the mechanism.

Additionally, this was also reflected in the theory of *quick wins*, where this theory helped to highlight the importance of creating realistic goals for families. For the theories of *choice* and *physical activity*, patient activation led to considering a

mechanism of empowering young people; by helping them to believe they can play a role in managing their own health (Hibbard & Gilbert, 2014).

Social Cure

Theories at the interpersonal level were particularly relevant to the theory of social cure. In particular, the theory of *social support* was further refined through this substantive theory, whereby a sense of belonging within a social group can enhance wellbeing through developing self-esteem and reducing feelings of isolation (Haslam et al., 2018; Putnam, 2000). Insights from social cure helped to develop the mechanisms in this theory, to explain how and why a group setting could benefit young people and their wellbeing. While staff in interviews consistently identified groups and peer support as important for the young people they worked with, using the social cure theory added further rigour to this. Using social cure theory helped to draw on existing understanding of how group membership and belonging can benefit health and wellbeing. This provided further depth to the mechanisms around social support, to include '*increased social connections, reduced loneliness and increased motivation from shared experiences*'.

Social Capital

Theories of *social support* and *dietary knowledge and skills* were linked to this substantive theory. In addition, this theory helped to further develop *collaboration between services* at the institutional level. By considering the relationship between clinical and community services and relating this to ideas from social capital around the potential benefits from these relationships and the required resources and effort to develop a new way of working and trust between them, this provided further depth to this theory (Tierney et al., 2020; Putnam, 2000). Staff from clinical and community services often noted in interviews how they each used different processes and ways of working, and how miscommunication or lack of understanding around this could negatively impact on provision of social prescribing. Therefore, using social capital highlighted the importance of trust

between services, and as a result this theory was developed, by adding to the 'because' statement how staff may be '*more motivated and confident to refer young people to services if they know the service and trust that it is going to be helpful*'.

Salutogenesis

This theory further refined *person-centred care* and *holistic approach* by providing further understanding of the wider factors that can contribute to improved health and wellbeing (Antonovsky, 1979). This links to a proactive, strengths-based approach, by focusing on what young people can achieve rather their limitations. This was relevant for *physical activity* and led to a focus on and inclusion of offering tailored activities that would provide confidence and a sense of achievement for young people. This also helped to inform theories at the infrastructural level, including both '*understanding of social prescribing*' and '*promotion of social prescribing*'. By considering a salutogenic approach in healthcare, and how social prescribing reflects this, this raises potential barriers to implementation if the context of the service does not align with this approach, for example taking a more pathogenic, or biomedical, approach. This developed these theories by understanding how '*awareness, recognition and promotion*' of approaches which consider wider determinants of health in clinical settings can support staff motivation to use social prescribing.

7.5.5 Refined Programme Theories

Figure 17 shows an overview of the refined programme theories at each level of context after interviews.

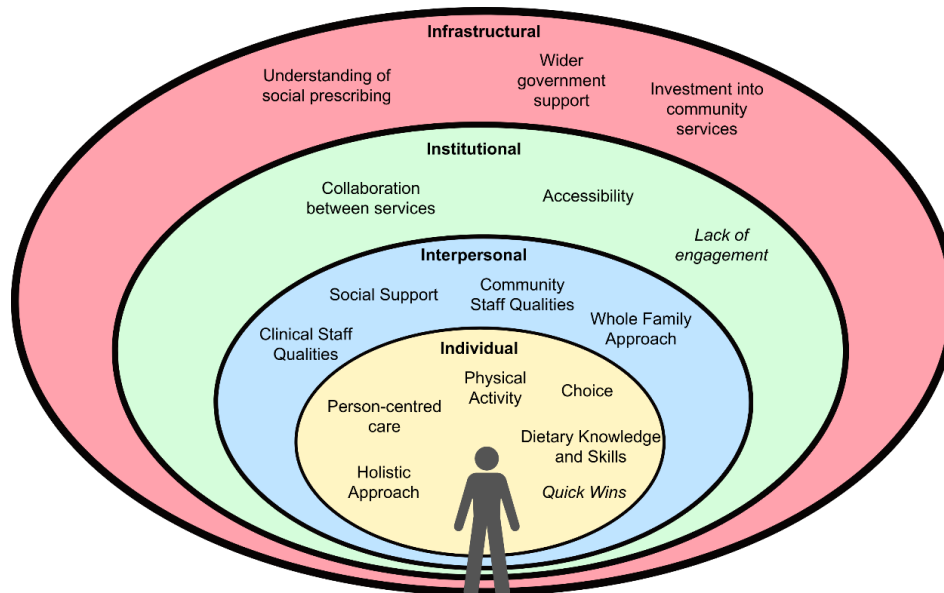


Figure 17. Summary of programme theories at each level of context

7.6 Discussion

7.6.1 Overview

This chapter reports a realist exploration of how social prescribing may (or may not) work in CEW clinics to support the health and wellbeing of children and young people living with severe obesity. Initial programme theories were developed through phases 1, 2 and 3 and in this phase, were refined through semi-structured interviews with a range of stakeholders. This included young people accessing CEW and their parents, all members of a CEW MDT and staff working in community services linked to the CEW team.

Summary of main findings from phase 4

The data gathered through interviews refined each of the initial theories and added three new theories. Interviews provided further in depth understanding of the context of CEW clinics, and the experiences and needs of staff and patients. This was particularly important given that the initial theories were partially informed by a realist review, where most of the literature was based on Tier 2 services. This realist exploration is therefore one of the first to consider social prescribing in a Tier 3 weight management service for children and young people. A summary of findings from phase 4 are presented here but will be discussed in further detail in the context of the whole thesis in Chapter 9.

Whilst social prescribing has not yet formally been implemented within CEW clinics, the clinic involved in this phase had experience of piloting collaborations with community services. This included different pillars of social prescribing such as referral to physical activity through links with local clubs, referral to wider community weight management services, community cooking classes, and referral to information and advice services.

Overall, social prescribing was felt to be a helpful way to support young people living with obesity. Referral to a tailored information and advice service helped to address wider financial and social challenges, allowing families and CEW staff to focus on weight and health needs. Referral to physical activity opportunities helped to develop young people's confidence and allowed them to feel capable of taking part in activity. However, it was noted that this is a highly complex population, who face significant health inequalities and challenges in accessing both community and healthcare services. This means that any offer of social prescribing needs to be tailored and adapted to the individual needs of families.

Social prescribing has previously been more commonly used within primary care settings, although there has been recent research to explore its use in secondary care services (Osei-Asemani & Bertotti, 2025). Emerging findings display similarities to those identified in this chapter in a Tier 3 service, including the importance of developing trust, the need to tackle health inequalities, and additional adaptations needed to increase accessibility.

The current findings from Tier 3 weight management services for children also align with work exploring social prescribing in hospital settings for children and young people, particularly around tailoring support to the complex additional needs of young people, and the need to consider a whole family approach (Gordon et al., 2023). This work has also highlighted the potential for social prescribing to support families with community connection and developing self-efficacy as well as the importance of raising awareness of social prescribing amongst clinicians to support referrals (Gordon et al., 2025).

Citizen's Advice on prescription has also been explored in other health service pathways in the UK, with positive preliminary outcomes around reduced health resource use for mental health needs (Aregawi et al., 2025). Although this study was focused on adults at GP service level it also emphasised the importance of considering social determinants of health in clinical services.

7.6.2 Strengths

This study aligned with a realist approach and included an iterative process. This was supported by expanding the number of staff interviews, conducting family and staff interviews alongside each other, and transcribing and undertaking preliminary analysis after each interview. This meant that programme theories could be continuously refined and developed through the interview process.

The embedded nature of the study, with regular attendance at MDT meetings helped to build an understanding of the challenges and issues staff faced within the CEW service. This helped tailor interviews in terms of knowing what topics to probe and what would be useful to discuss in further detail. This contributed to an in depth understanding of the context and ensured that theories and discussions remained relevant to the service, which was continuously evolving.

7.6.3 Limitations

There were significant challenges experienced in recruiting families. This led to a small sample size for quantitative measures, limiting the mixed methods outcome data for this study. For interviews, whilst staff were able to comment on how activities had been received by families through feedback from delivering activities, the small sample size may limit the rigour of quotes as there were fewer which were direct from young people and parents.

CEW clinics are a relatively new pilot service, with limited prior examples of research studies. This work has therefore developed significant learning around conducting research in these settings, which is of use to other researchers as well as CEW staff. Specific reflections and learning from the recruitment process are discussed below (section 7.6.5).

Social prescribing is not currently formally delivered across CEW clinics and so this study was planned as a prospective realist exploration, aiming to identify theories of how social prescribing might work, rather than evaluating an existing, established programme, as discussed in Chapter 2; section 2.3.4. The aim was not to determine clinical effectiveness of social prescribing in CEW, but as a realist study it aimed to identify theories to develop recommendations for future design and delivery of social prescribing. In this way, whilst the small sample size is a limitation to take into consideration, the aims of the study were still achieved.

7.6.4 Potential Bias

There was potential bias from clinicians passing study information to those families who they felt were more likely to participate, which were those who were doing well in clinic, who were often on medication, and who had less additional needs. Whilst young people and parents taking part were reflective of those attending CEW based on age range, and location, they were less representative of the CEW population in terms of gender and ethnicity. Although one young person who took part had not attended any additional support, and was able to comment on barriers they faced, the other families participating had experience

of accessing community support through CEW. Whilst this was helpful as these families were able to provide information about their experiences and how they have overcome barriers, this does potentially mean that participants are not reflective of the whole CEW population, who may face more complex barriers to accessing social prescribing.

Further research could explore including those who do not engage with CEW clinics or those with more complex needs. Given the complexities of this population, it was beyond the scope of what was feasible within the current study but is an area of interest for future research.

7.6.5 Recruitment Reflections

The recruitment rate for young people and parents/carers was lower than expected. There were significant challenges experienced during recruitment, partly due to fewer participants than expected being identified by clinicians.

Despite the low sample size of families, there were still a sufficient number of interviews with detailed discussions to inform the development of the initial programme theories and achieve the aim of this phase. Sampling in realist research is theory-driven and aims to gather diverse experiences from different respondents to explore programme theories (Wong et al., 2016). Therefore, in depth, relevant knowledge of the programme is prioritised over higher numbers of participants or interview saturation (Manzano, 2016). There were a range of ages of young people included (between 13-17 years) and inclusion of both mothers and fathers. Outcomes (intended and unintended) and experiences of social prescribing activities for families were also able to be captured during staff interviews through the feedback they had collected during and after various sessions. However, it remains a limitation that these findings were not always reported directly from families. There was significant learning from reflecting on recruitment, including areas for future research to consider.

Multiple strategies were employed during the recruitment period (see Figure 18) including increasing the recruitment timeframe by two months, attending and

providing updates to staff at monthly MDT meetings and weekly clinics, attending community sessions in evenings and during holidays, and an additional ethics amendment including a mail out. It was felt to be particularly valuable to attend and speak to clinicians before each of their clinics, to drop off leaflets and recruitment materials and remind them to identify participants. This gave an opportunity to understand which families would be attending clinic and if they were eligible, and to informally discuss recruitment barriers with individual staff. Despite this range of strategies, challenges still remained, and further options or significant changes to study design were limited based on the timeframe of the PhD.

As the CEW clinics were a new service, they were evolving and developing during the timeframe of the PhD. Despite confirming participant inclusion criteria with clinicians at study design stage, there was suggestion of changes in the cohort of patients they see, with younger patients, and more complex patients being referred into the service. Although patients with additional needs such as Autism or learning disabilities were not excluded from participating, as clinicians were the initial point of contact, it may be that they did not attempt to recruit those that they felt may have more challenges taking part.

There were also challenges from other research studies which were recruiting at the same time from the same population. Whilst participants would not be excluded if they took part in multiple studies, it was important to be mindful of not overburdening families. This also opened up the potential for confusion if there were many research opportunities offered (both for clinicians and for participants).

Despite overachieving expected targets for staff interviews, these were still challenging to recruit to. Alongside the regular contact with staff, which meant I had built up rapport with staff before approaching them for interviews, it took multiple emails and conversations in person to confirm participation and arrange time to meet.

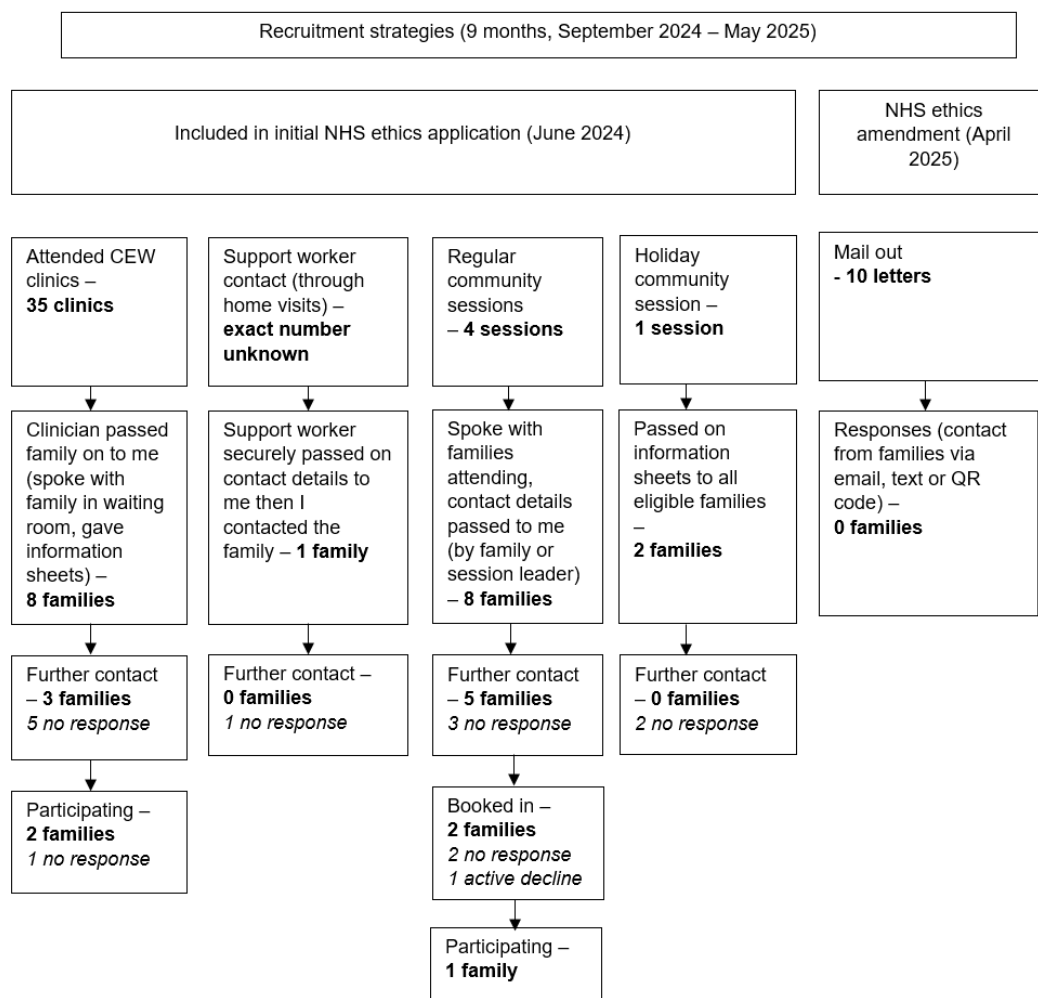


Figure 18. Recruitment strategies over the duration of the study

7.6.5.1 Recruitment Recommendations

Clinic appointments were one of the main ways in which participants were identified and approached. This allowed consent for contact to be gathered by clinicians and provided the opportunity for face-to-face contact with the researcher. However, these clinic appointments were not felt to be the most appropriate time to recruit families, as they can often be overwhelming, with families receiving significant amounts of information including reviewing medical

information. It may be that shadowing home visits with support workers or nurses may have been a more appropriate time to discuss wider opportunities within the clinics, such as research opportunities.

The CEW MDT noted that providing thank you vouchers were helpful for recruiting families, and so it may have been more beneficial if vouchers were provided after each data collection time point (rather than having to wait four months until after the second completion of the questionnaires). Given the high number of families who did not respond, or who made initial contact but then did not respond, it may have reduced barriers if there was an option for more immediate completion of measures, as this would reduce the burden of contacting and organising a time to meet with a researcher. There was discussion around whether families could complete measures on the same day, after their clinic appointments but as discussed, these appointments can be overwhelming for families, and are during school hours, and so it was not felt to be appropriate for the young people to miss additional time from school. It was also felt that families may need more time to review participant information sheets and decide if they wanted to participate.

It may therefore be that an online questionnaire completion option would have been more appropriate, without a researcher facilitating completion. Given that all of the families that participated chose to meet online and had no issues completing the questionnaires this is anticipated to be accessible. The number of questionnaires could be reduced, to ensure families can easily complete them themselves, and to support involvement from those who may have additional needs.

Overall, it may be that alternative research methods may be more appropriate, such as ethnography and observations, rather than longitudinal questionnaires and semi-structured interviews. These methods could help to reduce burden on participants, for example observations at routine appointments would not require families to organise additional meetings with a researcher to complete questionnaires or interviews. This is particularly relevant to this population, as we further understand through this research and wider studies (such as ENHANCE)

that this group can face significant barriers to engaging with healthcare services, and likely also healthcare research.

Recruitment challenges have been discussed with other researchers and PhD students who are planning on working with this population, supporting contribution to improving research experience with this group.

7.6.6 Implications for Practice

Findings were used to refine initial theories of how social prescribing may work within CEW clinics. In phase 5, these theories will be used to develop recommendations for policy makers and CEW clinic leads, in terms of how social prescribing could work best within their service to support families.

As the survey in phase 2 indicated that 87% of CEW professionals nationally felt that they would be very, or fairly likely to use social prescribing in their role in the future, it is important that it is delivered in a way that is helpful and accessible for young people living with obesity. Additionally, the ripple effect theory around '*lack of engagement*' advises that social prescribing should be implemented appropriately, or there is the risk that this reduces motivation from both families and staff to be involved.

These findings increase understanding of social prescribing and how it works in different settings, specifically Tier 3 weight management services for children and young people. This provides a novel contribution as the first exploration of social prescribing in specialist weight management services for children and young people.

7.7 Chapter Summary

This chapter summarised phase 4, a realist exploration of social prescribing within one CEW clinic. This phase refined the initial programme theories, which were developed through phases 1, 2 and 3. These refined theories are presented in Chapter 8, alongside discussion of how they informed recommendations for practice and policy.

8.0 Chapter 8. Phase 5 – Recommendations

8.1 Introduction to Chapter

Chapter 7 detailed phase 4, where initial programme theories were tested, refuted and refined through data collection with young people accessing CEW clinics, their parents/carers, CEW clinic staff and community staff. This chapter presents the refined theories and describes how these were used to inform recommendations for policy and practice. These recommendations were developed alongside discussions with wider stakeholders working across public health, local authorities and social prescribing to consider relevance, usefulness and applicability.

8.2 Research Question and Aim of Phase 5

The research question underpinning phase 5 asks;

What are the key recommendations to specialist weight management services, such as CEW clinics, for how they can optimally design and deliver social prescribing within their service?

Phase 5 aimed to:

- Consolidate findings from phases 1-4 to create recommendations for how CEW clinics can design and deliver social prescribing in their service, with key stakeholders

8.3 Programme Theory

Table 24 presents the refined theories, presented as if-then-because statements from phase 4, which contributed to developing an overall programme theory.

Social prescribing can be used in CEW clinics as an additional tool to support families with wider, non-medical needs. Using a social prescribing approach means that CEW staff can refer to a range of specialised community services for additional support, such as sports coaches, community cooking sessions, and information and advice services, meaning CEW staff can then focus on addressing complex health needs and comorbidities with families.

Social prescribing works with families to identify what would be helpful for them and involves them in decisions about their own health. This provides holistic, person centred support, which means families feel empowered, listened to and which helps to meet their wider needs. These wider needs may be contributing factors to obesity and health complications, including mental health challenges, low confidence and self-esteem, negative experiences of physical activity, as well as practical issues like financial and housing issues. This support can help build trust between families and the CEW service, increasing engagement with both the service and wider community support.

Implementation of social prescribing in CEW is facilitated by trust and collaboration between clinical and community staff. Clinical staff need to trust that community services will be safe and helpful for families, and to know that social prescribing aligns with the core aims of CEW, which are to provide holistic support and consider wider determinants of health. To enable provision of accessible services, community services require sustainable investment and training opportunities to be able to support young people with more complex needs.

Table 24. Summary of refined programme theories developed from phases 1-5

Name	If	Then	Because	Phases
Individual				
Person-centred care	If social prescribing focuses on what is important to the family, and support is adapted to the needs of the family and goes at the pace of the young person	Then young people are more likely to attend and engage with social prescribing, as well as with the CEW service. This will also improve their wellbeing and help to sustain outcomes in the long term	Because the support meets their needs and is tailored to the family which can reduce barriers and increase motivation. It helps to develop trust with the CEW service, because they feel listened to and understood and they are empowered to make decisions and changes for their own health	Mapping, Survey, Review, Interviews
Choice	If social prescribing supports young people and families to choose what activities they can be involved in	Then young people are more likely to attend sessions, improve their confidence and self-esteem	Because the young person is more motivated to take part if activities align to their interests and needs (rather than if they've been told to do it) and they feel empowered to make decisions about their own health	Mapping, Review, Interviews
Holistic Approach	If social prescribing takes a holistic approach, and supports families with non-medical needs	Then families are more likely to engage in CEW clinic support, and young people are more likely to	Because this helps to address wider barriers to support so that CEW staff can focus on weight management and families are	Mapping, Survey, Review

		see improved health outcomes (e.g. physical health outcomes from engaging with clinics, wellbeing outcomes from support with wider, social issues). This can lead to improved long term health outcomes	more able to focus on health with CEW staff. This also considers social determinants of health which helps to address underlying causes or contributing factors to obesity (including mental health)	Interviews
Physical Activity	If social prescribing provides the opportunity for the young person to take part in appropriate physical activity (fun, in a safe and non-judgemental space, tailored to their physical capabilities)	Then this can lead to improved confidence, increased physical activity and improved physical health in the long term	Because the young person increases their self-esteem, they feel a sense of achievement, and feel more capable of taking part in physical activity	Mapping, Survey, Review Interviews
Rival Theory - Physical Activity	If social prescribing focuses too heavily, or solely on physical activity sessions	This can lead to reduced engagement with social prescribing	Because many young people accessing CEW have significant negative experiences and barriers for engaging in physical activity, which can reduce motivation and confidence in attending these groups	Interviews

Dietary Knowledge and Skills	If social prescribing offers the opportunity to learn about nutrition and practice cooking skills in a fun and accessible way (e.g. in a professional kitchen, with a chef, adapted to families' preferences, budget and equipment)	Then this can lead to improved health outcomes and increased knowledge	Because the cooking classes are more aligned with families' lives, and the dietary advice feels less judgemental coming from a chef or community staff	Interviews
Rival Theory – Dietary Knowledge and Skills	If social prescribing opportunities are presented as dietary education and teaching families how to cook	Then this could lead to lack of attendance and engagement from families	Because families feel judged or stigmatised by the offer of a cooking class	Interviews
Interpersonal				
Social Support	If social prescribing offers the young person the opportunity to meet others with similar lived experiences (e.g. age, weight, mental health experiences)	Then young people are more likely to attend and continue to attend sessions, and experience improved wellbeing. This can lead to improved long term outcomes	Because young people feel they have a safe environment with a lack of judgement or stigma, and this provides peer support and increases confidence and self-esteem, as well as increased social connections, reduced isolation and loneliness, and increased motivation from shared	Mapping, Survey, Review Interviews

			experiences. Young people develop confidence being in social environments, and learn how to deal with negative experiences	
Clinical Staff Qualities	If staff are non-judgemental, listen to families and engage with families through home visits	Then young people are more likely to attend and engage with social prescribing and the CEW service and experience improved wellbeing	Because young people feel listened to and like the staff, which helps to build up trust with the CEW service. If there is a familiar face at community sessions, then this helps them feel more confident to attend social prescribing activities	Mapping, Review Interviews
Community Staff Qualities	If staff at community services are confident, skilled, and experienced in working with young people, and are welcoming, compassionate, non-judgemental and relatable	Then clinical staff are more likely to refer families to these community services. Additionally, young people are more likely to attend and engage with social prescribing sessions, and continue to attend, and experience improved wellbeing	Because clinical staff believe it will be a helpful, safe space for families, and because young people like and also trust in the community staff. An informal, non-hierarchical approach helps facilitate the development of trusting relationships between staff and young people	Mapping, Review Interviews

Whole family approach	If social prescribing involves the whole family, and includes options for support for parents/carers as well as individual support for young people	Then young people are more likely to attend social prescribing sessions, and there will be increased knowledge within the family, and improved wellbeing for the young person	Because young people are reliant on their parents/carers for traveling to and attending sessions, as well as finance, food, shopping, transport, lifestyle, values. If there are options for parents to be involved, young people feel supported within their family but can also gain a sense of independence. This can reduce practical and psychological barriers for parents/carers to support themselves and their young person	Survey, Review Interviews
Institutional				
Collaboration between services	If there are good collaborative relationships between healthcare staff and community staff, and clinical staff have an in depth awareness and understanding of the offers of community services	Then this can increase referrals to social prescribing, and support family attendance and engagement with social prescribing	Because clinical staff are more motivated and confident to refer young people to services if they know the service and trust that it is going to be helpful, safe and accessible, and if they have an understanding of what social prescribing can support young people with	Survey, Review Interviews

Accessibility	If barriers to social prescribing can be overcome (travel, cost, language, timing), and offers can be accessible for diverse populations, e.g. neurodiversity, culture, language	Then this can increase attendance and engagement with social prescribing	Because there are less perceived and actual barriers to attending. Clinical staff were less motivated to refer families to services if they did not think the service is accessible to families in the long term (e.g. due to cost, location).	Mapping, Review Interviews
Infrastructural				
Investment into local community services	If local community services receive investment and support to sustain and develop their offer (upskill staff, consistent long term offer, adapt sessions to needs, increase number of sessions), and there is awareness of what these sessions are	Then there will be increased referrals to social prescribing, and increased opportunities for young people in CEW	Because community services can offer more sessions which can be tailored to different needs of young people in terms of physical needs, group sizes and cost (e.g. subsidised or lower cost places). Clinical and community staff have time to develop trusting relationships which improves understanding of social prescribing offers, and motivation to refer	Mapping, Review Interviews

Understanding of social prescribing	If clinical and community staff have an awareness of what social prescribing is and how to implement it	Then it is more likely that there will be increased use of social prescribing within services, and increased referrals	Because staff have increased motivation and confidence to refer young people if they have increased knowledge of how to use it, and have increased awareness that it aligns with their role and the ethos of the CEW clinics	Survey, Review Interviews
Promotion of social prescribing	If social prescribing is recognised and promoted by NHSE, DHSC, and local policy makers and commissioners (such as ICBs), alongside financial support, investment and guidance	Then it is more likely that there will be increased use of social prescribing within services, and increased referrals	Because clinical staff are more motivated to implement social prescribing within services if it is viewed as a priority and this may reduce barriers to implementation (through financial support, guidance and policy)	Survey, Review Interviews
Ripple Effect				
Ripple Effect – Quick Wins	If families see ‘quick wins’ and short term outcomes from engaging with social prescribing	Then this increases engagement with the CEW service and with social prescribing activities	Because this develops trust with the service, and provides families with a sense of achievement and increase in confidence	Interviews

Ripple Effect – Lack of Engagement	If there is a lack of engagement from families with social prescribing	Then this can lead to further reduced attendance and engagement from families, and reduced referrals and use of social prescribing by CEW staff	Because families that do attend are often the only ones turning up, meaning they do not benefit from social support. Clinical staff can feel demotivated and unable to justify expanding social prescribing offers	Interviews

8.4 Development of Recommendations

The theories (Table 24) were used to inform recommendations for how social prescribing could be implemented within CEW services to best support young people living with severe obesity. Three recommendations for policy and three recommendations for practice were developed alongside discussions with wider stakeholders. The below sections present how recommendations were developed and describes the stakeholder involvement, before the final recommendations are presented in section 8.5.

Theories at each level (individual, interpersonal, institutional and infrastructural) were summarised and recommendations were developed based on what was needed to support activation of identified mechanisms. This created a long list of recommendations which was then synthesised, by merging those that were similar or explored similar themes.

For example, one of the identified mechanisms was development of trust between families and clinical staff. Trusting relationships were important for increasing attendance and engagement at clinics, as well as at social prescribing sessions. Where young people developed relationships with members of staff, such as a support worker, they felt more comfortable attending an activity session if they knew they would also be there. All CEW staff were able to be involved in social prescribing in some way, and it was felt that this demonstrated how the whole service was invested in supporting the family. Many families accessing CEW have negative experiences of weight stigma within healthcare settings and overcoming this can take time. Therefore, this led to the recommendation that CEW staff would be best placed to support families to access community activities based on this existing relationship, through a social prescribing approach embedded into their role, rather than referring families to an external link worker.

8.4.1 Stakeholders

11 stakeholders were contacted, using existing contacts from myself and the supervisory team. Further suggestions from stakeholders led to an additional three relevant stakeholders who were approached. Of the 14 contacted in total, ten stakeholders provided discussion and feedback on the recommendations (eight through meetings and two through email comments). Two contacts had suggested alternative, relevant contacts and only two did not provide any response within the required timeframe. Stakeholders included the target range of regional and national contacts including professionals from NHS England, Office for Health Improvement and Disparities (OHID), Local Authorities, Voluntary Community and Social Enterprise (VCSE) leads, Active Partnerships and those involved in social prescribing at a local and national level.

The aim was to confirm with a range of stakeholders if the recommendations were appropriate or useful to them in their role, if they made sense and if they linked with any work they were undertaking or planning. Stakeholders were not expected to change the results or substantially change the recommendations, which were developed based on the research conducted as part of this thesis, but discussions provided sense-checking and ensured recommendations were at the right scale and focus. Additionally, as there are ongoing developments in terms of; creating a CEW delivery framework, a move to local funding for CEW instead of NHSE, and a shift to focusing on neighbourhood health, it was useful to see how the recommendations were received by staff working in these areas. Based on the use of a realist approach, and focus on mechanisms, it would be expected that findings would be transferable across different CEW clinics. This phase also helps to confirm if this is the case or where further work may be needed to explore application of findings to clinics nationally.

A brief summary of the study was prepared including definitions of CEW clinics and social prescribing and an overview of the research process. This was provided alongside the recommendations and shared with the stakeholders via email. Meetings were organised as a follow-up for further discussion. It was noted that this was not part of a research study, but to gather feedback on the

recommendations in terms of language, acceptability and relevance. Stakeholders were contacted at the end of October 2025 via email and meetings were held in November and December 2025.

The recommendations were discussed with individual stakeholders and refinements made. Specific feedback and refinements made are detailed in the section below, and then the final recommendations are presented in section 8.5. Comparisons on the content of the recommendations were also made with recommendations from national organisations, such as NASP (National Academy of Social Prescribing, SPYN (Social Prescribing Youth Network) and emerging data from ENHANCE.

8.4.2 Stakeholder Feedback

Overall the stakeholders felt that the recommendations were useful and that it was useful to see a novel application of social prescribing to weight management for children and young people. The amount of background information provided was felt to be sufficient to understand the work that had been done, even for those staff who did not work directly with CEW clinics or who were closely involved in social prescribing. There was a noted potential for findings to link into other clinical paediatric services, such as occupational therapy teams.

In particular, the professionals involved in social prescribing felt the recommendations aligned with recommendations from wider youth social prescribing work. Those stakeholders from local authorities and the VCSE sector noted they had also faced challenges from a lack of support and funding for community organisations. Professionals from Public Health raised the importance of mental health considerations and a whole family approach, especially for the CEW population. It was felt that there were potential links to a focus on neighbourhood health and one of the NHS 'three shifts' in the Ten Year Health Plan in terms of moving care from hospital to community (UK Government, 2025; NHS England, 2025).

It was suggested by stakeholders (including those from NHS England and Public Health) that it would be more feasible for recommendations to be implemented at a more local, place level. This links to the proposed changes in commissioning for CEW clinics, which is expected to move from national to local commissioning in 2027.

Additionally, there were some suggestions for future work, particularly around developing trusted provider schemes and relevant training needs for community organisations, including but not limited to; Special Educational Needs and Disabilities (SEND), obesity awareness, and mental health.

8.4.3 Specific refinements made based on feedback

Stakeholder discussions resulted in some refinements when developing the recommendations. These are detailed below, and the final recommendations are presented in section 8.5:

- While all staff in the MDT could have a social prescribing approach embedded into their role, it was acknowledged that this might vary for different staff roles. For examples, consultants could still be involved in social prescribing, but this may be more light touch than the involvement of a family support worker. It was also noted that it may be helpful for one staff member to be a lead contact with local Active Partnerships or VCSE leads, to support identification and collaboration with relevant community services. Further information was added to the recommendations about involvement in social prescribing for different MDT roles.
- Similarly, trusted provider schemes and relevant training opportunities for VCSE and community groups could be explored to support clinical teams to identify and work with relevant community services. The potential for trusted provider schemes was added into recommendations for practice.

- When discussing different physical activity opportunities, it was felt to be helpful to focus on community sport organisations, or 'sport for good' organisations. These sessions commonly focus on youth work, with fun physical activities embedded in through group work and games. These sessions are likely to be more accessible to young people accessing CEW. Specific reference to these types of organisations was added to recommendations for practice.
- The focus on supporting mental health was felt to be important, particularly for this group, with long terms benefits for weight management and health outcomes noted. It was felt that this should be emphasised in the recommendations and so references to mental health outcomes were further highlighted across recommendations for policy.
- It was suggested that funding and application of recommendations should be considered at a local, Place level. Recommendations for policy were checked, to ensure that they were relevant to those working at a local level.

8.5 Recommendations

This resulted in six refined recommendations; split between recommendations for practice and recommendations for policy. These are presented below, with further discussion and reference to the programme theories which informed each.

Recommendations for Practice

1. CEW multidisciplinary teams should have a social prescribing approach embedded into their delivery model
2. A social prescribing approach should be used to address a wider range of non-medical needs of young people and their families
3. Ensure social prescribing is an equal collaboration between clinical and community services

Recommendations for Policy and Commissioning

1. Recognise that social prescribing aligns with the holistic, person-centred care approach of CEW
2. Include a social prescribing approach as part of the core CEW offer in service specifications and policy guidance
3. Provide long-term funding and investment for community services

8.5.1 Recommendations for Practice

1. CEW multidisciplinary teams should have a social prescribing approach embedded into their delivery model

A social prescribing approach is where professionals who work with young people can, as part of their role, help connect young people to community support, based on their needs. This approach allows CEW staff to focus on health with families, whilst referring to more specialised services for wider support (e.g. information and advice services, chefs, mental health charities, sports coaches).

Many families accessing CEW have negative experiences of weight stigma within healthcare settings and overcoming this can take time. Building trust between families and CEW staff was highlighted as important for strengthening engagement with CEW clinics, as well as with wider opportunities such as social prescribing. Therefore, CEW staff would be best placed to support families to access community activities based on this existing relationship. This should be done by supporting all members of the CEW MDT team to have a social prescribing approach, rather than it being the role of one individual, or of an external link worker.

This involvement in social prescribing may vary for each member of the MDT, depending on their job role and time allocated to the service. For example, for consultants this may be more light touch, involving follow-up conversations about community services the family has accessed. In comparison, more psychosocial roles (such as support workers, social workers or youth workers), may play a greater role in identifying, contacting and supporting access to community services.

Programme Theories: clinical staff qualities, community staff qualities, accessibility, person-centred care

Level: Interpersonal/Institutional

2. A social prescribing approach should be used to address a wider range of non-medical needs of young people and their families

Social prescribing aligns with the aims of CEW to offer holistic care with equal consideration for mental health, physical health and social needs. Social prescribing should therefore include links to a broad range of community support to help young people develop social connections, increase their activity levels, develop confidence and become more engaged in their community. Young people should be involved in identifying what would be most beneficial for them. When considering physical activity opportunities, it may be helpful to focus on collaborations with community sport organisations, which have a focus on youth work and incorporate physical activities into sessions through group work and games.

Parents can often face their own challenges in engaging with healthcare services, such as weight stigma, social anxiety or personal health issues. Social prescribing can therefore also support parents/carers to help overcome barriers to engaging with the CEW clinics.

Programme Theories: person-centred care, choice, holistic approach, physical activity, cooking classes, social support, whole family approach, accessibility

Level: Individual/Interpersonal

3. Ensure social prescribing is an equal collaboration between clinical and community services

Both clinical and community services play an important role in social prescribing and strong collaboration is needed for a successful model. Good communication between CEW staff and community staff (such as responsive via email, or phone call) was seen as positive and a way of providing additional wrap around support to families. CEW staff felt more motivated to refer families to opportunities that they knew would be safe and helpful and needed an understanding of the service to encourage families to attend, rather than just knowing logistical details that they might find from an online search.

It may be therefore, that working closely with a smaller number of community services to build relationships and adapt their offer to CEW patients is most appropriate.

CEW staff can attend and observe community sessions to understand the specific offer. Community staff should work with CEW staff to develop their understanding of the needs of the CEW population, including an awareness of obesity, related complications and weight stigma. Trusted provider schemes, offering relevant training and support (such as for SEND, neurodiversity, youth mental health and obesity awareness) could be explored to help develop collaborations. It may be helpful for one member of the CEW MDT to act as a lead contact for Active Partnerships and local VCSE leads. This can support the identification of relevant community services.

Programme Theories: collaboration between services, investment into community services, understanding of social prescribing, promotion of social prescribing, accessibility

Level: Institutional/Infrastructural

8.5.2 Recommendations for Policy and Commissioning

1. Recognise that social prescribing aligns with the holistic, person-centred care approach of CEW

Obesity is highly complex and can be impacted by a range of wider social, environmental and mental health factors. CEW clinics aim to identify factors involved in the development of severe obesity, and treat complications using individualised, holistic plans. Social prescribing aligns with these aims and can be used as a tool to address the non-medical needs of families. This can have positive impacts on young people's wellbeing, confidence and reduce social isolation, which can support long term health outcomes. Social, mental health and wellbeing outcomes should therefore be recognised alongside physical health outcomes. Including outcomes measures relating to wellbeing in the clinic dataset could be explored to support this.

Programme Theories: person-centred care, choice, holistic approach, physical activity, cooking classes, social support, whole family approach, accessibility

Level: Individual/Infrastructural

2. Include a social prescribing approach as part of the core CEW offer in service specifications and policy guidance

It was felt by CEW staff that social prescribing is not a priority for, and is not well understood by, wider healthcare professionals, commissioners and policy makers. Whilst CEW staff may not need a highly in depth understanding of what social prescribing is for families to be able to benefit from community support, knowing that it aligns with their role can facilitate implementation.

Financial investment and guidelines for social prescribing are needed to support CEW clinics to continue to provide wider social and wellbeing support like social prescribing. Awareness of a social prescribing approach can be included in training (such as in CEW modules on the NHS Learning Hub), as well as in CEW delivery guidance specifications.

Programme Theories: investment into community services, understanding of social prescribing, promotion of social prescribing, holistic approach

Level: Institutional/Infrastructural

3. Provide long-term funding and investment for community services

There are existing high-quality services in the community including sports clubs and youth provision, but these are not always accessible to CEW families due to high cost, transport challenges and additional health needs. This can include physical health needs but also mental health needs, low confidence, social anxiety and experience of weight stigma. Local community services are often reliant on volunteers or part time staff and can be limited by short term funding, meaning their offer can change quickly.

Investment into targeted community services could allow them to develop their workforce, access training and adapt their offer to be more suitable for CEW families. Long term investment can mean that community services are more sustainable, meaning families can continue to access them after their CEW support has ended, supporting long term outcomes. Consistency of services also supports the development of relationships between CEW staff and community staff. If services are available on a rolling basis, this gives CEW staff time to overcome barriers to access with families and offer appropriate support at the time in the family's CEW journey that works for them.

CEW staff, families and community services should be involved in determining what support is needed. This may be financial support but could also include training and access to resources. Local commissioning teams can explore funding opportunities through shared investment funds (as recommended by National Academy for Social Prescribing).

Programme Theories: collaboration between services, investment into community services, understanding of social prescribing, promotion of social prescribing, accessibility, person-centred care

Level: Infrastructural

8.6 Sharing findings with participants

A one-page infographic (Figure 19) was created, providing a description of the research study and a 'you said, we did' summary. This highlighted the key things that participants said in interviews that they liked, did not like, wanted to see or found frustrating when accessing community services as part of CEW. These were then directly linked to the recommendations for policy and practice (presented in accessible language). Contact details for the researcher were provided in the event that participants had follow-up questions or wanted further information.

When providing consent, participants could choose if they wished to be kept up to date with findings. All participants agreed they wanted to be informed of findings. This infographic was therefore shared with all three families that participated. It was also shared with community staff, with follow up meetings and further information offered for additional discussion of findings. This was shared via email in December 2025.

For the clinical staff who took part in the research, findings were shared via a presentation at an in-person CEW education day. This presentation included an overview of the whole PhD study, and a summary of findings and recommendations, with opportunities for questions and discussion.

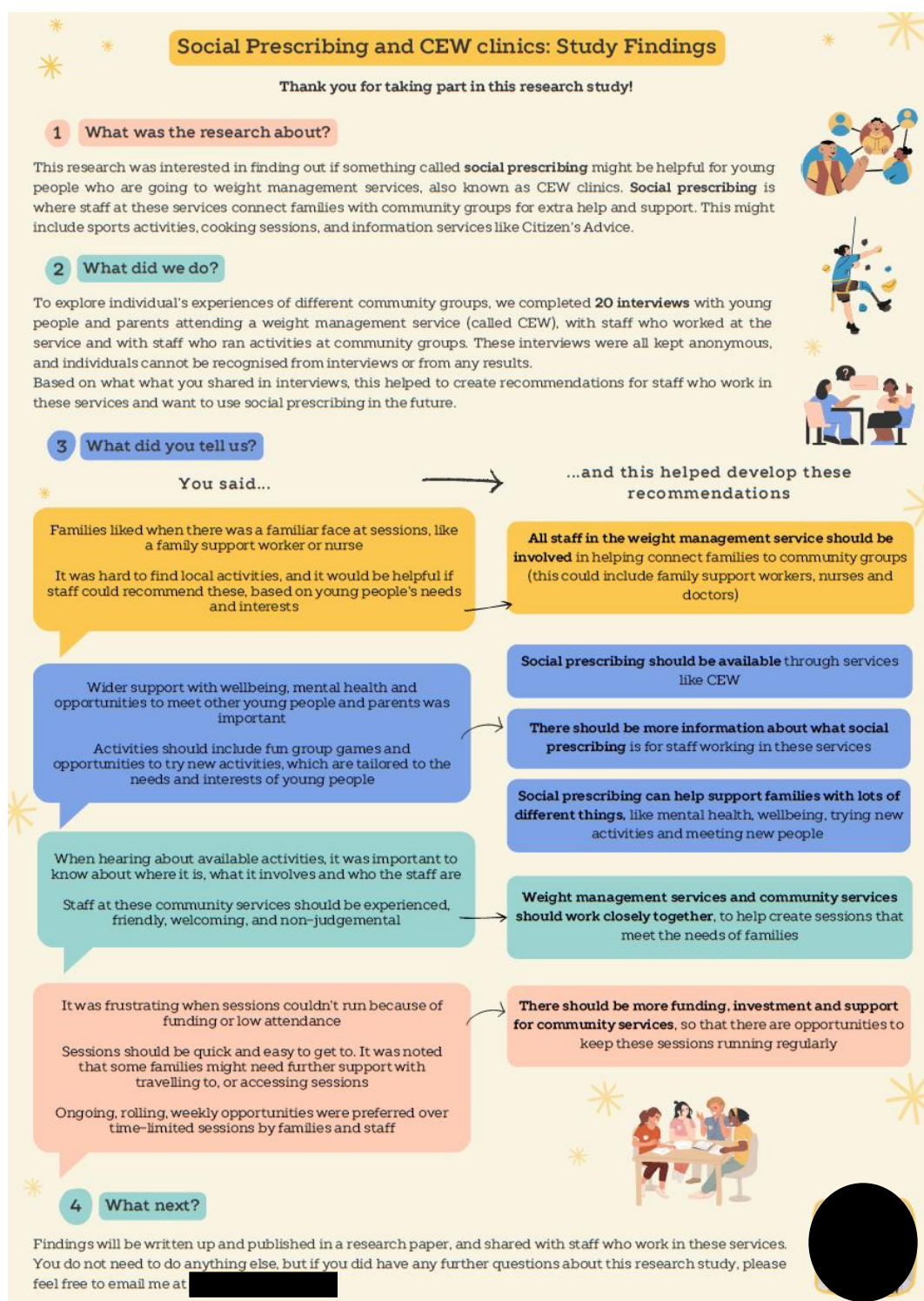


Figure 19. Summary for participants

8.7 Discussion

Phase 5 consolidated the programme theories from phases 1-4 and used these to inform recommendations for implementing social prescribing in CEW clinics as a tool to support the health and wellbeing of young people living with severe obesity.

These recommendations were shared with relevant stakeholders, who confirmed that this work was useful and novel and provided additional insights to further refine these. It was felt that implementation of social prescribing in CEW aligns with wider work for both youth social prescribing and obesity and proposed shifts towards neighbourhood health and the Ten Year Health Plan (UK Government, 2025; NHS England, 2025).

It should be noted that some of the recommendations may be more idealistic, posing challenges for implementation given current policy and commissioning contexts. For example, providing long-term funding and investment for community services may be more aspirational given financial challenges in local services. However, this is likely one of the most important recommendations, given the need for community provision to be available to allow social prescribing to take place.

It may be that those recommendations relating to policy and commissioning are more important than those for practice, as policy and commissioning can impact on the ability of clinicians in CEW clinics to implement social prescribing within their service. For example, another of the most important recommendations is to recognise how social prescribing aligns with the holistic, person-centred care approach of CEW. Whilst an aim of CEW clinics is to consider wider determinants of health, these are not always prioritised alongside physical health outcomes. Including measures to assess changes in wellbeing and more holistic outcomes, as well as having advocacy from policy makers can help to ensure clinics prioritise this in their service.

These refined recommendations are evidence informed but further testing could explore implementation across different localities nationally, and to confirm if these recommendations support improved health outcomes.

8.7.1 National Recommendations

A series of roundtables with various stakeholder groups was held by the Social Prescribing Youth Network (SPYN), which is based at University College London's Social Biobehavioural Research Group (UCL SBB). These included young people, link workers, community organisations, researchers and policymakers and were used to develop best practice guidelines for the design and delivery of youth social prescribing, which were published in February 2026 (Hayes, Arslanovski et al., 2026).

Recommendations developed through this thesis align with the published guidance, particularly in terms of calls for long term, sustainable funding and investment for community services, and ensuring equal collaboration between clinical and community services. This shows that recommendations for delivery of social prescribing in Tier 3 settings are closely aligned to those for youth social prescribing nationally.

However, the recommendations for using social prescribing in CEW clinics highlight specific considerations that may be required when working with youth populations with more complex health needs. For example, whilst investment and support for community services is recommended across youth social prescribing, there are additional implications for working with young people living with obesity, in terms of additional training needs, supervision for staff and accessibility requirements for young people.

In addition, the work conducted through this thesis aligns with the best practice guidance targeted at researchers (Hayes, Arslanovski et al., 2026). This advises using methods which capture mechanisms and help to understand implementation, as well as involving families in research design, and communicating findings to inform future policy and practice. This study used a

realist approach, involved young people and families in PPI sessions throughout and presented results as recommendations to support impact for policy and practice.

The National Academy for Social Prescribing (NASP) released a report in March 2025 on a 'vision for social prescribing for children and young people's mental health and wellbeing' (NASP, 2025*b*). This report highlights the potential for a social prescribing approach, with a broader definition of the connector role, to include numerous staff roles which work with young people (e.g. school staff, healthcare staff, youth worker). These staff can have a what matters to you conversation with young people and co-produce a plan, similar to recommendations for practice around supporting all MDT staff members to be involved in social prescribing.

The NASP report focuses on holistic support, empowering young people, reducing isolation and reducing pressure on health services, and recommends multi-agency collaboration, similar to the theories highlighted throughout this thesis. In particular, investing in social prescribing and raising awareness of this among commissioners and policy makers are key themes, including discussion of trusted provider schemes. Additionally, the potential for a Shared Investment Fund has been recommended by NASP (2024) to generate investments from a range of partners including businesses, philanthropists, and national funders and to incorporate match funding. It is recommended that local community providers are involved in identifying what is needed.

In December 2025, the Government also released a National Youth Work strategy (Department for Culture, Media and Sport, 2025). Elements of this include increasing access to community activities and spaces including increasing visibility of these services. This links to recommendations for social prescribing around collaboration between different services for young people and investing in community services. However, the work in this thesis shows the importance of considering potential barriers and accessibility for young people with a wide range of complex health needs.

For CEW services, overall findings and best practice guidance for service models is not anticipated until Autumn 2026, aligning with the timeline of the ENHANCE study. Despite this, similar to the recommendations presented in this thesis, emerging findings from ENHANCE highlight the importance of holistic support and person-centred care for supporting families accessing CEW. It is therefore anticipated that social prescribing would align with the future guidance for CEW delivery.

The recommendations align with recent NICE guidance for overweight and obesity management (2025), particularly in terms of prioritising person-centred care and considering wider determinants of health and experiences of weight stigma. For young people in particular, a whole family approach is noted, alongside recognition of emotional health and wellbeing needs.

8.8 Chapter Summary

This chapter consolidated the resulting programme theories from across all phases of the thesis (phases 1-4) and presented refined recommendations for delivery of social prescribing within CEW services. These recommendations align with wider, national reports and briefings for youth social prescribing, however they contribute further understanding for using social prescribing to support children and young people with more complex health needs.

The next chapter (Chapter 9) presents the discussion of the whole thesis, including key conclusions, reflections and contribution to knowledge.

9.0 Chapter 9. Discussion

9.1 Introduction to Chapter

The overall aim for this thesis was to explain how, in what ways, and under what circumstances social prescribing may (or may not) work in specialist weight management services such as CEW clinics to support the health and wellbeing of children and young people living with severe obesity.

To achieve this aim, several phases and objectives were proposed. This included 1) exploration of current provision of community services, 2) current views and understanding of social prescribing from CEW staff nationally and 3) a realist review of relevant literature. These phases developed initial theories which were summarised in Chapter 6. These theories were then tested, refuted and refined based on participants' experiences through interviews with young people accessing CEW, their parents, CEW clinic staff and staff from linked community services. These refined theories were used to develop programme theory, and recommendations for how social prescribing can best be used within CEW clinics to support families.

This chapter presents a discussion of the thesis. The strengths and limitations to this work are explored, alongside reflections on the PhD process. Finally, conclusions and contribution to knowledge are presented.

9.2 How, in what ways, under what circumstances, and for whom could social prescribing work in CEW clinics to support young people?

The refined theories are presented Table 24 (Chapter 8) and narratively discussed below. Based on the epistemology of the realist approach, it is suggested that knowledge is never final, as understanding of reality is built from exploring different perspectives and experiences (Kazi, 2003). Therefore, the

theories created through this thesis may be further developed and refined as future research develops understanding.

How, and in what ways may social prescribing work within CEW?

Social prescribing aims to provide support to families by addressing wider non-medical needs (Muhl et al., 2023). Interviews at a local CEW clinic demonstrated that overall, families and staff were positive about the use of a social prescribing model. In particular, referral to a tailored advice and information service was reported to help families with a range of needs, including financial, social and housing issues. This was felt to address the most pressing non-medical needs of families, allowing them to be more able to focus on weight management. These referrals also saved time for clinical members of the CEW team, meaning they were more able to focus on addressing complex health conditions with families. By providing support for the wider, specific needs of individual families, this helped them feel listened to and understood by staff, which can increase motivation for engaging with the service.

An important mechanism of social prescribing at an individual level was empowering young people to feel capable of managing their health. Supporting young people and families to be independent was important for sustaining positive health outcomes in the long term, after CEW support had ended. Provision of accessible physical activities was reported to help young people feel a sense of achievement, and more capable of taking part in activity. Where groups facilitated opportunities for peer support between families with similar experiences of living with obesity, this was felt to help develop confidence and self-esteem.

For many young people living with severe obesity, they can face physical, social and mental health barriers to engaging in physical activity. The review (phase 3) noted barriers such as bullying and feeling self-conscious and interviews with staff (phase 4) highlighted how physical activity sessions often needed adaptations and considerations to ensure accessibility for a CEW population. The mapping work (phase 1) identified over 900 community services local to one

clinic, with only 19 meeting all accessibility criteria for young people living with severe obesity. It has been suggested that to sustain participation in physical activity, young people need to have positive experiences of activities and develop their self-esteem (Daley et al., 2008). For the population of young people accessing CEW, this may mean embedding small amounts of physical activity into wider social, youth sessions, and offering games and a variety of activities. Interviews with young people (phase 4) showed they preferred games and trying different sports and low intensity exercise over high intensity exercise or fitness circuits. For this group, even small amounts of low intensity exercise can significantly increase their activity levels, provide positive experiences of activity and improve self-esteem, increasing the potential for long term engagement in physical activity.

The relational aspects of CEW support were highlighted as essential, especially in terms of developing trust between staff and families. This was facilitated in the clinic through a support worker role, through home visits, and through a person-centred approach to care. This involved listening to families, tailoring social prescribing offers to the individual goals of the family, and introducing small and manageable lifestyle changes. Many families accessing CEW had negative experiences of weight stigma, especially in healthcare settings and therefore building relationships was important to support engagement in the CEW service, but also in wider opportunities such as social prescribing. Interviews with both families and staff noted that it can take time to build up this relationship and trust. Based on this, it was felt that social prescribing should be part of everyone's role within the MDT, to show that the whole service was supporting each family. It may be that within services like CEW, social prescribing works better as a function and part of the service, rather than as a specific role of one team member (such as a support worker or link worker). This helps to build trust with the service, rather than referring families on to another external professional with whom they also have to start to build a relationship.

This has been discussed in wider children's social prescribing work conducted by National Academy of Social Prescribing (NASP), which details a social prescribing approach in services. This means a range of staff who work with

children and young people (such as school staff, youth workers, healthcare professionals) can fulfil a 'connecting function' as part of their role, helping young people find and access community support based on their personal needs (NASP, 2025b).

Many staff in the CEW MDT were already doing this as part of their role but did not explicitly feel that they were 'doing social prescribing'. This may mean further training or awareness raising about social prescribing is needed alongside clearer information and guidance about how and why a social prescribing approach would be useful within services like CEW. This could help to ensure that social prescribing was implemented in the most beneficial way to support families. Additionally, by increasing awareness of the potential benefits of social prescribing and understanding how it aligns with the aims of the CEW clinics, this could increase motivation of staff to implement it within their service.

Under what circumstances?

There were noted changes in the wider context of the CEW service over the duration of this study. The service was set up in early 2022, and the PhD began in October 2022. As the service became more well-known across the region, there were increasing numbers of referrals, almost double what the service was originally commissioned to work with.

There was also an increase in awareness of, and use of GLP-1s as weight loss medication for young people. In one CEW clinic, there were additional medication clinics set up to manage this, led by specialist nurses. This meant that staff roles within the team also evolved over time. Nurses were initially doing home visits, but then became more involved in medication clinics, and so support workers then took up home visits.

Additionally, commissioning responsibility for CEW clinics was planned to change from NHS England to local health systems in March 2025. This caused uncertainty over future delivery models and a push for clinics to demonstrate efficiency of the service to secure funding. As funding becomes more uncertain and there is reduced capacity within the service, there is a risk that holistic

elements of care, such as home visits and social prescribing opportunities are negatively impacted. These elements have a time and cost impact, and the outcomes of improved wellbeing, social connection and trust can be harder to quantify in comparison to weight-related outcomes such as BMI. However, the importance of these outcomes for families in terms of quality of life, and engagement with both healthcare and community services, as noted through interviews with staff and families, should not be overlooked.

The clinics collect a range of measures around physical health and weight change, which are important, and at the time phase 4 was conducted, only one measure relating to quality of life (PedsQL) was included. This has since been expanded and clinics now also collect an additional youth quality of life measure, EQ-5D-Y-5L (Cheng et al., 2023). Clinic staff in interviews felt that the priority for the service was weight management, and that efficacy of the service would be judged in terms of BMI. It may be that including further measures and reporting relating to wellbeing in the clinical dataset could help to demonstrate that wider social and mental health outcomes are important alongside physical measures. Stakeholder discussions in phase 5 suggested that as commissioning transitions to local, rather than national, clinics may have more choice over which outcomes to include. This could support the addition of wider social and mental health measures but could also lead to variation and inconsistencies across clinics.

There is also a need for continued and sustained investment into community services to allow for accessible, local opportunities for CEW patients. Accessibility of services was raised as a barrier for families engaging in social prescribing but also impacted on clinical staff and their motivation to refer families. This was also highlighted through the mapping work (phase 1) which found few services met the accessibility criteria for young people living with obesity. This was often due to cost of attending. If staff did not feel that families would be able to access a community service in the long term, then they reported they were less likely to encourage families to attend, even for one off taster or holiday sessions. Interviews with staff (phase 4) noted how it could be challenging introducing young people to activities which their family could then not afford to join. This can also limit the long-term health outcomes, if families can only access physical

activity sessions with the support of CEW, as this will cease to be available after CEW support had ended. Investing into community services, so they can tailor their sessions and upskill their staff to provide more accessible, sustainable opportunities for young people with additional needs (such as complications from obesity) should be prioritised. This might include subsidised or lower cost spaces, smaller group sizes and training for staff.

And for whom?

Social prescribing within CEW was currently felt to work best for those who were experiencing successful outcomes within the service. This commonly included those who were still attending school regularly, or who had access to transport (e.g. the family own a car) and could pay to access groups. It may be that social prescribing is not currently reaching those most in need, who face more practical barriers, such as financial ability and transport to access groups, as well as social barriers, such as those not attending school and who are therefore experiencing increased levels of isolation and social anxiety.

Often families have not self-referred into the CEW service but have been told to attend by other professionals (e.g. GPs, schools, doctors). This can lead to barriers in engagement with social prescribing. Many families living with obesity have faced weight stigma or felt judged or told what to do by healthcare professionals which can make parents less likely to want to engage with these services (phase 3). Additionally, parents may not always view their child's weight as a significant problem, and if they have been referred by other professionals rather than seeking support themselves, this can reduce motivation for engaging with the service and with advice given by the clinics, as they do not feel like it is necessary, or a priority (phase 4).

There are also families attending CEW who face more complex behavioural challenges or involvement with safeguarding and social care. It may be that social prescribing is less appropriate for these families or may require further consideration and tailoring based on their more complex needs. It is important to

consider how to reach those families who face more significant barriers, but who stand to benefit from social prescribing.

9.3 Strengths and Limitations

Strengths and limitations for each phase have been discussed in each chapter (Chapters 3, 4, 5 and 7) and therefore this section presents reflections on the thesis as a whole.

Overall, a realist approach was used to guide the thesis. This was an appropriate approach to use and is a strength of the work. Realist approaches aim to explore the underlying mechanisms and theories to explain how, and in what ways an intervention works, something which has not yet been explored for youth social prescribing, but which had been noted as an important consideration for future research (Muhl, Cornish et al., 2025). The realist review in phase 3 comprised three searches, including one focused on what works in social prescribing for children and young people, providing novel contribution to understanding of how social prescribing works for youth populations.

There is precedent of using realist approaches to develop and evaluate complex social programmes, and this has been shown to support implementation and intervention design (Pawson et al., 2005). A core concept of the realist approach is the inclusion of context in developing theories. CEW clinics were established in 2022 and over the duration of the PhD have faced significant changes in wider context; from changes in Government, the announcement to disband NHS England who fund the clinics, and increased awareness and use of GLP-1s in young people. A realist approach was therefore able to consider these changes over time as part of the analysis. In this work, this meant recommendations for policy and practice were relevant to current challenges, leading to practical application and real-world impact of research findings.

There were, however, also challenges with using a realist approach. Realist approaches have been reported to be challenging for novice researchers (Mukumbang et al., 2023) due to the iterative, flexible nature of the approach and

focus on ontological foundations. Additionally, whilst the development of theories is useful for intervention design and development, commissioners and clinical staff commonly base decisions on more traditional effectiveness data, such as robust quantitative clinical physical health outcome data. It may be therefore that further outcome data is required to allow for implementation and commissioning.

Throughout the study, an embedded approach was used. Embedded approaches can be broad (Kneale et al., 2024) but in this work it involved linking in with a CEW MDT through shadowing clinics and attending regular meetings (further detail is included in Chapter 2; *Methodology*). This brought benefits to the research including a broader understanding of the context of the clinics, which meant the design of the research was relevant and helpful for current practice.

However, there were some challenges with an embedded approach. It is commonly noted through the literature that it can take time to build rapport and relationships with clinical teams (Ward et al., 2021). In initial meetings, there was some concern that clinicians might feel like I was observing as part of a research role and therefore did not feel comfortable sharing information, and it took time to become a regular member of the team at these meetings. There were also many broader challenges discussed through MDT meetings and aspects of wider context captured through wider projects such as ENHANCE. Given the timelines and resources of the PhD, there was a need to be mindful of scope, and to focus on what was relevant to the topic of social prescribing.

A limitation of the thesis is that phases 1 and 4 were conducted in only one CEW clinic region. It is a limitation that only one CEW site was included, and it may be that there are differences across wider regions, especially given variation in CEW delivery models (Davies et al., *in preparation*). For example, some clinics may have more existing community links or prioritise developing these, or some may not have psychosocial roles included on their MDT, which could impact on how social prescribing is delivered. To help overcome this, the survey (phase 2) included representation from CEW staff nationally and the review (phase 3) included publications detailing provision across England. Phase 5 also included stakeholders nationally to provide feedback on recommendations. In addition,

work on ENHANCE during the PhD helped to provide insights into wider delivery models of different clinics.

Similarly, as discussed in phase 4, the interviews included limited diversity of young people and families. Those who took part may not be fully representative of CEW patients, who are often living in the most deprived areas of the country, from ethnic minority groups, with high rates of neurodiversity and non-regular school attendance (Matu et al., 2025). It may be that these groups have further barriers which were then not able to be fully explored during this work. This could be considered in future research (see 9.4 below).

9.4 Future Research

Future research could explore ways to engage with families facing more complex health needs, and who have additional barriers to engagement. This is an issue that has been raised in wider social prescribing work, with a potential lack of representation from minority ethnic populations (Tierney et al., 2022). To ensure inclusivity for underrepresented groups, or those who face additional barriers to engaging in research, alternative methods could be explored. This may include ethnography and observations to increase accessibility and reduce burden on participants. Patient and public involvement should continue to be conducted for future research, to ensure acceptability for young people and families.

Future research could involve implementing and evaluating a model of social prescribing models across multiple CEW sites, based on recommendations developed through this work. Evaluation should consider wellbeing and social impacts on young people but could also consider impact on services in terms of time and cost-effectiveness. It would be beneficial for evaluations to include long term outcomes, as well as exploration of how improved wellbeing, social connection and engagement with community services can impact on long term physical health outcomes for this population.

Recent social prescribing research has continued to identify relevant theories. One example is Self-Determination Theory (SDT) (Ryan & Deci, 2000), which

explores how long term behaviour change can be influenced by internal or intrinsic motivation, rather than external pressures. It identifies three basic psychological needs focused on autonomy, competence and relatedness. Whilst SDT has previously been considered in adult social prescribing research, it has only recently begun to be applied to youth social prescribing (Muhl, Dimitrova et al., 2025). SDT may be relevant for considering social prescribing in weight management services, and links to theories identified in this study. For example; autonomy can be linked to the importance of giving young people a choice over what support would be helpful for them, competence is reflected in young people feeling capable of taking part in physical activity, and relatedness aligns with the importance of social and family support as part of weight management. This presents an opportunity for future research to explore in further depth how self-determination theory could apply to this context of social prescribing in weight management services.

9.5 Reflexivity

Reflexivity is a core component to consider in research (Patnaik, 2013) and is particularly relevant for realist research. The underlying epistemology to realist evaluation suggests our knowledge of the world comes from understanding individual experiences and inductive logic is commonly used to interpret explanations of patterns and experiences to develop theories (Downey et al., 2024). There is therefore a risk that certain theories could be selected or prioritised by a researcher based on familiarity or prior knowledge. It is recommended that reflexivity around the position of the researcher, and wider complexity is considered to support integrity of the research (Downey et al., 2024).

Reflexivity and positionality were considered throughout this thesis. As a PhD student, I have prior experience working in the NHS as a researcher in a team which focuses on child mental health (COMIC Research, 2025). Through this role, I had prior experience of delivering a feasibility study of a social prescribing intervention for young people with mental health difficulties who were on CAMHS

waiting lists 'Safety Nets' (Dias et al., 2024; Garside, Taylor et al., 2024; Taylor et al., 2026). However, I had no previous experience of working with young people living with obesity. Therefore, the embedded nature of this project helped to contribute to building this knowledge, by developing understanding of the population as well as the way the weight management services are delivered. Whilst this previous experience in social prescribing was beneficial, there was also the potential that this could lead to bias, with an initial expectation that a social prescribing intervention may work the same for both populations. However, through working closely with clinicians and shadowing clinics and relevant community groups, I developed a better understanding of the needs of the CEW families and recognised that there were many differences and additional considerations for this population (including socio-economic factors, complexity of families' lives and additional mental health and physical health challenges).

Working in the NHS also gave me prior understanding of NHS processes and structures. I was aware of the importance of working with gatekeepers and those delivering services throughout the research to support impact and practical applications of research findings. The COMIC team specialises in patient and public involvement and co-production research. Based on this experience, I aimed to incorporate PPI from the start of this study, using early engagement to inform and guide the research design.

This PhD was funded by Sheffield Hallam University through the Graduate Teaching Assistant (GTA) scheme. This allowed me the opportunity to gain experience and understanding of working at a university. This involved teaching, shadowing opportunities and involvement in wider research projects. As my previous research experience has been working within NHS settings, in a small team, this provided valuable understanding of the different aspects of working as part of larger, university organisation.

This PhD started in 2022, the same year as the pilot CEW clinics were established. The national evaluation of these clinics, ENHANCE, then began in early 2024. As such, a significant amount of learning about the delivery models of CEW, challenges faced, and demographics of CEW patients has taken place over recent years and was not available at the very beginning of the study or

when planning and designing research processes. The understanding that is now available about the clinics and demographics of families accessing these services, would have likely influenced the recruitment and data collection methods used. For example, there could have been more focus on observations and online completion of surveys to reduce participant burden and reach more underserved groups. Further discussion around learnings for recruitment and data collection are detailed in Chapter 7.

Similarly for youth social prescribing, there has been an increase in research and policy interest over recent years. Work to establish definitions of social prescribing was published in 2023, and one of the first comprehensive scoping reviews of youth social prescribing was published in 2025. Further, recommendations from national organisations such as NASP and SPYN were developed in 2025 and 2026, in the final year of the PhD (Hayes, Marshall, Arslanovski et al., 2025; Hayes, Arslanovski et al., 2026; NASP, 2025b). Although this provided useful comparisons between recommendations in this thesis and national recommendations, this meant there was limited existing research on which to inform design and development of studies. However, this does allow learnings through this thesis to contribute to current developments in youth social prescribing and obesity services.

9.6 Contribution to Knowledge and Impact

The overall aim for this thesis was to explain how, in what ways and under what circumstances social prescribing may (or may not) work in specialist weight management services such as CEW clinics, to support the health and wellbeing of children and young people living with severe obesity.

This work contributed to the development of new knowledge by developing a programme theory of how social prescribing could work within CEW clinics to support young people living with severe obesity. Findings will be fed into the national evaluation of CEW clinics, and the development of service specifications and guidelines for CEW delivery through links with the ENHANCE study.

Additionally, findings informed recommendations for policy and practice as to how CEW clinics could implement social prescribing to support patients. This provides originality by extending current understanding of how social prescribing works to a new population and clinical pathway.

At the time of this thesis, there was no realist review of social prescribing for children and young people, and no exploration of theories to explain how social prescribing may work for children and young people living with obesity. This work shares the first realist exploration of social prescribing in specialist weight management services for children and young people. Findings may be useful for further development and evaluation of social prescribing in CEW, as well as for exploring how social prescribing could work in other clinical paediatric settings. This was supported through discussions with stakeholders in phase 5. Addressing rates of childhood obesity and exploring collaborative community ways of working (such as social prescribing) are current priorities across social prescribing networks, NHS, public health, and local government, meaning the proposed work is both timely and relevant (UK Government, 2025).

Findings have been shared via publications, reports and presentations throughout the study at a variety of conferences to ensure accessible sharing of results for different stakeholders. This includes the International Social Prescribing Conference, Association for Obesity UK Congress, British Society for Paediatric Endocrinology and Diabetes, and NHS Research Forums, across Yorkshire and nationally.

9.7 Conclusion

This thesis contributed to knowledge by developing programme theory to explain how social prescribing could be used in specialist weight management services support the health and wellbeing of young people living with obesity. This extends current understanding of social prescribing to a new population and clinical treatment pathway.

This work developed recommendations for policy and practice. These highlight the role of social prescribing in addressing wider social determinants of health, and the importance of including this in weight management services, especially for young people. There is also a call for long term investment into community services, to increase accessible provision for young people with more complex health needs.

There is the opportunity for future research to explore implementation of these recommendations across specialist weight management services nationally, and to further evaluate long term health outcomes for young people living with severe obesity.

References

- Abrams, R., Wong, G., Hamer-Hunt, J., Gudgin, B., Tierney, S., Dawson, S., ... & Park, S. (2020). The role (or not) of patients and the public in realist reviews. <https://openresearch.surrey.ac.uk/esploro/outputs/other/The-role-or-not-of-patients/99516647902346>
- Active Travel England (n.d.). Retrieved February 2026: <https://www.activetravelengland.gov.uk/funding/social-prescribing>
- Aicken, C., Roberts, H., & Arai, L. (2010). Mapping service activity: the example of childhood obesity schemes in England. *BMC Public Health*, 10(1), 310.
- Aljaseem, L. I., Peyrot, M., Wissow, L., & Rubin, R. R. (2001). The impact of barriers and self-efficacy on self-care behaviors in type 2 diabetes. *The Diabetes Educator*, 27(3), 393-404.
- An, R., Yan, H., Shi, X., & Yang, Y. (2017). Childhood obesity and school absenteeism: a systematic review and meta-analysis. *Obesity reviews*, 18(12), 1412-1424.
- Anderson, S. E., Cohen, P., Naumova, E. N., Jacques, P. F., & Must, A. (2007). Adolescent obesity and risk for subsequent major depressive disorder and anxiety disorder: prospective evidence. *Biopsychosocial Science and Medicine*, 69(8), 740-747.
- Antonovsky, A. (1979). Health, stress, and coping. *New perspectives on mental and physical well-being*, 12-37.
- Apperley, L. J., Blackburn, J., Erlandson-Parry, K., Gait, L., Laing, P., & Senniappan, S. (2022). Childhood obesity: A review of current and future management options. *Clinical Endocrinology*, 96(3), 288-301.
- Aregawi, G., Roberta, P., Konstantinos, D., Rachel, A. D. C., Katharine, A., Mark, G., ... & Benjamin, B. (2025). The impacts of Liverpool Citizen's Advice on Prescription (CAP) on mental health outcomes—an Instrumental Variable (IV) approach. *SSM-Population Health*, 30, 101785.
- Ball, K., Timperio, A., & Crawford, D. (2009). Neighbourhood socioeconomic inequalities in food access and affordability. *Health & place*, 15(2), 578-585.
- Bandura, A. (1978). Self-efficacy: Toward a unifying theory of behavioral change. *Advances in behaviour research and therapy*, 1(4), 139-161.
- Bandura, A. (1986). Social foundations of thought and action. *Englewood Cliffs, NJ*, 1986(23-28), 2.
- Bandura, A. (2008). An agentic perspective on positive psychology. *Positive psychology: Exploring the best in people*, 1(5), 167-196.
- Baranowski, T., Motil, K. J., & Moreno, J. P. (2019). Multi-etiological perspective on child obesity prevention. *Current nutrition reports*, 8(1), 1-10.

Bertotti, M., Frostick, C., Hutt, P., Sohanpal, R., & Carnes, D. (2018). A realist evaluation of social prescribing: an exploration into the context and mechanisms underpinning a pathway linking primary care with the voluntary sector. *Primary health care research & development*, 19(3), 232-245.

Bertotti, M., Frostick, C., Sharpe, D., & Temirov, O. (2020). A two-year evaluation of the Young People Social Prescribing (YPSP) pilot. *Institute for Connected Communities (ICC), University of East London*.

Bertotti, M., Hayes, D., Berry, V., Jarvis-Beesley, P., & Husk, K. (2022). Social prescribing for children and young people. *The Lancet Child & Adolescent Health*, 6(12), 835-837.

Bickerdike, L., Booth, A., Wilson, P. M., Farley, K., & Wright, K. (2017). Social prescribing: less rhetoric and more reality. A systematic review of the evidence. *BMJ open*, 7(4), e013384.

Blundell, E., De Stavola, B. L., Kellock, M. D., Kelly, Y., Lewis, G., McMunn, A., ... & Solmi, F. (2024). Longitudinal pathways between childhood BMI, body dissatisfaction, and adolescent depression: an observational study using the UK Millennium Cohort Study. *The Lancet Psychiatry*, 11(1), 47-55.

Bolling, C. F., Armstrong, S. C., Reichard, K. W., Michalsky, M. P., Section on Obesity, Section on Surgery, Haemer, M. A., ... & Gow, K. W. (2019). Metabolic and bariatric surgery for pediatric patients with severe obesity. *Pediatrics*, 144(6), e20193224.

Bourdieu, P. (1986). The forms of capital. In J.G. Richardson (Ed.), *Handbook of theory and research for the sociology of education*. (pp. 241-260). New York: Greenwood.

Bradshaw, A., & Dace, H. (2023). *Unhealthy Numbers: The Rising Cost of Obesity in the UK*. Frontier Economics. www.frontier-economics.com/uk/en/news-and-insights/news/news-article-i20358-the-rising-cost-of-obesity-in-the-uk/

Brandreth, R. A., Semple, C., Dias, R., Jones, S., Sachdev, P., Webb, E., ... & Atwal, K. (2024). Obesity and complications of excess weight in children and young people. *The Transition of Respiratory Care: from Child to Adult (ERS Monograph)*. Sheffield, European Respiratory Society, 23-37.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative research in psychology*, 3(2), 77-101.

Bronfenbrenner, U. (1977). Toward an experimental ecology of human development. *American psychologist*, 32(7), 513.

Brown, T., O'Malley, C., Blackshaw, J., Coulton, V., Tedstone, A., Summerbell, C., & Ells, L. J. (2018). Exploring the evidence base for Tier 3 specialist weight management interventions for children aged 2–18 years in the UK: a rapid systematic review. *Journal of Public Health*, 40(4), 835-847.

Browne, N. T. (2021). Obesity and children. *Nursing Clinics*, 56(4), 583-597.

- Buckingham, N., Jefferies, D., Purbrick-Thompson, K., Arnold, S. (2025, November 21). *What is the State of Children's Health in England?* The King's Fund. Report. Accessed online at: <https://www.kingsfund.org.uk/insight-and-analysis/long-reads/state-childrens-health-england>
- Bunn, F., Goodman, C., Russell, B., Wilson, P., Manthorpe, J., Rait, G., ... & Durand, M. A. (2018). Supporting shared decision making for older people with multiple health and social care needs: a realist synthesis. *BMC geriatrics*, 18(1), 165.
- Calderón-Larrañaga, S., Milner, Y., Clinch, M., Greenhalgh, T., & Finer, S. (2021). Tensions and opportunities in social prescribing. Developing a framework to facilitate its implementation and evaluation in primary care: a realist review. *BJGP open*, 5(3).
- Cameron, A. J., Magliano, D. J., Dunstan, D. W., Zimmet, P. Z., Hesketh, K., Peeters, A., & Shaw, J. E. (2012). A bi-directional relationship between obesity and health-related quality of life: evidence from the longitudinal AusDiab study. *International journal of obesity*, 36(2), 295-303.
- Campbell, M. K. (2016). Biological, environmental, and social influences on childhood obesity. *Pediatric research*, 79(1), 205-211.
- Capehorn, M. S., Haslam, D. W., & Welbourn, R. (2016). Obesity treatment in the UK health system. *Current obesity reports*, 5(3), 320-326. 27265
- Carnes, D., Sohanpal, R., Frostick, C., Hull, S., Mathur, R., Netuveli, G., ... & Bertotti, M. (2017). The impact of a social prescribing service on patients in primary care: a mixed methods evaluation. *BMC health services research*, 17(1), 835.
- Carpiano, R. M. (2006). Toward a neighborhood resource-based theory of social capital for health: can Bourdieu and sociology help?. *Social science & medicine*, 62(1), 165-175.
- Catford, J. (1998). Social entrepreneurs are vital for health promotion—but they need supportive environments too. *Health promotion international*, 13(2), 95-97.
- Charlton, J. J. V., Battersby, A., Drinkwater, C., McKean, M., & Quibell, T. (2022). Addressing the crisis in child mental health: the feasibility of primary prevention through social prescribing as the missing link. *Research Square*.
- Chatterjee, H. J., Camic, P. M., Lockyer, B., & Thomson, L. J. (2018). Non-clinical community interventions: a systematised review of social prescribing schemes. *Arts & health*, 10(2), 97-123.
- Cheetham, M., Wiseman, A., Khazaeli, B., Gibson, E., Gray, P., Van der Graaf, P., & Rushmer, R. (2018). Embedded research: a promising way to create evidence-informed impact in public health?. *Journal of Public Health*, 40(suppl_1), i64-i70.

- Cheng, S., Kaminga, A. C., Liu, Q., Wu, F., Wang, Z., Wang, X., & Liu, X. (2022). Association between weight status and bullying experiences among children and adolescents in schools: An updated meta-analysis. *Child abuse & neglect*, 134, 105833.
- Cheng, L.J., Kreimeier, S., Chen, L.A., Herdman, M., Luo, N. (2023). *Head-to-head comparisons of the measurement properties of the three-level and five-level versions of the EQ-5D-Y: a systematic review*. [Oral presentation]. ISOQOL Annual Conference, 2023, Calgary, Canada.
- Cole, T. J., Freeman, J. V., & Preece, M. A. (1995). Body mass index reference curves for the UK, 1990. *Archives of disease in childhood*, 73(1), 25-29.
- Cole, T. J., Bellizzi, M. C., Flegal, K. M., & Dietz, W. H. (2000). Establishing a standard definition for child overweight and obesity worldwide: international survey. *Bmj*, 320(7244), 1240.
- COMIC Research. (November 5, 2025). *Research at COMIC*. Leeds and York Partnership NHS Foundation Trust
<https://www.leedsandYorkpft.nhs.uk/research/comic/research-at-comic/>
- Cooksey, R. W. (2020). Descriptive statistics for summarising data. In *Illustrating statistical procedures: Finding meaning in quantitative data* (pp. 61-139). Singapore: Springer Singapore.
- Cooper, M., Avery, L., Scott, J., Ashley, K., Jordan, C., Errington, L., & Flynn, D. (2022). Effectiveness and active ingredients of social prescribing interventions targeting mental health: a systematic review. *BMJ open*, 12(7), e060214.
- Costa, A., Sousa, C. J., Seabra, P. R. C., Virgolino, A., Santos, O., Lopes, J., ... & Alarcão, V. (2021). Effectiveness of social prescribing programs in the primary health-care context: a systematic literature review. *Sustainability*, 13(5), 2731.
- Coulter, A., & Ellins, J. (2006). *Patient-focused interventions: a review of the evidence* (Vol. 1). London: Health Foundation.
- Coulton, V., Dodhia, S., Ells, L., Blackshaw, J., & Tedstone, A. (2015). *National mapping of weight management services:: provision of tier 2 and tier 3 services in England*. Public Health England.
<https://www.gov.uk/government/publications/weight-management-services-national-mapping>
- Dada, S., Dalkin, S., Gilmore, B., Hunter, R., & Mukumbang, F. C. (2023). Applying and reporting relevance, richness and rigour in realist evidence appraisals: advancing key concepts in realist reviews. *Research Synthesis Methods*, 14(3), 504-514.
- Daley, A. J., Copeland, R. J., Wright, N. P., & Wales, J. K. (2008). 'I Can Actually Exercise If I Want To; It Isn't As Hard As I Thought' A Qualitative Study of the Experiences and Views of Obese Adolescents Participating in an Exercise Therapy Intervention. *Journal of health psychology*, 13(6), 810-819.
- Damm, C., (n.d.) *Charity Explorer Tool* [website]. Retrieved March 2023:
https://cwaldamm.shinyapps.io/charity_explorer_app/

- Damm, C., & Kane, D. (2021). *Charity field classification: main project report*. Centre for Regional Economic and Social Research. Sheffield Hallam University. <https://www.shu.ac.uk/centre-regional-economic-social-research/publications/charity-field-classification-main-project-report>
- Davies, A. (2022). *Feasibility of Integrating an Exercise Specialist Supported by M-health Technology to Increase Exercise and Physical Activity Adherence in a Complications from Excess Weight Service: Motivate-CEW* [Master's thesis, Liverpool John Moores University] LJMU Research Online.
- Davies, P., Marwood, J., Nobles, J., Kinsella, K., Matu, J., Stone, R. A., Brown, T., Forman, D., Shepherd, K., Coulman, K., Griffiths, C., Day, R., Sharman, K., Aswani, D., Hamilton-Shield, J., Ells, L., & Homer, C. (*in preparation*). The design and Delivery of 30 Complications of Excess Weight Services for Children and Young People in England.
- Davies, C., & Fisher, M. (2018). Understanding research paradigms. *Journal of the Australasian Rehabilitation Nurses Association*, 21(3), 21-25.
- Dayson, C., Bashir, N., Bennett, E., & Sanderson, E. (2016). The Rotherham social prescribing service for people with long-term health conditions. *Sheffield Hallam University, Cent Reg Econ Soc Res*.
- Dayson, C. (2017). Policy commentary – Social prescribing ‘plus’: a model of asset-based collaborative innovation?. *People, Place and Policy*, 11(2), pp. 90-104. <https://doi.org/10.3351/ppp.2017.4839587343>
- De Weger, E., Van Vooren, N. J. E., Wong, G., Dalkin, S., Marchal, B., Drewes, H. W., & Baan, C. A. (2020). What's in a realist configuration? Deciding which causal configurations to use, how, and why. *International Journal of Qualitative Methods*, 19, 1609406920938577.
- Department for Culture, Media and Sport. (2025). *Youth Matters: Your National Youth Strategy. Policy Paper*. <https://www.gov.uk/government/publications/youth-matters-your-national-youth-strategy/youth-matters-your-national-youth-strategy>
- Department for Environment, Food and Rural Affairs. (2024). *United Kingdom Food Security Report 2024: Theme 4: Food Security at Household Level*. <https://www.gov.uk/government/statistics/united-kingdom-food-security-report-2024/united-kingdom-food-security-report-2024-theme-4-food-security-at-household-level#sub-theme-3-diet-and-nutrition>
- Department of Health and Social Care. (2020). *Physical activity guidelines: UK Chief Medical Officers' report*. <https://www.gov.uk/government/publications/physical-activity-guidelines-uk-chief-medical-officers-report>
- Department of Health and Social Care & IFF research. (2023). *Exploring perceptions of green social prescribing among clinicians and the public*. <https://www.gov.uk/government/publications/green-social-prescribing-perceptions-among-clinicians-and-the-public/exploring-perceptions-of-green-social-prescribing-among-clinicians-and-the-public#technical-appendix>

- Dias, R., Parker, J., Powell, L., Teige, C., Garside, M., & Wright, B. (2024). 'Safety Nets': a community based social prescribing intervention involving combined physical activity and psychoeducation for young people on mental health service waiting lists: a pilot service evaluation. *Advances in Mental Health*, 22(1), 104-117.
- Diefenbach, M. A., & Leventhal, H. (1996). The common-sense model of illness representation: Theoretical and practical considerations. *Journal of Social Distress and the Homeless*, 5(1), 1138. doi:10.1007/BF02090456
- Downey, J., Harris, N., Rybczynska-Bunt, S., Golder, E., Shearn, K., & Bradley, N. (2024). Reflecting on reflexivity in realist evaluation: a call to action. *International Journal of Qualitative Methods*, 23, 16094069241284206.
- Drinkwater, C., Wildman, J., & Moffatt, S. (2019). Social prescribing. *BMJ*, 364:l1285
- Dziruni, T. B., Hutchinson, A. M., Keppich-Arnold, S., & Bucknall, T. (2025). A Realist-Informed Evaluation of a Rapid Response System for Mental State Deterioration in Acute Hospitals: Testing Program Theories Through Interviews. *International Journal of Mental Health Nursing*, 34(3), e70083.
- e-learning for healthcare (July 2020). *Social Prescribing – Learning for Link Workers*. NHS England. <https://www.e-lfh.org.uk/social-prescribing-learning-for-link-workers-now-live/>
- Ellison, N. B., Steinfield, C., & Lampe, C. (2011). Connection strategies: Social capital implications of Facebook-enabled communication practices. *New media & society*, 13(6), 873-892.
- Ells, L. J., Rees, K., Brown, T., Mead, E., Al-Khudairy, L., Azevedo, L., ... & Demaio, A. (2018). Interventions for treating children and adolescents with overweight and obesity: an overview of Cochrane reviews. *International journal of obesity*, 42(11), 1823-1833.
- Ells, L. J., Ashton, M., Li, R., Logue, J., Griffiths, C., Torbahn, G., ... & Campbell-Scherer, D. (2022). Can we deliver person-centred obesity care across the globe?. *Current obesity reports*, 11(4), 350-355.
- Ells, L. J., Homer, C., Matu, J., Aswani, D., & Steele, C. (2025). Compassionate child obesity care within a stigmatising society. *The Lancet*, 406(10502), 444.
- ENHANCE (2025, November). *NIHR158453. Study Protocol*. <https://www.fundingawards.nihr.ac.uk/award/NIHR158453>
- Estabrooks, P. A., Lee, R. E., & Gyurcsik, N. C. (2003). Resources for physical activity participation: does availability and accessibility differ by neighborhood socioeconomic status?. *Annals of behavioral medicine*, 25(2), 100-104.
- European Childhood Obesity Surveillance Initiative, Nutrition, Physical Activity & Obesity (NAO). (2025). *WHO European Childhood Obesity Surveillance Initiative (COSI): report on the sixth round of data collection, 2022– 2024*. World Health Organization. Regional Office for Europe.

<https://www.who.int/europe/publications/i/item/WHO-EURO-2025-11788-51560-78769>

Evers, S., Husk, K., Napierala, H., Wendt, L., & Gerhardus, A. (2024). Theories used to develop or evaluate social prescribing in studies: a scoping review. *BMC Health Services Research*, 24(1), 140.

Fagg, J., Cole, T. J., Cummins, S., Goldstein, H., Morris, S., Radley, D., ... & Law, C. (2015). After the RCT: who comes to a family-based intervention for childhood overweight or obesity when it is implemented at scale in the community?. *J Epidemiol community health*, 69(2), 142-148.

Faienza, M. F., Chiarito, M., Molina-Molina, E., Shanmugam, H., Lammert, F., Krawczyk, M., ... & Portincasa, P. (2020). Childhood obesity, cardiovascular and liver health: a growing epidemic with age. *World Journal of Pediatrics*, 16, 438-445.

Fancourt, D., Burton, A., Bu, F., Deighton, J., Turner, R., Wright, J., ... & Hayes, D. (2023). Wellbeing while waiting evaluating social prescribing in CAMHS: study protocol for a hybrid type II implementation-effectiveness study. *BMC psychiatry*, 23(1), 328.

Farina, I., Bertotti, M., Masella, C., & Sangiorgi, D. (2024). Link Workers in Social Prescribing for Young People Work: A Case Study From Sheffield Futures. *International Journal of Integrated Care*, 24(1).

Fingertips Public Health Profiles (2025) *Obesity, physical activity and nutrition*. Department of Health and Social Care. Accessed November 2025: <https://fingertips.phe.org.uk/profile/obesity-physical-activity-nutrition>

Fortunato, L. M., Kruk, T., & Júnior, E. L. (2021). Relationship between obesity and musculoskeletal disorders: systematic review and meta-analysis. *Research, Society and Development*, 10(13), e119101320212-e119101320212.

Fox, C. K., Kelly, A. S., Reilly, J. L., Theis-Mahon, N., & Raatz, S. J. (2025). Current and future state of pharmacological management of pediatric obesity. *International Journal of Obesity*, 49(3), 388-396.

Frostick, C., & Bertotti, M. (2021). The frontline of social prescribing—how do we ensure link workers can work safely and effectively within primary care?. *Chronic Illness*, 17(4), 404-415.

Fusar-Poli, P., de Pablo, G. S., De Micheli, A., Nieman, D. H., Correll, C. U., Kessing, L. V., ... & van Amelsvoort, T. (2020). What is good mental health? A scoping review. *European neuropsychopharmacology*, 31, 33-46.

Garside, M., Homer, C., Dayson, C., Dowrick, L., Pickering, K., & Wright, N. (2024). Mapping community-based services for social prescribing for children and young people living with obesity across South Yorkshire. *Health & Social Care in the Community*, 2024(1), 3566729.

Garside, M., Homer, C., Dayson, C., Dowrick, L., Pickering, K., Wright, N. (2025). Healthcare professionals' attitudes towards social prescribing in

specialist children's weight management services. *BMC Primary Care* 26, 55
<https://doi.org/10.1186/s12875-025-02753-w>

Garside, M., Taylor, A., Dias, R., Powell, L., Parker, J., Fenton, C., & Roscoe, C. M. P. (2024). Safety Nets: A Social Prescribing Intervention to Support Young People on CAMHS Waiting Lists. *Child & Youth Services*, 1–20.

Gibson, K., Pollard, T. M., & Moffatt, S. (2021). Social prescribing and classed inequality: A journey of upward health mobility?. *Social science & medicine*, 280, 114037.

Gideon, L. (2012). The art of question phrasing. In *Handbook of survey methodology for the social sciences* (pp. 91-107). Springer, New York, NY.

Gilmore, B., McAuliffe, E., Power, J., & Vallières, F. (2019). Data analysis and synthesis within a realist evaluation: toward more transparent methodological approaches. *International journal of qualitative methods*, 18, 1609406919859754.

Goldfield, G. S., Moore, C., Henderson, K., Buchholz, A., Obeid, N., & Flament, M. F. (2010). Body dissatisfaction, dietary restraint, depression, and weight status in adolescents. *Journal of school health*, 80(4), 186-192.

Gondek, D., Edbrooke-Childs, J., Velikonja, T., Chapman, L., Saunders, F., Hayes, D., & Wolpert, M. (2017). Facilitators and barriers to person-centred care in child and young people mental health services: A systematic review. *Clinical psychology & psychotherapy*, 24(4), 870-886.

Gordon, K., Gordon, L., & Basu, A. P. (2023). Social prescribing for children and young people with neurodisability and their families initiated in a hospital setting: a systematic review. *BMJ open*, 13(12), e078097.

Gordon, L., Hastry, M., Bate, A., Gordon, K., Greaves, E., Dimitriadou, S., ... & Basu, A. P. (2025). Hospital in-reach family-centred social prescribing pilot for children with neurodisability: mixed methods evaluation with social return on investment analysis. *BMC Health Services Research*, 25(1), 176.

Greenhalgh, J., & Manzano, A. (2021). Understanding 'context' in realist evaluation and synthesis. *International Journal of Social Research Methodology*, 25(5), 583–595. <https://doi.org/10.1080/13645579.2021.1918484>

Griffiths, C., Hina, F., & Jiang, H. (2022). Social prescribing through primary care: a systematic review of the evidence. *Open journal of preventive medicine*, 12(2), 31-58.

Grinvalds, N., Shearn, K., Humphreys, H., Lowe, A., De Vivo, M., Brown, B., & Copeland, R. J. (2025). The co-location of health care and leisure as part of a whole-system approach to physical activity promotion. *Exercise, Sport, and Movement*, 3(1S), e00035.

Grix, J. (2002). Introducing students to the generic terminology of social research. *Politics*, 22(3), 175-186.

- Groves, R. M., Fowler Jr, F. J., Couper, M. P., Lepkowski, J. M., Singer, E., & Tourangeau, R. (2011). *Survey methodology*. John Wiley & Sons.
- Guba, E. G., & Lincoln, Y. S. (1994). Competing paradigms in qualitative research. *Handbook of qualitative research*, 2(163-194), 105.
- Haga, B. M., Furnes, B., Dysvik, E., & Ueland, V. (2020). Putting life on hold: lived experiences of people with obesity. *Scandinavian Journal of Caring Sciences*, 34(2), 514-523.
- Hannon, T. S., Chao, L. C., Barrientos-Pérez, M., Pamidipati, K. C., Landó, L. F., Lee, C. J., ... & Bergman, B. K. (2025). Efficacy and safety of tirzepatide in children and adolescents with type 2 diabetes (SURPASS-PEDS): a randomised, double-blind, placebo-controlled, phase 3 trial. *The Lancet*, 406(10511), 1484-1496.
- Hardie Murphy, M., Rowe, D. A., Belton, S., & Woods, C. B. (2015). Validity of a two-item physical activity questionnaire for assessing attainment of physical activity guidelines in youth. *BMC Public Health*, 15(1), 1080.
- Haslam, C., Jetten, J., Cruwys, T., Dingle, G., & Haslam, S. A. (2018). *The new psychology of health: Unlocking the social cure*. Routledge.
- Hassan, S. M., Ring, A., Goodall, M., Abba, K., Gabbay, M., & van Ginneken, N. (2023). Social prescribing practices and learning across the North West Coast region: essential elements and key challenges to implementing effective and sustainable social prescribing services. *BMC Health Services Research*, 23(1), 562.
- Hawton, K., Apperley, L., Parkinson, J., Owens, M., Semple, C., Canvin, L., ... & Shield, J. P. (2025). Complications of excess weight seen in two tier 3 paediatric weight management services: an observational study. *Archives of Disease in Childhood*, 110(3), 216-220.
- Hayes, D., Cortina, M. A., Labno, A., Moore, A., Edbrooke Eisenstadt, M., Childs, J., ... & Deighton, J. (2020). *Social prescribing in children and young people: A review of the evidence*. University College London. Evidence Based Practice Unit.
- Hayes, D., Jarvis-Beesley, P., Mitchell, D., Polley M., & Husk K. [On behalf of the NASP Academic Partners Collaborative]. (2023). *The impact of social prescribing on children and young people's mental health and wellbeing*. London: National Academy for Social Prescribing.
<https://socialprescribingacademy.org.uk/media/lrif2emh/evidence-review-the-impact-of-social-prescribing-on-children-and-young-peoples-health-and-wellbeing.pdf>
- Hayes, D., Olsson, A., Begum, S., Bertotti, M., Jarvis-Beesley, P., & Stapley, E. (2024). Barriers and facilitators to social prescribing in child and youth mental health: perspectives from the frontline. *European Child & Adolescent Psychiatry*, 33(5), 1465-1479.

Hayes, D., Marshall, R., Arslanovski, N., & Fancourt, D. (2025, September). *Policy Brief: Embedding and Sustaining Child and Youth Social Prescribing*. Social Biobehavioural Research Group, University College London. <https://sbbresearch.org/wp-content/uploads/2025/09/SPYN-Policy-Brief-embedding-and-sustaining.pdf>

Hayes, D., Marshall, R., Wright, J., Burton, A., Bu, F., Sticpewich, L., Stuttard, H., Page, J., Bradbury, A., Han, E., Deighton, J., Tibber, M., Talwar, S., Fancourt, D., (2025). *Wellbeing While Waiting ('INSPYRE') Evidence Summary*. University College London. <https://sbbresearch.org/wp-content/uploads/2025/12/WWW-Complete-Evidence-Summary-FINAL.pdf>

Hayes, D., Burton, A., Bu, F., Humphrey, N., Qualter, P., Han, E., ... & Fancourt, D. (2025). INcreasing Adolescent social and Community supportT (INACT): Pilot study protocol. *Plos one*, 20(3), e0317823.

Hayes, D., Arslanovski, N., Fancourt, D., Quinn, R., Brierley, A., & Marshall, R. (2026). *Best Practice Guidelines: Child and Youth Social Prescribing*. Social Biobehavioural Research Group, University College London; National Academy for Social Prescribing; Southbank Centre. <https://discovery.ucl.ac.uk/id/eprint/10220990/1/199747%20UCL%20Report.pdf>

Hayes, D., Wright, J., Burton, A., Bu, F., Sticpewich, L., Stuttard, H., ... & Fancourt, D. (2026). Wellbeing While Waiting: Effectiveness and implementation of youth social prescribing for young people awaiting CAMHS support. *medRxiv*, 2026-03.

Haywood, A., Dayson, C., Garside, R., Foster, A., Lovell, R., Husk, K., Holding, E., Thompson, J., Shearn, K., Hunt, H.A., Dobson, J., Harris, C., Jacques, R., Witherley, D., Northall, P., Baumann, M., Wilson, I. (2024). *National Evaluation of the Preventing and Tackling Mental Ill Health through Green Social Prescribing Project: Final Report*. Department for Environment, Food and Rural Affairs (London). https://beyondgreenspace.net/wp-content/uploads/2024/09/21194_gspevaluationfinalreport-mainreportjan2024-4.pdf

He, Q. X., Zhao, L., Tong, J. S., Liang, X. Y., Li, R. N., Zhang, P., & Liang, X. H. (2022). The impact of obesity epidemic on type 2 diabetes in children and adolescents: A systematic review and meta-analysis. *Primary care diabetes*, 16(6), 736-744.

Hibbard, J. H., Mahoney, E. R., Stockard, J., & Tusler, M. (2005). Development and testing of a short form of the patient activation measure. *Health services research*, 40(6p1), 1918-1930.

Hibbard, J., & Gilbert, H. (2014). Supporting people to manage their health. *An introduction to patient activation*. London: The King's Fund. https://assets.kingsfund.org.uk/f/256914/x/d5fbab2178/supporting_people_manage_their_health_2014.pdf

Holding, E., Gettings, R., Foster, A., Dowrick, L., Hampshaw, S., Haywood, A., Homer, C., Booth, A., & Goyder, E. (2024). Developing the embedded researcher role: Learning from the first year of the National Institute for Health and Care Research (NIHR), Health Determinants Research Collaboration (HDRC), Doncaster, UK. *Public health in practice (Oxford, England)*, 7, 100516. <https://doi.org/10.1016/j.puhip.2024.100516>

Horesh, A., Tsur, A. M., Bardugo, A., & Twig, G. (2021). Adolescent and childhood obesity and excess morbidity and mortality in young adulthood—A systematic review. *Current obesity reports*, 10(3), 301-310.

Howe, J. (2025). Realist Hub Training – Building & Refining Programme Theories. [Online course]. The Realist Hub. www.therealisthub.org

HRA (n.d.). *Public involvement*. NHS Health Research Authority. Retrieved February 2026: <https://www.hra.nhs.uk/planning-and-improving-research/best-practice/public-involvement/>

Hudda, M. T., Nightingale, C. M., Donin, A. S., Fewtrell, M. S., Haroun, D., Lum, S., ... & Whincup, P. H. (2017). Body mass index adjustments to increase the validity of body fatness assessment in UK Black African and South Asian children. *International journal of obesity*, 41(7), 1048-1055.

Hughes, A. R., Stewart, L., Chapple, J., McColl, J. H., Donaldson, M. D., Kelnar, C. J., ... & Reilly, J. J. (2008). Randomized, controlled trial of a best-practice individualized behavioral program for treatment of childhood overweight: Scottish Childhood Overweight Treatment Trial (SCOTT). *Pediatrics*, 121(3), e539-e546.

Hunter, R., Gorely, T., Beattie, M., & Harris, K. (2022). Realist review. *International Review of Sport and Exercise Psychology*, 15(1), 242-265.

Husk, K., Elston, J., Gradinger, F., Callaghan, L., & Asthana, S. (2019). Social prescribing: where is the evidence?. *The British Journal of General Practice*, 69(678), 6.

Husk, K., Blockley, K., Lovell, R., Bethel, A., Lang, I., Byng, R., & Garside, R. (2020). What approaches to social prescribing work, for whom, and in what circumstances? A realist review. *Health & social care in the community*, 28(2), 309-324.

Ioannou, E., Garside, M., Sharman, K., Nield, L., Coulman, K., Woodward, C., ... & Homer, C. (2025). Engaging in purposeful patient and public involvement with young people living with obesity: recommendations from the ARROWS residential weekend. *Research Involvement and Engagement*, 11(1), 106.

Ioannou, E., Coulman, K., Nobles, J., Garside, M., Nield, L., Davies, P., Kinsella, K., Ells, and Homer, C. (*in review*). From Policy to Person-Centred Care: Insights into the Development of Complications of Excess Weight Clinics in England.

Jackson, G. (2016). Social prescribing at a glance North West England: a scoping report of activity for the North West. *Health Education England, Manchester*.

Jagosh, J., Pluye, P., Wong, G., Cargo, M., Salsberg, J., Bush, P. L., ... & Macaulay, A. C. (2014). Critical reflections on realist review: insights from customizing the methodology to the needs of participatory research assessment. *Research synthesis methods*, 5(2), 131-141.

Jagosh, J., Bush, P. L., Salsberg, J., Macaulay, A. C., Greenhalgh, T., Wong, G., ... & Pluye, P. (2015). A realist evaluation of community-based participatory research: partnership synergy, trust building and related ripple effects. *BMC public health*, 15(1), 1-11.

Jagosh, J. (2019). Realist synthesis for public health: building an ontologically deep understanding of how programs work, for whom, and in which contexts. *Annual review of public health*, 40(1), 361-372.

Jagosh, J. (2020). Retroductive theorizing in Pawson and Tilley's applied scientific realism. *Journal of Critical Realism*, 19(2), 121-130.

Jagosh, J. (2023). Introduction to Realist Methodology: Evaluation and Synthesis Training. [Online course]. Centre for Advancement in Realist Evaluation and Synthesis, 'CARES' Training. realistmethodology-cares.org/about-cares

Jagosh, J. (2024). Enhancing Technique for Realist Qualitative Interviewing Training. [Online course]. Centre for Advancement in Realist Evaluation and Synthesis, 'CARES' Training. realistmethodology-cares.org/about-cares

Janssen, I., Craig, W. M., Boyce, W. F., & Pickett, W. (2004). Associations between overweight and obesity with bullying behaviors in school-aged children. *Pediatrics*, 113(5), 1187-1194.

Jarvis, L., & Mitchell, D. (n.d.). *Children and Young People's Social Prescribing Toolkit*. Street Games. Retrieved February 2026: <https://www.streetgames.org/resources/childrens-social-prescribing-toolkit/>

Jayasinghe, S., Holloway, T. P., Soward, R., Patterson, K. A., Ahuja, K. D., Dalton, L., ... & Hills, A. P. (2023). "An Ounce of Prevention is Worth a Pound of Cure": Proposal for a Social Prescribing Strategy for Obesity Prevention and Improvement in Health and Well-being. *JMIR Research Protocols*, 12(1), e41280.

Jones, H. (2024). *Social Prescribing Link Workers for Young People: A guide to support Primary Care Networks*. National Academy of Social Prescribing. <https://socialprescribingacademy.org.uk/media/0ylbsuey/social-prescribing-link-workers-for-young-people-2.pdf>

Jopling, K. (2024). Social prescribing: the view from the VCSE sector. *Clinics in Integrated Care*, 26, 100230.

Joseph Rowntree Foundation. (2023). *UK Poverty 2023: The essential guide to understanding poverty in the UK*. <https://www.jrf.org.uk/uk-poverty-2023-the-essential-guide-to-understanding-poverty-in-the-uk>

Kanellopoulou, A., Antonogeorgos, G., Douros, K., & Panagiotakos, D. B. (2022). The association between obesity and depression among children and the role of family: a systematic review. *Children*, 9(8), 1244.

Kant, S. L. (2014). The distinction and relationship between ontology and epistemology: does it matter?. *Politikon: The IAPSS Journal of Political Science*, 24, 68-85.

Karakitsiou, G., Plakias, S., Christidi, F., & Tsiakiri, A. (2024). Unraveling childhood obesity: A grounded theory approach to psychological, social, parental, and biological factors. *Children*, 11(9), 1048.

Kazi, M. A. F. (2003). *Realist evaluation in practice: Health and social work*. Sage, Thousand Oaks, California.

Khan, H., & Giurca, B. (2024). *Social Prescribing Around the World: A World Map of Global Developments in Social Prescribing Across Different Health System Contexts: 2024*. National Academy of Social Prescribing & International Social Prescribing Collaborative (ISPC). <https://socialprescribingacademy.org.uk/media/thtjirn/social-prescribing-around-the-world-2024.pdf>

Kiely, B., Croke, A., O'Shea, M., Boland, F., O'Shea, E., Connolly, D., & Smith, S. M. (2022). Effect of social prescribing link workers on health outcomes and costs for adults in primary care and community settings: a systematic review. *BMJ open*, 12(10), e062951.

Kilgariff-Foster, A., & O'Cathain, A. (2015). Exploring the components and impact of social prescribing. *Journal of Public Mental Health*, 14(3), 127-134.

Killam, L. A. (2013). *Research terminology simplified: Paradigms, axiology, ontology, epistemology and methodology*. Sudbury, ON: Author.

Kimberlee, R. (2013). *Developing a Social Prescribing Approach for Bristol*, A report for Bristol Clinical Commissioning Group, October 2013.

Kininmonth, A. R., Schrepft, S., Smith, A., Dye, L., Lawton, C., Fisher, A., ... & Fildes, A. (2022). Associations between the home environment and childhood weight change: a cross-lagged panel analysis. *International Journal of Obesity*, 46(9), 1678-1685.

Kirsh, S. R., Aron, D. C., Johnson, K. D., Santurri, L. E., Stevenson, L. D., Jones, K. R., & Jagosh, J. (2017). A realist review of shared medical appointments: How, for whom, and under what circumstances do they work?. *BMC health services research*, 17(1), 113.

Kneale, D., Stansfield, C., Goldman, R., Lester, S., Edwards, R. C., & Thomas, J. (2024). The implementation of embedded researchers in policy, public services, and commercial settings: a systematic evidence and gap map. *Implementation science communications*, 5(1), 41.

- Kumar, S., Olson, O., & Kellogg, T. A. (2025). Are Glucagon-Like Peptide 1 Receptor Agonists and Bariatric Surgery the Answer to Childhood Obesity?. *Current atherosclerosis reports*, 27(1), 1-11.
- LaDonna, K. A., Taylor, T., & Lingard, L. (2018). Why open-ended survey questions are unlikely to support rigorous qualitative insights. *Academic Medicine*, 93(3), 347-349.
- Lang, K. (2025). Can weight loss drugs like Ozempic treat obesity in children?. *bmj*, 388.
- Law, D., & Jacob, J. (2015). Goals and goal based outcomes (GBOs). *Goals and goal based outcomes (GBOs): Some useful information (third edition)*. CAMHS Press: London. <https://goalsintherapycom.wordpress.com/wp-content/uploads/2017/12/goals-and-goals-based-outcomes-gbos.pdf>
- Lee, J. S., Jin, M. H., & Lee, H. J. (2021). Global relationship between parent and child obesity: a systematic review and meta-analysis. *Clinical and experimental pediatrics*, 65(1), 35.
- Lumivero. (2023). NVivo. (Version 12, released 2017). www.lumivero.com
- Malagon-Maldonado, G. (2014). Qualitative research in health design. *HERD: Health Environments Research & Design Journal*, 7(4), 120-134.
- Mandoh, M. (2024). *Youth Engagement in Obesity and Chronic Disease Prevention Research, Policy, and Guideline Development* [Doctoral dissertation, The University of Sydney]. <https://hdl.handle.net/2123/32238>
- Manzano, A. (2016). The craft of interviewing in realist evaluation. *Evaluation*, 22(3), 342-360.
- Marcus, C., Danielsson, P., & Hagman, E. (2022). Pediatric obesity—Long-term consequences and effect of weight loss. *Journal of internal medicine*, 292(6), 870-891.
- Marmot, M., Allen, J., Boyce, T., Goldblatt, P., Morrison, J. (2020). *Health Equity in England: The Marmot Review 10 Years On*. Institute of Health Equity. health.org.uk/publications/reports/the-marmot-review-10-years-on.
- Marshall, G., & Jonker, L. (2010). An introduction to descriptive statistics: A review and practical guide. *Radiography*, 16(4), e1-e7.
- Maslow, A. H. (1943). A theory of human motivation. *Psychological review*, 50(4), 370.
- Matu, J., Martin, A., Zabula, T., Hamilton-Shield, J., Homer, C., & Ells, L. (2025, May 11-14). *The complications of excess weight seen in 32 tier 3 paediatric weight management services across England*. [Poster presentation]. EASO, ECO 2025, Malaga, Spain. <https://www.enhance-research.com/news/the-nhs-england-complications-of-excess-weight-clinics-are-accessing-a-typically-underserved-population-6ehjw>
- Matu, J., Zabula, T., Mattock, R., Hamilton-Shield, J., Griffiths, C., Homer, C., Ells, L. & Martin, A. (in review). The Complications of Excess Weight Seen In 32

Tier 3 Paediatric Weight Management Services Across England: a cross-sectional analysis.

McLeroy, K. R., Bibeau, D., Steckler, A., & Glanz, K. (1988). An ecological perspective on health promotion programs. *Health education quarterly*, 15(4), 351-377.

Mears, R., Jago, R., Sharp, D., Patel, A., Kipping, R., & Shield, J. P. (2019). Exploring how lifestyle weight management programmes for children are commissioned and evaluated in England: a mixed methodology study. *BMJ open*, 9(12), e025423.

Mehtälä, M. A. K., Sääkslahti, A. K., Inkinen, M. E., & Poskiparta, M. E. H. (2014). A socio-ecological approach to physical activity interventions in childcare: a systematic review. *International Journal of Behavioral Nutrition and Physical Activity*, 11(1), 22.

Merton, R. (1968). *Social theory and social structure*. New York: Free Press.

Mills, H. (2008). *A Mixed Method Investigation into the perception and measurement of success in the Healthwise Exercise Referral Scheme* [Doctoral dissertation, University of Gloucestershire].

<https://www.proquest.com/docview/301712088?accountxml:id=10792>

Mirzoev, T., Etiaba, E., Ebenso, B., Uzochukwu, B., Ensor, T., Onwujekwe, O., ... & Manzano, A. (2020). Tracing theories in realist evaluations of large-scale health programmes in low-and middle-income countries: experience from Nigeria. *Health Policy and Planning*, 35(9), 1244-1253.

Mitchell, S. B., Cartwright, L., Gude, A., Bethel, A., Hunt, H., Smith, J. R., ... & Husk, K. (2025). The use of social prescribing and community-based wellbeing activities as a potential prevention and early intervention pathway to improve adolescent emotional and social development: a systematic mapping review. *BMC Public Health*, 25(1), 3495.

Mittelmark, M. B., Bauer, G. F., Vaandrager, L., Pelikan, J. M., Sagy, S., Eriksson, M., ... & Meier Magistretti, C. (2022). *The handbook of salutogenesis*. <https://link-springer-com.hallam.idm.oclc.org/book/10.1007/978-3-030-79515-3>

Moffatt, S., Steer, M., Lawson, S., Penn, L., & O'Brien, N. (2017). Link worker social prescribing to improve health and well-being for people with long-term conditions: qualitative study of service user perceptions. *BMJ open*, 7(7), e015203.

Munro, E. & Dayson, C. (2025). *Community-led Social Prescribing, Lessons from Big Local and Beyond*. National Academy for Social Prescribing. <https://shura.shu.ac.uk/34770/1/community-led-social-prescribing.pdf>

Moore, C., Unwin, P., Evans, N., & Howie, F. (2022). Social prescribing: Exploring general practitioners' and healthcare professionals' perceptions of, and engagement with, the NHS model. *Health & Social Care in the Community*, 30(6), e5176-e5185.

- Morrison, A., & Boys, A. (2022). *Exploring opportunities to improve VCSE involvement in local social prescribing*. National Academy of Social Prescribing, Spirit of 2012 and National Association of Voluntary and Community Action. <https://spiritof2012.org.uk/wp-content/uploads/2025/11/262-Exploring-Opportunities-to-Improve-VCSE-Involvement-in-Local-Social-Prescribing-1.pdf>
- Morse, D. F., Sandhu, S., Mulligan, K., Tierney, S., Polley, M., Giurca, B. C., ... & Husk, K. (2022). Global developments in social prescribing. *BMJ global health*, 7(5).
- Muhl, C., Mulligan, K., Bayoumi, I., Ashcroft, R., & Godfrey, C. (2023). Establishing internationally accepted conceptual and operational definitions of social prescribing through expert consensus: a Delphi study. *BMJ open*, 13(7), e070184.
- Muhl, C., Cornish, E., Zhou, X. A., Mulligan, K., Bayoumi, I., Ashcroft, R., ... & Godfrey, C. (2025). Social prescribing for children and youth: A scoping review. *Health & Social Care in the Community*, 2025(1), 5265529.
- Muhl, C., Dimitrova, V., Song, E., Fishman, I., Buffone, A., Kempe, S., ... & Bennett, S. (2025). Building self-determination through the lens of the Circle of Courage: a qualitative evaluation of a social prescribing program for children and youth in Canada. *BMC Primary Care*, 26(1), 385.
- Mukumbang, F. C., De Souza, D. E., & Eastwood, J. G. (2023). The contributions of scientific realism and critical realism to realist evaluation. *Journal of Critical Realism*, 22(3), 504-524.
- Mukumbang, F. C., Klingberg, S., & Adhikari, B. (2025). Balancing realist review outputs with the needs of policymakers and practitioners. *Health Policy and Planning*, 40(1), 97-104.
- Mulholland, J., Galway, K., O'Hare, L., Bertotti, M., & Gildea, A. (2025). The social prescribing link Worker—Clarifying the role to Harness potential: A scoping review. *Health & Social Care in the Community*, 2025(1), 4394123.
- Narang, I., & Mathew, J. L. (2012). Childhood obesity and obstructive sleep apnea. *Journal of nutrition and metabolism*, 2012(1), 134202.
- NASP (National Academy for Social Prescribing). (n.d.) *Evidence Note: social prescribing and mental health*. Retrieved May 2025: <https://socialprescribingacademy.org.uk/media/hxyh3x34/social-prescribing-and-mental-health-nasp-evidence-note.pdf>
- NASP (National Academy for Social Prescribing). (2023). *The Future of social Prescribing in England*. <https://socialprescribingacademy.org.uk/media/oymbut5o/nasp-the-future-of-social-prescribing-report.pdf>
- NASP (National Academy for Social Prescribing). (2024). *Envisaging a social prescribing fund in England: A report funded by the National Lottery Community Fund*. <https://socialprescribingacademy.org.uk/media/wvnenhti/envisaging-a-social-prescribing-fund.pdf>

NASP (National Academy for Social Prescribing). (2025a). *Connecting the System: Flipbook. Children and Young People's Social Prescribing in Action*. <https://socialprescribingacademy.org.uk/resources/children-and-young-peoples-social-prescribing-connecting-the-system-flipbook/>

NASP (National Academy for Social Prescribing). (2025b). *Connected to Thrive: a vision for social prescribing for children and young people's mental health and wellbeing*. <https://socialprescribingacademy.org.uk/media/qlglbxzl/connected-to-thrive.pdf>

NCMP (National Child Measurement Programme). (2025). *National Child Measurement Programme, England, 2024/25 School Year*. NHS England, NHS Digital. <https://digital.nhs.uk/data-and-information/publications/statistical/national-child-measurement-programme/2023-24-school-year>

NOO (National Obesity Observatory). (2011). *A simple guide to classifying body mass index in children*. https://webarchive.nationalarchives.gov.uk/ukgwa/20170110173352/http://www.noo.org.uk/uploads/doc/vid_11762_classifyingBMlinchildren.pdf

New Economics Foundation. (2012). *Measuring Wellbeing: A guide for practitioners*. London: New Economics Foundation. <https://new-economicsf.files.svdcdn.com/production/files/measuring-wellbeing.pdf>

Newson, L., & Abayomi, J. (2024). Reframing interventions for optimal child nutrition and childhood obesity: the importance of considering psychological factors. *Proceedings of the Nutrition Society*, 1-12.

NHS England (n.d. a). Personalised Care. Retrieved August 2025: <https://www.england.nhs.uk/personalisedcare/>

NHS England (n.d. b). Complications from Excess Weight (CEW) clinics for children". Retrieved March 2023: <https://www.england.nhs.uk/get-involved/cyp/specialist-clinics-for-children-and-young-people-living-with-obesity/>

NHS England. (2019). NHS Long Term Plan. <https://webarchive.nationalarchives.gov.uk/ukgwa/20250707103655/https://www.longtermplan.nhs.uk/wp-content/uploads/2019/01/nhs-long-term-plan-june-2019.pdf>

NHS England. (2023, January 27). *Social prescribing: Reference guide and technical annex for primary care networks*. <https://www.england.nhs.uk/long-read/social-prescribing-reference-guide-and-technical-annex-for-primary-care-networks/#annex-e-measuring-impact>

NHS England (2025, January 29). *Neighbourhood health guidelines 2025/26*. <https://www.england.nhs.uk/long-read/neighbourhood-health-guidelines-2025-26/>

NICE (National Institute for Health and Care Excellence). (2025). Overweight and obesity management (Guideline 246). <https://www.nice.org.uk/guidance/ng246>

Nobles, J., Radley, D., Dimitri, P., & Sharman, K. (2016). Psychosocial interventions in the treatment of severe adolescent obesity: The SHINE program. *Journal of Adolescent Health*, 59(5), 523-529.

Ochoa-Moreno, I., Taheem, R., Woods-Townsend, K., Chase, D., Godfrey, K. M., Modi, N., & Hanson, M. (2024). Projected health and economic effects of the increase in childhood obesity during the COVID-19 pandemic in England: The potential cost of inaction. *PLoS One*, 19(1), e0296013.

OHID (Office for Health Improvement and Disparities). (2023, June 27). 'You're Welcome': establishing youth-friendly health and care services.

<https://www.gov.uk/government/publications/establishing-youth-friendly-health-and-care-services/youre-welcome-establishing-youth-friendly-health-and-care-services>

Ohri-Vachaspati, P., DeLia, D., DeWeese, R. S., Crespo, N. C., Todd, M., & Yedidia, M. J. (2015). The relative contribution of layers of the Social Ecological Model to childhood obesity. *Public health nutrition*, 18(11), 2055-2066.

ONS (Office of National Statistics). (2022, June 28). *Census 2021*.

<https://www.ons.gov.uk/visualisations/censuspopulationchange/>

ONS (Office of National Statistics). (2018, December 5). *Measuring loneliness: guidance for use of the national indicators on surveys*.

<https://www.ons.gov.uk/peoplepopulationandcommunity/wellbeing/methodologies/measuringlonelinessguidanceforuseofthenationalindicatorsonsurveys>

Osei-Asemani, E., & Bertotti, M. (2025). *Post-event Summary Report: Social Prescribing in Secondary Care Roundtable*. University of East London.

<https://uel-repository.worktribe.com/output/478882>

Paisi, M., Kay, E., Bennett, C., Kaimi, I., Witton, R., Nelder, R., & Lapthorne, D. (2019). Body mass index and dental caries in young people: a systematic review. *BMC pediatrics*, 19, 1-9.

Parks, E. P., Kumanyika, S., Moore, R. H., Stettler, N., Wrotniak, B. H., & Kazak, A. (2012). Influence of stress in parents on child obesity and related behaviors. *Pediatrics*, 130(5), e1096-e1104.

Patnaik, E. (2013). Reflexivity: Situating the researcher in qualitative research. *Humanities and Social Science Studies*, 2(2), 98-106.

Pawson, R. & Tilley, N. (1997). *Realistic Evaluation*. London: SAGE.

Pawson, R., Greenhalgh, T., Harvey, G., & Walshe, K. (2005). Realist review-a new method of systematic review designed for complex policy interventions. *Journal of health services research & policy*, 10(1_suppl), 21-34.

Pawson, R. (2006) Digging for nuggets: How 'bad' research can yield 'good' evidence. *International Journal of Social Research Methodology* 9: 127-42.

Pawson, R., & Manzano-Santaella, A. (2012). A realist diagnostic workshop. *Evaluation*, 18(2), 176-191.

Pawson, R. (2013). *The Science of Evaluation: A realist manifesto*. Sage, London.

Pawson, R. (2024). *How to Think Like a Realist: A Methodology for Social Science*. Edward Elgar Publishing.

Pearson, M., Brand, S. L., Quinn, C., Shaw, J., Maguire, M., Michie, S., ... & Byng, R. (2015). Using realist review to inform intervention development: methodological illustration and conceptual platform for collaborative care in offender mental health. *Implementation Science*, 10, 1-12.

Pearson, M., Chilton, R., Wyatt, K., Abraham, C., Ford, T., Woods, H. B., & Anderson, R. (2015). Implementing health promotion programmes in schools: a realist systematic review of research and experience in the United Kingdom. *Implementation Science*, 10, 1-20.

Peschery, J. V., Pappas, Y., & Randhawa, G. (2018). Facilitators and barriers of implementing and delivering social prescribing services: a systematic review. *BMC health services research*, 18(1), 86.

Peschery, J. V., Randhawa, G., & Pappas, Y. (2020). The impact of social prescribing services on service users: a systematic review of the evidence. *European journal of public health*, 30(4), 664-673.

Petticrew, M. (2011). When are complex interventions 'complex'? When are simple interventions 'simple'? *The European Journal of Public Health*, 21(4), 397-398.

Phelps, N. H., Singleton, R. K., Zhou, B., Heap, R. A., Mishra, A., Bennett, J. E., ... & Barbagallo, C. M. (2024). Worldwide trends in underweight and obesity from 1990 to 2022: a pooled analysis of 3663 population-representative studies with 222 million children, adolescents, and adults. *The Lancet*, 403(10431), 1027-1050.

Phillips, P. P., Phillips, J. J., & Aaron, B. (2013). *Survey basics*. Association for Talent Development.

Polley, M. (n.d.). *Understanding what outcomes are relevant to measure in social prescribing schemes for children and young people*. Social Prescribing Youth Network. Retrieved February 2024: <https://sbbresearch.org/wp-content/uploads/2024/12/SPYN-Understanding-Outcomes.pdf>

Polley, M., Bertotti, M., Kimberlee, R., Pilkington, K., and Refsum, C. (2017). A review of the evidence assessing impact of social prescribing on healthcare demand and cost implications. *University of Westminster*.

Polley, M., Whiteside, J., Elnaschie, S., & Fixsen, A. (2020). What does successful social prescribing look like? Mapping meaningful outcomes. *University of Westminster*.

Polley, M., Chatterjee, H., Asthana, S., Cartwright, L., Husk, K., Burns, L., Tierney, S. (2022). *Measuring outcomes for individuals receiving support through social prescribing*. London: National Academy for Social Prescribing.

<https://socialprescribingacademy.org.uk/media/kp3lhrhv/evidence-review-measuring-impact-and-outcomes-for-social-prescribing.pdf>

Polley, M., Seers, H., Toye, O., Henkin, T., Waterson, H., Bertotti, M. and Chatterjee, H.J. (2023). *Building the economic case for social prescribing*. London: National Academy for Social Prescribing.

<https://socialprescribingacademy.org.uk/media/wemjbqtw/building-the-economic-case-for-social-prescribing-report.pdf>

Pont, S. J., Puhl, R., Cook, S. R., & Slusser, W. (2017). Stigma experienced by children and adolescents with obesity. *Pediatrics*, 140(6).

Public Health England. (2017, March 31). *Health Matters: obesity and the food environment*. UK Government.

<https://www.gov.uk/government/publications/health-matters-obesity-and-the-food-environment/health-matters-obesity-and-the-food-environment--2#factors-behind-the-rise-in-obesity-levels>

Putnam, R. D. (2000). *Bowling alone: The collapse and revival of American community*. Simon and Schuster.

Putra, I. G. N. E., Daly, M., & Robinson, E. (2024). Psychological well-being and the reversal of childhood overweight and obesity in the UK: a longitudinal national cohort study. *Obesity*, 32(12), 2354-2363.

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<https://www.qualtrics.com>

RAMESES Project. (2017a). What is a mechanism? What is a programme mechanism?

https://www.ramesesproject.org/media/RAMESES_II_What_is_a_mechanism.pdf

RAMESES Project. (2017b). What realists mean by context.

https://www.ramesesproject.org/media/RAMESES_II_Context.pdf

RAMESES Project. (2017c). “Theory” in realist evaluation.

https://www.ramesesproject.org/media/RAMESES_II_Theory_in_realist_evaluation.pdf

RAMESES Project. (2017d). Quality Standards for Realist Evaluation

https://www.ramesesproject.org/Standards_and_Training_materials.php

RAMESES Project. (2017e). Realist Evaluation Interviewing – A ‘Starter Set’ of Questions

https://www.ramesesproject.org/media/RAMESES_II_Realist_interviewing_starter_questions.pdf

Reilly, J. J., & Kelly, J. (2011). Long-term impact of overweight and obesity in childhood and adolescence on morbidity and premature mortality in adulthood: systematic review. *International journal of obesity*, 35(7), 891-898.

Rice, B. (2023, October). *The Missing Link: Social Prescribing for Children and Young People*. Barnardo's.

<https://www.barnardos.org.uk/sites/default/files/2023-10/report-missing-link-social-prescribing-children-young-people.pdf>

Rigby, E., McKeown, R., & Wortley, L. (2022, April). *The experiences of young people and their families living with excess weight. Themes from engagement work*. Association for Young People's Health (AYPH). <https://ayph.org.uk/wp-content/uploads/2022/04/CEW-Themes-from-engagement-work.pdf>

Robertson, W., Murphy, M., & Johnson, R. (2016). Evidence base for the prevention and management of child obesity. *Paediatrics and Child Health*, 26(5), 212-218.

Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American psychologist*, 55(1), 68.

Sacher, P. M., Kolotourou, M., Chadwick, P. M., Cole, T. J., Lawson, M. S., Lucas, A., & Singhal, A. (2010). Randomized controlled trial of the MEND program: a family-based community intervention for childhood obesity. *Obesity*, 18(S1), S62-S68.

Salama, M., Hassan, D., Pittock, S., Lteif, A., & Kumar, S. (2025). Effect of Topiramate on Weight Status in Young Children with Severe Obesity. *Journal of the Endocrine Society*, bvaf179.

Sanderson, K., Patton, G. C., McKercher, C., Dwyer, T., & Venn, A. J. (2011). Overweight and obesity in childhood and risk of mental disorder: a 20-year cohort study. *Australian & New Zealand Journal of Psychiatry*, 45(5), 384-392.

Sandhu, S., Lian, T., Drake, C., Moffatt, S., Wildman, J., & Wildman, J. (2022). Intervention components of link worker social prescribing programmes: a scoping review. *Health & social care in the community*, 30(6), e3761-e3774.

Saul, J. E., Willis, C. D., Bitz, J., & Best, A. (2013). A time-responsive tool for informing policy making: rapid realist review. *Implementation science*, 8, 1-15.

Sedenho-Prado, L. G., Yugar, L. B. T., Whitaker, A. R., Martins, M. P., Jesus, D. C., Ferreira, I. M. C. D. S., ... & Sposito, A. C. (2025). Metabolic outcomes and safety of GLP-1 receptor agonists in children and adolescents with obesity: A systematic review and meta-analysis. *International Journal of Obesity*, 1-11.

Sharman, K., & Nobles, J. D. (2015). Bridging the gap: SHINE—a Tier 3 service for severely obese children and young people. *British Journal of Obesity*, 1(4), 124-167.

Shearn, K., Allmark, P., Piercy, H., & Hirst, J. (2017). Building realist program theory for large complex and messy interventions. *International Journal of Qualitative Methods*, 16(1), 1609406917741796.

SWEMWBS (Short Warwick Edinburgh Mental Wellbeing Scale). (2008). © NHS Health Scotland, University of Warwick and University of Edinburgh, all rights reserved.

- Sides, N., Pringle, A., & Newson, L. (2024). The lived experience of weight loss maintenance in young people. *Health Expectations*, 27(1), e13955.
- Simmonds, M., Llewellyn, A., Owen, C. G., & Woolacott, N. (2016). Predicting adult obesity from childhood obesity: A systematic review and meta-analysis: Adult obesity from childhood obesity. *Obesity Reviews*, 17(2), 95–107.
- Skivington, K., Matthews, L., Simpson, S. A., Craig, P., Baird, J., Blazeby, J. M., ... & Moore, L. (2021). A new framework for developing and evaluating complex interventions: update of Medical Research Council guidance. *bmj*, 374.
- Smith, A., Fairclough, S., Kaehne, A., Liverpool, S., & Maden, M. (2024, September). *Children and Young People's Mental Health and Physical Activity: An Independent Evidence Review Commissioned by Sport England*. <https://sportengland-production-files.s3.eu-west-2.amazonaws.com/s3fs-public/2024-10/Smith%20et%20al%20Evidence%20Review%20Final%20Oct%2024-10.pdf?VersionId=jk5egOivKNGfig8ovHSRjJjp8JiowPpP>
- Sommer, A., & Twig, G. (2018). The impact of childhood and adolescent obesity on cardiovascular risk in adulthood: a systematic review. *Current diabetes reports*, 18(10), 91.
- Staniford, L. J., Copeland, R. J., & Breckon, J. D. (2019). 'What's the point when you only lose a pound?' Reasons for attrition from a multi-component childhood obesity treatment intervention: a qualitative inquiry. *Qualitative Research in Sport, Exercise and Health*, 11(3), 382-397.
- Stilwell, P. A., White, B., Graham, C., Rigby, E., Shield, J. P., Brandreth, R., ... & Kenny, S. (2023). National consensus to develop core outcomes for the evaluation of complications from excess weight (CEW) clinics: results of a national Delphi process. *Archives of Disease in Childhood*, 108(4), 296-299.
- Stokols, D. (1996). Translating social ecological theory into guidelines for community health promotion. *American journal of health promotion*, 10(4), 282-298.
- Suárez Carmona, W., Carrillo Álvarez, E., & Sánchez Oliver, A. (2018). Obesity as a complex chronic disease. *Current research in diabetes & obesity journal*, 2018, vol. 7, núm. 1.
- Sung-Chan, P., Sung, Y. W., Zhao, X., & Brownson, R. C. (2013). Family-based models for childhood-obesity intervention: a systematic review of randomized controlled trials. *Obesity Reviews*, 14(4), 265-278.
- Tanas, R., Gil, B., Marsella, M., Nowicka, P., Pezzoli, V., Phelan, S. M., ... & Bernasconi, S. (2022). Addressing weight stigma and weight-based discrimination in children: preparing pediatricians to meet the challenge. *The Journal of pediatrics*, 248, 135-136.
- Taylor, A., Dias, R., Powell, L., Parker, J., Roscoe, C., Fenton, C., Armitt, H., & Garside, M. (2026). Experiences of Young People, Parents and Delivery Staff of the Social Prescribing Intervention 'Safety Nets': A Qualitative Investigation. *International journal of mental health nursing*, 35(1), e70204.

The King's Fund. (2020, November). *What is social prescribing?*
<https://www.kingsfund.org.uk/insight-and-analysis/long-reads/social-prescribing>

The King's Fund. (2025, October 29). *What is neighbourhood health?*
<https://www.kingsfund.org.uk/insight-and-analysis/long-reads/what-is-neighbourhood-health>

Thenappan, A., & Nadler, E. (2019). Bariatric surgery in children: indications, types, and outcomes. *Current gastroenterology reports*, 21, 1-9.

Thomson, L.J., Camic, P.M. & Chatterjee, H.J. (2015). *Social Prescribing: A review of community referral schemes*. London: University College London.

Tierney, S., Wong, G., Roberts, N., Boylan, A.-M., Park, S., Abrams, R., Reeve, J., Williams, V., & Mahtani, K. R. (2020). Supporting social prescribing in primary care by linking people to local assets: A realist review. *BMC Medicine*, 18(1), 49.

Tierney, S., Cartwright, L., Akinyemi, O., Carder-Gilbert, H., Burns, L., Dayson, C., Chatterjee, H. [On behalf of the NASP Academic Partners Collaborative]. (2022). *What does the evidence tell us about accessibility of social prescribing schemes in England to people from black and ethnic minority backgrounds?* London: National Academy for Social Prescribing.

Tierney, S., Wong, G., Westlake, D., Turk, A., Markham, S., Gorenberg, J., ... & Mahtani, K. (2025). Implementation of link workers in primary care: Synopsis of findings from a realist evaluation. *Health and Social Care Delivery Research*, 13(27).

Tierney, S., Moore, L., Westlake, D., Mahtani, K., Nunan, D., Husk, K., ... & Ukoumunne, O. (2025). Factors associated with link workers considering leaving their role: a cross-sectional survey. *BJGP open*, 9(3).

Tomayko, E. J., Tovar, A., Fitzgerald, N., Howe, C. L., Hingle, M. D., Murphy, M. P., ... & Hubbs-Tait, L. (2021). Parent involvement in diet or physical activity interventions to treat or prevent childhood obesity: an umbrella review. *Nutrients*, 13(9), 3227.

Tomiyama, A. J., Carr, D., Granberg, E. M., Major, B., Robinson, E., Sutin, A. R., & Brewis, A. (2018). How and why weight stigma drives the obesity 'epidemic' and harms health. *BMC medicine*, 16(1), 123.

Turin, T. C., Shahid, M., & Vaska, M. (2019). Asset mapping as a tool for identifying resources in community health: a methodological overview. *Journal of Biomedical Analytics*, 2(1), 13-25.

Turk, A., Fleming, J., Powell, J., & Atherton, H. (2020). Exploring UK doctors' attitudes towards online patient feedback: Thematic analysis of survey data. *Digital health*, 6, 2055207620908148.

UK Government. (2025). Fit for the Future: Ten Year Health Plan for England.
<https://assets.publishing.service.gov.uk/media/6888a0b1a11f859994409147/fit-for-the-future-10-year-health-plan-for-england.pdf>

- Van Boxel, E., Lim, D., Lee, E., Desmond, C., & Davis, N. (2025). What should I consider when prescribing semaglutide for children living with obesity?. *Archives of Disease in Childhood-Education and Practice*, 110(3), 113-116.
- van de Pas, K. G., de Krom, M. A., Winkens, B., van Dielen, F. M., & Vreugdenhil, A. C. (2023). Health-related quality of life in children and adolescents with overweight, obesity, and severe obesity: A cross-sectional study. *Obesity facts*, 16(3), 282-292.
- Vandenbroeck, P., Goossens, J., & Clemens, M. (2007) *Foresight: Tackling Obesity: Future Choices – Building the Obesity System Map*. Government Office for Science
<https://assets.publishing.service.gov.uk/media/5a7ce8de40f0b65b3de0be37/07-1179-obesity-building-system-map.pdf>
- Varni, J.W., Seid, M. & Kurtin, P.S. (2001). PedsQL 4.0: Reliability and Validity of the Pediatric Quality of Life Inventory Version 4.0 Generic Core Scales in Healthy and Patient Populations. *Medical Care*, 39(8), 800-812.
- Vidovic, D., Reinhardt, G. Y., & Hammerton, C. (2021). Can social prescribing foster individual and community well-being? A systematic review of the evidence. *International journal of environmental research and public health*, 18(10), 5276.
- Visram, S., Hall, T. D., & Geddes, L. (2013). Getting the balance right: qualitative evaluation of a holistic weight management intervention to address childhood obesity. *Journal of Public Health*, 35(2), 246-254.
- Vourdoumpa, A., Paltoglou, G., & Charmandari, E. (2023). The genetic basis of childhood obesity: A systematic review. *Nutrients*, 15(6), 1416.
- Wakefield, J. R., Bowe, M., Kellezi, B., McNamara, N., & Stevenson, C. (2019). When groups help and when groups harm: Origins, developments, and future directions of the “Social Cure” perspective of group dynamics. *Social and Personality Psychology Compass*, 13(3), e12440.
- Wakefield, J. R. H., Kellezi, B., Stevenson, C., McNamara, N., Bowe, M., Wilson, I., Halder, M. M., & Mair, E. (2022). Social Prescribing as ‘Social Cure’: A longitudinal study of the health benefits of social connectedness within a Social Prescribing pathway. *Journal of Health Psychology*, 27(2), 386–396.
- Walker, E. J., Waterhouse-Bradley, B., & Armour, C. (2020). Mapping voluntary sector services for hidden or hard-to-reach populations: challenges and practice-based lessons for future research. *Voluntary Sector Review*, 11(1), 113-122.
- Ward, V., Tooman, T., Reid, B., Davies, H., & Marshall, M. (2021). Embedding researchers into organisations: a study of the features of embedded research initiatives. *Evidence & Policy*, 17(4), 593-614.
- Watson, P. M., Dugdill, L., Pickering, K., Bostock, S., Hargreaves, J., Staniford, L., & Cable, N. T. (2011). A whole family approach to childhood obesity

management (GOALS): Relationship between adult and child BMI change. *Annals of Human Biology*, 38(4), 445-452.

Watson, P. M., Dugdill, L., Pickering, K., Owen, S., Hargreaves, J., Staniford, L. J., ... & Cable, N. T. (2015). Service evaluation of the GOALS family-based childhood obesity treatment intervention during the first 3 years of implementation. *BMJ open*, 5(2), e006519.

Welbourn, R., Hopkins, J., Dixon, J. B., Finer, N., Hughes, C., Viner, R., ... & Guidance Development Group. (2018). Commissioning guidance for weight assessment and management in adults and children with severe complex obesity. *Obesity reviews*, 19(1), 14-27.

Westhorp, G., & Feeny, S. (2024). Using surveys in realist evaluation. *Evaluation Journal of Australasia*, 1035719X241292083.

Wilding, A., Agboraw, E., Munford, L., Sutton, M., Mercer, S. W., Salisbury, C., ... & Wilson, P. (2025). Impact of the rollout of the national social prescribing link worker programme on population outcomes: evidence from a repeated cross-sectional survey. *British Journal of General Practice Open (BJGP Open)*.

Wilson, A., Noble, H., Galway, K., & Doherty, J. (2025). Social prescribing for people living with long-term health conditions: a scoping review. *Systematic Reviews*, 14(1), 114.

Wong, G., Greenhalgh, T., Westhorp, G., Buckingham, J., & Pawson, R. (2013). RAMESES publication standards: realist syntheses. *BMC medicine*, 11(1), 21.

Wong, G., Westhorp, G., Manzano, A., Greenhalgh, J., Jagosh, J., & Greenhalgh, T. (2016). RAMESES II reporting standards for realist evaluations. *BMC medicine*, 14(1), 96.

Wood, J. (2024, March 25-27). *Multi-professional working and service adaptation to improve service provision in a tier 3 weight management service for children living with severe obesity*. [Conference Abstract]. Royal College of Paediatrics and Child Health, Birmingham 2024.

Wood, E., Ohlsen, S., Fenton, S.-J., Connell, J., & Weich, S. (2021). Social prescribing for people with complex needs: A realist evaluation. *BMC Family Practice*, 22(1), 53.

WHO (World Health Organization). (2022). *Fact Sheets: Physical Activity* <https://www.who.int/news-room/fact-sheets/detail/physical-activity>

WHO (World Health Organization). (2024). *Fact Sheets: Obesity and Overweight*. <https://www.who.int/news-room/fact-sheets/detail/obesity-and-overweight>

WHO (World Health Organization). (2025). *Fact Sheets: Mental Health*. <https://www.who.int/news-room/fact-sheets/detail/mental-health-strengthening-our-response>

Wright, N., & Wales, J. (2016). Assessment and management of severely obese children and adolescents. *Archives of Disease in Childhood*, 101(12), 1161-1167.

Yorkshire Sport Foundation. (2023). *Creating Safety Nets*.
www.yorkshiresport.org/wp-content/uploads/YSF-SAFETY-NETS-REPORT_2023.pdf

Zhang, X., Liu, J., Ni, Y., Yi, C., Fang, Y., Ning, Q., ... & Li, Z. (2024). Global prevalence of overweight and obesity in children and adolescents: a systematic review and meta-analysis. *JAMA pediatrics*, 178(8), 800-813.

Zotero. Version 6.0.36. Corporation for Digital Scholarship. zotero.org/

Appendices

- 1 Example Excel Database for Mapping Work (Phase 1, Chapter 3)
- 2 Full Copy of the survey (Phase 2, Chapter 4)
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Appendices 1 – Example Excel Database for Mapping Work (Phase 1, Chapter 3)

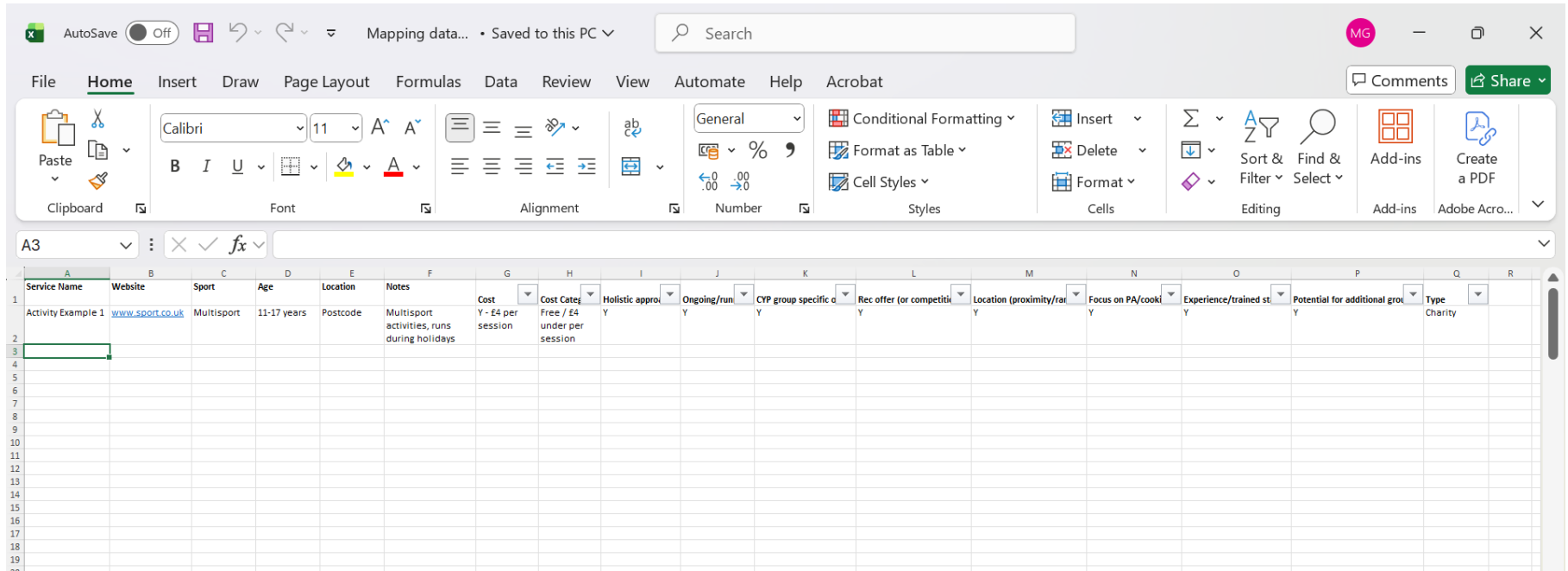


Figure 20. Example Excel Database for Mapping Work

Appendices 2 – Full Copy of the Survey (Phase 2, Chapter 4)

Page 1 – Participant Information and Consent

Please read the following information carefully before deciding whether you wish to complete the survey. If you have any questions about this survey, you can contact myself, Megan Garside at [REDACTED], or the PhD Director of Studies, [REDACTED] at [REDACTED]

What is this survey about?

We would like to hear from staff who work as part of Tier 3 Complications from Excess Weight (CEW) services within England.

We want to find out if you have heard of the term ‘social prescribing’, if you use social prescribing as part of your role, and if there are any barriers to using social prescribing in your role in the future. A definition of social prescribing will be provided within the survey. This information will be used to inform development of a social prescribing offering to support children and young people living with overweight and obesity.

Do I have to take part?

Taking part in this survey is voluntary and all responses will be anonymous. Individuals will not be identifiable from responses or identified in any publications from the survey. Please do not provide personal information or any information that may identify another individual. Please note, as your responses remain anonymous, it will not be possible to withdraw from the survey after completion.

We do not expect any risks or disadvantages to taking part, other than the time it takes to complete the survey. It is expected that the survey will take approximately 10 minutes to complete.

How will my data be used and stored?

Information collected will adhere to the Data Protection Act and GDPR regulations in line with Sheffield Hallam University policy. Data will be stored securely on local Sheffield Hallam University servers and will only be accessible to the direct research team. As no personal information is collected, data will be kept for a minimum of ten years in the Sheffield Hallam University Research Data Archive (SHURDA). A summary of findings (not including individual responses) may be published in a journal article and will be shared with CEW services and NHS England. All responses will remain anonymous and you will not be identifiable in any reporting of findings.

This research is conducted as part of a PhD project conducted at Sheffield Hallam University. The University undertakes research as part of its function for the community under its legal status. Data protection allows us to use personal data for research with appropriate safeguards in place under the legal basis of public tasks that are in the public interest. A full statement of your rights can be found at: www.shu.ac.uk/about-this-website/privacy-policy/privacy-notice/privacy-notice-for-research.

All University research is reviewed to ensure that participants are treated appropriately, and their rights respected. This study was approved by UREC with Converis number ER52876797. Further information at: www.shu.ac.uk/research/excellence/ethics-and-integrity

If you have any concerns or complaints about how your data is used by the University, you can contact [REDACTED]. Additionally, if you have concerns about how this research has been undertaken, you can contact [REDACTED]

To take part, you must agree to both of the following statements:

I confirm I have read and understood the information about this study, have had opportunity to ask questions, and give my consent to take part in this survey:

[Yes, I agree]

[No, I disagree]

I understand that this survey is anonymous, and I will not disclose personal information or information which may identify another individual:

[Yes, I agree]

[No, I disagree]

Page 2 – Demographics

1. What is your job role within the CEW clinic?

[Free text]

2. What type of organisation is your role part of?

[NHS]

[Private]

[Local Authority]

[Voluntary sector]

[Other – free text]

3. Which CEW clinic are you part of?

[Drop down list with each of 21 CEW clinic sites;

University Hospitals Plymouth NHS Trust Derriford, Royal Cornwall Hospitals NHS Trust, Bristol Royal Hospital for Children, University Hospital Southampton, Queen Alexandra Hospital, Royal Sussex County Hospital, Darent Valley Hospital, John Radcliffe Hospital, Kings College Hospital / Bart's Health NHS Trust, University College Hospital / Great Ormond Street Hospital / Tavistock Hospital, Norfolk and Norwich University Hospital, Cambridge University Hospitals NHS Foundation Trust, Birmingham Women and Children's Hospital, Nottingham University Hospital, University Hospitals Leicester, Sheffield Children's Hospital, Leeds Teaching Hospital, The James Cook University Hospital, Royal Manchester Children's Hospital, Alder Hey Children's Hospital, Lancashire Teaching Hospitals NHS Foundation Trust]

Page 3 – Social Prescribing

1. What do you consider social prescribing to be?

[Free text]

2. Have you previously heard of the term 'social prescribing'?

[Yes]

[No]

[Not sure]

3. How much do you feel you know about social prescribing?

[I know a lot about it]

[I know a bit about it]

[I don't really know much about it]

[I don't know anything about it]

New page to provide a definition of social prescribing

For this project, we describe social prescribing as healthcare professionals referring individuals to access local community-based groups (such as sports clubs, arts and crafts groups, nature-based activities) which can support them with their health and wellbeing.

This can be done in different ways, including through direct referral from a healthcare professional to a community-based group, or through referral to a 'link worker' who works with an individual to support them to choose and access a local community-based group.

4. Based on this definition, do you currently use social prescribing in your job role?

[Yes]

[No]

a. **If yes, how many children and young people do you refer to social prescribing in an average month?**

[Over 20]

[10-20]

[Less than 10]

b. **What services do you refer CYP to? Please explain what type of services these are (for example, physical activity, crafts, gaming, youth session, nature-based activities).**

[Free text]

c. **If no, why do you not use social prescribing currently in your role? Please tick all that apply.**

[I don't use it yet, but my service is going to use it]

[Not sure how to implement it]

[Not aware of what social prescribing is]

[I don't know the available community-based services in my area to refer to]

[Need a link worker (or similar role) available in my service to help refer to community groups]

[Not suitable for any of the young people I work with]

[I don't think any of the young people I work with would want to access this]

[Lack of funding]

[Lack of time to set up]

[Not sure]

[Other – free text option]

5. Do you think social prescribing can be helpful for children and young people?

[Yes]

[No]

[Not sure]

[Sometimes]

[Other - free text option]

6. What do you think would be beneficial for the young people and families you work with, as part of a social prescribing offering? Please tick all that apply.

- [Mental health support]
- [Improving self-esteem and confidence]
- [Opportunities for physical activity]
- [Group-based activities]
- [Peer support]
- [Opportunities for outdoor activities]
- [Joining a community]
- [Education around diet and healthy lifestyle]
- [Family support – involving young people and parents/carers together]
- [None of the above]
- [Other – free text]

7. What do you think would be most beneficial for the young people and families you work with, as part of a social prescribing offering? Please tick just one option.

- [Mental health support]
- [Improving self-esteem and confidence]
- [Opportunities for physical activity]
- [Group-based activities]
- [Peer support]
- [Opportunities for outdoor activities]
- [Joining a community]
- [Education around diet and healthy lifestyle]
- [Family support – involving young people and parents/carers together]
- [None of the above]
- [Other – free text]

8. How likely would you be to use social prescribing in your role in the future?

- [Very likely]
- [Fairly likely]
- [Not very likely]
- [Not at all likely]
- [Don't know]

9. Do you know which community-based services you could refer young people to in your local area?

- [Yes]
- [No]
- [Not sure]
- [Other – free text]

10. What support would be needed to set up a social prescribing offering in your service? Please tick all that apply.

- [More awareness of social prescribing]
- [More training in how to use social prescribing]

[Increased capacity for staff]

[Link workers (or similar role) available in my service to help refer to community groups]

[More evidence presented on effectiveness of social prescribing]

[Better contact and communication with community-based groups]

[Don't know]

[Other – free text]

11. Any other comments about using social prescribing in your service?

[Free text]

Thank you for taking the time to complete this survey. If you would like any more information about the project, please contact Megan at



Appendices 3 – Details of Studies included in the Review (Phase 3, Chapter 5)

Table 25. Details of studies included in the review

Search Name	Reference	Year	Study Design	Contribution to theories
Realist social prescribing	Bertotti, M., Frostick, C., Hutt, P., Sohanpal, R., & Carnes, D. (2018). A realist evaluation of social prescribing: An exploration into the context and mechanisms underpinning a pathway linking primary care with the voluntary sector. <i>Primary Health Care Research & Development</i> , 19(03), 232–245.	2018	Realist Evaluation	Social connectedness, Empowerment, Patient Choice, Accessibility, Trust, Collaborative working
	Calderón-Larrañaga, S., Milner, Y., Clinch, M., Greenhalgh, T., & Finer, S. (2021). Tensions and opportunities in social prescribing. Developing a framework to facilitate its implementation and evaluation in primary care: A realist review. <i>BJGP Open</i> , 5(3).	2021	Realist Review	Social connectedness, Empowerment, Patient Choice, Accessibility, Trust, Collaborative working
	Fancourt, D., Aughterson, H., Finn, S., Walker, E., & Steptoe, A. (2021). How leisure activities affect health: A narrative	2021	Realist Review	Social connectedness, Empowerment, Patient Choice

	review and multi-level theoretical framework of mechanisms of action. <i>The Lancet. Psychiatry</i> , 8(4), 329–339.			
	Husk, K., Blockley, K., Lovell, R., Bethel, A., Lang, I., Byng, R., & Garside, R. (2020). What approaches to social prescribing work, for whom, and in what circumstances? A realist review. <i>Health & Social Care in the Community</i> , 28(2), 309–324.	2020	Realist Review	Social connectedness, Empowerment, Patient Choice, Accessibility, Trust
	Tierney, S., Wong, G., Roberts, N., Boylan, A.-M., Park, S., Abrams, R., Reeve, J., Williams, V., & Mahtani, K. R. (2020). Supporting social prescribing in primary care by linking people to local assets: A realist review. <i>BMC Medicine</i> , 18(1), 49.	2020	Realist Review	Social connectedness, Empowerment, Patient Choice, Accessibility, Trust, Collaborative working
	Turk, A., Tierney, S., Wong, G., Todd, J., Chatterjee, H. J., & Mahtani, K. R. (2022). Self-growth, wellbeing and volunteering - Implications for social prescribing: A qualitative study. <i>SSM - Qualitative Research in Health</i> , 2, 100061.	2022	Realist Evaluation	Social connectedness, Empowerment, Patient Choice, Accessibility

	Wakefield, J. R. H., Kellezi, B., Stevenson, C., McNamara, N., Bowe, M., Wilson, I., Halder, M. M., & Mair, E. (2022). Social Prescribing as 'Social Cure': A longitudinal study of the health benefits of social connectedness within a Social Prescribing pathway. <i>Journal of Health Psychology</i> , 27(2), 386–396.	2022	Realist Evaluation	Social connectedness, Accessibility
	Wood, E., Ohlsen, S., Fenton, S.-J., Connell, J., & Weich, S. (2021). Social prescribing for people with complex needs: A realist evaluation. <i>BMC Family Practice</i> , 22(1), 53.	2021	Realist Evaluation	Social connectedness, Empowerment, Patient Choice, Accessibility, Trust, Collaborative working
Child social prescribing	Bertotti, M., Hayes, D., Berry, V., Jarvis-Beesley, P., & Husk, K. (2022). Social prescribing for children and young people. <i>The Lancet Child & Adolescent Health</i> , 6(12), 835–837.	2022	Discussion Paper	Empowerment, Patient Choice, Holistic approach, Whole family approach, Investment in community services, Community-based services
	Bowden, L., Long, T., & Henry, H. (2020). Evaluation of a Choir as a Non-Medical Intervention for Children with Asthma: BreathStars. <i>Comprehensive Child & Adolescent Nursing</i> , 43(2), 128–141.	2020	Realist Evaluation	Empowerment, Holistic approach, Social connectedness, Staff Qualities, Policy

	Brettell, M., Fenton, C., & Foster, E. (2022). Linking Leeds: A Social Prescribing Service for Children and Young People. <i>International Journal of Environmental Research and Public Health</i> , 19(3), Article 3.	2022	Pre-post data collection	Empowerment, Holistic approach, Social connectedness, Policy
	Charlton, J. J. V., Battersby, A., Drinkwater, C., McKean, M., & Quibell, T. (2022). Addressing the crisis in child mental health: the feasibility of primary prevention through social prescribing as the missing link. <i>Research Square</i> . [Preprint]	2022	Qualitative Consultation	Patient Choice, Whole family approach, Collaboration between services, Investment in community services, Policy
	Dias, R., Parker, J., Powell, L., Teige, C., Garside, M., & Wright, B. (2024). 'Safety Nets': a community based social prescribing intervention involving combined physical activity and psychoeducation for young people on mental health service waiting lists: a pilot service evaluation. <i>Advances in Mental Health</i> , 22(1), 104-117.	2024	Pre-post data collection	Physical activity, Patient Choice, Social connectedness, Staff Qualities, exciting locations, Community-based services
	Efstathopoulou, L., & Bungay, H. (2021). Mental health and resilience: Arts on Prescription for children and young people	2021	Longitudinal cohort	Patient Choice, Social connectedness, Staff Qualities

	in a school setting. <i>Public Health</i> , 198, 196–199.			
	Fancourt, D., Burton, A., Bu, F., Deighton, J., Turner, R., Wright, J., Bradbury, A., Tibber, M., Talwar, S., & Hayes, D. (2023). Wellbeing while waiting evaluating social prescribing in CAMHS: Study protocol for a hybrid type II implementation-effectiveness study. <i>BMC Psychiatry</i> , 23(1), 328.	2023	Study Protocol	Physical activity, Empowerment, Patient Choice, Holistic approach, Social connectedness, Staff Qualities, Collaboration between services, Investment in community services
	Hayes, D., Olsson, A., Begum, S., Bertotti, M., Jarvis-Beesley, P., & Stapley, E. (2024). Barriers and facilitators to social prescribing in child and youth mental health: perspectives from the frontline. <i>European Child & Adolescent Psychiatry</i> , 33(5), 1465-1479.	2024	Qualitative Interviews	Empowerment, Patient Choice, Social connectedness, Whole family approach, Staff Qualities, Collaboration between services, Investment in community services, Community-based services, Policy
	Hayes, D., Cortina, M. A., Labno, A., Moore, A., Edbrooke Eisenstadt, M., Childs, J., ... & Deighton, J. (2020). <i>Social prescribing in children and young people: A review of the evidence</i> . University College London. Evidence Based Practice Unit.	2020	Systematic Review	Whole family approach, Staff Qualities, Collaboration between services

	Bertotti, M., Frostick, C., Sharpe, D., & Temirov, O. (2020). A two-year evaluation of the Young People Social Prescribing (YPSP) pilot. <i>Institute for Connected Communities (ICC), University of East London</i> .	2020	Mixed-methods pre-post evaluation	Physical activity, Empowerment, Patient Choice, Holistic approach, Social connectedness, Whole family approach, Staff Qualities, Collaboration between services, Investment in community services, Community-based services, Policy
	Yorkshire Sport Foundation. (2023). <i>Creating Safety Nets</i> . www.yorkshiresport.org/wp-content/uploads/YSF-SAFETY-NETS-REPORT_2023.pdf	2023	Pre-post data collection report This includes the same programme as Dias et al., 2024 (Safety Nets) but reports a different evaluation	Physical activity, Empowerment, Patient Choice, Social connectedness, Staff Qualities, Exciting locations
Child weight management	Avery, A., Pallister, C., Allan, J., Stubbs, J., & Lavin, J. (2012). An initial evaluation of a family-based approach to weight management in adolescents attending a community weight management group. <i>Journal of Human Nutrition and Dietetics</i> , 25(5), 469–476.	2012	Pre-post data collection	Understanding of obesity, Physical Activity, Tailored, Physical changes, Social support, Whole family approach, Accessibility

	Daley, A. J., Copeland, R. J., Wright, N. P., & Wales, J. K. H. (2008). 'I Can Actually Exercise If I Want To; It Isn't As Hard As I Thought': A Qualitative Study of the Experiences and Views of Obese Adolescents Participating in an Exercise Therapy Intervention. <i>Journal of Health Psychology</i> , 13(6), 810–819.	2008	Nested qualitative study	Understanding of obesity, Physical Activity, Empowerment, Tailored, Physical changes, Social support, Accessibility
	Dixey, R., Rudolf, M., & Murtagh, J. (2006). WATCH IT: Obesity management for children: A qualitative exploration of the views of parents. <i>International Journal of Health Promotion and Education</i> , 44(4), 131–137.	2006	Qualitative focus groups and interviews Same programme as Fassibi et al., 2012; Twiddy et al., 2012 (WATCH IT)	Understanding of obesity, Empowerment, Tailored, Physical changes, Holistic, Social support, Whole family approach, Staff qualities, Accessibility, Investment in community services
	Fagg, J., Chadwick, P., Cole, T. J., Cummins, S., Goldstein, H., Lewis, H., Morris, S., Radley, D., Sacher, P., & Law, C. (2014). From trial to population: A study of a family-based community intervention for childhood overweight implemented at scale. <i>International Journal of Obesity</i> , 38(10), Article 10.	2014	Observational data from implementation study	Tailored, Staff qualities, Accessibility, Investment in community services

Fagg, J., Cole, T. J., Cummins, S., Goldstein, H., Morris, S., Radley, D., Sacher, P., & Law, C. (2015). After the RCT: Who comes to a family-based intervention for childhood overweight or obesity when it is implemented at scale in the community? <i>Journal of Epidemiology and Community Health</i> , 69(2), 142–148.	2015	Observational data Same programme as Fagg et al., 2014; Lucas et al., 2014 (MEND)	Tailored, Whole family approach, Staff qualities, Accessibility
Fassihi, M., McElhone, S., Feltbower, R., & Rudolf, M. (2012). Which factors predict unsuccessful outcome in a weight management intervention for obese children? <i>Journal of Human Nutrition and Dietetics</i> , 25(5), 453–459.	2012	Pre-post data analysis Same programme as Dixey et al., 2006; Twiddy et al., 2012 (WATCH IT)	Tailored, Holistic, Physical Activity, Whole family approach
Jinks, A., English, S., & Coufopoulos, A. (2013). Evaluation of a family-centred children's weight management intervention. <i>Health Education</i> , 113.	2013	Mixed method case study evaluation	Empowerment, Holistic, Whole family approach, Accessibility, Investment in community services
Lucas, P. J., Curtis-Tyler, K., Arai, L., Stapley, S., Fagg, J., & Roberts, H. (2014). What works in practice: User and provider perspectives on the acceptability, affordability, implementation, and impact	2014	Qualitative Interviews	Empowerment, Tailored, Social support, Whole family approach, Staff qualities, Collaboration between services, Accessibility,

	of a family-based intervention for child overweight and obesity delivered at scale. <i>BMC Public Health</i> , 14(1), 614.		Same programme as Fagg et al., 2014; 2015 (MEND)	Investment in community services
	Owen, S. E., Sharp, D. J., Shield, J. P., Turner, K. M., (2009). Childrens' and parents' views and experiences of attending a childhood obesity clinic: A qualitative study. <i>Prim Health Care Res Dev</i> ;10:236–244.	2009	Qualitative interviews	Physical Activity, Empowerment, Tailored, Holistic, Whole family approach, Staff qualities, Collaboration between services
	Murdoch, M., Payne, N., Samani-Radia, D., Rosen-Webb, J., Walker, L., Howe, M., & Lewis, P. (2011). Family-based behavioural management of childhood obesity: Service evaluation of a group programme run in a community setting in the United Kingdom. <i>European Journal of Clinical Nutrition</i> , 65(6), Article 6.	2011	Service evaluation (pre-post uncontrolled)	Empowerment, Social support, Whole family approach, Staff qualities, Collaboration between services, Accessibility
	Newson, L., Povey, R., Casson, A., & Grogan, S. (2013). The experiences and understandings of obesity: Families' decisions to attend a childhood obesity intervention. <i>Psychology & Health</i> , 28(11), 1287–1305.	2013	Qualitative interviews	Understanding of obesity, Physical Activity, Empowerment, Social support, Whole family approach, Accessibility, Investment in community services, Wider health messages

	Nobles, J., Radley, D., Dimitri, P., & Sharman, K. (2016). Psychosocial Interventions in the Treatment of Severe Adolescent Obesity: The SHINE Program. <i>Journal of Adolescent Health, 59</i> (5), 523–529.	2016	Retrospective analysis of pre post data	Holistic, Tailored, Empowerment, Social support
	Peña, C. M., & Payne, A. (2022). Parental experiences of adopting healthy lifestyles for children with disabilities living with overweight and obesity. <i>Disability and Health Journal, 15</i> (1), 101215.	2022	Semi structured qualitative interviews	Physical Activity, Tailored, Social support, Whole family approach, Accessibility, Investment in community services
	Reece, L. J., Bissell, P., & Copeland, R. J. (2016). ‘I just don’t want to get bullied anymore, then I can lead a normal life’; Insights into life as an obese adolescent and their views on obesity treatment. <i>Health Expectations, 19</i> (4), 897–907.	2016	Qualitative interviews	Understanding of obesity, Empowerment, Tailored, Holistic, Social support, Physical changes
	Stewart, L., Chapple, J., Hughes, A.R., Poustie, V., & Reilly, J. J. (n.d.). The use of behavioural change techniques in treatment of paediatric obesity: qualitative evaluation of parental perspectives on treatment. [Pre-print, University of Glasgow].	n.d.	Qualitative interviews Same programme as Stewart et al., 2008 (SCOTT)	Empowerment, Holistic, Whole family approach, Staff qualities

	Stewart, L., Chapple, J., Hughes, A. R., Poustie, V., & Reilly, J. J. (2008). Parents' journey through treatment for their child's obesity: A qualitative study. <i>Arch Dis Child</i> ; 93:35–39.	2008	Qualitative interviews Same programme as Stewart et al., n.d. (SCOTT)	Understanding of obesity, Holistic, Whole family approach, Staff qualities
	Twiddy, M., Wilson, I., Bryant, M., & Rudolf, M. (2012). Lessons learned from a family-focused weight management intervention for obese and overweight children. <i>Public Health Nutrition</i> , 15, 1310–1317.	2012	Interviews and focus groups Same programme as Dixey et al., 2006; Fassibi et al., 2012 (WATCH IT)	Empowerment, Holistic, Physical changes, Whole family approach, Staff qualities, Investment in community services
	Visram, S., Hall, T. D., & Geddes, L. (2013). Getting the balance right: Qualitative evaluation of a holistic weight management intervention to address childhood obesity. <i>Journal of Public Health</i> , 35(2), 246–254.	2013	Qualitative evaluation	Understanding of obesity, Physical Activity, Tailored, Holistic, Physical changes, Social support, Whole family approach, Collaboration between services, Accessibility, Investment in community services, Wider health messaging
	Watson, P. M., Dugdill, L., Pickering, K., Owen, S., Hargreaves, J., Staniford, L. J.,	2015	Mixed-methods single-group	Physical Activity, Empowerment, Holistic, Physical changes,

	Murphy, R. C., Knowles, Z., & Cable, N. T. (2015). Service evaluation of the GOALS family-based childhood obesity treatment intervention during the first 3 years of implementation. <i>BMJ Open</i> , 5(2), e006519–e006519.		repeated measures service evaluation	Social support, Whole family approach, Staff qualities, Accessibility
	Rigby, E., McKeown, R., & Wortley, L. (2022, April). <i>The experiences of young people and their families living with excess weight. Themes from engagement work</i> . Association for Young People's Health (AYPH). https://ayph.org.uk/wp-content/uploads/2022/04/CEW-Themes-from-engagement-work.pdf	2022	Delphi Consensus	Physical Activity, Tailored, Holistic, Social support, Whole family approach, Staff qualities, Collaboration between services, Wider health messaging

It should be noted that each paper's contribution to each of the theories may vary. For example, papers may have varied in the level of rich discussion that was provided in relation to potential contexts and mechanisms compared to other papers, and some may have contributed by exploring rival theories.

Appendices 4 – References of papers included in the Review (Phase 3, Chapter 5)

Avery, A., Pallister, C., Allan, J., Stubbs, J., & Lavin, J. (2012). An initial evaluation of a family-based approach to weight management in adolescents attending a community weight management group. *Journal of Human Nutrition and Dietetics*, 25(5), 469–476.

Bertotti, M., Frostick, C., Hutt, P., Sohanpal, R., & Carnes, D. (2018). A realist evaluation of social prescribing: an exploration into the context and mechanisms underpinning a pathway linking primary care with the voluntary sector. *Primary health care research & development*, 19(3), 232-245.

Bertotti, M., Frostick, C., Sharpe, D., & Temirov, O. (2020). A two-year evaluation of the Young People Social Prescribing (YPSP) pilot. *Institute for Connected Communities (ICC), University of East London*.

Bertotti, M., Hayes, D., Berry, V., Jarvis-Beesley, P., & Husk, K. (2022). Social prescribing for children and young people. *The Lancet Child & Adolescent Health*, 6(12), 835-837.

Bowden, L., Long, T., & Henry, H. (2020). Evaluation of a Choir as a Non-Medical Intervention for Children with Asthma: BreathStars. *Comprehensive Child & Adolescent Nursing*, 43(2), 128–141.

Brettell, M., Fenton, C., & Foster, E. (2022). Linking Leeds: A Social Prescribing Service for Children and Young People. *International Journal of Environmental Research and Public Health*, 19(3), Article 3.

Calderón-Larrañaga, S., Milner, Y., Clinch, M., Greenhalgh, T., & Finer, S. (2021). Tensions and opportunities in social prescribing. Developing a framework to facilitate its implementation and evaluation in primary care: A realist review. *BJGP Open*, 5(3).

Charlton, J. J. V., Battersby, A., Drinkwater, C., McKean, M., & Quibell, T. (2022). Addressing the crisis in child mental health: the feasibility of primary prevention through social prescribing as the missing link. *Research Square*.

Daley, A. J., Copeland, R. J., Wright, N. P., & Wales, J. K. (2008). 'I Can Actually Exercise If I Want To; It Isn't As Hard As I Thought' A Qualitative Study of the Experiences and Views of Obese Adolescents Participating in an Exercise Therapy Intervention. *Journal of health psychology*, 13(6), 810-819.

Dias, R., Parker, J., Powell, L., Teige, C., Garside, M., & Wright, B. (2024). 'Safety Nets': a community based social prescribing intervention involving combined physical activity and psychoeducation for young people on mental health service waiting lists: a pilot service evaluation. *Advances in Mental Health*, 22(1), 104-117.

Dixey, R., Rudolf, M., & Murtagh, J. (2006). WATCH IT: Obesity management for children: A qualitative exploration of the views of parents. *International Journal of Health Promotion and Education*, 44(4), 131–137.

Efstathopoulou, L., & Bungay, H. (2021). Mental health and resilience: Arts on Prescription for children and young people in a school setting. *Public Health*, 198, 196–199.

Fagg, J., Chadwick, P., Cole, T. J., Cummins, S., Goldstein, H., Lewis, H., Morris, S., Radley, D., Sacher, P., & Law, C. (2014). From trial to population: A study of a family-based community intervention for childhood overweight implemented at scale. *International Journal of Obesity*, 38(10), Article 10.

Fagg, J., Cole, T. J., Cummins, S., Goldstein, H., Morris, S., Radley, D., ... & Law, C. (2015). After the RCT: who comes to a family-based intervention for childhood overweight or obesity when it is implemented at scale in the community?. *J Epidemiol community health*, 69(2), 142-148.

Fancourt, D., Aughterson, H., Finn, S., Walker, E., & Steptoe, A. (2021). How leisure activities affect health: A narrative review and multi-level theoretical framework of mechanisms of action. *The Lancet. Psychiatry*, 8(4), 329–339.

Fancourt, D., Burton, A., Bu, F., Deighton, J., Turner, R., Wright, J., Bradbury, A., Tibber, M., Talwar, S., & Hayes, D. (2023). Wellbeing while waiting evaluating social prescribing in CAMHS: Study protocol for a hybrid type II implementation-effectiveness study. *BMC Psychiatry*, 23(1), 328.

Fassihi, M., McElhone, S., Feltbower, R., & Rudolf, M. (2012). Which factors predict unsuccessful outcome in a weight management intervention for obese children? *Journal of Human Nutrition and Dietetics*, 25(5), 453–459.

Hayes, D., Cortina, M. A., Labno, A., Moore, A., Edbrooke Eisenstadt, M., Childs, J., ... & Deighton, J. (2020). *Social prescribing in children and young people: A review of the evidence*. University College London. Evidence Based Practice Unit.

Hayes, D., Olsson, A., Begum, S., Bertotti, M., Jarvis-Beesley, P., & Stapley, E. (2024). Barriers and facilitators to social prescribing in child and youth mental health: perspectives from the frontline. *European Child & Adolescent Psychiatry*, 33(5), 1465-1479.

Husk, K., Blockley, K., Lovell, R., Bethel, A., Lang, I., Byng, R., & Garside, R. (2020). What approaches to social prescribing work, for whom, and in what circumstances? A realist review. *Health & Social Care in the Community*, 28(2), 309–324.

Jinks, A., English, S., & Coufopoulos, A. (2013). Evaluation of a family-centred children's weight management intervention. *Health Education*, 113.

Lucas, P. J., Curtis-Tyler, K., Arai, L., Stapley, S., Fagg, J., & Roberts, H. (2014). What works in practice: User and provider perspectives on the acceptability, affordability, implementation, and impact of a family-based intervention for child overweight and obesity delivered at scale. *BMC Public Health*, 14(1), 614.

Murdoch, M., Payne, N., Samani-Radia, D., Rosen-Webb, J., Walker, L., Howe, M., & Lewis, P. (2011). Family-based behavioural management of childhood obesity: Service evaluation of a group programme run in a community setting in the United Kingdom. *European Journal of Clinical Nutrition*, 65(6), Article 6.

Newson, L., Povey, R., Casson, A., & Grogan, S. (2013). The experiences and understandings of obesity: Families' decisions to attend a childhood obesity intervention. *Psychology & Health*, 28(11), 1287–1305.

Nobles, J., Radley, D., Dimitri, P., & Sharman, K. (2016). Psychosocial Interventions in the Treatment of Severe Adolescent Obesity: The SHINE Program. *Journal of Adolescent Health*, 59(5), 523–529.

Owen, S. E., Sharp, D. J., Shield, J. P., & Turner, K. M. (2009). Childrens' and parents' views and experiences of attending a childhood obesity clinic: a qualitative study. *Primary Health Care Research & Development*, 10(3), 236-244.

Peña, C. M., & Payne, A. (2022). Parental experiences of adopting healthy lifestyles for children with disabilities living with overweight and obesity. *Disability and Health Journal*, 15(1), 101215.

Reece, L. J., Bissell, P., & Copeland, R. J. (2016). 'I just don't want to get bullied anymore, then I can lead a normal life'; Insights into life as an obese adolescent and their views on obesity treatment. *Health Expectations*, 19(4), 897–907.

Rigby, E., McKeown, R., & Wortley, L. (2022, April). *The experiences of young people and their families living with excess weight. Themes from engagement work*. Association for Young People's Health (AYPH). <https://ayph.org.uk/wp-content/uploads/2022/04/CEW-Themes-from-engagement-work.pdf>

Stewart, L., Chapple, J., Hughes, A. R., Poustie, V., & Reilly, J. J. (2008). Parents' journey through treatment for their child's obesity: A qualitative study. *Arch Dis Child*; 93:35–39.

Stewart, L., Chapple, J., Hughes, A.R., Poustie, V., & Reilly, J. J. (n.d.). The use of behavioural change techniques in treatment of paediatric obesity: qualitative evaluation of parental perspectives on treatment. [Pre-print, University of Glasgow].

Tierney, S., Wong, G., Roberts, N., Boylan, A.-M., Park, S., Abrams, R., Reeve, J., Williams, V., & Mahtani, K. R. (2020). Supporting social prescribing in primary care by linking people to local assets: A realist review. *BMC Medicine*, 18(1), 49.

Turk, A., Tierney, S., Wong, G., Todd, J., Chatterjee, H. J., & Mahtani, K. R. (2022). Self-growth, wellbeing and volunteering - Implications for social prescribing: A qualitative study. *SSM - Qualitative Research in Health*, 2, 100061.

Twiddy, M., Wilson, I., Bryant, M., & Rudolf, M. (2012). Lessons learned from a family-focused weight management intervention for obese and overweight children. *Public Health Nutrition*, 15, 1310–1317.

Visram, S., Hall, T. D., & Geddes, L. (2013). Getting the balance right: Qualitative evaluation of a holistic weight management intervention to address childhood obesity. *Journal of Public Health*, 35(2), 246–254.

Wakefield, J. R. H., Kellezi, B., Stevenson, C., McNamara, N., Bowe, M., Wilson, I., Halder, M. M., & Mair, E. (2022). Social Prescribing as ‘Social Cure’: A longitudinal study of the health benefits of social connectedness within a Social Prescribing pathway. *Journal of Health Psychology*, 27(2), 386–396.

Watson, P. M., Dugdill, L., Pickering, K., Owen, S., Hargreaves, J., Staniford, L. J., Murphy, R. C., Knowles, Z., & Cable, N. T. (2015). Service evaluation of the GOALS family-based childhood obesity treatment intervention during the first 3 years of implementation. *BMJ Open*, 5(2), e006519.

Wood, E., Ohlsen, S., Fenton, S.-J., Connell, J., & Weich, S. (2021). Social prescribing for people with complex needs: A realist evaluation. *BMC Family Practice*, 22(1), 53.

Yorkshire Sport Foundation. (2023). *Creating Safety Nets*. www.yorkshiresport.org/wp-content/uploads/YSF-SAFETY-NETS-REPORT_2023.pdf

Appendices 5 – Recruitment Poster



RESEARCH OPPORTUNITY!

IF YOU'RE AGED 11-17 YEARS OLD AND YOU ARE ATTENDING A CEW CLINIC IN [REDACTED] WE'D LIKE TO HEAR FROM YOU!

WHAT IS IT ABOUT?

We're interested in if young people who are attending CEW clinics are also going to community groups (like sports clubs or youth groups) or not, and their experiences of this.

By sharing your experiences, you could help us to understand if these community groups are helpful or not, and what could be changed to make them better for you and your family.





WHAT DOES IT INVOLVE?

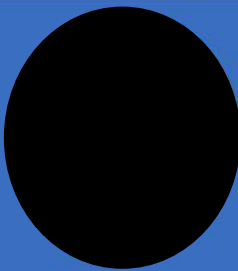
You and your parent/carer will meet with a researcher to complete a questionnaire. You'll then meet the same researcher 4 months later to complete the same questionnaire again.

All your answers will be confidential, and you can meet in person or online, whichever you'd prefer.

You will also get a **£15 voucher** as a thank you for participating!

IF YOU'RE INTERESTED IN FINDING OUT MORE INFORMATION, YOU CAN ASK THE CEW TEAM, OR YOU CAN CONTACT MEGAN (THE RESEARCHER) AT:

EMAIL: [REDACTED]
TEXT/PHONE: [REDACTED]



IRAS: 334930
V1 29.01.2024

Appendices 6 – Example Participant Information Sheets (Phase 4, Chapter 7)

6.a Participant Information Sheet: Young Person (11-15 years old) – Questionnaires

Study Title: *Developing a model of Social Prescribing for NHS Complications from Excess Weight (CEW) clinics*

What is this study about?

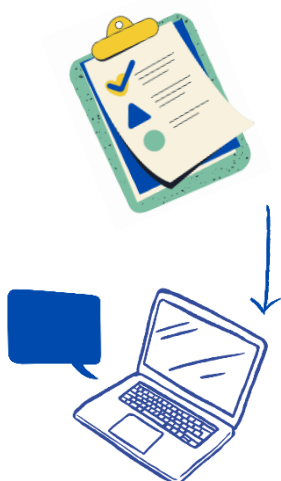
This study wants to see if something called *social prescribing* can be helpful for young people who are going to CEW clinics. Social prescribing is where doctors can help young people join community groups (like sports clubs and youth clubs), to help them feel happier and healthier.

We are interested in hearing if you are accessing any groups or clubs alongside support from the CEW clinic, or if you are not accessing anything else. We want to hear your experiences. This can help to make services better for other young people who might need similar support in the future.

Why have I been asked?

You have been asked if you would like to take part because you are aged 11-17 years and are currently attending a CEW clinic in [REDACTED]. We want to speak to 30 young people in total for this study.

What will I have to do?

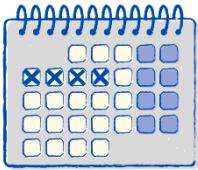


1. A researcher will talk to you and your parent/carer to discuss the study. If you want to take part, we will ask you and your parent/carer to each sign a form to say you agree (consent) to taking part.
2. You will then meet with a researcher to answer some questionnaires. These questions are about if you are going to (or not going to) any clubs or groups as well as going to the CEW clinics and how you are feeling.

This meeting might be at a CEW clinic or virtually, on a video call, and should take no longer than 30 minutes. You can



choose whether you would like your parent/carer there too when you answer these questions. If you answer these questions without a parent/carer there, we will not share your answers with them.



3. There will then be a second meeting, four months after the first meeting, to answer the questions again, to see if there have been any changes. This second meeting should also take no longer than 30 minutes. After this second meeting, you will receive a £15 voucher to thank you for your time.

After the second meeting, you will be given the opportunity to take part in an interview with the researcher, to chat more about your thoughts and experiences. You will receive a second £15 voucher for taking part in this interview. You do not have to decide now if you want to take part in the interview. There will be another information sheet like this one which will tell you more information about the interview.

Do I have to take part?

No. You don't have to take part if you don't want to. You can decide not to answer any questions or can change your mind and ask to stop taking part in the study at any time you want, and you do not have to tell us why. This will not change any help you get from the CEW clinic now or in the future.

What are the possible disadvantages and risks of taking part?

We do not think there any risks to taking part, other than the time it takes to complete the questionnaires. You do not have to answer any questions you do not want to and can stop taking part at any time if you wish.

What are the possible benefits of taking part?

By sharing your experiences, this can help to make services better for other families. You will also receive a voucher for participating.

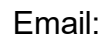
Will anyone know I am taking part?

No - all information which is collected as part of this study will be kept confidential. This means you will not be recognised from any of the information you share. If you tell us anything of concern, we may pass this information to your usual CEW clinic team to help them support you.

Contact for further information

This study is being run by Sheffield Hallam University. If you have any questions, please ask. You can ask your parent/carer, and you can also contact the researcher using the details below:

Email: [REDACTED]
Telephone: [REDACTED]



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6.b Participant Information Sheet: Parent/Carer – Questionnaires

Study Title: *Developing a model of Social Prescribing for NHS Complications from Excess Weight (CEW) clinics*

We would like to invite you and your child to take part in this research study. Before you decide, we would like you to understand why the research is being done and what it will involve.

Please ask us if there is anything that is not clear or if you would like more information. You can take time to decide whether or not you want your child to take part.

What is the purpose of the study?

Social prescribing involves healthcare professionals referring people to community-based services to help support their health and wellbeing. We are interested in finding out if your family is accessing any community-based services alongside support received from the CEW clinic, or if you are not accessing any other services. We want to hear your experiences. We aim to recruit up to 30 young people in total to complete questionnaires.

We hope to use these findings to help develop a social prescribing offering to support other young people accessing CEW clinics. This will help improve future services and offers of support, to see how they can be more accessible and helpful for families.

Why have we been approached/invited?

You have been approached as your young person is aged 11-17 years and is currently attending a CEW clinic in [REDACTED].

What will happen if we agree to take part?

If your child would like to take part, you can contact the researcher (contact details are included at the end of this sheet). You can also contact them if you have any questions or would like any more information, before deciding whether to take part. If you agree to take part, we will then ask you and your young person to complete and sign a consent form. You will be given a copy of the information sheet and the signed consent forms to keep for your records.

We will then arrange a meeting with a researcher to complete some questionnaires. These questionnaires will ask about any community-based services your young person accesses, and also about their wellbeing, how they

are feeling and their friendships. This meeting can be at a CEW clinic location or virtually (via Microsoft Teams) depending on what you prefer. This meeting is expected to take no longer than 30 minutes. There will then be a second meeting, four months after the first meeting, to complete the same questionnaires again. This second meeting is also expected to take no longer than 30 minutes. After this second meeting, your child will receive a £15 voucher to thank you them for their time. Your child can complete questionnaires with or without a parent/carer present, based on your family's preference. If your young person chooses to complete questionnaires with the researcher alone (without parent/carer present), then their responses will not be shared.

There will then be the option for you and your child to each take part in an interview with the researcher, to share your thoughts and experiences in more detail. You will each receive a £15 voucher for taking part in this interview. You do not have to decide now if you want to take part in the interview. More detail about the interview will be provided in another information sheet.

Do we have to take part?

No. It is up to you and your young person to decide if you want to take part in the study. You and your young person are free to withdraw from the study at any time, without giving any reason. If you do agree to participate you can stop at any time, or decide not to answer particular questions, without giving a reason.

What will happen if we do not want to carry on with the research?

We will use the information collected up to the point of withdrawing from the research and stop collecting any further information. If you do not want us to keep this data, we can destroy it instead. If you decide not to take part in or withdraw from the study this will not stop or affect your young person receiving support from the CEW services in any way.

What are the possible disadvantages and risks of taking part?

We do not anticipate any risks to taking part. Young people do not have to answer any questions they do not want to and can stop taking part at any time if they wish.

What are the possible benefits of taking part?

By sharing your experiences, this can help to inform the development of future services for other families. You will also receive a voucher for participating.

Will taking part in this study be kept confidential?

All information which is collected during the course of the research will be kept strictly confidential. Any information about you or your young person will have the name removed so that neither of you can be recognised from it. Your young person's information may also be looked at by other people involved in the running and supervision of the study to check that it is being carried out correctly. People who do not need to know who you or your young person are will not be able to see names or contact details. Your young person's data will have a code number instead. We will keep all information safe and secure. Our procedures for handling, processing, storage and destruction of data are compliant with the Data Protection Act 2018.

It is not anticipated that anything clinically significant will be raised in data collection based on the focus of the study and questions included. However, if anything of concern is disclosed in data collection, this may be discussed with the researcher's direct supervisory team and if there is anything of significant concern raised, this may be shared with their usual CEW clinic team.

Who is organising the research?

The research is being conducted as part of a PhD programme at Sheffield Hallam University. The study sponsor is Sheffield Hallam University.

Who has reviewed the study?

This study has been reviewed and given a favourable ethical opinion by the West Midlands Solihull Research Ethics Committee (17.06.2024). It has also been approved by the Health Research Authority (HRA).

How will my data be used?

The University undertakes research as part of its function for the community under its legal status. Data protection allows us to use personal data for research with appropriate safeguards in place under the legal basis of public tasks that are in the public interest. A full statement of your rights can be found at: www.shu.ac.uk/about-this-website/privacy-policy/privacy-notice-for-research. However, all University research is reviewed to ensure that participants are treated appropriately and their rights respected. This study was approved by the University's Research Ethics Committee with reference number ER61832265. Further information at: www.shu.ac.uk/research/excellence/ethics-and-integrity

A study summary will be made available to you if you indicate you would like one. You will be able to request this when you provide informed consent. A summary of the findings will be included in a PhD thesis and in an academic paper that will be available to the public. You will not be named or identifiable in any publication(s).

Details of who to contact if you have any concerns or if adverse effects occur after the study are given below:

Contact for further information

Megan Garside, PhD Researcher

Thank you for taking the time to read this information!

6.c Participant Information Sheet: Parent/Carer - Interviews

Study Title: *Developing a model of Social Prescribing for NHS Complications from Excess Weight (CEW) clinics*

We would like to invite you and your child to take part in an interview. This information sheet will help you to understand why the research is being done and what it will involve.

Please take some time to read through the following information carefully. If there is anything that is not clear, or you would like more information please contact us using the details at the end of this document. Take time to decide whether or not you want to take part.

What is the purpose of the study?

Social prescribing involves healthcare professionals being able to refer individuals to community-based services to help provide extra support for their physical and mental health. This study is interested in developing a social prescribing offering to support young people accessing CEW clinics. We aim to interview 9-12 young people, 9-12 parents/carers and up to 10 members of staff.

We are interested in if your young person is accessing any community-based services alongside their CEW treatment, or if they are not accessing any other services. We want to hear the experiences of you and your young person. This will help improve future services and offers of support, to see how they can be more accessible and helpful for families.

Why have we been approached/invited?

You and your young person have been approached as your young person is aged 11-17 years and is currently attending a CEW clinic in [REDACTED].

What will happen if we agree to take part?

If you would like to take part, you can contact the researcher (contact details are included at the end of this sheet). You can also contact them if you have any questions or would like any more information, before deciding whether to take part.

If you agree to take part, we will then ask you and your child to complete a consent form. You will be given a copy of the information sheet and the consent form to keep for your records.

We will then book in a meeting to complete the interview. This meeting can be at a CEW clinic location, or virtually (via Microsoft Teams) depending on what you prefer. The interview will be audio recorded using an encrypted device and later transcribed (written up) by the researcher. You and your child can do the interview together or separately, whichever is preferable. If you choose to do the interview

separately, your answers will remain confidential and will not be shared between parent/carer and child. This interview is expected to take no longer than 30-60 minutes. After this, you will receive a £15 voucher to thank you for your time.

Do we have to take part?

No. It is up to you and your young person to each decide if you want to take part in the study. You do not both have to take part if you do not want to, for example your young person can take part in an interview without you taking part as parent/carer, and you can complete an interview without your young person taking part.

You and your young person are free to withdraw from the study at any time, without giving any reason. If you do agree to participate you can stop at any time, or decide not to answer particular questions, without giving a reason.

What will happen if we do not want to carry on with the research?

We will use the information collected up to the point of withdrawing from the reason and stop collecting any further information. If you do not want us to keep this data, we can destroy it instead. If you decide not to take part in or withdraw from the study this will not stop or affect your young person receiving support from the CEW services in any way.

What are the possible disadvantages and risks of taking part?

We do not anticipate any risks or disadvantages to taking part, only that it will take approximately 30-60 minutes of your time. You do not have to answer any questions you do not want to and can stop taking part at any time if you wish.

What are the possible benefits of taking part?

By sharing your experiences, this can help to improve future services for other families. You will also receive a voucher for participating.

Will taking part in this study be kept confidential?

All information which is collected during the course of the research will be kept strictly confidential. Any information about you or your young person will have the name removed so that neither of you can be recognised from it. Anonymised quotes (so that you cannot be identified) may be used when sharing of the results, such as in final reports and presentations.

Your information may also be looked at by other people involved in the running and supervision of the study to check that it is being carried out correctly. People who do not need to know who you or your young person are will not be able to see names or contact details. Your data will have a code number instead. We will keep all information safe and secure. Our procedures for handling, processing, storage and destruction of data are compliant with the Data Protection Act 2018.

It is not anticipated that anything clinically significant will be raised in data collection based on the focus of the study and questions included. However, if anything of concern is disclosed in data collection, this may be discussed with the researcher's direct supervisory team and if there is anything of significant concern raised, this may be shared with your young person's usual CEW clinic team.

Who is organising the research?

The research is being conducted as part of a PhD programme at Sheffield Hallam University. The study sponsor is Sheffield Hallam University.

Who has reviewed the study?

This study has been reviewed and given a favourable ethical opinion by the West Midlands Solihull Research Ethics Committee (17.06.2024). It has also been approved by the Health Research Authority (HRA).

How will my data be used?

The University undertakes research as part of its function for the community under its legal status. Data protection allows us to use personal data for research with appropriate safeguards in place under the legal basis of public tasks that are in the public interest. A full statement of your rights can be found at: www.shu.ac.uk/about-this-website/privacy-policy/privacy-notice-for-research. However, all University research is reviewed to ensure that participants are treated appropriately, and their rights respected. This study was approved by the University's Research Ethics Committee with reference number ER61832265. Further information at: www.shu.ac.uk/research/excellence/ethics-and-integrity

What will happen to the results of the research study?

A study summary will be made available to you if you indicate you would like one. You will be able to request this when you provide consent. The findings will be included in a thesis and aim to be published in an academic paper that will be available to the public. You will not be named or identifiable in any publication(s). Where findings include quotes from the interviews, these will be anonymous, and you will not be named or identifiable from these.

What if there is a problem?

Details of who to contact if you have any concerns or if adverse effects occur after the study are given below:

You should contact the Data Protection Officer if: • you have a query about how your data is used by the University • you would like to report a data security breach (e.g. if you think your personal data has been lost or disclosed inappropriately) • you would like to complain about how the University has used your personal data Postal address: [REDACTED]	You should contact the Head of Research Ethics ([REDACTED]) if: • you have concerns with how the research was undertaken or how you were treated [REDACTED] Telephone: [REDACTED]

Contact for further information

If you would like any further information about this study please contact:

**Megan Garside
PhD Student**

[REDACTED]

Email: [REDACTED]
Telephone: [REDACTED]

Thank you for taking the time to read this information!

Appendices 7 – Example consent forms

7.a Young Person 11-15 years Assent – Questionnaires

Study Title: *Developing a model of Social Prescribing for CEW clinics*

**Please initial if
yes**

1. I have read and understood the Information Sheet (V2, 10.06.2024) for this study and have had the study explained to me.
2. I have been able to ask any questions about the research.
3. I understand that I can choose not to answer any questions and can stop taking part at any point if I do not want to do it anymore without giving a reason. I understand that this will not change any other services I receive.
4. I agree to provide information to the researchers under the conditions of confidentiality set out in the Information Sheet (V2, 10.06.2024).
5. I agree to take part in this study.

Name:	Signature:	Date:
Name of researcher:	Signature:	Date:

7.b Parent/Carer Consent – Questionnaires

Study Title: *Developing a model of Social Prescribing for CEW clinics*

**Please initial if
yes**

1. I have read and understand the Information Sheet (V2, 10.06.2024) for this study and have had details of the study explained to me. _____
2. I have had an opportunity to ask any questions about the research and any questions were answered to my satisfaction. I understand that I may ask further questions at any point. _____
3. I understand that my young person and I are free to withdraw from the study at any time and are able to decline to answer any particular questions in the study without providing any reason and without any consequences to my future treatment by the researcher. _____
4. I agree to provide information to the researchers under the conditions of confidentiality set out in the Information Sheet (V2, 10.06.2024). _____
5. I agree to myself and my young person participating in the study under the conditions set out in the Information Sheet. _____

*If you say no to the following questions, it will not affect your participation.
Please put your initials next to yes or no for the statements below.*

1. *I consent to the information collected for the purposes of this research study, once anonymised (so that myself and my young person cannot be identified), to be used for any other research purposes.*

Yes _____ No _____

2. *My young person and I would be interested in taking part in an interview, if selected.*

Yes _____ No _____

3. *I wish to be kept up to date with the results and consent for my contact details to be retained for the purpose of sending me any reports or publications about the study.*

Yes _____ No _____

Name of young person:		Date:
Name of parent/carers:	Signature:	Date:
Name of researcher:	Signature:	Date:
Preferred contact details (e.g. post, email, telephone/text):		

Please keep your copy of the consent form and the information sheet together.

7.c Staff Consent - Interviews

Study Title: *Developing a model of Social Prescribing for CEW clinics*

**Please initial if
yes**

1. I have read and understand the Information Sheet (V2, 10.06.2024) for this study and have had details of the study explained to me. _____
2. I have had an opportunity to ask any questions about the research and any questions were answered to my satisfaction. I understand that I may ask further questions at any point. _____
3. I understand that I am free to withdraw from the study at any time and are able to decline to answer any particular questions in the study without providing any reason and without any consequences to my future treatment by the researcher. _____
4. I agree to provide information to the researchers under the conditions of confidentiality set out in the Information Sheet (V2, 10.06.2024). _____
5. I agree to participating in an interview for this study under the conditions set out in the Information Sheet and understand that this will be audio recorded and transcribed. _____

*If you say no to the following questions, it will not affect your participation.
Please put your initials next to yes or no for the statements below.*

1. *I consent to the information collected for the purposes of this research study, once anonymised (so that I cannot be identified), to be used for other research purposes.*

Yes _____ No _____

2. *I wish to be kept up to date with the results and consent for my contact details to be retained for the purpose of sending me any reports or publications about the study.*

Yes _____ No _____

Participant Name:	Signature:	Date:
Name of researcher:	Signature:	Date:
Preferred contact details (e.g. post, email, telephone/text):		

Please keep your copy of the consent form and the information sheet together.

Appendices 8 – Invitation Letter

Opportunity to take part in research

You have been contacted to let you know that there is an opportunity to take part in a research project. The project is led by a researcher (Megan Garside) from Sheffield Hallam University and aims to understand if social prescribing is helpful for young people who are attending [REDACTED].

Social prescribing helps connect people to local community groups (such as sports clubs, youth clubs or family groups). This project is interested in finding out what you think about groups like these to help improve the support offered by [REDACTED] in the future.

You have been contacted because you/your child is aged 11-17 years and is currently attending the [REDACTED] weight management service.

You do not have to take part in this project. It is completely your decision if you would like to take part. The care you and your family receive from the [REDACTED] will not be affected in any way by whether you decide to take part or not.

The study involves one conversation with Megan Garside, the lead researcher for this study. This conversation will be with you and/or your child about your experiences of attending other clubs or groups alongside the support you receive from the [REDACTED] weight management service. This should last no more than one hour and can be done by video call or in person, depending on what you prefer.

If you would like more information, you can contact Megan directly using the details below. Megan will be able to give you more information about the study and answer any questions you may have.

Phone: [REDACTED] / Email: [REDACTED]

You can also scan this QR code to send a text message to Megan to let her know you are interested in receiving more information about this project.



Yours sincerely,

[NAME, ROLE OF CEW CLINICIAN]

Appendices 9 – Topic Guide for Realist Interviews

Topic Guide for Realist Semi-Structured Interviews (V1 30.04.2024)

Study Title: *Developing a model of Social Prescribing for CEW clinics*

This topic guide provides an overview of discussion points for each semi-structured interview, but specific language used, and discussion points will be tailored to each participant, based on age, role and experiences.

A realist informed approach has been used, with guidance from RAMESES II (www.ramesesproject.org).

1	Introduction	- Introduce the interview (date, time, purpose) and record the code of the participant - Check they have received the PIS (V2, 10.06.2024) - Re-explain the aim of the interview - Reiterate they don't have to answer a question if they don't want to, and they can stop the recording and the interview at any time - Explain that we are recording, and what happens to the recording - Check they are still happy to take part, and if they have any other questions – verbal consent
2	Can you tell me how you've been involved in the CEW clinic? This study is about social prescribing and how it might be used in CEW clinics. Social prescribing is where clinicians may support individuals to join community groups (like sports clubs or youth groups) in their local area to support them with their wellbeing. Have you had any involvement with social prescribing alongside CEW? Ask for examples.	- General question to understand their role, additional questions may be tailored to this (for example, CEW clinician or young person, experience of accessing community-based services or not) - Specific examples of which types of community groups have been accessed may tailor future questions - <i>If young person/parent/carer has not accessed any additional services, move to alternate questions 3-9 below</i>
3	<i>If they have accessed social prescribing or community-based services.</i> What do you think is the most important thing about social prescribing? What do you like about it? What don't you like about it?	- Can offer prompts if needed, e.g., - o Improvements to mental health - o Improvements to confidence/self-esteem - o Increased physical activity - o Social support/friendships - o Being involved in a community - o Increased knowledge

	What are the benefits you've experienced or seen?	- Ask for specific examples
4	What do you think it was about social prescribing, or taking in part in these groups that led to these benefits? (E.g. how did this group help young people to make friends or improve their confidence)	- Prompt for detail, especially if identifying programme activities (e.g. because the activities are group-based) - Linking to theory – how social prescribing might lead to benefits
5	Do you think these outcomes are the same for all young people, or do you think others might have different experiences?	- Focusing on aim of realist approach to identify in what way, for whom, programmes work - Can prompt for examples where others might have experienced different outcomes - Potential to discuss; variation in comorbidities, additional health needs, level of weight, school attendance, ability to travel (access to car/public transport)
6	Do you think/Can you describe how social prescribing changed the way you think or feel about the CEW service in any way? In what ways? Can you provide examples?	- Focusing on aim of realist approach to identify if a programme changes understanding or views
7	There are lots of ideas about how social prescribing actually works, and we think it probably works differently in different places or for different people. Can provide prompts/examples such as: - <i>Young people may feel more motivated, and able to attend groups if they are accessible</i> - <i>Young people may feel more confident, and increase their self-esteem through social prescribing, because groups help with making friends, and there is the opportunity to take part in group physical activity</i> What do you think about this – do you agree with this, or do you disagree? Can you give an example?	- Tailor to outcomes previously discussed - Also present rival theories to reduce bias - Consider if other young people might have different outcomes
9	Did you face any barriers to accessing/using social prescribing groups? Can you provide examples of these?	- E.g. staff supporting access – did any staff support transport, did they need this support - Barriers in terms of cost - Barriers in terms of timing of groups, any preference over term time or holiday time

	Can you tell me a bit more about this?	- Were parents/carers included in the sessions - Lack of availability of community-based services
10	What else do you think we need to know, to understand how social prescribing has worked here?	- Any additional information they want to add
11	Anything else you would like to mention?	- Thank you for your time - Stop the recording

If young person/parent/carer has not accessed any additional services alongside CEW treatment:

3	What were the main reasons for not accessing any community-based services?	- Non-judgemental approach – no right or wrong answers - Identify any barriers that prevented them from accessing services
4	Would you have liked to join a community group? What do you think might have been good about this involvement for you?	- Exploring any potential or perceived benefits - Can offer prompts if needed, e.g., - o Improvements to mental health - o Improvements to confidence/self-esteem - o Increased physical activity - o Social support - o Being involved in a community - o Increased knowledge
5	What do you feel were the main barriers or challenges in accessing community-based services?	- Non-judgemental approach – no right or wrong answers - Consider barriers in more detail and how these could be overcome - Prompt if needed, e.g., time, location, access, cost, transport - Potential to discuss; comorbidities, additional health needs (physical and mental health), level of weight, school attendance
6	Is there anything the services could do to support you to access community-based services?	- Examples of how barriers could be overcome - Prompt if needed, e.g., timing of groups, supported travel or access, reduced costs, different locations, parent/carers also involved,

		preferences over term time or holiday time groups, group which better matches interests
7	There are lots of ideas about how social prescribing actually works, and we think it probably works differently in different places or for different people. Can provide prompts/examples such as: - <i>Young people may feel more motivated, and able to attend groups if they are accessible</i> - <i>Young people may feel more confident, and increase their self-esteem through social prescribing, because groups help with making friends, and there is the opportunity to take part in group physical activity</i> What do you think about this – do you agree with this, or do you disagree? Can you give an example?	- Pick main mechanism relating to outcomes discussed above - Also present rival theories to reduce bias - Consider if other young people might have different outcomes
9	Anything else you would like to mention?	- Thank you for your time - Stop the recording - Organise voucher