Parental perspectives of the barriers to sustaining Health Behaviour Change for their child living with overweight or obesity – A Grounded Theory study.

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Table of Contents

Abstract

Background: Children living with overweight or obesity are at greater risk of physical and psychological co-morbidities. Parents are seen as agents of change and are influential in making health behaviour changes (HBC) on behalf of their children. Despite efforts to address childhood obesity through family-based interventions for weight management, and public health awareness campaigns, the prevalence of childhood obesity continues to rise. Research indicates that parents encounter barriers to implementing HBC on behalf of their children, and there is limited research exploring parents' experiences of sustaining these changes.

Aim: This study aimed to develop a theoretical understanding of the barriers parents face when sustaining HBC. Developing a theoretical understanding would add to our existing knowledge of the difficulties parents face when implementing healthy changes on behalf of their child. The findings of the study can provide valuable insights to inform clinical policy and practice, as well as identify areas that require further research in the field.

Method: Data collection and analysis were guided by Charmaz's constructivist Grounded Theory approach. Parents (n=13) were recruited via social media and family WMPs and were interviewed over zoom or telephone.

Findings: This grounded theory research theorises that parental guilt, blame and emotional dysregulation are central to the experiences of parents when encountering barriers to sustaining HBC for their child. The emergent theory comprises four categories and 11 sub-categories that were constructed from the data.

Conclusions: The barriers identified by parents need to be considered in services and be understood by policymakers to support families in enabling HBC.

Chapter One: Introduction

Chapter Overview

This chapter will begin with a brief account of the global statistics on childhood obesity. The current weight management interventions and policies that are in place in the United Kingdom (UK) for children and their families will be outlined. Fears about children's health will then be discussed, including the physical and psychological co-morbidities. Food parenting practices and wider environmental factors will be discussed, including an exploration of the psychological consequences for parents who have a child that is living with obesity. Health behaviour change (HBC) models will be explored, before concluding the chapter with a systematic literature review of parents' experiences of implementing HBC for their child who is living with overweight or obesity.

Childhood Obesity

The worldwide prevalence of childhood obesity is rising. In 2016, 18% of children and adolescents were living with overweight or obesity, compared to 4% in 1975 (Worldwide Health Organisation [WHO], 2021). Childhood obesity is an established problem in both high and low-to-middle-income countries (Rankin et al., 2016), and it is a serious public health challenge due to the increased risk of medical and psychosocial complications (Ebbeling et al., 2002). In England, data from the National Children's Measurement Programme (NCMP) showed that in the academic year 2021 to 2022, nearly 4 in 10 (37.8%) children in year 6 (aged 10-11 years) were living with overweight or obesity, and more than 1 in 5 (22.3%) children in reception (aged 4-5 years) were living with overweight or obesity. This is a slight increase from the academic year 2019-2020, with 35.2% of children in year 6, but a slight decrease for children in reception with, 23% living with overweight or obesity (NHS digital,

2022). This trend is of concern, as not only are children likely to maintain their obesity status into adulthood (Simmonds et al., 2016; Ward et al., 2017), there are physical and psychological consequences for children living with obesity (Rankin et al., 2016).

Definition of childhood overweight and obesity

Due to children of different ages and sexes developing at different rates, assessing children for obesity is complex. In the UK, it is recommended that the Royal College of Paediatrics and Child Health (RCPCH) body mass index (BMI) centile charts with the recommended cut-off points should be used for children (RCPCH, n.d). The growth charts combine data from the UK 1990 growth reference for children at birth, and 4 -18 years (Freeman et al., 1995), with the WHO growth standard for children aged 2 years to 4 years. According to the RCPCH growth charts for boys and girls, aged between 2- 18 years, a BMI above the 91st centile suggests overweight, and above the 98th centile is very overweight (clinically obese). The charts are deemed suitable for babies and children from all ethnic backgrounds. A paper written in 2002 by Wright et al. reports on an expert working party (the growth reference review group) organised by the RCPCH, reviewing the available measurement charts. The review group concluded that the RCPCH growth charts are reliable for monitoring children's height and weight.

Theories of Obesity

Research argues that a main driver of weight gain is the imbalance of energy intake and energy expenditure, with energy intake exceeding expenditure (Romieu et al., 2017). Numerous factors contribute to this imbalance. Evidence is available to support genetic, environmental, and psychological components to obesity (Spiegelman & Flier, 2001). The Biopsychosocial model of obesity shows that obesity develops from an overlap of factors, including genetics,

metabolism (biological), eating behaviours, activity habits (psychological) and socioeconomic status, schools, food policy (social). Although genes play an important role in obesity, it is argued that the significant increase in obesity rates is not down to changes in genetics alone. Neel (1999) proposed the "thrifty gene" hypothesis that suggests humans were evolved to store excess energy as fat to survive times of famine. Whilst this may have been valuable for humans thousands of years ago, in our modern society, where there is a constant abundance of food, humans with this genotype never experience famine, and therefore develop obesity as they are continually eating food. The importance of genetic predisposition to obesity has been demonstrated in several studies (Omer, 2020), although it is argued that genetic factors play only a minor role whilst other factors such as systemic, social, economic, and environmental, drive the increase of the obesity prevalence (Faienza et al., 2020).

Skelton et al. (2006) argued that the ecological systems theory is a more comprehensive model of childhood obesity. They proposed that biological, psychological and environmental factors are intertwined, but cannot be fully considered without understanding the systems in which they are embedded. Obesogenic environments at both childhood, family and societal levels reinforce the genetic susceptibility to obesity (Swinburn et al., 1999; Silventoinen & Konttinen, 2020). The rapid increase in obesity suggests that an increased intake of energy-dense foods high in sugars and fat, a decrease in physical activity and its interaction with biological factors has contributed to unhealthy weight gain in childhood (Romieu et al., 2017). One form of energy expenditure is physical activity. In line with the theory that obesity is caused by an imbalance of energy intake and expenditure, the increase in sedentary lifestyles amongst children would be in support of this theory (Rey-López et al., 2008).

Childhood presents as a particularly potent time for developing food preferences, eating habits and activity/exercise habits, which often continue into adulthood (Landry, & Driscoll, 2012; Von Nordheim et al., 2022). It is argued that children are born with the capacity to regulate the amount of food consumed in a 24 hour period. However, this can be disrupted. One factor that can cause this disruption is food parenting practices. Well-intended parents that demonstrate controlling food practices may disrupt the child's internal hunger and satiety cues, as well as the child's food preferences (Birch & Fisher, 1998). Another factor is the use of food other than for satisfying hunger. If food is used to soothe children as well as a reward

(Jansen et al., 2020), this may also lead to a learned association of food with emotions, particularly to reduce negative emotions with the use of unhealthy foods. This will increase the risk of obesity for a child that is already at greater risk of obesity due to their genetic make up. Abnormal eating patterns that increase the risk of weight gain have been found in children and adolescents with Attention deficit and hyperactivity disorder, (ADHD) (Cortese & Tessari, 2017). Similarly, Hill et al. (2015) reported that children with autism spectrum disorder (ASD), who are also at risk of developing obesity, tend to have preferences for low-nutrition, energy-dense foods and rejection of fruits and vegetables.

Russell & Russell (2019) further developed the biopsychosocial model and extended it to looking at the development of eating and weight in childhood. Their model focuses on the cognitions, behaviours and characteristics of parents and children, as well as their interactions and influences overtime. The authors concluded that the processes and pathways in the development of childhood obesity are complex and multifaceted. The model hypothesises processes linking a child's biological factors, parenting feeding practices and child's appetitive behaviours to the development of obesity.

Research suggests that parental health behaviour change can predict a child's BMI in family-based weight management programmes (Wrotniak et al, 2004). Involving the family in the management of childhood obesity is imperative after considering the interplay between the different factors that contribute to the development of childhood obesity, and to consider the influence from the wider environment and systems in which we live.

Obesity Policy in the UK and fears about the health of children

Several initiatives and policies have been developed over the past 30 years with the overall aim of reducing the prevalence of obesity. Despite the number of policies and initiatives, only a few have been implemented by the government (Theis & White, 2021). In 1991, the UK government formally recognised that obesity was a health challenge in the population and action was needed (Jebb et al., 2013). In 2007, *Foresight's report, Tackling Obesities: Future Choices* was released, stating that obesity is a complex problem with multiple drivers.

The report argued that a system-wide approach was needed, redefining the nation's health as a societal and economic issue. The report stated that long-term, sustainable interventions should be one of the core principles for tackling obesity (Butland et al., 2007).

The NCMP was established in 2006. The programme was set up in line with the UK Government's strategy to tackle obesity and to inform local planning and delivery of services for children; as well as increasing public and professional understanding of weight issues in children. The height and weight of children are taken at two points in time, once in reception (4-5 years old) and again in year 6 (10-11 years old). The measurements are disseminated to parents/guardians with advice on what support is available in terms of weight management programmes, (WMP) if appropriate. National Institute for Health and Care Excellence (NICE, 2013) guidelines recommend that WMP should focus on diet, physical activity, the reduction of sedentary time, and promote behaviour change for the child and the family.

Many children are not meeting the current UK guidelines of one hour per day of physical activity (Riddoch et al., 2007). By the time children reach adolescence, the level of physical activity decreases and is replaced with sedentary time (Corder et al., 2015). The majority of children are not eating the recommended five or more portions of fruit and vegetables a day, with only 18% of children reporting meeting this recommendation in a 2018 survey (NHS digital, 2018). These health behaviours are of concern as physical activity, and diets high in fruit and vegetable intake reduce the risk of health-related conditions, and lower the risk of developing obesity (Aune et al., 2017; Hills et al., 2011).

Children who are living with overweight or obesity carry more risk of developing physical health problems such as, cardiovascular, orthopaedic, and metabolic disease (Liang et al., 2015; Shore et al., 2018). There has also been a documented increase in the onset of

type-2 diabetes (T2D) in the paediatric population (Fagot-Campagna, 2000; Perng et al., 2019; Sahoo et al., 2015). There is also a heightened risk of psychological comorbidities, such as depression, anxiety, and low self-esteem (Rankin et al., 2016) and children living with overweight or obesity are more likely to experience bullying from peers (Van Geel et al., 2014). The effects of bullying can persist throughout life, including an increased risk of mental and physical health difficulties (Wolke & Lereya, 2015). Children themselves have reported that bullying has had a negative impact on their mood and anxiety, as well as their self-worth and self-esteem (Reece et al., 2016). Critical comments about weight can negatively impact children's enjoyment and initiation to engage in physical activity (Faith et al., 2002). Judgmental teasing about weight can further contribute to social isolation, feeling of worthlessness, and negative body image (Sjöberg et al., 2005).

Parenting practices and the development of children's physical activity and eating behaviours

Parents are major influencers when it comes to the development and maintenance of children's physical activity and eating behaviours (Brown & Ogden, 2004; Montaño et al., 2015), which can persist into adulthood (Hesketh et al., 2014; Jago et al., 2010; Savage et al., 2007). Parents provide both genes and environments for children which allow for eating and physical activity patterns to be developed. Parents have agency by modelling food choices and physical exercise; controlling their child's food intake (Birch & Fisher, 1998) and selecting foods that are available for the child (Montaño et al., 2015). To further examine the relationship between parenting practices and children's health related behaviours, quantitative measures, such as the *child feeding questionnaire* (Birch et al., 2001) and *parenting around snacking questionnaire*, (Davison et al., 2018) have been developed. Individual studies and systematic reviews have demonstrated links between childhood obesity and parental feeding

practices (Beckers 2021; Shloim et al., 2015). In addition, parents have been found to be influential in their children's activity levels based on parental role-modelling (Natale et al., 2014) and parental support for physical activity (Gustafson & Rhodes, 2006). A meta-analysis conducted by Yao and Rhodes (2015) concluded that both parental modelling and parental support are related to child and adolescent physical activity. The authors highlighted the need for additional research to add to the current understanding of the relationship between parent practices and physical activity levels. The authors suggested that future research should focus on individual support behaviours, such as education around the importance of physical activity, and financial support, and how these influence the relationship between parental practices and child physical activity.

Food parenting practices and children's eating behaviours

To further understand the link between children's eating behaviours and parenting practices, Vaughn et al. (2016) categorised three constructs of food parenting practices (FPPs); coercive control, structure, and autonomy support. Coercive control includes restriction of foods, pressuring the child to eat, using threats and bribes, and using food to control negative emotions. Structure, as defined by Vaughn et al. is a set of non-coercive practices, such as setting limits, monitoring intake and role modelling healthy and unhealthy eating habits. The third construct, autonomy support, refers to supporting the child to make food choices, engaging in conversations about reasons for rules and boundaries, and creating a positive emotional environment for the child-parent food interactions.

A limitation of the authors' constructs of food parenting practices is that their research does not consider the differentiation between healthy and unhealthy foods. Davison et al. (2018) developed a *parenting around snacking questionnaire* based on Vaughn et al. (2016)

content map of food parenting practices. Davison et al. argued the need for further understanding of *snack parenting* and to identify approaches to support healthy snacking in children due to reported links between children's snacking behaviours and their risk of obesity (Murakami & Livingstone, 2016). It has been reported that snacking has increased over the years, and research has suggested the importance of thinking about why people are consuming more food (Almoraie et al., 2021).

Biologically, high-stress environments cause a physiological response that should suppress appetite (Michels et al., 2017). However, research has shown that some adults and children of any weight, turn to food in stressful environments and in response to negative emotions (Frayn et al., 2018; McAtamney et al., 2021; Shapiro et al., 2007; Tanofsky-Kraff et al., 2007). This suggests that emotional eating is a learnt behaviour driven by environmental factors (Herle et al., 2018), and it is not a natural response to stress. Emotional eating is generally referred to as, eating in response to negative emotions (Ganley, 1989). Emotional eating can contribute to weight gain and difficulties losing weight (Frayn et al., 2018). Tan and Holub (2015) suggested that parents who use food to comfort themselves may come to believe that this strategy is effective and therefore will engage in emotional regulation feeding practices with their children. Stifter et al. (2011) found that mothers who use food to soothe their child's distressing emotions, also reported low levels of parental self-efficacy. Using food to soothe children often results in a quick positive response, such as a reduction in crying. The authors concluded that using food to soothe was related to a higher weight status in children and also mothers. More recent research has found that stressed parents are more likely to use food or snacks to cope with their child's behaviour or emotions, as well as using snack food as rewards, which can result in higher levels of unhealthy eating among children (Yee et al., 2017).

Using food to soothe children as well as using food as a reward (Jansen et al., 2020) may lead to a learned association of food with emotions, particularly to reduce negative emotions with the use of unhealthy foods. Children are then less likely to rely on internal cues of hunger or satiety. This may lead to continued emotional eating and consequently gaining excess weight. Dickens and Ogden (2014) found that parental role modelling of reported emotional eating was linked to emotional eating in children, with this behaviour continuing after they had moved out of the family home. The role of emotion regulation in childhood obesity and the implications for the prevention and treatment of obesity has recently been reviewed by Aparicio et al. (2016). It was concluded that teaching emotion regulation skills could be an effective approach for treating obesity in children. Previous research has found that children introduced to dietary changes often resume usual eating patterns after a period of time (Lorentzen et al., 2011). It could be argued that dietary changes alone are not enough for long-term maintenance of a healthy weight once excess weight is lost. It is therefore also important to consider the sustainability of changes and what influences children to sustain changes in patterns of eating.

Parental stress, mental health and responsibility

Parental feeding and physical activity practices can be influenced by a number of factors. Some parental feeding practices have developed in response to environmental threats, such as food poverty and disease, both of which can be stressful within families (Savage et al., 2007). Haycraft (2020) found that maternal mental health symptoms are associated with lower use of role modelling and monitoring, both of which are important for the development of healthy child eating behaviours and weight. More recently, Jansen et al. (2021) looked at the relationship between parental stress triggered by COVID-19 and food parenting practices,

including snack parenting practices. They found that children's intake of both sweet and savoury snacks was associated with snack parenting practices which were directly related to parental stress caused by the COVID-19 pandemic. The authors also confirmed that parents gave their children snack foods to improve their child's mood. Their results suggested that parents who scored higher on snack rules and limits reported lower child snack intake. These findings are consistent with research that has suggested structure and monitoring have positive effects on children's dietary intake (Davison et al., 2018). Previous research has shown that parents may model more sedentary behaviours if they are experiencing high levels of distress (Gray et al., 2008). Rhodes and Lim (2018) found that parents reported that their mental and/or physical health was a barrier to doing activity with their children.

Despite a vast amount of research having shown that obesity is a complex multifactorial construct, parents continue to feel blamed by others, including health professionals (Nnyanzi et al., 2016). There is debate amongst the public as to where the responsibility lies for the cause and prevention of childhood obesity (Gregg et al., 2017). The authors reviewed newspaper headlines and comments following the publication of the UK's childhood obesity strategy in 2016. The authors found that there was a focus on parental responsibility, as well as some acknowledgement of schools and the government. Parental blame can have a negative effect on the treatment of childhood obesity, with parents less likely to seek support for fear of being blamed (Turner et al., 2012). Edmunds (2005) interviewed parents who had sought help from their GP about their child's weight. Although some of the parents reported GP support as being helpful, there was a tendency to blame the parents and see their child's weight as an individual responsibility. Laurent (2014) found that parents who sought support from health care professionals (HCP), about their child's weight, were more likely to stop care with that specific HCP and seek support from elsewhere if they felt accused or blamed.

Parents are held responsible for ensuring their child is eating a healthy diet and engaging in exercise, which is difficult as they too are living in an obesogenic environment (Schwartz & Puhl, 2003).

Hays (1996) coined the term *intensive mothering* which she described as an ideology where parents invest huge amounts of energy, money, and time into raising their children. Faircloth (2014) argued that parenting has changed dramatically over the past several decades, and the idealist intensive parenting approach is child centred, expert guided, emotionally absorbing, labour intensive and financially expensive. Thinking about intensive parenting within the health behaviour discourse, particularly, childhood obesity, it frames parents, more specifically, mothers, as being wholly responsible for their child's weight status (Quirke 2016). Quirke further argues that personal responsibility, whether that is the child, or the parent is favoured over the larger sociostructural factors regarding weight. She continues to say that while overweight and obesity is acknowledged to be a multifaceted concept, the message for parents is that it is their responsibility to manage their child's food intake and activity levels. With this strong narrative around parental responsibility for their child's weight, then it is no surprise that parents are ambivalent about accessing support.

As discussed, parents are influential in the development of children's eating behaviours and the amount of physical activity their children engage in, along with a variety of socioeconomic factors. With more awareness of how influential parents can be in making changes, childhood obesity interventions have focused more on involving the whole family in change (Croker et al., 2012; Davison et al., 2013; Robertson et al., 2012; Sacher et al., 2010). Despite some promising results from these interventions, there are still concerns around the

rise of childhood obesity rates, as well as the number of families dropping out of these interventions (Banks et al., 2014) or struggling to implement strategies suggested by the programme (Owen et al., 2009).

The food environment had been termed as toxic, due to the effective promotion of the vast intake of food high in sugar, fat and calories, which can be found anywhere in the current environment, such as fast-food restaurant, vending machines, hospitals and convenience stores (Schwartz & Puhl, 2003; Wang & Brownell, 2005). Ludwig (2012) as cited in Quirke (2016, p.149) stated, "we live in a culture with a toxic food environment, and it undermines practically everything families do to stay healthy. It takes a lot of effort to work against that." With this strong narrative that surrounds parents as being influential and responsible for HBC for their children, more research is needed to further understand the barriers they face when implementing change for their child, so that families can be better supported.

Health Behaviour Change

Davis et al. (2015) identified 82 theories of behaviour and behaviour change. The authors identified four theories that dominate the literature. These four theories are: Transtheoretical Model of Change, also known as the "Stages of Change" (SOC) model, (Prochaska & DiClemente, 1983), the Theory of Planned Behaviour (TPB) (Ajzen, 1985; 1991), Social Cognitive Theory (Bandura, 1986) and the Information-Motivation-Behavioural-Skills Model (Fisher & Fisher, 1992; Fisher, et al., 2003).

Theories and models of HBC are developed with the aim to further understand how psychological, behavioural, and socio-cultural factors impact on physical health and illness (Coulson et al., 2016). HBC is generally defined as a change in behaviour that results in a positive outcome to health. Health behaviour encompasses a range of behaviours, including, alcohol consumption, smoking, medication adherence, healthy diet, and physical activity. Health behaviour in relation to overweight or obesity has become increasingly popular over

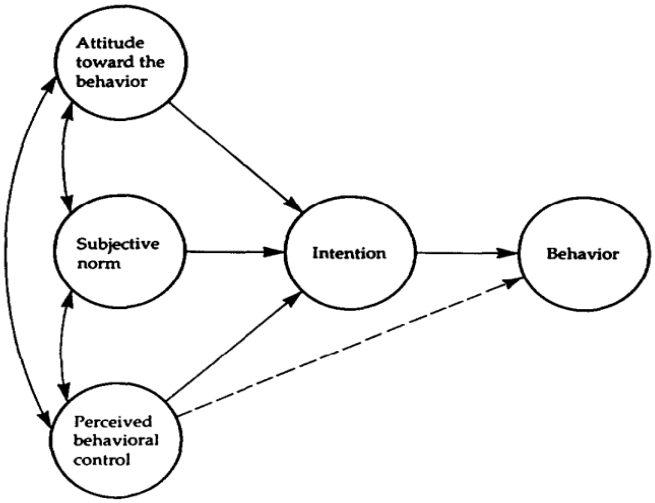
the last few decades, partly due to the rise in obesity rates amongst adults and children. Despite the known health consequences of eating unhealthy foods and inactivity, individuals continue engaging in the same unhelpful behaviours, which can have negative consequences on health, including excess weight gain (Sutton et al., 2003). HBC models can help us understand people's intentions and motivations to make behaviour change, and they can inform interventions aimed at supporting people to adopt healthier behaviours. I now briefly discuss four HBC models that are dominate in the literature (Davis et al., 2015).

The Theory of Planned Behaviour

The TPB is an extension of the theory of reasoned action (Ajzen, 1991). An individual's intention to perform a given behaviour is a central factor to this theory. Ajzen postulated that intentions capture motivational factors that influence a behaviour change. The TPB suggests that an individual's intentions to make behaviour change are determined by different factors that represent individual's control over the behaviour. Behaviour change is dependent on the individual's motivation and perceived behavioural control. Perceived behavioural control is usually measured by asking individuals to rate the extent to which they have the ability to perform the behaviour and how much control they have over the behaviour (Ajzen, 2020).

Figure 1.

Theory of Planned Behaviour (Ajzen, 1991).



Note: From "The Theory of Planned Behaviour," by I. Ajzen, 1991, *Organizational behaviour and human decision processes, 50*(2), 179-211.

Whilst the theory has highlighted the importance of an individual's intention to predict behaviour change, (Hagger 2015), it neglects to explain the influence of emotions, in favour for cognitive influences (Conner et al., 2013). It also does not fully address how individuals translate their intention into behaviour (Sniehotta, 2009). The theory is also limited due to it not taking into account the role of parental influence on children's behaviours. Researchers have suggested that future research could explore the role of parental influence on children's intentions to make behaviour change, and focus on developing these factors in relation to the TPB (Hewitt, & Stephens, 2007).

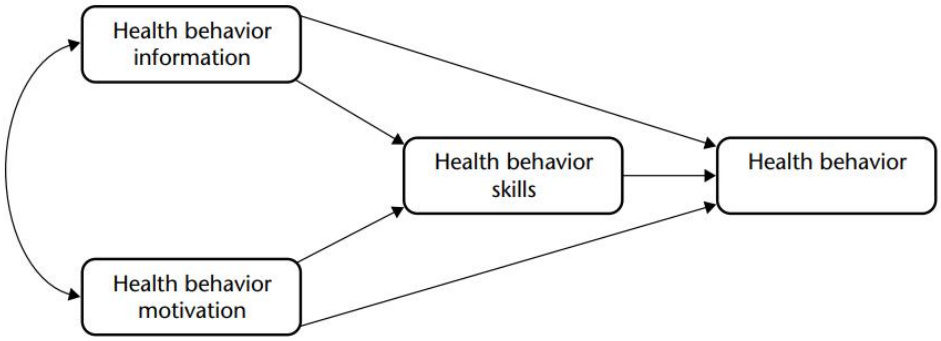
Information-Motivation-Behavioural-Skills Model

The original development of IMB model was applied to HIV risk and preventative behaviours (Fisher & Fisher, 1992). The model proposes that health-related information, motivation and behavioural sills are fundamental to health behaviour performance (Fisher, et al., 2003). The authors further propose, that the extent to which people are informed about health,

their motivation to act, and their availability of behavioural skills for action, will determine how likely they are to make behaviour changes and experience positive outcomes. The model suggests that both personal (individual attitudes) and social (social support) motivation are influential for behaviour change. The relationship among the three constructs: information, motivation and behaviour skills are argued to be generalisable across populations and health promotion.

Figure 2.

The Information–Motivation–Behavioural Skills Model of health behaviour.



Note: From, “The Information-Motivation-Behavioural Skills Model. A General Social Psychological Approach to Understanding and Promoting Health Behaviour.” by W.A. Fisher, J.D. Fisher & J. Harman, 2003, *Social Psychological foundations of heath and illness*, 82-106.

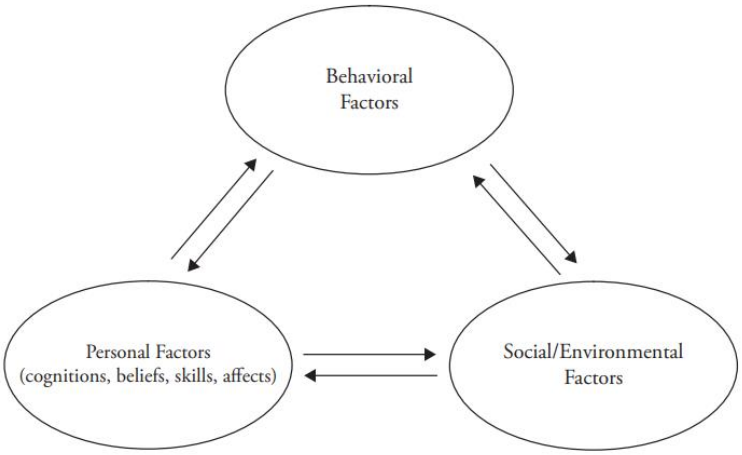
Research that has applied the IMB model to sweetened beverage consumption in children concluded that parents' information/knowledge and motivation are important factors that correlated with children's consumption of sweetened beverages through their relationship with behavioural skills (Goodell et al., 2012). However, similar to the TPB model, the IMB does not explore the emotional aspects to making behaviour change. Nor does it explain the barriers to putting a change into action, if individuals are informed of the relevant information and report motivation to change the behaviour.

Social Cognitive Theory

Bandura's SCT proposes that environmental, behavioural and personal factors influence human behaviour. Individual's thoughts and feelings are major components of personal factors. Health-related information, knowledge and skills are components of behavioural factors. Environmental factors include the external physical and social environment that can influence health behaviours. Reciprocal interactions among these three constructs are important (Schunk, & Usher, 2012).

Figure 3.

Reciprocal Interactions in Social Cognitive Theory.



Note: From, “Social cognitive theory and motivation.” By D.H. Schunk & E.L. Usher, 2012. In Ryan, R. M. (Ed.), *The Oxford handbook of human motivation*, (pp.11-26). Oxford University Press.

A strength of the SCT is that provides a comprehensive framework for understanding factors that are associated with behaviour change. One of the main constructs of the theory is self-efficacy, which is a key motivator of action and a fundamental condition for behaviour change. Bandura defined self-efficacy as a person’s belief in his or her capability to perform a specific task (Bandura, 1977). Imitation is also a valued aspect to learning and the process of changing or adopting a new behaviour can be influenced by social models. Therefore, the SCT appears to be a useful model when thinking about the role of parental influence and motivation in terms of managing and reducing childhood obesity. However, Bagherniya et al., (2018) carried out a systematic review to evaluate intervention studies based on the SCT in reducing or preventing obesity in adolescents. The review concluded that there was weak evidence for the effectiveness of intervention studies based on SCT. More research is needed to understand the role of parental influence and motivation in supporting children living with overweight and obesity.

The Transtheoretical Model

The Transtheoretical Model (Prochaska & DiClemente, 1983; Prochaska et al., 2013) proposes that there are five stages of change: pre-contemplation, contemplation, action, maintenance, and relapse. The authors argue that an individual will progress through the stages, and this progression is determined by ten processes of change (Prochaska & DiClemente, 1983). These ten processes of change are: consciousness raising, self-liberation, social liberation, self-re-evaluation, environmental re-evaluation, counterconditioning, stimulus control, reinforcement management, dramatic relief, and helping relationships. These processes are used to help people progress through each stage.

In the first stage: pre-contemplation; there is no intention to change behaviour, and individuals in this stage are unaware of their problem. Other people are aware that the individual has problems, but the individual themselves are unaware, or are arguably under aware of the

problem and struggle to recognise the need to change. The second stage, contemplation; people are aware that a problem exists and are thinking about how to overcome it, and are considering making change within the next six months. The third stage, preparation; is when individuals are intending to action change in the next month and have not taken action in the past year. The fourth stage, action; is when individuals are modifying their behaviours. This modification takes great commitment, time and energy. Individuals are in the action stage if they have changed their dysfunctional behaviour for a period of one day to six months. The fifth stage, maintenance; is when people are working to prevent relapse and this behaviour change extends from six months. The authors argue that this progression through the stages is not linear and people do relapse and cycle through the stages more than once.

A critique of this model is the lack of explanation to the role of emotional and psychological processes that influence behaviour change. In addition, they neglect to take into account the role of social and environmental influences on behaviour (Cameron & Leventhal, 2003).

Applying Stages of Change Model to Childhood Obesity

Sealy and Farmer (2011) used the SOC model to provide a framework for understanding a parent's readiness to make changes on behalf of their child, i.e., by providing a balanced diet and/or increasing exercise. The authors consider the major role parents have in the influence of their children's health behaviours. A strength of their model is that they explicitly explore the role of one party (parent) for the purpose of benefitting another (child). In their sample of 124 parent-child dyads, approximately 39% of children were either overweight or obese.

The five stages of change applied to parents with a child that is living with obesity, as identified by Sealy and Farmer are:

(1) Precontemplation—the parent is unaware of the problem and has no intention of changing their behaviour; (2) contemplation—the parent acknowledges the problem and the need to change their behaviour, but has no immediate plans for change; (3) preparation—the parent is planning steps toward change; (4) action— the parent is actively engaged in modify-

ing high-risk behaviours and has been doing so for less than six months; and (5) maintenance—the parent has consistently maintained behavioural and cognitive changes for at least six months, to the extent that the new behaviours have become incorporated into their lives (p. 275). Other researchers (Hildebrand & Betts, 2009; Rhee et al., 2014; Sutton et al., 2003; Wright et al., 2014; Yusop et al., 2018) have also used the SOC model to assess parents' readiness to make changes on behalf of their child.

The construct *weight management* is generally used when referring to HBC for individuals living with overweight or obesity. Sutton et al. (2003) argued that the global construct of weight management includes several dietary, and exercise-related behaviours associated with weight loss. Sealy and Farmer (2011) argued that a challenge of using this construct when working with parents who have a child that is living with overweight or obesity; is that it assumes parents are either ready, or not ready to do all things necessary to make changes for their child. Parents are usually advised to make several behaviour changes at the same time, such as the introduction of fruit and vegetables, reducing the amount of snacks the child has, and increasing their child's physical activity. Research has found that parents require more practical ideas for exercise and dietary changes (Owen et al., 2009), which could suggest that for parents, making multiple changes at once can be overwhelming and unachievable.

A critique of using the SOC model for understanding HBC for children living with obesity, is that it does not consider the complex, multi-frequency dimensions of weight loss. For example, the advice for successful weight loss, is to eat less and move more, meaning individuals may need to make changes to both eating and physical activity habits (Loureiro, & Nayga, 2006), compared to the context the model was initially developed for, the cessation of smoking, which Sutton et al. (2003) argued may be more of a dichotomous phenomenon. As mentioned above, there are several considerations that need to be thought about, including environmental factors (cost of food) and psychological factors (parental stress) that can influence parents' initiation of HBC for their children. A limitation of using the SOC to assess parents' stage of change, is that parents may be in different stages for different behaviours. For example, Rhee et al. (2014) found that over 50% of parents were in the action stage for dietary behaviours for their child, but only 41% were in the action stage for physical activity behaviours. The authors do acknowledge the complexity of parents' ability to improve their

child's diet. For example, they mention that the availability of affordable healthy foods, versus fast food in communities and the impact this has on parents' capacity to make changes. Research shows that there is a higher number of fast-food chains and higher food prices in low-income communities (Hilmers et al., 2012).

There is some quantitative literature that explores factors that are associated with parents' readiness to make HBC for their child (Moore et al., 2012; Sealy & Farmer, 2011; Taveras et al., 2009). The research has found that parental concern for their child's weight (Moore et al 2012.; Rhee et al., 2014), parent confidence/self-efficacy to make changes (Taveras et al., 2009) the child's age, and parental recognition of their own overweight/obesity (Rhee et al., 2014) are linked to parents' readiness to make healthy changes. Rhee et al., (2014) further argued that awareness of these factors is important when developing weight management/HBC interventions for families and children. There are limitations to these studies that are assessing parents' stage of change. For example, only 39% of children in Sealy and Farmer's (2011) study were living with overweight or obesity, and therefore cannot be generalised to all children. Although the studies add important knowledge of identifying specific processes, such as parental self-efficacy, the studies only report at which stage these processes are used more or less in. For example, Hildebrand and Betts (2009) found that self-efficacy, one of the processes of change according to the SOC model, was lowest for participants who were deemed to be in the precontemplation/contemplation stage, which then increased with each stage. However, this does not explain why self-efficacy is lower in these stages, nor does it explain what helped parents and caregivers in the action/maintenance stages to develop higher self-efficacy. The studies also do not consider why parents may oscillate between stages, particularly, between action and maintenance. Prochaska et al. (2013) argued that behaviour change process is not done in a linear process, and that relapse from maintenance to action stages is to be expected. What quantitative studies lack to add to the literature, is the understanding and exploration of how and why parents may move back and forth between stages. Studies also lack an interpretation of why parents are at different stages of change for different strategies, i.e., engaging in physical activity, but not consuming fruits and vegetables. Quantitative studies also lack the capacity to interpret the relationship between parent and child when implementing HBC, and how this may influence the implementation and maintenance of strategies. The studies that have explored parents' readiness to

change, do not consider the lived experience of parents that are already making behaviour change at home with their children. HBC for childhood obesity is complex and multifactorial, with several changes needing to be made. Parents are expected to make changes at home with their child, and are seen as the agents of change. Therefore, it is crucial to gain a deeper understanding of how parents experience implementing and sustaining HBC. Despite the limitations of health behaviour change models, they can be helpful in gaining some understanding of parental factors in initiating and sustaining change on behalf of their child. The stages of change model will be referred to throughout this study, as Sealy and Farmer (2011) have provided a framework for understanding the role of parents in facilitating change on behalf of their child. Other HBC models will also be referred to throughout the study and critically discussed.

A meta-synthesis of the qualitative research of parents' experience of implementing HBC for their children living with overweight or obesity

This review presents a thematic synthesis of studies that have explored parents' or carers' experience of implementing HBC for their child who is living with overweight or obesity. The aim of the review will be to conceptualise an understanding of parents' or carers' experiences of implementing HBC with their child who are living with overweight or obesity.

Method of meta-synthesis

Search Strategy and Study Selection

Five electronic databases (APA PsycArticles, APA PsycInfo, CINAHL Complete, MEDLINE and opendissertations) accessed via the EBSCOhost platform through the University of Essex were searched. The following key terms were used: (parent* OR carer*) AND (experience* OR perspective* OR view*) AND health behaviour change ("health behaviour*" OR "dietary change*" OR "physical activit*") AND (overweight* OR obes*) AND (child*). The search terms were discussed with my thesis supervisors (FB and JD). Studies were included if they met the following criteria: 1) parent had started to implement HBC at

home with their child who is living with overweight or obesity, 2) parents spoke about their lived experience of implementing HBC at home, 3) used qualitative or mixed methodologies, 4) were written in English. Studies that included parents', healthcare professionals' and children's experiences were included, but only the authors' findings on parents' experiences were analysed. Studies were excluded if the aim was to explore parents' experience of preventative strategies for childhood obesity. No limits were put on country or year of publication.

A total of 873 records were identified through the initial electronic database search. After the removal of duplicates, 538 studies were screened by abstract and title against the criteria, which left 34 studies that were then reviewed by full text. Subsequently 23 were excluded, leaving a total of 11 studies that met the criteria for inclusion. Relevant systematic reviews and reference lists of included studies were manually screened which identified two further relevant studies. Therefore, a total of 13 studies met all the criteria for inclusion in this review. Figure 4 illustrates a PRISMA flow diagram with the different phases of the search strategy (Moher et al., 2009). See Table 1 for a summary of the study characteristics included in this review.

Figure 4.

PRISMA diagram of included studies.

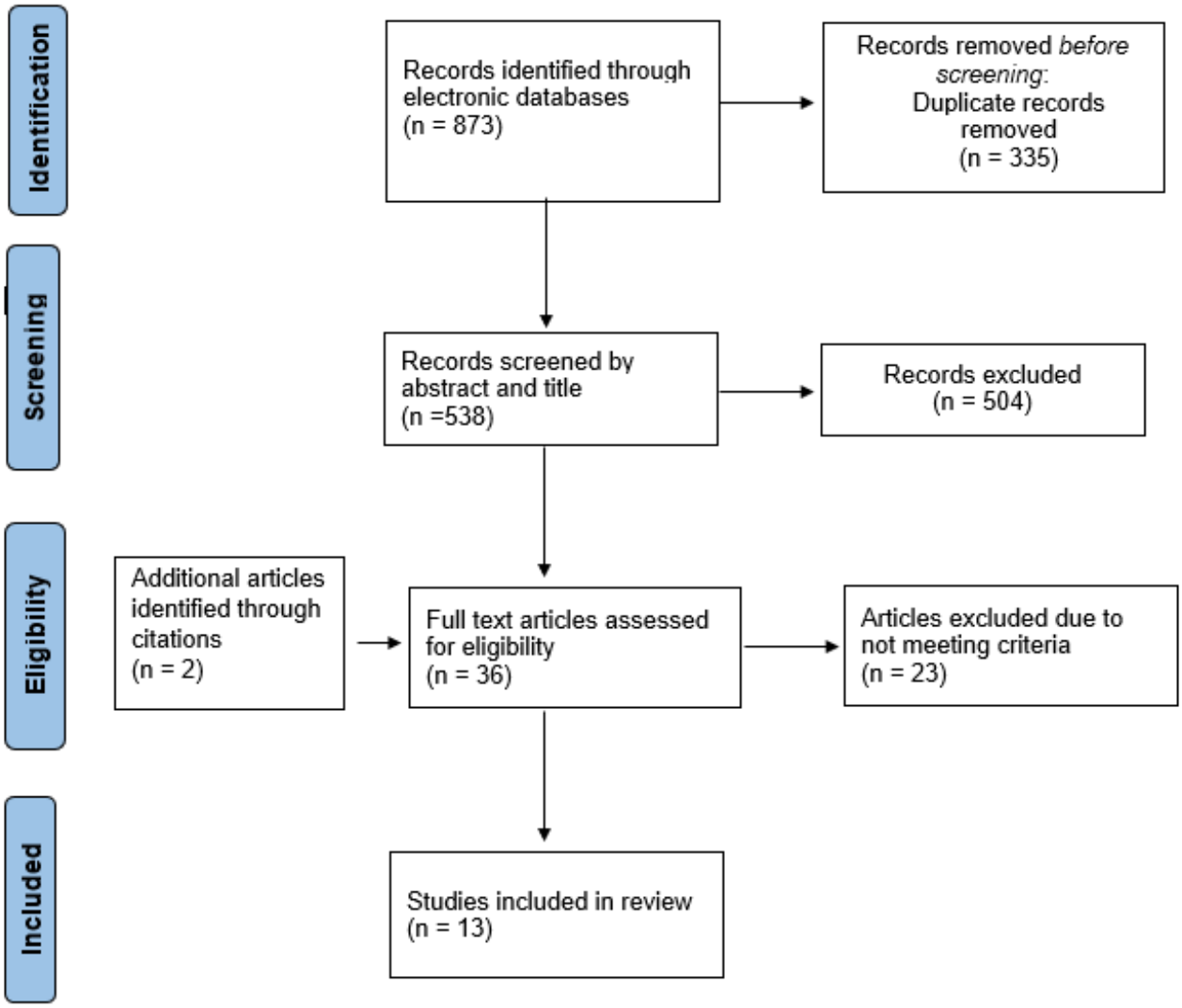


Table 1

Summary of included studies.

Author	Main aim	Sample (parents only)	Data collection	Data analysis	Key themes / findings
Cason-Wilkerson et al., (2015)	Explore facilitators and barriers to lifestyle changes following, a family-oriented childhood obesity treatment program	37 parents (35 mothers, 2 fathers)	Focus groups	Qualitative content methods and reflexive team analysis	Barriers to Implementing Diet and Physical Activity included, 1) cost, 2) Parents' lack of time and energy 3) Influence of other family members 4) challenges with physical environment. Facilitators to Implementing Diet and Physical Activity included 1) skill building for healthy eating 2) skill building for parenting 3) family involvement, 4) concerns about quality of life
Ditlevsen and Nielsen (2016)	Explore professionals and parents' role of parents and parental tasks in relation to weight control of young children	12 parents (10 mothers, 2 fathers)	Individual Interviews and 1 group interview	Grounded Theory Approach	Parents found it hard to control their children's eating and some parents used food to comfort or negotiate with their children. Some parents with support from HCP took more control over their child's diet and saying no became a habit.
Holt et al., (2015)	Examine parents' and children's perceptions of and experiences related to a Parents as Agents of Change (PAC) intervention for managing paediatric obesity	10 parents	Interviews	Thematic analysis	Goal setting helped parents see how they could make changes and if they had achieved the goal. Working out who was responsible (parents or child) for making health behaviour change at home was important for families to implement changes.

Jackson et al., (2005)	Gain insights into how mothers of overweight and obese children manage their children's weight problems within the context of family life	11 mothers	Interviews	Not clear	Despite the strategies already initiated, mothers were concerned that their children were not achieving sustained positive weight changes. All participants realised to be successful, weight loss strategies had to be sustained rather than short-term, and that a range of strategies (rather than a single one) were needed.
Lorentzen et al., (2011)	Describe the dietary change experiences of overweight children and their family members	6 parents (4 mothers, 2 fathers)	Interviews	A thematic, phenomenological approach	Some parents found it difficult to set limits around food for their children. Some parents were supportive of their children if they took responsibility for making changes. Several barriers such as cost, grandparents overfeeding and poor food labelling were mentioned by parents.
Lucas et al., (2014)	Experiences of attending a weight management programme and what factors might affect uptake and implementation of the programme.	31 parents / carers (22 mothers, including 1 foster mother, 6 fathers, 1 family friend, 2 grandmothers)	Individual and group Interviews	Framework analysis	Some practical barriers experienced by parents, such as cost to implement health behaviour change at home. Shared goals between parent and child was important to implementing change. Concern raised about how to sustain strategies taught on the programme whilst living within an obesogenic environment.

Owen et al., (2009)	Explore parent and child perspectives of attending an obesity clinic.	22 Parents / carers (17 mothers, 4 fathers, 1 grandmother)	Individual interviews	Thematic analysis	Some parents found it hard to alter their lifestyle and often met barriers to change. Having regular appointments helped maintain motivation to make lifestyle changes and support families who struggled to make changes
Pearson et al., (2013)	Explore the perspectives of the parents whose children participated in C.H.A.M.P. including exploring the barriers or facilitators for healthy behaviour change.	38 parents (30 mothers, 8 fathers / step-fathers)	Focus groups	Inductive content analysis	Parents found time management as a barrier to implementing health behaviour change at home due to busy schedules and lack of energy. Other family members not being on board with changes made it more difficult. Children and parents being on the same page in terms of goals was helpful. Learning practical skills on the programmes made it easier to implement changes at home.
Putter et al., (2022)	Explore long-term effectiveness and participants' lifestyle change / maintenance, post programme attendance.	53 parents (47 mothers, 6 fathers)	Focus groups	Reflexive thematic analysis	Cost of healthy fresh food and accessing physical activities was a barrier to sustaining changes. Lack of structure compared to when enrolled on a programme makes it harder to sustain physical activity with their children. Having learnt how to read food labelling on the programme helped sustain food swaps.
Schalkwijk et al., (2015)	Understand individual experiences of attending a lifestyle intervention programme and implementing strategies at home.	24 parents (17 mothers, 7 fathers)	Individual interviews	Thematic analysis	Parents struggled most with the introduction of new rules. Cost of physical activities made it difficult to implement. Parents who were motivated to change eating patterns, succeeded in achieving weight loss

Stewart et al., (2008)	Provide insight into the perceptions of parents of obese children as they 'journey' from pre-treatment to end of treatment.	17 parents / carers (14 mothers, 2 fathers, 1 grandmother)	Individual interviews	Framework Analysis	During treatment, parents expressed a lack of support for lifestyle changes outside the clinic, and noted that members of the extended family often undermined or failed to support lifestyle changes
Staniford et al., (2011)	Explore parents and stakeholders' perspectives of childhood obesity treatment and intervention design.	7 parents (6 mothers, 1 father)	Individual interviews	Framework analysis	Parents emphasised that to sustain behaviour change and weight-regulating behaviours, they need ongoing support from health professionals and 'similar others'
Watson et al., (2021)	Explore influences on attendance and behaviour change during a family-based intervention to treat childhood obesity	34 parents/carers (27 mothers, 5 fathers, 1 auntie, 1 older sister)	Focus groups	Thematic analysis	Participants felt attending a regular weekly session helped with behaviour change, noting that having 'somewhere to come' gave them structure and reduced the chances of falling back into old habits. Parents/carers spoke of the positive effects of changing PA and eating behaviours as a family

Quality Appraisal

There is no consensus about whether quality criteria should be applied to qualitative research (Lachal et al., 2017), however it was decided that each study would be quality appraised using the Critical Appraisal Skills Programme (CASP, 2018) instrument for qualitative research. The CASP is the most common tool for assessing quality in qualitative research (Long et al., 2020). The CASP checklist along with a quality appraisal of the thirteen studies can be found in appendix A. The aim/s for all of the studies were stated. Despite the majority of the studies main focus being on experiences of attending a WMP, all 13 studies captured some aspects of parents' lived experience of implementing behaviour change at home with their children. The studies were carried out in America, Canada, Australia, UK, Denmark and Netherlands, reflecting a wide range of support offered to implement HBC. Jackson et al. (2005) was the only study which did not recruit from a WMP. Some of the participants in their study had sought support from healthcare professionals but had not attended a structured programme. All of the studies clearly explained their methodology and data analysis procedures. Pearson et al. (2013) was the only study that clearly acknowledged that participants' responses may have been influenced by the interviewers, as they were involved in the programme. No other study identified this as a limitation, and it was unclear if the interviewers/authors were linked to the programmes. This was not applicable to Jackson et al. (2005) study as they were not recruited from a WMP. Implications for clinical practice, including the impact on policy were discussed in all of the studies. Possible future research was mentioned, although there was minimal discussion and rationale around this.

Synthesis Design

Synthesising qualitative research involves the reinterpretation of published findings, going beyond reporting the description and summary of findings (Campbell et al., 2012). One

approach to synthesising qualitative research is "thematic synthesis" (Thomas & Harden, 2008). Thomas and Harden (2008) use the same techniques for synthesising existing research findings, that are used for the analysis of primary research which is termed "thematic analysis". With thematic synthesis, themes are "extracted from the literature, clustered, and eventually synthesised into analytical themes" (Thomas & Harden 2008, p. 3). The data synthesis for this literature review was performed using the qualitative data analysis software NVivo. As guided by Thomas and Harden, all data from the results and findings sections of the studies were included. Findings from abstracts were also checked to ensure they matched what was reported in the main body of text.

The initial phase of the synthesis began by line-by-line coding of the primary study findings. I then checked for similarities and differences between codes, with new codes added if necessary. A total of 56 codes were developed from the initial coding. I organised the codes into 14 descriptive themes. For example, one descriptive theme was *lack of structure from the programme.* Two example codes for this theme were, *parents concerned when programme ends* and *scheduling in physical activity without the programme is difficult*. The final phase involved the development of analytical themes from the descriptive themes. For example, two of the descriptive themes were concerned around stopping the WMP, *lack of structure from the programme* and *the programme offers accountability*. It was inferred that the parents were fearful of the programme stopping, and it being up to them to continue strategies on their own. So, the analytic theme *fear of autonomy* encapsulates these parents' anxiety of implementing weight management strategies for their children without the programme.

Results

Study Characteristics

A total of 13 studies were included in this review. It is worth mentioning how the studies characterise *health behaviour change*. According to Norcross et al. 2011 "In the trans-theoretical model, behaviour change is conceptualised as a process that unfolds over time and involves progression through a series of five stages: precontemplation, contemplation, preparation, action, and maintenance" (p. 143). Different terms are often used interchangeably. In the included studies, the range of terms used include: *diet and physical activity recommendations/healthy lifestyle interventions* (Cason-Wilkerson et al., 2015); *healthier lifestyle, unhealthy eating habits/dietary habits* (Ditlevsen & Nielsen, 2016); *Lifestyle changes/behaviour changes* (Holt et al., 2015); *family diet and lifestyle*/*healthy habits* (Jackson et al., 2005); *dietary changes*/*establish new lifestyles* (Lorentzen et al., 2011); *child's weight management* (Lucas et al., 2014); *lifestyle changes*/*exercise and diet changes* (Owen et al., 2009); *healthy behaviour change /and physical activity and nutrition* (Pearson et al., 2013); *Lifestyle changes/behaviour strategies* (Putter et al., 2022); *lifestyle behaviour/eating habits/physical activity* (Schalkwijk et al., 2015); *lifestyle behaviour change* (Staniford et al., 2011); *lifestyle behaviour change* (Stewart et al., 2008); *physical activity and dietary change/behaviour change* (Watson et al., 2021).

Thematic synthesis

A synthesis of the current literature on parents' experience of implementing HBC at home with their child, revealed mixed experiences within each of the studies included in this review. Five themes and two subthemes were developed. What was apparent in all studies was that some families were deemed *successful* in achieving some sort of change, whether

that was parents feeling confident to implement some of the strategies taught, such as goal setting, or the child engaging in more physical activity. However, there were also some families that continued to face challenges along the journey, and were unable to implement the strategies.

Theme 1: Fear of autonomy:

This theme encapsulates parents' anxiety about finishing a structured programme which provided security, structure, and a sense of accountability for parents. Out of the 13 studies, 12 of them interviewed parents who had attended a structured WMP that aimed to support parents, and children to make healthier changes to their current lifestyles. These parents spoke about the uncertainty of the continuation of making changes on their own at home with their children. The theme also captures the concern of not being able to sustain healthy behaviours whilst living in an obesogenic environment. Implementing strategies at home was difficult for some parents as it seemed that making changes autonomously in an environment with no programme lacked containment for parents, which results in a lack of continued change.

Subtheme: From a sense of security and structure to an uncontained environment. Parents seemed to experience a sense of security that was provided by the programme they had attended, specifically the structure of the programme. They commented on how the lack of structure made it harder for them to implement changes at home, as they found it difficult to find the time to schedule in physical activity on their own. For example, Putter et al. (2022) concluded that one of the challenges parents faced when implementing strategies at home once the programme had finished was the lack of structure the programme provided. This meant that the parents found it tricky to allocate time for their child's physical activity.

Similarly, Schalkwijk et al. (2015) reported that parents experienced the programme as something that was needed in order to maintain the lifestyle changes, they had made as a family. The authors proposed a theme entitled "Needs." (p. 6) Another common feature across the majority of studies was the parents' concern for losing momentum after the programme had finished. Watson et al. (2021) reported that the parents showed little confidence in keeping up with the behaviour changes after the intervention had finished. This appeared to be related to parents' sense of lost security that the programme provided. Parents seemed to rely upon being told how, and when, to structure physical activity for their children into their daily lives. This was further supported by the studies that concluded the experience of implementing changes with their child was made easier if the programme taught them how to make the changes at home (Cason-Wilkerson et al., 2015; Holt et al., 2015; Lucas et al., 2014; Owen et al., 2009; Pearson et al., 2013; Putter et al., 2022; Watson et al., 2021). Putter et al. (2022) portrays this in more detail:

> "For example, the programme afforded parents and children with the opportunity to learn new healthy recipes; one parent noted that "[the] programme's been really helpful in terms of recipe ideas and giving information about reading labels and all those kinds of things I didn't know before." (p.7)

Owen et al. (2009) reported similar findings about families describing practical ways of how to support their child with HBC at home. The authors commented on how parents "would alter cooking methods to reduce the fat content of a favourite meal or introduce low-fat treats. These ideas sometimes stemmed from a mother's personal experience of commercial slimming clubs" (p.240). Learning or having previous experience of how to make changes was important for families to implement changes and apply new strategies that had

been taught on the programme. It seemed that having more practical ideas and skills increased this sense of security that parents could continue making the changes autonomously.

Subtheme: Parents are concerned about sustaining strategies whilst living in an obesogenic environment. Sustaining HBC whilst living in an obesogenic environment was a concern raised by parents in the majority of the studies. Whilst the environment had not changed, what had appeared to have changed, was the parents' motivation to make healthier choices for their children. The parents had switched to making healthier changes for their children, at the same time, realising that making healthier choices was hard in the obesogenic environment. Parents commented on the availability of fast-food restaurants, advertisement of junk food and unsafe environments. They attributed these factors as barriers to being able to sustain long-term HBC. Lucas et al. (2014) stated that "without wider action on the determinants, creating and maintaining healthy weight may simply be too much" (p.10). The authors stated that parents were concerned about "reverting to unhealthy options (particularly takeaways) at busy, or "special" times such as when they are on holiday from school" (p.9). In addition, the programme appeared to offer a sense of security or protection from the obesogenic environment, as parents only began to share this concern once they had begun to make healthier changes.

Some parents across the studies also shared that their external home environment was too unsafe for their child to engage in physical activity outside of the home (Cason-Wilkerson et al., 2015; Ditlevsen & Nielsen, 2016; Lucas et al., 2014; Schalkwijk et al., 2015 and Watson et al., 2021). For instance, Cason-Wilkerson et al. (2015) reported that one of the barriers to physical activity at home was parents concern for a lack of a "safe place for physical activity" (p.173).

Theme 2: Lack of time and energy to implement HBC

Across eight of the synthesised studies, parents shared that they lacked the time and energy to implement HBC at home with their children (Cason-Wilkerson et al., 2015; Ditlevsen & Nielsen, 2016; Jackson et al., 2004; Lorentzen et al., 2011; Pearson et al., 2013; Putter et al., 2022; Schalkwijk et al., 2015; Watson et al., 2021). The time and energy to prepare fruits and vegetables, compared to buying convenient unhealthy fast-food was spoken about as a barrier (Cason-Wilkerson et al., 2015). Finding the time to include physical activity into already busy schedules was also common. Implementing HBC was made much harder when parents reported "feeling fatigued at the end of the day" (Pearson et al., 2012, p. 119).

Across the studies, there was a dilemma which occurred for the majority of families, which was setting rules for their child around food. Some of the studies, including Ditlevsen and Nielsen (2016) concluded that for some parents, energy was a barrier to "providing healthy food and control their children's diet" (p. 231). Parents reported not having the energy to get into conflict with their child around implementing a dietary change or saying no (Ditlevsen & Nielsen, 2016; Lorentzen et al., 2011; Schalkwijk et al., 2015). Owen et al. (2009) reported that some parents did not make any dietary changes as they were unable to overcome the feelings of guilt they experienced when trying to restrict diets. Schalkwijk et al. (2015) found that some parents "experienced difficulties with being consistent and dealing with the continuous conflicts with their child while trying to adhere to the rules" (p. 4).

In comparison, within and across the studies, some families were able to implement rules around their child's diet and had reported that it became a habit to say no (Ditlevsen & Nielsen, 2016). What appeared to help implement rules was learning parenting skills on the

programme, including how to set limits around food (Cason-Wilkson et al., 2015) as well as what Owen et al. (2009) reported was "these parents acknowledged this was a problem that had to be overcome, often with the support of family" (p. 240).

Theme 3: Support networks

The majority of studies reported that parents experienced other family members as either a hindrance or supportive when implementing HBC at home with their children. For instance, Owen et al. (2009) highlighted that families who were deemed unsuccessful in terms of not succeeding in weight loss, "often appeared to lack the resourceful nature and support of the successful families and many described facing criticism and even sabotage from extended families" (p. 240). Watson et al. (2021) organised their data into several themes, one being *factors hindering behaviour change*, within this theme, the authors concluded that other family members, such as grandparents, would undermine the parents' decision to implement healthy choices by taking their children to fast-food restaurants.

Parents often reported that other family members, including grandparents (Lorentzen et al., 2011; Staniford et al., 2011) would feed their children unhealthy foods. Watson et al. (2021) stated that parents found it frustrating when other family members would take their children to fast-food outlets and would "feed them junk food or behave in ways that undermined their good efforts to help their children" (p. 77).

There was a strong connection between family members being involved in a positive and supportive way and the implementation of HBC appearing more achievable. Cason-Wilkerson et al. (2015) concluded that "involving family members facilitated lifestyle changes. Participants reported planning meals, cooking, and eating together as a family…family member involvement also facilitated physical activity" (p. 174). Support networks appeared to be a strong influence of whether parents were able to implement HBC or

not.

Theme 4: Changes are unsustainable

Synthesising the literature on parents' experiences of implementing HBC found that ten out of 13 studies emphasised the cost of healthy food and physical activities, as being a barrier to implementing and sustaining HBC. Two of the studies, (Cason-Wilkerson et al., 2015; Ditlevsen & Nielsen, 2016) focused on families from low-socioeconomic status and therefore may have influenced why this was a dominant theme. However, studies that had not focused on socio-economic status also mentioned cost as a barrier (Jackson et al., 2005; Lorentzen et al., 2011; Lucas et al., 2014; Owen et al., 2009; Pearson et al., 2013; Putter et al., 2022; Schalkwijk et al., 2015; Watson et al., 2021). Examples of how cost was a barrier was mentioned in terms of both purchasing healthy food and the cost of physical activities for children. For example, Schalkwijk et al. (2015) reported that "parents indicated that financial problems impede lifestyle behaviour change. Similarly, they identified the need to be made aware of cheap sports facilities nearby" (p.6). In addition, Watson et al. (2021) reported that parents had commented on the lack of affordable physical activities available for their children in the local area. Some of the studies also found that parents were unable to afford healthy food. For example, Lorentzen et al. (2011) highlighted how unaffordable a varied and healthy diet is for some families, "at the end of the month she could not afford to buy varied and healthy food. She had to count the slices of bread to make sure she had enough for the last days of the month" (p.883). Holt et al. (2015) reported that the majority of their families had a high income and therefore the cost of healthy food and activities was not mentioned which may have been due to the high economic status of the families.

Theme 5: Uncertainty about who is responsible for change

A common theme across all studies was this notion of responsibility for implementing HBC. Parents across the studies talked about themselves being the ones that need to take the responsibility due to being the parent. Some parents reflected that a child is too young to make these changes alone (Holt et al., 2015). On the other hand, within and across studies, there was also this expectation that children should be the ones to take responsibility of making healthier food choices and increasing their physical exercise. For instance, Holt et al. (2015) found in over half of the interviewed families "parents assumed the primary responsibility for making lifestyle changes" (p. 428), compared to the two families, where "parents expected their children to be primarily responsible for making healthy changes" (p.428). Similarly, Staniford et al. (2011) stated "parents largely felt it was simply about bringing their child along to the intervention and providing the emotional support to empower their child to make their own independent behaviour changes" (p. 236).

Another important feature that was highlighted as important for implementing HBC was shared goals and /or approach between parent, child, and other family members. Cason-Wilkerson et al. (2015) stated "Parents also reported increasing their involvement in modelling and facilitating PA for children. The values of family togetherness and cohesiveness, as well as parent's perceived responsibility to safeguard children's long-term health, were reflected in the parent's responses" (p. 175). Jackson et al. (2005) also reported on participants involving the entire family in interventions. Lucas et al. (2014) concluded that "maintaining change required willingness not just from the child but the whole family to sustain the personal cost of giving up favoured foods or activities and taking on new, possibly less favoured foods or activities" (p. 9).

Discussion

This meta-synthesis synthesised 13 qualitative studies relating to parents' experiences of implementing HBC at home with their child/children who are living with overweight or obesity. One way to conceptualise parents' experience of implementing HBC with their children is to look at what facilitates change, and what the barriers are to change. Some of the studies (Cason-Wilkerson et al., 2015; Lucas et al., 2014; Owen et al., 2009; Pearson et al., 2012; Putter et al., 2022; Schalkwijk et al., 2015; Staniford et al., 2011; Watson et al., 2021), distinguished between the two and discussed parents' experiences of each. Three of the studies reported mainly on the barriers to change (Ditlevsen & Nielsen, 2016; Lorentzen et al., 2011; Stewart et al., 2011). The experiences documented in this review are primarily from parents who participated in a programme designed for their child, either as a family-based programme or as a programme exclusively for parents. The results also highlight the inequality amongst families where there is a child that is living with obesity. The families from low-economic status reported being unable to purchase healthy food to provide a varied and healthy diet for their children. They also commented on the high cost of physical activity clubs. The parents reported a lack of time and energy to implement HBC. As the majority of the parents interviewed in the studies were working mothers, it could be argued that this is not a surprising finding, as research suggests that employed mothers are vulnerable to stress, including stress-related illnesses due to the amount of pressure and time spent at work, as well as carrying out domestic labour, including looking after their children (Cooper & Swann, 2005). The review highlights the effort parents put into making changes, however, some parents have found that implementing the recommended strategies can be excessively demanding in terms of time and energy, leading to difficulties in sustaining them. Prochaska

et al. (2013) acknowledged that being in the action stage of HBC demands commitment of time and energy.

Limitations

Nine of the studies (Ditlevsen & Nielsen 2016; Holt et al., 2015; Lorentzen et al., 2011; Lucas et al., 2014; Owen et al., 2009; Putter et al., 2022; Schalkwijk et al., 2015; Staniford et al., 2011; Watson et al., 2021) included in this review, explored professional and/or children's experiences as well as parents. As parents are seen as agents of change when it comes to their children who are living with overweight or obesity, it is vital to capture their experience of implementing HBC. The majority of studies were evaluating specific WMPs which meant that some of the questions were designed to elicit information of specific aspects of the programme. This therefore limited responses to the experience of implementing change in the family home.

A limitation to the meta-synthesis is that the results were limited to the majority of parents having attended a programme and having had some input or support from professionals for their child. The synthesis does not capture parents' experience of making changes without having any input from professionals. Their experiences could differ, and therefore it leaves a gap in the literature about the experience of parents who have not attended a programme and who are implementing HBC for their children. In addition, these studies do not explore further why some parents struggle with time and energy to implementing HBC. It could be argued that all parents are under enormous amounts of time pressures, but some parents are able to implement healthy changes for their child. This leaves another gap in the literature about understanding further what the barriers are to sustaining HBC.

Summary

This review offers some insight into the complexity of implementing HBC for children from parents' perspective. The review set out to explore parents' experiences of implementing HBC, and the findings of this meta-synthesis have highlighted that existing research tends to conceptualise their experience into two categories: Barriers and Facilitators. Conceptualising parents' experience in this way can be beneficial for understanding how some parents are able to implement strategies which can enable professionals to develop and build on advice, and practical support which can be offered to help parents implement change. Understanding the barriers that parents face can also aid professionals in supporting parents to overcome them, and effectively implement changes. What this review also highlights is that parents who have the intention to make healthy changes for their child, are not always able to make changes, due to a number of factors that are discussed in the review.

In line with the SOC model, it could be argued that some of the parents in the studies that were included in the review, were in the *action* stage for making changes to their child's health behaviour. Prochaska et al. (2013) stated that to be in the action stage, individuals need to have successfully altered the behaviour for a period of one day to six months. As parents spoke about making some changes to physical exercise or diet, then it can be assumed they were in the action stage for some health behaviours. For sustained change (maintenance stage), parents would need to have been implementing strategies consistently for at least six months (Prochaska et al., 2013). Only one study (Stewart et al., 2008), interviewed parents 12 months after the start of an intervention programme. The length of the programme was six months, so it can be assumed that parents in this study were in the maintenance stage. This highlights the gap in the literature around the barriers to sustaining HBC, and therefore, ex-

ploring the barriers parents face when sustaining HBC may give us insight into this phenomenon which is under researched in the literature. Research has identified barriers and facilitators to initially making change, but what seems to be missing from the literature is an understanding of how to sustain these changes, particularly the barriers related to sustaining change. What is also important, is to explore whether sustained behaviour change has resulted in a desired outcome. For example, for parents that are making HBC for their child that is living with obesity, the desired outcome may be for the child to lose weight. As we know, childhood obesity rates are not in decline, therefore it can be assumed that for some parents, sustained change is not resulting in desired outcome of weight loss for their child.

All but one study included in this review, focused on asking questions around parents experiences of attending a WMP, including the strengths and limitations of the programme itself, resulting in less time focusing on gaining an in-depth understanding of parents experience of HBC, once strategies had already been implemented. Whilst this is helpful on a practical level for the programme stakeholders, for understanding what could be modified in the programme or what clinical benefits the programme offers. It lacks a deeper level of understanding parents' experiences of sustaining HBC at home with their children. The barriers to sustaining strategies is of more concern, due to the rising rates of childhood obesity and the need to support parents that are struggling to overcome barriers.

Rationale for the current study, aim and research question

This literature review identified unanswered questions around the barriers encountered by parents when trying to sustain HBC with their children. The review also demonstrated how parents' experiences were understood at rather a descriptive level within the literature. Therefore, using constructivist grounded theory would enable parents' descriptions of their experiences to be understood and interpreted at a more abstract, analytical level. The

rates of obesity and overweight remain high for children in England, with little sign of decline. It is therefore vital to explore the barriers faced by parents when they are sustaining HBC for their child that is living with overweight or obesity. The aim of this study is to develop a theoretical understanding of the barriers parents face when sustaining HBC. Having a theoretical understanding would add to our existing knowledge of why parents find it difficult to sustain HBC and it can help inform clinical policy and practice.

The research question guiding this study is, “What are the barriers parents encounter when sustaining HBC for their child that is living with overweight or obesity?” This question will be answered by using a Grounded Theory Methodology.

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Chapter Two: Methodology

Chapter Overview

This chapter outlines the ontological and epistemological position taken for the research. The rationale for selecting constructivist grounded theory (CGT) will be discussed, followed by a brief history of Grounded Theory Methodology (GTM). The research procedure is then outlined, followed by ethical considerations.

Philosophical underpinnings

Ontology refers to the assumptions that we hold about the nature of reality (Braun & Clarke, 2022; Klakegg, 2015), with ontological standpoints being viewed on a continuum between realism and relativism. With realism taking an objective position, conceptualising the existence of a knowable reality that is independent of people's perceptions and constructions. Realists claim that there is a truth out there and it is to be discovered, and it is independent of the human mind (Fletcher, 2017). A relativist viewpoint is that there is no objective, singular reality, or truth, but rather there are multiple constructed realities that are dependent on human interpretation (Blaikie, 2007). The relativist views what we know as relative to context and reality is constructed by different meanings that individuals hold about the world (Robson, 2002), and that people's behaviours are to be interpreted in light of these underlying meanings. Relativists would concern themselves with the inner world of their subjects in order to understand why they act as they do (Davidson & Layder, 1994).

Epistemological position

Epistemology is the theory of what constitutes knowledge, specifically how knowledge is obtained, and the extent to which we can enquire about it (Ritchie & Lewis, 2003). There are two main epistemological positions, positivism and interpretivism. A realist

ontological position informs the positivism epistemological position as it implies that objective knowledge can be researched and it is possible to describe one truth, one reality (Willig, 2008). Common research methods are experimental design, with emphasis on cause and effect and hypothesis testing (Williamson, 2006). In contrast, interpretivism claims that knowledge is produced by understanding and exploring individuals' social worlds, and concentrating on their interpretations. Constructivism is one of several interpretivists paradigms (Williamson, 2006) and it proposes that individuals construct meanings of the world through cognitive processes, with social constructionism having more of a social focus and recognises that individual constructions are influenced by social relationships (Young & Colin, 2004). Constructivists emphasise entering participant's world of meaning and action, and that the world is interpreted by us as researchers, our participants, other people, and circumstances (Charmaz, 2014). How researchers go about uncovering knowledge is based on their epistemological assumptions (Al-Saadi, 2014). The current study aims to explore and better understand the barriers parents face when trying to sustain HBC for their child who is living with overweight or obesity. Taking a constructivist approach is useful for exploring this phenomenon as this is grounded in participant interpretations of the studied phenomenon. The approach recognises that researchers also bring their own conceptions to research environments. This approach is also relevant to research topics that are adequately but not sufficiently explained by existing theoretical constructs (Gasson, 2004). Charmaz (2014) argued that a constructivist approach allows the researcher to interpret, and construct theory that is grounded within the data and goes beyond how participants view their situations. As Charmaz, (2014, p. 239) stated, "a constructivist approach places priority on the studied phenomenon and sees both data and analysis as created from shared experiences and relationships with participants and other sources of data". A constructivist acknowledges the relationship between researcher

and the social world, and so the researcher cannot completely distance themselves from the research process. With this, meanings and interpretations are co-constructed based on the researchers' own experiences and reflections, as well as the participants. Charmaz argued that the resulting theory is also an interpretation, and the theory depends on the researcher's view. This constructivist process is complimented by my reflexivity about the research process and consideration of my own assumptions and potential biases.

Qualitative Methodology

A qualitative methodology was chosen for this study, with the principles of CGT (Charmaz, 2006; 2014) used to guide the design of the study and the construction of an emerging theory. In contrast to quantitative methodologies, researchers advocating the constructivist or qualitative philosophy, disagree with the view that an objective reality which can be known. Instead, they argue that their task is to understand the multiple social constructions of meaning and knowledge, and the best way to understand a phenomenon is to study it in context (Robson, 2002). HBC in the context of childhood obesity is a complex issue, perceived in various ways by different people situated in diverse contexts and roles. Such as a) a medicalised view, b) the physical activity/diet debate, and the idea that a balance of both are needed to maintain a healthy lifestyle, c) the perspective that parents are to blame for the aetiology and maintenance of childhood obesity, and d) society is to blame, and has been described as obesogenic. It is therefore imperative that parents of children living with overweight or obesity are given the opportunity to share their experiences, and perspectives through a medium that allows for a shared understanding between the parent (participant) and researcher.

Semi-structured interviews were chosen as a method of data collection and was

deemed the most appropriate method to answer the research question. As Brinkmann and Kvale (2015) suggest, talking with people permits the opportunity for them to describe their experiences or articulate their reasons for action. Charmaz (2006) argued that in-depth interviews help the researcher build trust with the participants which facilitates exploration of their experience. Due to the sensitive nature of parenting, and more specifically, parenting a child living with obesity, individual interviews, or interviewing as a couple was chosen over focus groups. If participants indicated that two parents wanted to take part, then a choice was given of whether they wanted to interview together or separately. Focus groups can inhibit an individual's response and can produce socially desirable and stereotypical answers (Acocella, 2012). Arguably, interviewing as a couple might also result in responses being desirable, rather than honest (Paterson, 2003). However, Norlyk et al. (2016) argued that interviewing couples could generate data that would not have been obtained through individual interviews. Due to COVID-19 restrictions in place at the time of recruitment, interviews were carried out remotely, either over the phone or via zoom.

Rationale for using the constructivist variant of Grounded Theory

After considering different qualitative research methods, Charmaz (2006; 2014) version of constructivist grounded theory was selected to meet the aim of the current study. Historically, grounded theory as outlined by Glaser and Strauss (1967), has been criticised for its objectivist and positivist foundations. More recent developments of the approach by Charmaz (2006) uses the philosophical background of social constructionism. This version of GT places emphasis on the role of the researcher, suggesting that "we construct our grounded theories through our past and present involvements and interactions with people" (Charmaz, 2006, p. 10). CGT is part of the interpretive tradition which marries with the epistemological

position taken by the researcher. Accordingly, I have taken an interpretivist view to this research, whereby meaning and knowledge are co-constructed between myself and participants (Brinkmann & Kvale, 2015).

Thematic Analysis

Thematic analysis (TA) is a widely used qualitative research method and is a common approach chosen within qualitative literature around obesity. Braun and Clarke (2006) wrote a paper, that has now been cited over 156,000 times, demonstrating the popularity of the approach for a wide variety of disciplines. The paper was written to provide clear guidance on how to use TA. TA applies a systematic approach to identify, analyse, and develop themes from the data collected. CGT was chosen as a preferred methodology for the current research as although TA is a useful method for identifying patterns and meanings within the data, it does not go much beyond a descriptive account offered by participants. What CGT offers that TA does not, is an analytical product and theory development is the goal (Hood, 2007).

History of Grounded Theory Methodology

GT originally emerged from Glaser and Strauss's work on death and dying in hospitals (Glaser & Strauss, 1965). They later publicised the strategies they developed to analysing and developing theory from research grounded in qualitative data (Glaser & Strauss, 1967). Their approach to developing theories grounded in data, differed from the established approach of deducting testable hypotheses from existing theories. Their book *The Discovery of Grounded Theory: Strategies for Qualitative Research* (1967), offered systematic strategies for qualitative research. It has been suggested that Glaser and Strauss took a realist view and argued that there is a truth to be discovered (Birks & Mills, 2015). Following their work together, Strauss and Glaser went on to write independently, expressing divergent viewpoints in

the application of GT methods. Over the past several decades, GT has evolved and there are now several distinct methodological genres with each variant being an extension and development of the original GT by Glaser and Strauss (Chun tie et al., 2019).

One significant difference between traditional grounded theory practices, and the more recently evolved versions, is that of the researcher's existing knowledge of the studied phenomenon. Within the traditional grounded theory principles, researchers are to review the literature only after conducting the research, to prevent their previously known concepts or theories influencing the analysis of the data (Glaser & Strauss, 1967). Charmaz (2014) argued, that practically this is not always possible due to the researcher's professional and/or personal background. The notion of practising GT with an *open mind, not an empty head* is discussed within the GT literature (Dey, 2003), with the awareness that researchers will have some knowledge of the studied phenomenon, but what is important is the researcher must put any existing theories or ideas to one side when analysing the data (Urquhart & Fernandez, 2013).

Research Procedure

The following section summarises the method employed in this research for the collection and analysis of data. The inclusion criteria is stated, followed by the recruitment procedure and an in-depth description of the data analysis and collection process. The chapter ends with ethical considerations.

Participants

Participants are defined as the *parent* (mother, father, stepparent, or primary caregiver) of a child living with overweight or obesity, and are the main person who is responsi-

ble for implementing HBC with their child. Participants were asked to complete a demographic survey comprising of two parts. Part A gathered data about the parent, and part B asked about the child/children (Appendix B). Table 2 provides information regarding characteristics of the participants who took part. Table 3 provides information about the child/children the parent identified as living with overweight or obesity and were discussed in the interview. Although there was no question in the demographic information sheet specifically asking about neurological disorders, it became apparent from the qualitative interviews that there was a high prevalence of ASD and ADHD amongst the children. Two children were waiting for an ASD or ADHD assessment as reported by the main caregiver and four of the children had a diagnosis of Autism or ADHD.

Inclusion criteria:

Four inclusion criteria were used for the recruitment of participants.

1) Participants must have a child (or children) aged between 4 and 13 years old and classified as living with overweight or obesity at the time of recruitment. For the purpose of clarity for the participant, and in line with existing childhood obesity research, a formal measure was used. The child's BMI status was determined by the parents reporting their child's weight, height, age, gender, and date of measurements taken. The Royal College of Paediatric and Child Health (RCPCH, 2013) growth charts UK, for children aged 2-18 years old were used to determine which BMI percentile the child's weight fell.
2) The participant interviewed must be the parent(s) mainly responsible for HBC strategies.
3) The participant must have been trying to implement these strategies for at least 6 months with no/minimal reduction in the child's BMI, or any weight lost had been regained.

4) The participant must be able to speak fluent English so that they were able to fully understand the interview questions, and could provide detailed verbal response without the use of an interpreter.

Table 2

Participant characteristics

Participant Pseudo-nym	Relationship to child	Age	Ethnicity	Children living with overweight/obesity	Total number of children	Recruited via
Mary	Mother	36-45	White British	1	1	Word of mouth
Sophie	Mother	46-55	White British	1	1	Social Media
Lucy	Mother	-	White British	1	4	Social Media
Harriet	Mother	26-35	White British	1	2	Social Media
Faye	Stepmother	26-35	White British	1	1	Word of mouth
Liam	Father	26-35	White British	1	1	Word of mouth
Maya	Mother	36-45	Black African	1	3	WMP
Kathryn	Mother	-	White British	1	2	Social Media
Danielle	Mother	36-45	Mixed Other	2	2	WMP
Julie	Mother	36-45	White British	1	4	Social Media
Talia	Mother	36-45	White British	2	2	Social Media
Charlotte	Mother	36-45	White British	1	2	Social Media
Hana	Mother	-	White British	1	1	WMP

Note. Faye and Liam were interviewed as a couple.

Table 3

Child characteristics

Pseudonym of parent	Ethnicity	Age (years)	Gender	BMI
Mary	White British	10	M	99th centile
Sophie	White British	11	F	99th centile
Lucy	White British	9	F	99th centile
Harriet	White British	6	M/F	99th centile
Faye/Liam	White British	7	M	99th centile
Maya	Black African	9	M	99th centile
Kathryn	White British	10	F	95th centile
Danielle	Mixed Other	7	M	96th centile
Danielle	Mixed Other	8	M	99th centile
Julie	White British	13	F	99th centile
Talia	White British	8	M	95th centile
Talia	White British	11	M	99th centile
Charlotte	White British	9	M	99th centile
Hana	White British	10	F	99th centile

Note. M = Male, F = Female, M/F = undecided.
> 91st centile = overweight category, > 98th centile = obesity category

Stages of Recruitment

The study advert (Appendix C) was posted on social media (Twitter and Facebook), and by word of mouth to friends and colleagues. I also contacted the service leads for family weight management services in Essex and Suffolk, asking to attend their programmes to advertise my research to parents. A stakeholder from a family nutritional application got in touch with me via Twitter, as they were interested in my research and wanted to find out more information. They were happy to share my poster with potential participants who were signed up to the nutritional application. The stakeholder fed back some of the parents' feedback about the language used on the advert. The language parents commented on was, "overweight and obesity". They disagreed with these terms being used. A decision was taken together with my supervisors to take this wording off the research advert, so that it did not put off potential participants. The age range was also changed from 6-11 years to 4-13 years to allow for more potential participants. The geographical area of recruitment was changed to country wide so that I could contact WMPs in different areas, as Essex were not running group programmes due to COVID-19 restrictions as well as changes in provider and fundings, resulting in groups not being set up. Suffolk would not facilitate my attendance due to data protection concerns they had. Once ethical approval had been granted for the changes, the amended version of the study advert (Appendix D) was posted again on social media. Several schools were contacted via email asking to disseminate the research advert on any platforms they had. Out of 20 schools contacted, only one school replied and agreed to post the study advert via their parent communication platform. The director of Obesity UK was contacted to ask permission to post the study advert on their two private Facebook groups, Obesity UK family support and Obesity UK support Group. I also contacted the service leads

for family weight management services in Norfolk, Hertfordshire, Surrey, London, Stockport, Cambridgeshire, and Peterborough to inform them of the research project. Contacting the service leads allowed for a liaison person between myself and interested participants. Services in London and Stockport granted permission for me to attend their family WMPs online and face to face, to talk with parents about the research project. I spent a total of seven hours observing the delivery of family WMPs, six hours in person and one hour online. Attending the groups allowed for the potential participants to ask me questions directly before taking part. Some services, for example, in Norfolk, were funded by the NHS and therefore I was unable to attend or recruit through these services as ethical approval was not sought from the NHS.

In line with GT procedures, the recruitment procedure continued simultaneously with data analysis. To help with recruitment uptake, another inclusion criteria changed. Originally, participants must have been trying to implement strategies for at least two years. This was changed to six months, in line with the stages of change model timeframe for movement into the stage of sustained behaviour change (Sealy & Farmer, 2011).

Following initial interest from potential participants, I sent out the participant information sheet (Appendix E) and demographic form. The consent form (Appendix F) was then sent out and I asked participants to return this if they were interested in going ahead with the interview. Following this, a date and time for the interview was agreed between myself and participant. A total of 14 parents, (12 mothers, one stepmother and one father) were recruited for this study and 13 interviews took place, one interview was with a father and a stepmother, the other 12 interviews were carried out with the mother. The researcher was contacted by 15 other parents via social media (14 mothers and one father), and four parents (two mothers and two fathers) from WMPs. All 19 parents were interested in taking part, but they did not com-

mit to the interview due to busy schedules. Several other parents messaged to share their interest, but they did not meet the inclusion criteria as their child was in the healthy weight category. Interviews took place through the participants choice of either video call or phone, with 10 interviews being conducted via video call and three conducted via telephone. In total, 12 hours and 14 minutes of interviews ranging from 34 minutes to 1 hour and 11 minutes were collected and transcribed verbatim. Pseudonyms are used to present the data provided by interviewees.

Figure 5.

Recruitment procedure for social media / word of mouth

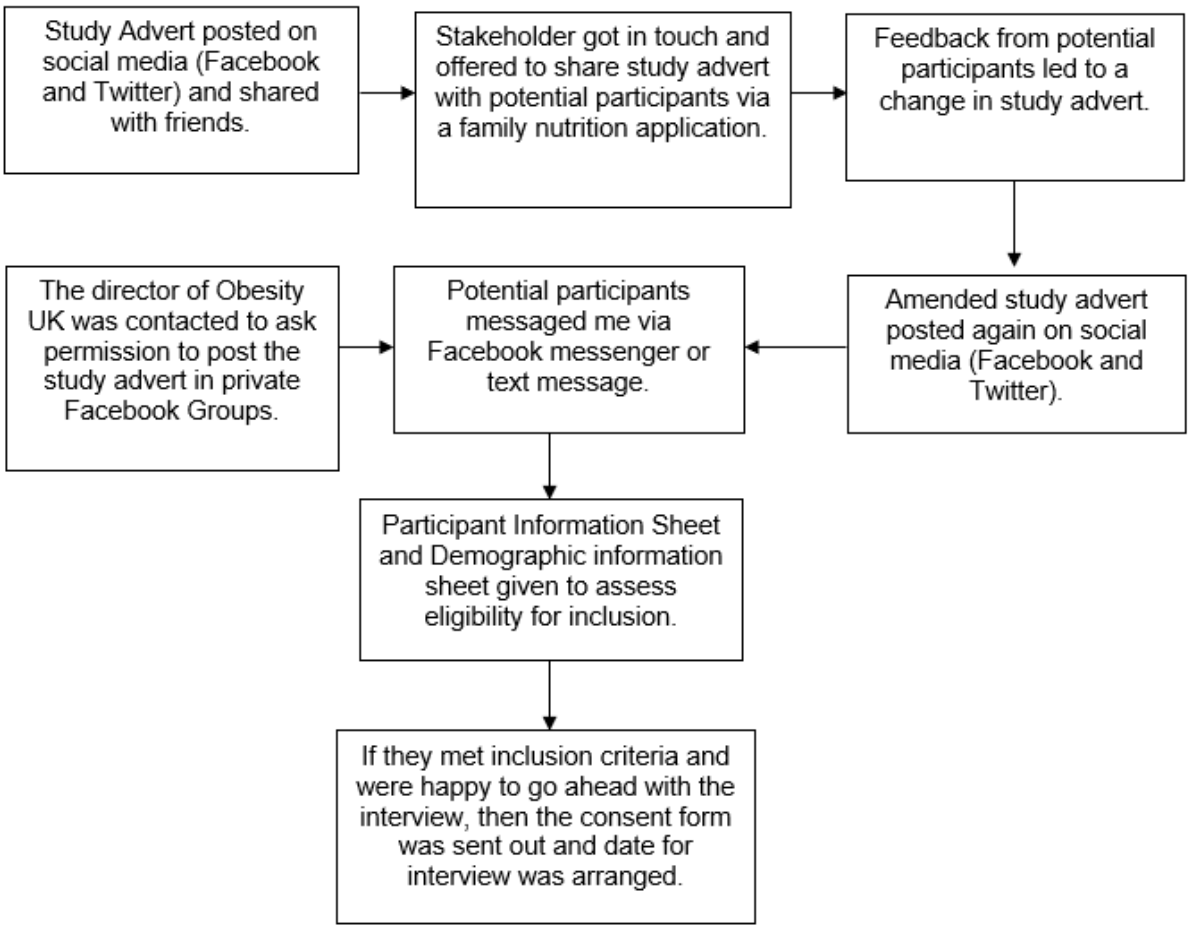
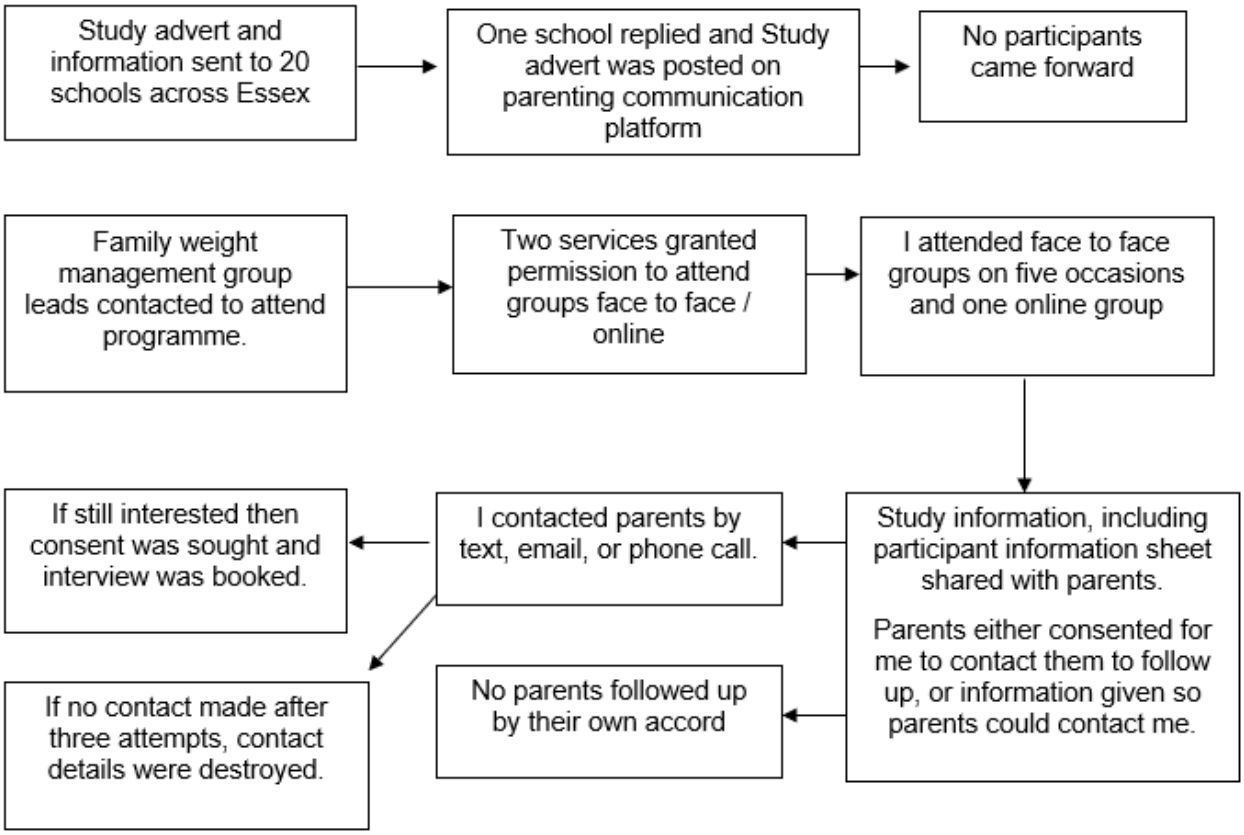


Figure 6.

Recruitment procedure for schools and WMPs



Interview Protocols and Theoretical Sampling

At the beginning of each interview, participants were reminded about the aim of the study, and were again informed about confidentiality and anonymity. Before the interview was recorded, the participants were asked if they had any further questions before we began. Participants were also given time at the end of each interview to ask any further questions. All interviews were audio recorded using a Dictaphone. An interview topic guide (Appendix G) was developed to explore the barriers parents face when sustaining HBC for their child.

All interviews began with the question, "*Can you tell me about yourself and your family?"* The initial question was descriptive, broad, and open ended. Charmaz (2014) argued that this is important to encourage unanticipated statements and stories to emerge. Questions were then more focused on parental experiences of implementing strategies and the challenges they face when trying to sustain these. During the first interview, it became evident that the parent had not met the full criteria as they had not been implementing strategies for at least two years. However, as the interview had already begun, it was decided that the interview would continue. During the interview, I became sensitive to an important concept regarding the child and parent's relationship with food. Bowen (2006) stated that sensitising concepts can provide a starting point for analysis. It was not my initial intention to use the concept *relationship with food,* however, following the first interview, the concept emerged from the data as the parent spoke exclusively about their own and their child's relationship with food. Blumer (1969) argued that a sensitising concept "merely suggest directions along which to look" (pp. 147-148). From hearing the parent talk about the relationship with food, I thought it would be worth exploring more about this in future interviews. One of the defining features of grounded theory is the simultaneous data collection and analysis (Glaser & Strauss, 1967). In line with this feature and theoretical sampling procedure, the interview questions were amended to explore this concept in subsequent interviews with parents (see Appendix H for amended interview schedule). This interview was not used in the final analysis/write up of this research due to the participant not meeting the inclusion criteria.

Charmaz explains that theoretical sampling is a critical step in theory-building and is argued to be a misunderstood strategy within GT. Theoretical sampling was used in this research by amending the research questions to expand on initial ideas/concepts that emerged which were deemed to be of importance for further explanation for theory building. Charmaz

further argued that theoretical sampling is of value only after initial categories have been developed. However, in my research, theoretical sampling began after the first interview as the emergent concept of the relationship with food felt important. It is also argued that theoretical sampling can be done early on in the data analysis stage, including after the first interview (Birk & Mills, 2015).

Subsequent Interviews

Each interview was transcribed verbatim within 24 hours of completion, to ensure there was enough time for simultaneous data collection and analysis as some interviews were booked close together in time. After the fifth interview, a question around stressful life events was added to the topic guide (see appendix I for amended interview schedule). Following analysis of four further interviews, *stressful life events* was constructed as a focused code and I felt it was important to continue exploring this as a potential tentative category. I went back and forth between the old and new data, comparing existing codes with codes, and creating focused codes from groups of codes. Categories and sub-categories were constructed. Data collection continued until theoretical saturation was judged to be achieved. This was thought to be achieved as no new core categories were identified, and the core categories identified were felt to be sufficient to develop an explanatory theory of the barriers faced by parents when sustaining HBC. I now go onto explain in more detail how the data was analysed.

Initial Coding

NVivo 12, the qualitative data analysis software was used for coding. After each interview was transcribed onto a word document, it was then transferred to the NVivo software and coding then took place. The first analytic step in grounded theory is initial coding, which is important for the development of an emerging theory (Charmaz, 2014). Line by line coding

was chosen for the initial phase of coding. I was already familiar with the data from speaking with the participants and transcribing the data, so coding the full transcribed interviews using line by line coding helped me stay close to the data and not force any pre-conceived ideas of the data into codes. I coded using gerunds and in vivo codes. Coding using gerunds is common in GT as it helps keep you focused on the processes and actions in the data, and answers the question of, *what is happening?* (See Appendix J for an example of line-by-line coding from an interview). Coding the data immediately after each interview was transcribed helped me stay connected to the data and allowed for any thoughts and initial ideas to be written down in the form of memos. Memo writing about initial codes is an important step for the development of theory (Charmaz, 2014). Immediate coding also allowed for the simultaneous collection and analysis of data as well as allowing time for the employment of theoretical sampling, both of which are key features of GT.

Focused and Theoretical Coding

The second and final stages of coding in GT are focused and theoretical coding (Charmaz, 2014). Whilst focused coding proceeded quickly following the initial stages of coding, it was not done in a linear way. Coding in GT is an iterative process of constant comparison of data, codes, and categories (Charmaz, 2014). Focused codes were constructed using the most significant and frequent initial codes. See Appendix K for an example of focused coding. A group of initial codes led to the construction of the focused code *child responds with aggression*. As more data was collected and coded, two focused codes *child responds with aggression* and *child responds with disapproval/emotional blackmail* were merged, to create a tentative category, *child responds with challenging behaviour*. Whilst looking at some of my other tentative categories, I began to this about how they were related to one another, and I started

to ask more questions of the data and in relation to the research question, *what is happening*? *What are the consequences of inter/actions and emotions?* To aid this process, I switched from using NVivo, to pen and paper for the use of diagramming as a method to provide a visual representation of the development of categories from focused coding. Drawing out some of the focused codes and tentative categories also helped the exploration of the relationships and conditions within and between tentative categories and sub-categories. Putting pen to paper helped me stay actively involved with the data and helped me think more abstractly about the categories. Thinking about the focused codes *parents set a boundary around food, child responds with challenging behaviour* and *parent's give it*, I asked myself "*what is happening?*" When trying to define and explore the relationship between the tentative categories, the conceptual sub-category – *parents surrender when faced with challenging behaviour from their child when food is restricted* was constructed. This was later renamed *parental surrender to challenging behaviour.* See appendix L for examples of diagramming categories and sub-categories.

To take this further, theoretical coding was adopted to explore how the categories and sub-categories were relating to each-other. Theoretical coding moves the analytic focused codes into higher order conceptual categories which facilitates the integration of the final theory (Birks & Mills, 2015). The development of two key theoretical concepts, 1) Parental guilt and blame and 2) Emotional dysregulation were constructed as the substantive theory to better understand the barriers parents face when sustaining HBC for their children.

Memo-writing

Memo-writing was done throughout the entire data analysis and collection procedure to ensure quality in grounded theory from data (Birks & Mills, 2015). Arguably, memos

should be written throughout the research process to keep you involved in the analysis and this is what was done for this research. Memos are for personal use and may be kept private (Charmaz, 2014), although ideas from memos were shared with my supervisors. Specifically, the memos that were written with analytic thoughts about categories and the links between them. Memos helped me explore very early ideas about the data, as well as later on in the final theorising of concepts. Writing memos constitutes a crucial method in grounded theory as it is the process through which data is transferred into theory (Lempert, 2007). Early ideas which I had begun to write about were the child's aggression / response to a boundary set around food and the struggle parents had around this. The term guilt was used by a parent early on, which was an initial code and I had written about it in a memo, and it ended up being a final theoretical concept of my analysis (Appendix M). Successive memo-writing helped keep me involved in the analysis and it is said that it increases the level of abstraction of ideas developed from initial coding (Lempert, 2007). The early writing of memos helped to identify gaps in the data, which directed me to gain additional data from new participants and this was done using theoretical sampling. Memos were not limited to the analysis of data; I had also written memos following a GTM training as it provided a structure for memo writing which I found helpful. It also helped me grapple with the GT method as this was my first-time using GT. The writing of memos is also important for providing a written record of reflexivity. Reflexivity is defined as a process of systematically developing insight into your work as a researcher to guide your future actions (Birks & Mills, 2015).

Reflexivity

A social constructionist views the research as being part of what they study. As Charmaz (2014) argued the importance of entering the participants word of meaning and action, at

the same time, as researchers, we are trying to "*locate participants meaning and actions in larger social structures and discourses*" (Charmaz, 2014, p. 241). With this in mind, I was aware of the importance of reflecting on my assumptions, positions and interactions with participants and how these might influence the research process. A diary was also written at different points throughout the research process. See below an extract from the beginning of my research journey.

Extract 1:

Before deciding on my thesis topic, I had always been drawn to working with parents in a clinical setting (psychology work), as well as working with young people with eating disorders. My first job in the NHS was working on an adolescent eating disorder unit. I became more interested in the treatment of obesity following my work on the unit as I began to think more about how obesity was viewed predominantly from a medical model perspective, despite the psychological aspects to obesity. Obesity is important to study because of the associated physical health risks, but also because of the associated stigma and shame. But also, of the psychological distress that some people with obesity struggle with. Seeing and hearing about parental blame and shame for their child's weight status and the lack of support that was available for parents increased my interest in this topic. From personal experience, I was also more drawn to the psychological aspects of obesity, the struggles people face when trying to lose weight and maintain this. I had watched a TV documentary that followed families that were engaging in a WMP for children. One of the parents on the programme became visibly distressed as they thought that their child was in pain when engaging in exercise. I wondered what was going on psychologically for this parent, and I thought that no one was

supporting her emotionally. This gave me the idea also to think more about parents' experiences of implementing strategies for their child.

During the research process, I had to be mindful to avoid forcing my preconceived ideas onto the data. Engaging in initial line-by-line coding, using in vivo codes, focusing on gerunds helped me stay close to the data. Writing memos and discussing ideas with my research supervisors helped me stay reflexive about coding and the development of categories and concepts. At the same time, my awareness of the difficulties parents face when parenting a child living with obesity helped me build up a rapport during the interviews which I believe enabled parents to have an open and honest conversation with me about their experiences.

Ethical considerations

Ethical approval for this study was obtained from the School of Health and Social Care Ethics committee at the University of Essex (Appendix N). Ethical Approval was granted for changes to the research procedure which are detailed throughout the section, see appendix O and P for approval of amendments. Ethical approval was also sought from Essex County Council (Appendix Q) and Suffolk County Council (Appendix R) so that I could attend WMPs across the country to recruit participants.

Confidentiality and Anonymity

Although participants were aged 18 and above, they were talking about their child/children and a sensitive topic, therefore consideration was taken when the interview was set up and at the start of the interview, I ensured that the parents were able to talk about their experience of sustaining HBC with their child. This was to ensure that information was

kept confidential and to avoid harm from other members of the family should the parent discuss difficult situations with their child. To the best of my ability, I kept my own biases from interfering with the interview process to ensure participants felt comfortable to open up about their experiences. I did this by keeping questions open and responding in a non-judgmental way.

Data storage and access

The data provided by participants was anonymised using pseudonyms. Only I had access to the identifiable participant data. The signed consent forms, demographic questionnaires, audio recordings and transcriptions were all kept in a password protected folder on the University of Essex. Data will be kept for three years, after which it will be destroyed. The audio-recordings were deleted from the Dictaphone as soon as they had been uploaded onto my laptop. Participants were made aware of how their data would be stored and that all data would be anonymised.

Informed consent

The aims and procedures for the research were explained in the participant information sheet which was given to participants who had shown an interest in taking part. If participants wished to take part in the research, they were asked to complete and return a consent form before the interview. Participants were reminded that the interview would be audio recorded before the interview started, therefore participants also gave verbal consent for the interview to begin recording. They were informed of their right to withdraw, and that their participation was completely voluntary. Potential risks were taken into consideration and due to the interview questions asking sensitive questions, a non-judgemental approach was taken to interviewing. I was mindful of the participants reactions throughout the interview process and

stopping the interview was an option if I felt that the participants were becoming too emotionally distressed to continue. Some emotional distress may have been anticipated as it was an emotive support. The use of my clinical skills as a Trainee Clinical Psychologist were used to judge whether the emotional distress needed holding outside of the interview and therefore participants would be advised to contact their GP should they feel that they needed additional support. My contact details, along with my supervisor's contact details were provided on the participant information sheet, should the participants have follow-up questions post interview. Although it was made clear that if they needed any form of support, their GP will be the first point of contact. Parents were also directed to their GP if they had any questions or if the parents were asking about support in the area in relation to family WMPs.

Chapter Summary

This chapter outlined the ontological and epistemological stance taken for this research study. It also provided an overview of the methodological approach and procedures used in this research. Ethical considerations were also discussed. The following chapter presents the findings from the analysis of the data.

Chapter Three: Findings

Chapter Overview

This chapter presents the four categories and 11 subcategories that were constructed during the analysis of this CGT study. Quotes from the participants are included to highlight their experiences and to demonstrate that the constructed categories are grounded within the data. The chapter finishes with an outline of the proposed emerging theory.

Table 2

Categories and subcategories

Categories	Subcategories
Balancing and negotiating children's health-related behaviours	"It's a juggling act"
	Children's fussy eating
	Making HBC is expensive
Convenience of unhealthy foods	
Battling with children's emotional attachment to food	Responding to children's hunger demands
	"She just doesn't seem to have an off switch"
	"I'm a bad mum if I say no"
	Parental surrender to challenging behaviour
Breaking the repetition of intergenerational eating habits	Finish your plate
	"I think she gets it from me"
	Child seeks out food for comfort
	Therapy is helping break the unhelpful cycles

Category 1: Balancing and negotiating children's health-related behaviours

This category describes the balancing and negotiating that parents do when attempting to maintain healthy behaviours for their child.

Subcategory 1.1: It's a juggling act

This subcategory captures parents' experiences of implementing different strategies related to their child's diet and physical activity. Trying to balance different strategies becomes a juggling act for parents, especially when there are other competing demands in their everyday life. Parents were not only having to juggle different strategies, but also juggle these healthy strategies with other everyday parenting tasks.

> I feel myself having to choose between, 'are we going to go the playground, erm, or are we going to prepare a meal, or are we going to finish this homework,' it's often erm, yeah. That's a definitely a barrier is time (laughs) just being able to make time for these things in the week. (Harriet)

The parents described different strategies they had implemented to improve their child's weight, such as increasing activity, reducing portion sizes and the number of snacks. Parents shared difficulties around making dietary changes. Rosie explained, "I'd probably say the most challenging thing that I've found is, erm, is the diet changes. You know, eating, erm, changing what we eat, changing the amounts we eat." Other parents said that making dietary changes did not result in weight loss or permanent dietary changes. Therefore, parents directed their focus towards other strategies that they felt may be easier and more manageable to implement and sustain, such as walking, instead of driving to school:

> I was driving her to school so she wasn't really walking very much, she wasn't really playing out, she wasn't doing really very much activity, so. As a family we've started becoming more active again, but it is really quite hard work to persuade her to be more active. (Julie)

Kathryn also moved her focus onto increasing her daughter's activity. She explained that despite attempting to introduce healthier foods into her child's diet, this was not sustained as her child continued disliking new food.

> Tried to introduce more, more activity instead because the diet side of it wasn't, like I say it wasn't, it just wasn't something that, you could try the strategies and I still try the strategies to this day, but at the end of the day, they weren't being successful, they were being successful in the, in that she trying things, but not overly successfully because we weren't actually getting anywhere in changing the diet. So, then it becomes a strategy of "well what's next?". Well, as we all know, if the combination with weight is movement and exercise as well as diet, so erm, yeah so introduce more, more activity as well. (Kathryn)

Other challenges of juggling parenting and sustaining healthy changes, included not having control over the child's diet or exercise due to shared custody. Parents then made the decision to manage what they did feel in control of whilst the child was with them.

> Yeah, try to exercise, like I can't control his diet when he's not with me. Erm, but when he is with me, I control what he does, so I was trying to do that and trying to get him interested in that stuff, hoping that when he went home, he'd then go "Oh can I go play football, or can I go out and do this, can I go out and do that?". Or, unfortunately, It didn't work. (Faye & Liam)

Faye and Liam were not the only parents that had to juggle shared custody with implementing healthy changes. Julie explained her situation with sharing co-parenting and the impact this had on healthy eating for her daughter:

> The other difficulty I have is they only spend one weekend, they spend every other weekend with their Dad. But he has quite different attitudes to food to what I do. He kind of will let them eat whatever they want to. And buys quite a lot of junk and sweets and, so that's difficult too. Because that's not my choice. (Julie)

Parents showed awareness of the importance of both physical activity, and a balanced diet for their child to reach and maintain a healthy weight. They spoke about the importance

of physical exercise for overall health and were keen that their children were active. Lucy spoke about what she attempts to do to get a healthy balance for her child, *"*Erm, what I do is, I do calorie deficit, erm, and just try and walking and swimming and stuff*."*

It was common amongst parents to talk about switching strategies to help their child become a healthier weight. Persuasion and rewards for engaging in healthy behaviours was commonly used by parents, and this in itself presented as a challenge for sustaining healthy changes. This again highlights this juggling act that parents do, when trying to find the balance between activity and dietary strategies:

> If we're just going to the shop for food though and you say, 'oh we're just going to walk to Tesco', he'll moan straight away. But if he knows he's getting a treat or if we're going somewhere that benefits him, he's not as bad. (Liam and Faye)

Although parents reported that they were aware of the importance of physical activity for improving their child's health and weight status, it seems for some children, sustaining this change alone is not enough long-term to decrease weight. This was demonstrated by a few parents who said their child has always been active, and they themselves said that it is the child's diet that is the issue:

> We have lots of things at home physical wise, so for us it is the eating that makes such, that's that's got to the be what the problem is in our house. It can't be, it can't be the physical activity. (Harriet)

Some parents reflected on how their own physical and mental health difficulties influenced their ability to be able to facilitate physical activity with their child.

> Erm, well I've got erm, I've got some disabilities myself, so erm, I struggle walking some days, so exercise, like if I'm having a good day, I try and get em out, but sometimes I have bad days where I can't walk as far, so going to the park and stuff like that I find difficult. (Lucy)

> I literally I couldn't walk more than 2 minutes without getting hip pain sciatica all the way down to my ankle. Erm and then it would go numb and erm, pins and needles and then I'd have to lean or sit…I couldn't go out with them, until I was able to physically walk. (Charlotte)

Despite parents' depth of understanding around what their child needs, in terms of both physical activity and a balanced diet to reach and maintain a healthy weight, getting a balance proves tricky for parents. It also appeared frustrating and disempowering when despite implementing strategies, including physical activity, their child was still not losing weight.

> We seem to be at a bit of a stale, where erm all the things I think I know, and what have, and have been recommended to me are not kind of working…It's frustrating I think, you know, erm. And she's working really hard, and I think it it kinda lose your motivation. You know, and I think, she is on the scales every day and she's like 'well why haven't I lost any weight?' kinda of thing, but I really don't know the answer to that. (Sophie)

For some parents, increasing their child's physical activity was easier than making dietary changes. On the other hand, due to parent's own physical and mental health difficulties, some struggled to facilitate exercise for their children. Making dietary changes also proved difficult for parents. What was common amongst all parents was the difficultly in trying to maintain a balance between ensuring their child was engaging in physical activity, as well as making and sustaining dietary changes. It became a juggling act for parents switching between strategies if one did not appear to result in any weight loss, or if it was too difficult to maintain. Danielle explains that relentlessness of engaging in physical activity with little return:

> Spend a lot of their time doing an activity. Or, like I've got, you the fit bit thingys for kids. And they're like, trekking and swimming and running, football, and they're doing like 10 thousand, 9, 8 thousand erm, steps a day. But no weight loss. (Danielle)

Subcategory 1.2: Childrens fussy eating

Parents talked about their children being "fussy eaters" and spoke about how this impacts on their ability to introduce new and healthier foods, which is a barrier to sustaining healthy dietary changes. Harriet described her son's eating as, "really selective, really fussy and really erm, erm, unreceptive to trying to new foods, that's the biggest problem, so not being able to introduce foods." Charlotte also describes how her child's fussy eating is a difficulty, *"that's a barrier. Taste buds. Because if he could handle the cold snacky vegetable, we would be laughing."* Faye and Liam explained that they do not always tell their child what ingredients are in the meals that they prepare, as they said he will not eat the food if he knows there are vegetables in it. They further exlpain how their son being a fussy eater results in him having unhealthier meals at home as they believe his other parent differs in approach and will feed him what they know he will eat, despite it being an unhealthier option:

> We'll have dinner, but we just have to not tell him what's in it half the time because he doesn't like vegetables, he'll be very much 'I don't like this, I don't like that, I don't like this', but you put it in the meal and he'll eat it if he doesn't know it's there. So, he can be quite fussy and I think, especially at home they're just like "oh have some chicken nuggets because we know you're going to eat it." (Faye and Liam)

Parents felt stuck and did not know how to manage or navigate around the perceived fussy eating which resulted in the continuation of old eating habits:

> Now we're kind of stuck in this in-between where I'm just trying to have these foods available, they'll often rot and go in the bin (laughs) erm, yeah, it's exhausting having to erm, buy foods that I know they're not going to eat. Erm, yeah. And not having any erm professional erm, guidance I guess in in the best ways to implement err the trying of foods, I think that's the biggest barrier because I don't know how to engage them, my kids in, in trying foods and expanding their palate and so we're stuck with really basic, unhealthy choices. (Harriet)

Some parents perceived their child's fussy eating was linked to neurodevelopmental

disorders, such as Autism spectrum disorder (ASD) and Attention Deficit Hyperactive Disorder (ADHD). Parents shared their belief that their child's food preferences was related to sensory issues, which are a common feature of ASD and ADHD.

> Erm and it is hard with the autism, because of the small about of healthy things she will eat, it means that those not so healthy things kind of became our more ... they're not so much for treats, they're just more daily life. (Kathryn)

Danielle, spoke about the contrasting difference between her two children that are both living with obesity. She explained how for her child [child 2] (with suspected ADHD and sensory issues), it is more challenging to introduce new foods as he struggles with making changes, compared to her child [child 1] without any suspected additional needs. Danielle explained that a difficulty with her other child [child 1] is the portion sizes:

> Yeah, no [child 1], [child 1] is great. He eats most things. Erm, he will try everything, so, that's brilliant. But he has, adult sized portions. Which is, which is a problem because if you're giving him, if he has a smaller portion, his age portion basically. He will then want, you know. He'll have his dinner and then he'll say he's still hungry 'can I have something else?' (Danielle)

> Oh yes, definitely, [child 1] will just roll with it. He's fine with it, he will make a better, he'll just choose something else, however [child 2] will insist on keeping, because with ADHD or whatever, his sensory deprivation. It's keeping to what he knows. Change is, is not something that he wants in his life basically. So, making a swap from something he knows, to something he's not sure of or doesn't know, is, where it's difficult. (Danielle)

Subcategory 1.3: Making healthy behaviour change is expensive

This subcategory highlights how the cost of activities and healthy fresh food is a barrier parents encounter when trying to sustain HBC for their child. Parents spoke about how ready meals are cheaper than buying fresh foods and cooking meals from scratch. Parents are

consciously aware of what is in the food their children are eating, but at times it is cheaper to eat unhealthier options.

> All the supermarkets do those ready meals, like 3 for a fiver. That's three dinners for a fiver. You get the stuff to cook those three dinners like a lasagne, shepherd's pie, and something else, it would cost you far more than a fiver. (Mary)

> I've done with her, thinking really carefully about what is it that she's actually eating, rather than restricting, but swapping it for better sugars, or more natural foods rather than. But that's expensive and takes more time, so it's hard, isn't it? (Julie)

Parents also spoke about the cost of physical activity clubs, as well as well as public transport. Living in remote areas, or not being able to drive themselves meant they relied on public transport to access physical activity groups or public spaces. Mary explained how the cost of transport is a barrier, "he'd love to do it, but we don't have buses and to get a taxi to [city] to get him to probably the city centre is about 20 quid". Sophie also reported similar difficulties about cost, "It's been difficult in the area, obviously like, I don't drive myself and everything is quite a distant to get to and its expensive as well, you know swimming, it's like 10 pounds me for and the daughter to go."

Parents also spoke about the activities that are deemed as "fun," and specific activities children want to take part in are the expensive ones.

> You've got a lot of activities but they're not, you know, other than going and getting outdoors as a family, you know there's a lot of activities you can do, and the cost of a lot of them is just monumental…The only other options are things like trampoline parks and things like that where they are so expensive, erm. You know, 15 plus pounds for one hour. Erm and the physical activity they get is great, because it's so fun, but that's not something that is affordable for a lot of families. (Kathryn)

Another difficulty parents faced was making the regrettable decision to stop certain activities their child enjoyed due to the cost.

> She did volleyball for a while, and then we realised how much the volleyball was... it was a reduced price, and it was still 280 pounds for the season…And that, that, at the moment with the way, the cost of living is at the moment, I just couldn't, I couldn't afford it. (Charlotte)

This subtheme highlights the impact of expensive foods and activities can have on a child's health, and the difficulties parents face when trying to negotiate activities their child can do, and what foods can be provided.

Category 2: Convenience of unhealthy foods

Parents shared the added frustration of living in an environment in which, you are surrounded by fast-food restaurants which offer mainly unhealthy options. Sophie explained, "there's nowhere like, especially in this area that you can go and have like a wrap, you know, she likes wraps… it's quite a poor area. So everywhere you go its pizza places, its erm, everything is fast food. There isn't really erm, a healthy option place here". Sophie was not the only parent that talked about the number of fast-food restaurants in her local area. Kathryn also talked about her local area and explained, "it is a fast food restaurants wherever you go, there is a McDonalds or a KFC on every single corner, you know, its it's in your face constantly."

Mary explained how the convenience of these fast-food restaurant was something she became reliant on when she was struggling with some health difficulties:

> I was so exhausted and like I have fibro, fibromyalgia and it flared up so much. I don't have the energy and we were having takeaways; I mean, we're limited here because it's a village and just eat only deliver Indian or Chinese or there's a kebab van round the corner which we've not used since last year actually. So, well [child] will be like 'oh I want a takeaway' but unfortunately, I relied on it too much (Mary)

Kathryn sums up the convenience of unhealthy foods, and how this is a barrier to sustaining healthy changes whilst trying to live in a world where we are surrounded by fast-food at the same time as grappling with the intensity of work and parenting:

> Being a parent is the best thing in the world, but it can also be very very exhausting. And, you know if you've just finished a full shift at work and then you've helped them with their homework and then you've done this and you've done that and you popped to Asda and they're 'oh can we have McDonalds for tea', and you're thinking 'Oh its already 6 o'clock and da da da da da.., actually yeah, go on then'. Because it's there and it's so convenient, so convenient. When was the last time you've drove past somewhere where you could get something healthy? You know and only only healthy or healthyish things were on the menu. (Kathryn)

Category 3: Battling with children's emotional attachment to food

This category delves into the constant battle parents have with their child's emotional attachment to food, and how this battle becomes a barrier to sustaining HBC. All of the parents spoke about how food served another function for their child other than satisfying hunger.

Subcategory 3.1: She just doesn't seem to have an off switch

Parents spoke about their child's relationship with food as one of love, and at times bordering on the verge of obsession. The parents explained how their child's love for food and lack of an off switch is linked to their child overeating. For example, Julie said, "[Child] just doesn't seem to have an off switch, if that makes sense? [Child] would eat all the time if you let her.*"* Parents reported that their children would continually eat if left to do so, giving examples of the amount of food their child would eat, if they were not around to stop this.

> I don't think he knows when to stop. I think like both of them, just don't know when to stop. Like, that, I'm full switch. Just, until they're like, they feel you know like really full, I feel full, I feel ill. That switch is just not, it's not coming on, going off. I don't know. They have to eat until they feel…to the gills. (Danielle)

> If I buy a pack of like, a multipack of 6 little bars of chocolate like KitKats or something, he'll eat 3 the first time he sees them instead of just having 1. He can't seem to stop at one. (Mary)

Some parents described having to be more aware and alert to their child's overeating, and explained how this differed to their other children who were of a healthy weight.

> If I let her, she would have like 3 slices of toast for breakfast. My others don't, they would normally just have one and then maybe a piece of fruit. But she kind of seems to want to eat. So, that, she wants more of those, particularly bread actually and that kind of stuff. And then she will ask for snacks more often (Julie)

Lucy shared that she has to lock the cupboards in her home due to the severity of her child's overeating.

> Erm, she's a secret eater, that's the problem. I tried to get more healthy snacks so that she was filling up on more healthy snacks, erm, but then she was binge eating on the unhealthy snacks, so I had to get a locked cupboard, I locked everything away. Erm, but then she'd eat all the other stuff, bread, ham, so, she's not one for, if she wants to do it, she does it. (Lucy)

Another parent, Sophie, described how difficult it is to maintain the level of strictness around restricting food due to it being a drain; "food is such an issue with her, it can become quite draining, erm a bit like you're being ground down type of thing, so it's kind of difficult to maintain that strict level."

Subcategory 3.2. Responding to children's hunger demands

Parents reported that their child seems to be constantly hungry and they persistently ask for food. This subcategory explores how parents respond to their child's hunger demands. Danielle explains how her son will continuously ask for food, "it's never-ending thing. Even after he's eaten, he'll ask for something else. 'I'm hungry.'" Lucy said, "[child] likes to ask for food a lot, "can we get this, can we get that" and I'm having to constantly say no."

Parents said that at times they are unsure if their child is genuinely hungry, as they believe that they should be full after observing what their child has eaten, and they think it should be enough to satisfy their hunger:

> I don't think it's a case that yeah, it's not a hunger thing, definitely not. Cos she can have her tea and then still want… so she can, you know it can't just be possibly because she's hungry, she probably thinks that she's hungry but she can't be. (Sophie)

Parents are then faced with a dilemma of whether to give into their child's hunger demands or not. They spoke about responding to their child's demands in different ways, including negotiating with their child about the amount of food they have asked for, and how long they have to wait until they are allowed extra food:

> So, it's 'ok you can have two biscuits', 'well what about 4?' 'No, not 4' and then she always go, 'but what about 3?'", and I go 'well what about 1?' [laughs]. And we end up meeting in the middle. (Kathryn)

> If it was up to [child], she'd finish her food, she'd finish her tea and go straight onto pudding. So, I try and give her, like an hour, an hour and a half in between. So, I'll say to her 'right, OK, you can't have your pudding till half 7'. And then she'll accept it, you know, she'll wait until half 7, but as soon as half 7 comes, she'll say 'right, it's time for my pudding'. (Rosie)

Lucy shares how sometimes she will respond by saying no, but this does not stop her child asking for more. Lucy also added that she responds to her child's hunger demands by educating her child about the amount of food eaten is linked to weight gain. Lucy gives a rationale for why she talks about this with her child:

> Erm, I explained to her that obviously what she's eating is why she is putting the weight on, erm and she doesn't seem to, she does, she says 'I'll stop it, I'll stop it', but she doesn't and she doesn't understand why she's getting bigger and she's putting the weight on and it's making her feel more upset. So, I say 'we need to be doing something about this, we need to you know, stop this eating' but she just, she can't, I don't think she can grasp the concept basically.

Another response to children's hunger demands would be to offer healthier alternatives for food or offer a drink of water. Julie explained, "I tend to say, right well have a drink of water, see if that helps. Right, now maybe have some tomatoes or cucumber slices and then see if you're still hungry [laughs]." Maya described her response to her son when he asks for more food, "he still wants more food, but at the moment, what I do is say "drink some water" [inaudible] when I try myself I didn't say it, but at the moment I'm telling him to get water… then sometimes it helps and he stops complaining."

This was tricker for parents who had a child that was deemed to be a fussy eater, and would not eat healthier alternatives, as Charlotte explained, "that's a barrier. Taste buds. Because if he could handle the cold snacky vegetable, we would be laughing".

Subcategory 3.3: I'm a bad mum if I say no

Shared beliefs amongst parents was that they felt "guilty," "mean," or they believed they were a "bad mum," if they do not feed their child the snacks that they were asking for or if they were having to restrict their child's diet:

> Like I'm being mean I suppose, if we're round with family and other kids and that, and they're all having sort of sweets and pop and what have you, and I'm like "no you can't have that" and "no", you know (laughs). It comes across as quite mean really. (Sophie)

Other parents talked about feeling guilty restricting treats from their child that is living with obesity if their siblings who are a healthier weight were having treats.

> Probably the siblings being within regular weight ranges, erm, I let them have treats and stuff like that, whereas I feel guilty restricting [child], erm because I don't, I don't think it's fair to give them something, but then it's not fair on them to miss out just because I'm trying to get [child] to you know watch her weight. (Lucy)

Parents also spoke about feeling bad if they did not have treats or snacks in the house, as they felt they were depriving their child of food. Parents started off by explaining the rationale for not buying treats, as this was a change they wanted to implement, however, they then felt guilty and so they resorted back to buying treats. Susan reflected on this:

> I battle with myself, it's weird because like I'm. you go in thinking "right, that's it, I'm not going to buy anymore, if they've eaten them for the rest of the week". then you feel so bad and guilty for doing that because you're, you're not giving them food. Does that make sense, it's such a hard. (Susan)

Kathryn shared an example of when her child was asking for food, and despite knowing her child had eaten enough that day, the guilt of thinking her child may be hungry took over and she drove to KFC to buy a meal for her child.

> She badgered and badgered about how she was hungry and you feel guilty as a parent, "oh my god, my child's hungry, and I'm not feeding them," … you're not about the start cooking a roast dinner, you're not about to, you know… so as a parent feeling guilty, feeling exhausted, feeling like "oh god, I've not fed my…" even though I had fed my child [laughs] and she had what she needed to eat that day, erm and that "oh, you know, oh well, I have been doing this all day and you know, they haven't had as much time, as much of my time today and da da da", OK, let's drive, I will drive to KFC and I will buy you a KFC [LAUGHS]. (Kathryn)

Kathryn later goes onto say "in that moment, in your mind, you are the worst Mum in the world [laughs] as you say no."

Subcategory 3.4: Parental surrender to challenging behaviour

This sub-category encapsulates the tiring process parents go through when setting a boundary around food for their child, who has an emotional attachment to food. The parents explain how they surrender or "give in," when their child responds with challenging behaviour when a boundary is set around a HBC.

Harriet talks about how the aggression from her child is a barrier to sustaining change as she would not carry out the set boundary; **“**that’s a barrier in terms of, I would be more likely to say, I can’t go through that again with the aggression, I’d rather give a snack.”

She further explained how concerned she became about the behaviour, and they (parent and child) began therapy to address this.

> The level of aggression around food when it’s denied is, is unbelievable. Yeah, so much so that we’re in therapy [laughs] to, I know there’s other factors in play in terms of mental health. But it does shock and surprise me that. So, I have to keep a journal about behavioural outbursts because my child is so aggressive to try and get to the crux of what’s causing it. And it’s very often, if not always when I’ve said no to a food. (Harriet)

In households where there was more than one child, despite their weight status, the aggression was not common amongst all siblings. For example, Danielle, who had two children living with obesity, only one of them would become angry, however, her other child would respond with nagging.

> Erm, [child] will just nag. Which is OK, I can handle that, but with [child] he becomes, he has a crisis basically. He’ll scream, shout, bang things, erm, just yeah. And just, like constantly be like ‘I’m hungry, I’m hungry’. He’ll stand there for like, he could stand there for half an hour and just constantly say ‘I’m hungry, I’m hungry’. And he gets what he wants basically. Like, that’s what he does. (Danielle)

Here, Danielle gives a description of how one of her children will react when she has said he cannot have any more food. She continues to share how she and her husband then respond to his reaction.

> Like we try and talk him down. Talk him down from that state, try and explain to him that he’s had something to eat, ‘maybe you’ll have something later’. Or he’ll either understand for 2 minutes, calm down and then start again and we give in eventually. Because he’s worked himself up into this ball of like frustration and anger, so that’s where, for me, managing, well, like what do you do next, I have no idea. *(Danielle)*

Another parent with multiple children in the home, with just one child living with obesity reported that their child becomes very angry around food, particularly when extra snacks are being locked away.

> Erm, [child] got very angry about it. Erm, [child] [laughs] was trying to break in (to the locked cupboard) at one point. Erm, I mean I don't restrict the snacks, [child] was allowed the snacks, it was just the excessive eating of the snacks that I was trying to cut down on. (Lucy)

Not all challenging behaviours reported by parents was aggression. Children consistently asking for food would be deemed as nagging by parents. Lucy explains how her daughter constantly asking for food results in her not sticking to the boundary set.

> Erm, if she's asking for second packet of crisps, erm, I'll give her them. I'll say right, she'll ask and she'll ask and she'll ask and I'm like 'alright [child] just take it, just take it, I can't, I can't hear it anymore,' basically and then she'll have it you know, she'll have it and she'll be back 'can I have this, can I have that?' erm, and I'll try and not cave a second time, but erm, yeah. It's just constantly asking 'can I have this, can I have that' and it is, its draining basically. (Lucy)

Faye and Liam talked about how they were faced with challenging behaviour from their child and this resulted in them not continuing with the behaviour change at times.

> It's just not worth the hassle…honestly, like we, we go, me and [Faye] quite often we go for a walk down the river near ours and there's a bridge like what 400metres...Yeah 1 and a half km, it's not, it's not a ridiculous, strenuous walk. We walk down to the bottom, halfway down, have a stop, sit down, literally all the way from the car, to the end of the road he will just complain. (Liam).

Some parents spoke about how their mental health played a role in surrendering to their child's challenging behaviour. For example, Kathryn explains how on the days her mental health is bad, it is easier to give in to her child.

> A day when my mental health's been really really bad, then it's so much easier to give in, so much easier. Erm, and I think not just because of the effort it makes, but because of the emotion strain on it because they do pull on your heart strings and when,

> 'well I won't eat anything then, I'm so hungry, but I'm not going to eat anything because I was da da da da' and you're saying no, whereas some days and to be fair most days, it's like 'nope' or it becomes a negotiation erm. (Kathryn)

Category 4: Breaking the repetition of intergenerational eating habits

Parents spoke about intergenerational eating habits, and reflected on how they wanted to break these ingrained patterns of unhealthy eating behaviours for themselves, and their children. Parents shared their own experiences of developing unhelpful eating behaviours, and wondered if they had passed these down to their children. Parents also explained how their parents are influential for their children's eating behaviours at present.

Subcategory 4.1: Finish what is on your plate

It was common for parents to talk about the development of their own unhealthy eating behaviours and attitudes towards food. Parents recalled times when their parents had used food in other ways other than to satisfy hunger for them, for example, using food as comfort, or pressuring them to finish the food on their plate.

> That's the other thing I suppose, because during my childhood, there was definitely quite a lot of pressure to, clear your plate and it, [inaudible] so I'm not going to do that [laughs]. So yeah, that's and I think, erm, I try really hard not to do food as like reward or food as like treats because we we did that too. If that makes sense? (Julie)

> We never really had healthy eating, it was like whatever was afforded and we had to finish on the plate and that took me many years to get out of my head, even as an adult (Mary)

Food being used for comfort seemed to be another intergenerational pattern of unhelpful eating behaviour. Parents had identified this pattern within themselves and had the intention to change this, so that their children would not use food for comfort. Parents were brought up with food being used as a way of coping with traumatic experiences. Kathryn elaborated on this:

> When I was brought up, it was very much not only food was a reward but food was a comfort…I was brought up in a very turbulent household and when there was an argument, when there was a fight, when there was erm, when [parent] kicked the door and stormed off and didn't come back for a day. It was 'let's go and have McDonalds.' (Kathryn)

Parents identified these unhelpful eating patterns, and explained how, despite wanting to do something different with their child, some of these unhealthy behaviours had unintentionally been passed down. Kathryn and Harriet shared examples of this:

> Food has become, and has been for a long time to be fair, a treat. Err and a reward, which is something I've always tried to avoid, but it's become very natural because that's what I was bought up doing, that food is a large, large part of our reward system. Erm, and yeah so that's what it then becomes. *(*Kathryn)

> My Mum would fill the freezer up with food, frozen foods. Erm, chicken dippers, you know… that was my lifestyle growing up, and then when I met my partner, who cooks homemade meals, and you know is really great at that, I latched onto that as a better way of living. Erm and that's what I wanted for my child, erm, so yeah, with work, with working late and life getting in the way, erm, we don't, it's not as good as I would like it to be, so maybe my partner will cook maybe like twice a week at the moment. Erm, so, its', I'm the one at home left to cook and I'm the one who doesn't cook (laughs), I'm not a great cook, So yeah, it's something I would love to, erm be better at, but in terms of right now, erm, yeah, not ideal, so it would just be easy quick things, erm, similar to my situation growing up sadly, so I've just repeated the pattern in some. (Harriet)

Parents also spoke about how grandparents continue to influence unhelpful eating patterns and behaviours, and at times explained how they are a perpetuating factor of the problem and a barrier to sustaining HBC. Harriet explained how living with Grandparents was hard, "so, we did live with my parents for a short while, erm and they are over feeders, erm, make really unhealthy choices." Liam explained that he has to try and get his Mum on board with making changes, "I try to say to her 'look you need to stop giving him like biscuits and stuff like that, you know it's not healthy for him he needs to lose weight.' (Liam)

Sophie shared how making healthy changes for her child had caused conflict between her and her Mum.

> It was difficult for me Mum [laugh]. Yeah, we had a few fallouts because I would be saying 'No, she's not to have that' and my Mum would override what I was saying, so that was difficult… I actually had to take my Mum to one of her paediatric appointments, erm, and the doctor was really blunt with her, saying, you know, 'if you don't stop what you're doing, she's going to end up diabetic' and erm what have ya. So, I think that sort of gave my Mum a short sharp shock. Erm, and then she sort of backed off then. (Sophie)

For Danielle, there was an element of Grandparents overfeeding as being the norm and it had a positive association for her family.

> They go to their grandmother in [area] as often as possible and she also, incidentally, is a feeder as well. So, she knows when they're on their way, she's going to make them sausage and chips. In the deep fat fryer. But that's what they're like, that's what they associate with their grandmother and stuff like that, so. Yeah, I don't think anything negative particularly. I think everything is just, more, food is associated with positives in our families. (Danielle)

Subcategory 4.2: I think she gets it from me

Parents spoke about their own emotional eating and how they have tried to hide this from their child, in order to break this cycle. The parents shared their concern that their child might pick up on their eating habits and because of this, they have made a conscious effort to hide it, however this was not always possible.

> I've been an emotional eater at times, definitely. And I've probably done it in front of [child] even though I try not to. I would wait till he goes to bed and he's probably caught me a few times. (Mary).

> Oh, I definitely do yeah. Erm, and I've yoyoed like my entire life, from being like a healthy weight to then being much bigger and then a healthy weight and then much bigger, so. Erm, and no matter what you do in front of them, they are still aware aren't they? (Julie)

Other parents talked about their own restrictive diets, and reflected on how this may have impacted their child's eating behaviours. Parents talked about how their

diet was slightly more restricted at times and they thought about how this impacted on their child's weight. Harriet and Danielle explain how they rely on their child's father to be the enthusiast when it comes to sharing an interest in food with their child.

> I erm, don't eat much, small amounts, really kind of restrictive diet as well, erm and I've always been really worried about passing that on the kids, erm, I so rely on my partner a lot, who is fabulous, like, eats really well, cooks really well. So yeah, I came from a family that didn't really cook. (Harriet)

> Erm, really, I, I'm not a good eater to be fair. Erm, I'm not, but I'm aware that I'm not. Erm, and, [name], the boys Dad, he's really into, like we're just polar opposites. He's really into fitness and he exercises every day and stuff like that. However, I, I don't exercise regularly, and I don't eat very well. I snack a lot or I don't eat at all. So, I guess in that sense we kind of balance each other out. (Danielle)

Lucy shared how her eating behaviour was a challenge to implementing change for her child.

> I use it as a comfort, I always have. Erm, I dunno whether she's got it from me, or erm. Or I try not to let her see me use it as a comfort, any of them. It's usually when they've gone to bed that I've done it. (Lucy)

I asked Lucy how she thought this was a challenge to implementing healthy behaviour change and she responded:

> Oh yeah, yeah, I've had it used on me. Erm, 'well you eat biscuits, you eat this, you eat that' and I say, 'well yeah, but I'm trying. Like if I'm trying to get you to try as well. We're both trying to become healthy.'(Lucy)

Kathryn argued that food has a positive hold over us, and she explained how this is a challenge to sustaining change for her child:

> If they ask for something that's nice, it's feeling that you should give them it, because you feel bad for what they've not got, or feel bad for what they have been through or. And I think that's one of the biggest biggest challenges and I think, a mix between that, with negative and how food has got that that positive hold over us. (Kathryn)

Parents recognised that they do use food to provide a source of comfort for their child. Some parents acknowledged that they used food to compensate for their child witnessing domestic abuse or experiencing other difficult family and home dynamics, such as being homeless:

> We'd been through quite a, a traumatic experience so the food side of things seemed to be an emotional response from me, you know "ah it's OK, we're going through a hard time" and you just relax all the rules, especially around food and eating and habits and meals, everything. (Harriet).

> Food was a comfort food, food was a 'oh I'm sorry this has happened' food, food was a 'oh god you've just had to witness that, let's make it better, here's some food'. Which obviously doesn't make it better. Erm, and that's something that I'm, I'm still to do this day, I still struggle some days with my kids. I still naturally go 'oh should we go and get an ice cream'. 'Oh, should we go and do this' (Kathryn)

Using food as a comfort was also identified by parents that had not disclosed a major life event. Using food as a comfort, as described by parents was either giving bigger portion sizes or giving their child junk/snack foods when they could see that their child was upset. Sophie stated, "I don't like to see her upset, erm, so I don't know. I wouldn't say I go out and buy her chocolate, crisps or anything but like I say I may be a bit more generous on the portion." Rosie also talked about how she would use food to comfort her child, "sometimes, yes. Sometimes that can be the point. Whereas I see her and she looks a little bit down and fed up, so I'll say to her, she can have a treat."

Subcategory 4.3: Child seeks out food for comfort

It was common amongst parents to report that they had noticed that their child eats food for comfort or out of boredom. They gave examples of times their child would ask for extra snacks or head straight to the cupboard if they were upset. Mary shared her thoughts about this, "I think he finds it a comfort a lot of the time, I think there's definitely elements of

emotional eating…because when he like comes home from school all upset, about something, he goes straight to the cupboard." Julie also shared her thought, *"*Erm… difficult. Because, she will say she's hungry, but I don't think she is hungry, but I think it's that kind of she's bored."

Sophie explained that professionals do not recognise the deeper issue around overeating. She goes onto say that it is not a case of offering healthier food or snacks, the issue around seeking food is deeper than satisfying hunger:

> Because they don't tend to recognise that part of it, they just think that it's a case of its just food. But there's a deeper issue there. You know, I could take all the food I want away, you know, like they've told me to and it's you know, she still wants, she'll fill up with something else, whether it be healthier or not. (Sophie)

Subcategory 4.4: Therapy is helping break the unhelpful cycles

Three parents spoke about how their experience of attending therapy is helping them make health-related change for their children and break these intergenerational eating habits, which they had intended to do by themselves:

> Erm and actually therapy, part of my therapy to realise that's what I was doing, that I was following what my parents were doi, well what my mum had done. Erm, and realising how damaging that was. Erm, so yeah, so still to this day, I still find myself doing it naturally. Erm, and really really really having to erm, having to stop myself, erm and kind of rewind that and and try again and erm, so yeah, so that can be really really hard in itself". (Kathryn)

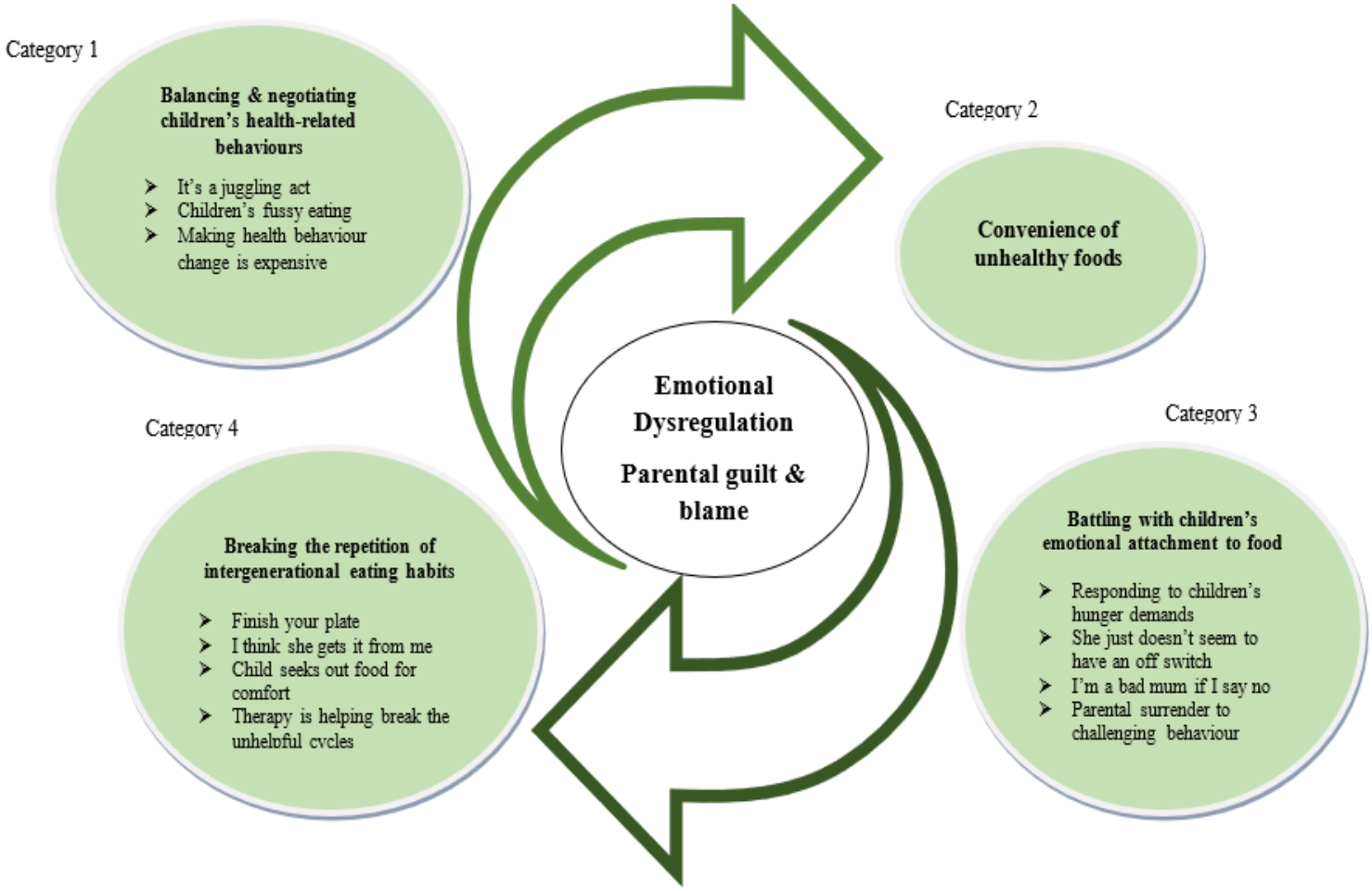
Harriet gave an example of how being accountable to someone else helps sustain the change. In addition, she explained that was taught different strategies to help address the challenges she was facing, particularly with the challenging behaviour displayed by her child:

> Erm, after we've eaten tea and pudding and I've said '[child], your body is full, erm let's try something else instead' and straight away the rage is just. So yeah, it it puts pressure on me to, erm, that's a barrier in terms of, I would be more likely to say 'I can't go through that again with the aggression' I'd rather give a snack. Erm, I don't

> do anymore because I'm accountable to my therapist (laughs)…So, yeah, so I've had to make those changes. But yeah, it's definitely a barrier if your child is going to be aggressive with you. Eurgh, yeah, really a struggle, behaviour and how to address the behaviour, you know around food. (Harriet)

Emerging Grounded Theory

This grounded theory research, theorises that emotional dysregulation and parental guilt and blame are central to parents' experience when encountering barriers to sustaining HBC for their child/children. The emergent theory comprises of four categories and 11 sub-categories that were constructed from the data.



The aim of this study was to develop a theoretical understanding of the barriers parents encounter when sustaining HBC for their child that is living with overweight or obesity. Using CGT, four categories and 11 sub-categories were constructed from the data. These categories represent the barriers parents face when sustaining HBC for their child. These categories support existing literature, but also, this GT research further adds two key theoretical concepts that are central to understanding the barriers parents encounter. These two concepts are, parental guilt and blame, and emotional dysregulation. The concepts are central to parents' experience when encountering barriers to sustaining HBC for their child.

One of the categories: Balancing and negotiating children's health-related behaviours identified the constant struggle parents encounter when trying to sustain HBC on behalf of their child. Parents have to juggle daily life struggles, along with trying to sustain health behaviour change for their child. Parents spoke about the difficulty of having to negotiate with their child about their diet and physical exercise. They spoke about how other factors, their child being a fussy eater makes this negotiating more difficult. Parents also spoke of environmental factors, such as the cost of physical activities and public transport, adding to the struggle of sustaining HBC. The key concepts, emotional dysregulation and parental blame and shame was present throughout the parent's narratives, and is evident in this categories as parents blamed themselves for not being able to sustain a weight-management strategy, such as introducing fruits and vegetables to their child's diet. Parents spoke of the dysregulation of their child's and their own emotions during times when parents were attempting to negotiate with their child. Parents constantly have to attempt to balance sustaining HBC, at the same time as other parental tasks and usually the health-related behaviours is the one that becomes a low priority. The second core category, convenience of unhealthy foods, is something parents spoke about when exploring the difficulties of sustaining HBC. Parents explained that having convenient, and at times cheaper, unhealthy options become a popular choice due to busy schedules and stressed out parents. The key concepts again were present throughout the parent's narratives around the convenience of unhealthy foods. Parents feel guilty for choosing convenient, unhealthy options, but at the same time, the guilt is alleviated as their child is happy eating the food they like, and parents stress is reduced as their child has been fed. The

third category, battling with children's emotional attachment to food follows on from the two previous categories. When parents are trying to negotiate and balance busy schedules with health-behaviour change, along with environmental factors, such as the convenience of unhealthy foods, they come up against their child's emotional attachment to food, which becomes a constant battle. Their child's hunger demands seem to trigger an emotional response within the parent, such as guilt or fear that their child is hungry. Or, the stressed parent is unable to regulate their own emotions enough to help their child regulate their emotions around food, so instead, they frequently gave in to their child's requests for more food. The parents surrendered to their child's demands as a means of alleviating their own feelings of guilt, blame or stress, and emotions are regulated for a short period of time. Part of this blame and guilt comes from parents own disinhibited eating behaviours. The fourth category, breaking the repetition of intergenerational eating habits, highlights parents acknowledgement of their own eating habits and unhelpful some of their behaviours and responses to their child can be in sustaining HBC. Parents acknowledged how ingrained and unhelpful these patterns had become for them, and were acutely aware of how easily they could be passed on. Despite efforts not to repeat patterns, parents in this current study reported their child's unhealthy relationship with food. Parents explained ways in which they had attempted to break cycles. One example was by not enforcing the rule of having to finish everything on the plate. This left parents with some uncertainty as to how their child had developed an unhelpful relationship to food, at the same time, identifying similar patterns of eating behaviours and attitudes that they hold, such as using food for comfort. Parent guilt and blame, as well as emotional dysregulation, are evident within this category. The feeling of guilt is both a consequence of, and an antecedent, of unhealthy child feeding practices. To avoid this guilt, and prevent feeling blamed, parents attempt to engage in emotional regulations strategies for both themselves and their children. One dominant strategy parents have learnt to regulate emotions is by using food. Therefore, when parents recognise the struggle to regulate their own emotions and their child's, they feel guilty as they tend to resort to using food to regulate, and therefore deem this as a failure and so the cycle continues.

Chapter Summary

This chapter summaries the categories and subcategories that were constructed during the research analysis. The two theoretical concepts were introduced as a way of theorising the

barriers that parents encounter. I will now discuss the findings in relation to existing literature.

Chapter Four: Discussion

Chapter Overview

The purpose of this study was to better understand the barriers encountered by parents, when trying to sustain HBC for their child who is living with overweight or obesity. The multifactorial complexity of childhood obesity is enlightened by this grounded theory research. The analysis highlights the importance of societal, psychological, emotional, and relational aspects, to sustaining HBC by parents on behalf of their children. Four categories and 11 subcategories were developed to reflect the barriers parents encountered. Two key theoretical concepts were constructed, and they help us better understand the barriers faced by parents, as well as to make sense of the difficulties they encounter when sustaining HBC. This chapter will first unpick those concepts in relation to the categories and then, the two concepts will be referred to explicitly, and further explanation will be provided. Existing research will be discussed in relation to each of the categories and concepts. In the final section of the chapter, the clinical implications for clinical policy and practice will be explored. Lastly, possibilities for future research and dissemination will be discussed.

Balancing and negotiating children's health-related behaviours

Parents are endlessly balancing and negotiating when implementing HBC for their children. Parents have to balance their child's physical exercise with a balanced diet, both of which present with challenges for parents, and it becomes a juggling act. Lorentzen et al.

(2011) also reported that for the parents in their study, healthy living was a complex, personal, practical, and financial daily struggle. Parenting research highlights the immense pressure of parenting today. Limited resources for coping with the demands of their children and other stresses, is a result of exhausted parents, who are expected to work increasingly longer days and more hours, on top of existing household tasks (Sidebotham, 2001). Time pressures, and lacking energy are common barriers reported by parents to implementing HBC (Cason-Wilkerson et al., 2015; Ditlevsen & Nielsen, 2016; Jackson et al., 2004; Lorentzen et al., 2011; Pearson et al., 2013; Putter et al., 2022; Schalkwijk et al., 2015; Watson et al., 2021).

Parents in this study spoke about switching strategy if one was deemed not to be sufficient in reducing their child's weight, or if they felt that a strategy was too difficult to sustain. Parents felt frustrated and disempowered as their attempts had not resulted in weight loss. Previous research has found that parent motivation to engage in health behaviour interventions was diminished if there was minimal weight loss as a result of making changes (Lorentzen et al., 2011; Staniford et al., 2019).

Although parents in this current study stopped implementing some strategies that were perceived to be difficult, their intention to make changes for their child was still present. The intention to make changes appeared to motivate parents to try out a different strategy, such as making changes to their child's physical activity instead of their diet, in the hope that it would still result in weight loss for their child. This demonstrates that the intention to make changes, does not necessarily lead to them putting a change into action, nor does it lead to sustained change. For example, a parent that had the intention to change their child's diet did not always result in them making these changes. If parents' intentions did lead them to making changes, at times these changes were not sustained due to barriers parents encountered. Previous research has also found that parents who reported intentions to make behaviour changes, such as increasing physical activity, do not always put this into practice (Robertson, 2009).

This begins to highlight the limitations of behavioural theory in the context of HBC for parents on behalf of their child. The theory of planned behaviour (Ajzen, 1991) assumes that the most important predictor of behaviour is the individual's intention to act. However, this study demonstrates that there are more factors at play to whether a parent is able to make and sustain a change in their child's behaviour, other than their intention.

The SOC model is a model of intentional behaviour change and assumes that behaviour change is predicted by an individual's intention to change a certain behaviour (Prochaska & DiClemente, 1983; Redding et al., 1999). For an individual to move through the stages as proposed by Prochaska & DiClemente, their intention to change that behaviour has to change, and the person has to be motivated to make changes. For example, for an individual to be in the preparation stage, they have to be intending to take action within the next 30 days and must have already taken some behaviour steps in this direction (Prochaska & DiClemente, 1983). The parents in this study had intentions to make changes on behalf of their child, and were at times putting change into action for their child, but sustaining these changes was an emotional and practical struggle, and therefore their level of intention to make behaviour changes did not change, but it still did not lead to sustained behaviour change.

Arguably, the parents in this study identified barriers that they felt they did not have control over, such as the cost of food and physical activities as well as the child's fussy eating, which for some parents was perceived to be linked to ASD or ADHD. The theory of planned behaviour postulates that intentions are determined by different factors, one of which is *perceived behavioural control*. Parents argued that not being able to afford healthy food or activities, was a barrier to engaging in cooking meals from scratch, and sending their children to paid physical activity groups. Managing and negotiating the competing demands of family and working life, leaves parents feeling time-poor, and *squeezed* (Harden et al., 2014). On top of this, paid work does not cover the expense of healthy food and physical activities, particularly, a physical activity the children are wanting to partake in. As the parents in this research

said, they are aware that going to the park or for a walk is free, but trying to get their child to engage in these activities is a battle. The ones they are interested in, cost money. Therefore, parents did not believe they had much control over being able to make some behaviour changes. As a consequence, parents were left feeling guilty and that they were to blame for not being able to make changes. They then tried another strategy in order to support their child.

Parents in this study perceived changing their child's diet too challenging or stressful to continue, due to the child's continued dislike or struggle to try new food. Previous research has found that the labelling of a child as picky or fussy can contribute to challenging interactions between parent and child during mealtimes, which can result in increased levels of parent and child stress (Rubio & Rigal, 2017; Trofholz et al., 2017). This stress can then lead to parents withdrawing their efforts to overcome this barrier and instead, they will accommodate their child's demands and the cycle of an unbalanced diet continues (Walton et al., 2017). This is in line with the parent's behaviours in this study, as they reported that their child's fussy eating was a barrier to sustaining dietary changes, and would at times stop implementing change. Research has found that parents have reported high levels of stress, frustration, and guilt, in relation to their child's fussy eating behaviours (Wolstenholme et al., 2019) in addition to feeling inadequate as a parent for not being able to feed their child, (Rubio & Rigal, 2017), reinforcing the notion that they are not *good enough*.

A narrative that seems to alleviate this guilt and stress, is if the parent perceives that this fussy eating is due to a sensory issue related to ADHD or ASD. Research has found that children and adolescents with ADHD and who are unmedicated have an increased risk of being overweight (Waring & Lapane 2008). One suggestion for this increased risk is linked to

poor behaviour regulation, which can lead to the development of abnormal eating patterns that increase the risk of gaining weight (Agranat-Meged et al., 2005; Cortese & Tessari, 2017). Therefore, the parents' guilt is alleviated when a diagnosis can better explain the child's fussiness. At the same time, parents also recognise how their parenting can also influence these eating patterns, and how it may be a contributing and maintaining factor to their child's fussy eating, which causes the parent to feel guilty.

What this category captures is a sense of not being a *good enough* parent, resulting in an intense feeling of guilt. Parents often feel guilty because they are unable to translate their intentions to change behaviours into actionable steps, such as, providing activities, offering affordable healthy food for their children, and promoting a balanced diet, all of which are likely to contribute to their child's weight loss and overall health. Pescud and Pettigrew (2014) collected data from parents of children living with obesity, who also expressed feelings of guilt and frustration when they were unable to provide their child with fresh and healthy foods due to cost. The frustration and guilt perpetuates into self-blame and the cycle of frustration and guilt continues. This is not the first study in which parents have reported self-blame and guilt for their children's weight, or facing difficulties when trying to make changes. Gorlick et al. (2021) and Lorentzen et al. (2011) reported similar beliefs shared by parents. West and Sanders (2009) also found that parents of children living with obesity struggle with managing their child's unhealthy behaviours, and lacked confidence in their ability to make changes. It is not surprising that parents struggle with making changes, as societal messages about what constitutes a healthy, active lifestyle are confusing and inconsistent (Hesketh et al, 2005); on top of the narrative that parents are solely responsible for their child's weight status (Quirke 2016). To alleviate their guilt, parents may sometimes attribute the cause of their child's unhealthy behaviours to a diagnosis, thereby absolving

themselves of any fault in their parenting. Another strategy is to resort back to old unhealthy habits as this decreases the frustration of attempting to make changes which are challenging, and it reduces the guilt because it provides an explanation as to why the child is not losing weight, or strategies are not sustained because they are aware they have resorted back to old habits. However, the guilt and blame returns and intensifies and the vicious cycle continues.

Convenience of unhealthy foods

Parents spoke about the convenience of unhealthy foods in the form of fast-food restaurants, ready meals, snack bars, and a general lack of healthier options when out and about. Parents explained that having convenient, and at times cheaper, unhealthy options makes it harder to sustain healthy behaviours. Convenience and availability of fast-food restaurants, and advertisement of junk food, have been reported as barriers to sustaining HBC by parents in previous research (Lucas et al., 2014; Sonneville et al., 2009). Other research has shown that stressed parents are more likely to purchase fast food for their families to save time, or reduce the demands of cooking a meal from scratch (Parks et al., 2012). Furthermore, Jones et al. (2014) reported that healthy foods and drinks in the UK have been consistently more expensive since 2002. The affordability of healthy food, as well as the cost of time and energy to cook meals from scratch, presents as barriers to sustaining HBC for parents on behalf of their children. Parents in this study reported that their efforts to make healthy changes, such as cooking from scratch and providing healthier food options, often go to waste due to the child's preference for unhealthy options and the shorter shelf life of fresh foods. As a result, parents tend to purchase foods they know their child will eat. Parents feel guilty for choosing convenient, unhealthy options, but at the same time, the guilt is alleviated as their child is happy eating the food they like, and the parents know that their child is satisfied. Pescud and Pettigrew (2014) also reported parental guilt following their child’s consumption of

fast foods, knowing they were unhealthy. Parents are stuck in a double bind. The emotional cost of feeding their children unhealthy, convenient food, was outweighed by knowing their child's hunger was satisfied, and that they were happy. In return, the parent guilt would decrease, but unfortunately, not for long, and the vicious cycle continues.

Battling with children's emotional attachment to food

This category emphasises how the intolerable feelings of guilt, and self-blame, can become intertwined in a battle between parents and their child's emotional attachment to food. The battle results in defeat as parents struggle to regulate their own and their child's emotions, more specifically, their child's emotional attachment to food. Their child's hunger demands seemed to trigger an emotional response within the parent, such as guilt or fear that their child is hungry, even though they knew their child had eaten enough that day. As a result, they frequently gave in to their child's requests for more food. The parents surrendered to their child's demands as a means of alleviating their own feelings of guilt.

These findings are in line with previous research that concludes, children living with overweight or obesity tend to lack the ability to recognise signals of satiety and eat beyond this point. Seeyave et al. (2009) suggested that children who eat in the absence of hunger, may also have limited ability to delay gratification for food. A systematic review of nine experimental studies, concluded that children with limited ability to delay gratification were more likely to be overweight several years later (Caleza et al., 2016). Research has shown that a child's inability to tolerate delays in receiving a desired outcome is an important factor that can influence children's aggression (Ayduk et al., 2007). Parents in this study reported that their child's challenging behaviour that is provoked when they set a boundary around food, often resulting in a delay to the desired outcome, triggers feelings of frustration,

powerlessness and guilt for the parent which results in an inability to stick to the boundary set. Guilt is activated for the parent if they question themselves about whether restriction is the correct way to respond to their child's hunger demands. The guilt intensifies if the parents are responding to their child who is seeking out food for comfort. As not only is their child telling the parent they are hungry, but they are also feeing distressed. Parents know that giving them food will alleviate this distress. Consequently, parents experience feelings of guilt and self-blame for giving in to their child's demands, as they understand that this behaviour will not support their child's long-term weight loss goals.

Similarly, Watkins and Jones (2015) talked about parental guilt being present when they wanted to give their child unhealthy treats, and it was made more difficult when knowing that a healthier option was going to be unpopular with their children. Owen et al. (2009) and Watson et al. (2021) also reported that parents struggle to overcome the feeling of guilt when restricting their child's dietary intake, and that this became a barrier to implementing strategies.

Research has found that parents offering food for emotional regulation can increase the closeness between parent and child (Hamburg et al., 2014). It is understandable for parents to continue providing food, as it not only helps regulate their child's behaviour and emotion, it may also strengthen the bond between parent and the child. In addition to regulating the child's emotion, it also regulates the parents' emotions by decreasing the level of guilt.

Skinner (1950) discovered that certain behaviours continue overtime when there is an inconsistent schedule of rewards. This is referred to as intermittent reinforcement. Applying this to the parents in this study who inconsistently give in to their child's hunger demands,

suggests that their child will continue their behaviour of asking for additional snacks, even in the absence of hunger. When the parent says no, this can at times lead to challenging behaviour, which the parent finds difficult to manage. Although this behaviour theory offers an explanation as to why children may persistently ask for extra food, despite being told no by their parents, what it does not explain, is why the child is asking for additional food in the first place. One explanation could be their inability to delay gratification, as well as their lack of ability to notice satiety. Furthermore, what these theories do not explain is why the parent struggles to stick to the boundary set, despite knowing at times that it may be in the child's best interest. The theory of intermittent reinforcement explains why the child will continue displaying the challenging behaviour as the parents are unintentionally rewarding this behaviour by giving them food inconsistently. What further adds to this complex dynamic process between parent and child, is parental guilt and self-blame, as well as the difficulty with the regulation of emotions, both for the parent and the child.

To the researchers' knowledge, this present study is the first qualitative study that offers an explanation of the process that happens between parent and child when a boundary is set, and how the child's challenging behaviour can lead to the parent surrendering, and therefore is unable to sustain HBC.

Breaking the repetition of intergenerational eating habits

Parents spoke about the development of their own disinhibited eating behaviours (DEB), such as emotional eating, and their intention to break these intergenerational patterns of unhelpful behaviours. Parents acknowledged how ingrained and unhelpful these patterns had become for them, and were acutely aware of how easily they could be passed on. Parents' intention of wanting to break these unhelpful cycles has also been found in previous research

(Watkins & Jones, 2015). Despite efforts not to repeat patterns, parents in this current study reported their child's unhealthy relationship with food. Parents explained ways in which they had attempted to break cycles. One example was by not enforcing the rule of having to finish everything on the plate. This left parents with some uncertainty as to how their child had developed an unhelpful relationship to food, at the same time, identifying similar patterns of eating behaviours and attitudes that they hold, such as using food for comfort.

Existing literature suggests that food parenting practices, such as modelling, can have an influence on children's attitudes and unhealthy eating behaviours (Brown & Ogden, 2004; Montaño et al., 2015) and that these can persist into adolescence and adulthood (Dickens & Ogden, 2014; Małachowska & Jeżewska-Zychowicz, 2021; Savage et al., 2007). Supporting the idea that unhealthy behaviours can be easily passed down to children.

A recent study by Patel et al. (2022) found positive associations between mother's experiences as a child and their current eating behaviours, which also predicted the use of coercive food parenting practices with their child. The study highlighted that the specific use of food to control children's emotions was predicted by the mothers' experiences of higher levels of emotion regulation and modelling as a child. Facey (2021) also found that parents have reported that their own emotional eating is a barrier to making healthier choices for their children, and explained that buying and serving unhealthy foods for themselves, also meant their children would be eating the same foods.

In this study, there was an intense sense of guilt from parents around the possibility of having passed down unhealthy eating behaviours to their children. Guilt was also present when parents spoke about maintaining these eating behaviours themselves, whilst attempting to address their child's. Struggling to regulate emotions, resulting in DEB for both the parent

and the child, was featured throughout the parent's experiences. Parents shared that they continue to use food to comfort themselves and their child, as well as avoiding conflict between them and their child. What was also apparent was that using food to regulate emotions had already become a behaviour that the children engage in too. Previous research has found that children may learn to regulate their emotions by eating if this is what their parents did (Blissett et al., 2010).

Grandparents would undermine parents' authority when it came to setting boundaries around food. Particularly at times when children were at their grandparent's home. Lack of support from extended family is consistently reported as a barrier to making healthy lifestyle changes for children living with obesity (Cason-Wilkerson et al., 2015; Schalkwijk et al., 2015; Staniford et al., 2011). Frustrations are expressed towards family members that undermine healthy behaviour changes by continuing to feed children unhealthy foods (Watson et al., 2021). This was a tricky situation for some parents, as they often rely on their parents for childcare, but with this, came the continuation of unhelpful eating behaviours. With parents having to rely on child-care from grandparents, which is increasing in the UK (Kanji, 2018), the feeling of guilt is triggered as they are unable to implement healthy changes, due to having limited options for childcare. Parents talked about attempts to bring the extended family on board, although this often resulted in conflict. One way to manage this guilt is by blaming other people who may be responsible for maintaining their child's unhealthy eating habits. This has been reported in previous research (Schalkwijk et al., 2015).

This category adds to the understanding of how intergenerational eating habits play a role in the barrier to sustaining HBC. It further highlights the relationship between parental eating habits and emotional dysregulation, as well as the child's eating habits and emotional dysregulation.

Parental Guilt and Blame and Emotional Dysregulation

The two key concepts that are central to this grounded theory research are, parental guilt and blame, and emotional dysregulation. These two distinct but linked concepts can help us to better understand and make sense of the barriers parents encounter when sustaining HBC for their children. Parents spoke about several difficulties that they encounter when trying to sustain HBC for their children, which have been reported above in relation to existing research. What this grounded theory research adds, is the notion that parent guilt and blame, as well as emotional dysregulation, are evident within all of these barriers, and they help us better understand why parents struggle to overcome the reported barriers to sustaining change. Moreover, the feeling of guilt is both a consequence of, and an antecedent, of unhealthy child feeding practices. To avoid this guilt, and prevent feeling blamed, parents attempt to engage in emotional regulations strategies for both themselves and their children. One dominant strategy parents have learnt to regulate emotions is by using food. Therefore, when parents recognise the struggle to regulate their own emotions and their child's, they feel guilty as they tend to resort to using food to regulate, and therefore deem this as a failure and so the cycle continues.

The initial blame and guilt could be argued to stem from parents holding a huge sense of responsibility for their own behaviours, as well as their child's. If this is not up to societal standard, then they are deemed to be a bad parent. Parents have difficulty with managing the guilt associated with being seen as a parent of a child living with obesity. There is a strong discourse around blaming parents for the development and maintenance of childhood obesity (Nnyanzi et al., 2016; Quirke, 2016). They can never avoid the guilt or blame, as there is a huge amount of stigma associated with obesity, regardless of whether you are an adult or a child. Several books and articles have been written for parents, reaping with advice on how to

engage in good parenting practices, so that their child does not develop an unhealthy relationship with food, and ways to prevent obesity (Quirke, 2016). This further adds to the notion that parents are solely responsible. Childhood obesity is just another aspect of parenting that parents have to contend with, on top of their already existing responsibilities of being a parent (Herndon, 2010). Parenting has arguably become intensified over the past few decades, with Hays, first coining the notion of intensive mothering in 1996. The term refers to a shift in parenting that now requires an enormous amount of time, energy, and money in raising children. The pressure from this idealised idea of parenting is causing strain on families, and the relationships within these families. When a parent is struggling to live up to this distorted idea of the perfect parent, it leaves them feeling guilty. They blame themselves for not being good enough, and they try hard to regulate these feelings. This interferes with their capacity to sustain HBC, as the blame from society for their child's weight status causes intolerable feelings, and to regulate these feelings, they engage in unhelpful regulation strategies, which further adds to the unhelpful cycles.

Guilt has been found to be a motivator for behaviour change (Amodio et al., 2007; Lickel et al., 2014), and arguably public health campaigns that are targeted towards people who as viewed as needing to change their eating habits, are based on the idea that motivation to change behaviour will be driven by a guilty conscience (Kuijer & Boyce, 2014). When applying the theory that guilt is a motivator to behaviour against the current findings, this does not hold up. What this study has found, is that guilt is an undesirable, aversive emotional consequence, that parents are left with, after trying to change behaviour for their child. To manage feeling of guilt, parents engage in unhelpful emotional regulatory strategies that continue the cycle of unhealthy behaviours, in relation to diet and exercise for their children. For these

parents, guilt arguably has the opposite effect in the long run and is not a motivator for sustained behaviour change. More specifically, it is not a motivator for sustained change when the change is being implemented by a parent on behalf of their child. Another way that parents regulate guilt is by diffusion of responsibility. Parents spoke about grandparents playing a role in the maintenance of unhealthy behaviours. Shifting blame onto others is another way parents can manage intense feelings of guilt and blame. It is a way of protecting themselves from further shame. Watson et al. (2021) found that some parents were able to overcome the feeling of guilt when they were restricting their child's diet. The authors also reported that parents took ownership and responsibility for their own eating habits as they were aware on the influence the behaviours had on their children. A limitation of Watson et al. research is that it does not explain how these parents were able to overcome the guilt. It also implies that it is up to the parents to make these internal emotional changes themselves, as the research did not explain the process for how parents were able to overcome their feeling of guilt when restricting food. Furthermore, the study only reported the feeling of guilt when the parent was restricting food.

It would be naïve to ignore the reality that parents are instrumental in managing and preventing childhood obesity, but this is not to be confused or reworded as parental blame. It is also not to say that parents are solely responsible for the development of childhood obesity, as some of the existing parenting and HBC advice and literature implies. Whilst some literature and parenting advice offers a simple recognition of the fast-food industry and how this can impact on living a healthy lifestyle, it does not go much further than this. There is still an expectation that parents have to navigate their way through the obesogenic environment, without any changes being made to that environment. Parents do not raise their children in isolation from society. The parenting environment is becoming increasingly stressful, with

more pressures put onto parents to be perfect, including, societal, political, financial, and emotional. Whilst research has identified links between childhood obesity, HBC, emotional dysregulation and guilt; to the researcher's knowledge, this current research further expands this existing knowledge as it explains how blame, guilt and emotional dysregulation plays out in the context of childhood obesity, more specifically, when parents are trying to sustain HBC for their children in a society where parenting is intensifying and in an environment that is obesogenic.

Advancing existing HBC models

The SOC model has been widely applied to the treatment of adulthood obesity, and more recently to parents of children living with obesity (Sealy & Farmer, 2011). Although existing health behaviour theories, and models, can help us understand health behaviour, including obesity. They lack to fully explain the relational and emotional aspects that are involved in the process of making healthy changes from a parental perspective on behalf of their child. Applying behaviour change models to someone (parent) who is seen as being responsible for / in control of the behaviour change of someone else (child), does not seem to hold up. Parents can be influential in their child's behaviour, but they do not have control over it.

If the SOC model was to be applied to the parents in this study, it could be argued that these parents are oscillating between three stages: preparation, action and maintenance. All the parents are aware of the physical and psychological risks for their child due to living with obesity, and have decided to make change, which could be argued as the preparation stage. Parents spoke about the changes they had made, or had done previously and reintroduced again, therefore it could be said this is the action stage. The SOC model, according to Sealy and Farmer (2011) states that for parents to be in the maintenance stage, they need to have

consistently maintained changes (behaviour and cognition) for at least six months, and for the new behaviour to have become incorporated into their lives. This research did not aim to measure which stage parents were at, but it did require parents to have been sustaining changes for at least six months to meet the aim of the study, which was exploring barriers to sustaining HBC. Parents identified themselves as having attempted to sustain changes for at least six months, with many attempting change for several years. What is clear from the findings of this study, is just how quickly parents can move between the stages, within a matter of minutes. The SOC theory being applied to parents' readiness to change for their child living with obesity has its limitations. The theory does not explain the complex interactions between parent and child, when a parent is implementing behaviour changes with their child. The theory is able to examine which stage the parent is in, however, this current research shows that parents can be in multiple stages at once for different health related behaviours, and parents can oscillate between stages within a matter of minutes. The model also does not explain the complexity of emotions that are present during the behaviour change process, as evidenced in this research.

Arguably, behaviour change models, such as the SOC, TPB, IMB and SCT, imply that parents are responsible for making health-related behaviour changes for their child, and they do not offer a way of understanding the complexity of the emotional aspect of HBC when thinking about parent-child dyads. The models emphasise the important of motivation as a key factor for making behaviour change, however, as already discussed, parents are motivated to make changes, but there are a multitude of factors, including emotional and relational factors that are not accounted for in existing health behaviour change models. These models arguably support the notion of intensive parenting, which, as already discussed, adds

to the existing pressures of family life. The conditions that parents are describing, are imposed by culture, environment, and society. There is a culture of parenting experts that encourage parental blame for their child's behaviour. The sociological concept of *intensive parenting* encourages this blame, and holds the belief that parents are solely responsible for their child's behaviours. Societal shifts, such as the increase in female workforce, and most parents in the UK now being working parents, has been accompanied by an intensification of expectations associated with *good parenting* (Miller, 2017). Evidence for this intensification of parenting is seen by the increase in parenting expert advisors.

When parents are implementing HBC on behalf of their child, the SOC model may help explain parents' readiness to make changes, but it does not help us understand the complex emotional processes that interferes with parents being able to set, and follow through with a behaviour change. This is where the key concepts of parental guilt and blame, and emotional dysregulation, helps us better understand the barriers parents encounter when trying to sustain HBC for their child that is living with overweight or obesity.

Summary

Parents are living in an ever-increasing stressful environment. Parents are not choosing an unhealthy lifestyle for their children, nor are they choosing to ignore the problem. They are doing the best they can, within a toxic, obesogenic environment. This GT study highlights the complex and dynamic nature of HBC for children who are living with obesity. The study shows how challenging it is for parents to sustain HBC for their children, in an environment that does not support parenting, and does not support healthy lifestyles. As Rhodes et al. (2019) stated, "*humans are complex and dynamic, the explanations for many behaviours are likely to be equally complex*". There is no evidence to suggest that blaming parents for the development or maintenance of childhood obesity is helpful in decreasing childhood

obesity. The discourse needs to change, and questions of how can we help parents, need to be asked and answered.

Clinical Implications

This GT research offers important findings to the field of HBC, specifically when looking at the barriers from a parental perspective on behalf of their child living with obesity. As discussed, HBC in relation to childhood obesity is multifactorial, and therefore, support for families, needs to be done using an integrative, compassionate approach that is emotions led, rather than behaviour led. Society's response of *eat less, move more*, to the rising rates of obesity is an oversimplification of a complex problem. It instils this sense of individual responsibility and control of HBC, in addition, it adds to parental responsibility and control of their child's behaviours, which triggers parental guilt and blame. The findings from this GT study can be used to inform the way society looks at who is responsible for influencing change for children living with obesity, as well as understanding HBC from different modalities. Whilst there is some understanding that the development of childhood obesity is multifactorial, with a recent review backing this up (Smith et al., 2020). The current GT suggests that this should translate into treatment interventions. Unfortunately, not all interventions offer a multifactorial approach, nor do we as a society fully understand the emotional and psychological complexity of HBC in relation to childhood obesity. The research shows that a purely behavioural model is not sufficient for sustaining HBC for children living with obesity. Although NICE guidance recommends that WMP for families should focus on promoting behaviour change for the child and family. No further guidance is given as to how this should be done, and there is no guidance on how to approach behaviour change through an emotional lens. Services may benefit from shifting their perspective towards looking at the

emotional consequences of HBC, to enable and support parents to be able to make changes on behalf of their child.

Clinical Psychologists are trained and experienced in working with children and families, as well as in group settings, using a wide variety of theories and models, including and not limited to, systemic, psychodynamic, and cognitive-behavioural. This study highlights the importance of working with families and children to further understand the barriers faced when implementing health behaviour change in relation to childhood obesity. An approach that is formulation led would help to ensure that each family is receiving appropriate, tailored support to meet their needs. In 1969, the term 'formulation' was first used in clinical psychology regulations and is now a core competency of the profession (Crellin, 1998).

Obesity is not a choice, nor is it down to a lack of willpower from the individual, or a lack of effort from families, despite this being a strong held belief by members of society (Schwartz & Puhl, 2003). Existing theories of obesity, such as the biopsychosocial model (Engel, 1977; Russell & Russell, 2019) and the ecological systems theory (Skelton et al., 2006) highlights numerous factors that are intertwined that lead to the development and maintenance of obesity. Research shows that nearly 50% of adults who are attending a specialist obesity service have experiences of adverse childhood experiences (ACEs) (Hemmeringsson et al., 2014; Hollingsworth et al., 2012). Whilst the parents in this study did not report attending a specialist obesity service, some spoke about their own long-term difficulties with weight and eating behaviours, as well as mental health difficulties and ACEs. Schroeder et al. (2021) carried out a systematic review and found that ACEs also increase the risk for obesity in childhood. The relationship between mental health problems, emotional wellbeing, neurological disorders and obesity is complex and an integrated approach is needed for families seeking treatment of childhood obesity. Clinical psychologists are able to offer their expertise of working with childhood traumas, including relational trauma, family difficulties and other psychological factors that may be playing a role in the development of and maintenance of childhood obesity.

Families would benefit from an individualised approach, including an assessment exploring parental eating behaviour, food parenting practices, neurodevelopmental needs of the child, as well as exploring what external factors impact each family, e.g., finances, and transport. Wentz et al. (2017) also suggested that future intervention for childhood obesity would benefit from incorporating a neurodevelopmental treatment approach. Golan and Crow (2004) found that a parent-only intervention that touched upon parenting practices, such as encouraging parents to practice authoritative parenting style, found positive weight outcomes compared to the child-only intervention that focused specifically on the child, and discussed topics including physical activity, self-monitoring, and eating behaviour modification. This further supports the need for the approach to address food parenting practices.

When understanding the barriers to sustaining change, parental histories, specifically the development of their eating habits was of importance. Therefore, understanding why certain food parenting practices have developed may help parents to become more aware and insightful about their own practices. Importantly, this should be done in a compassionate, non-blaming way, to enable the parent to also have compassion for themselves to reduce parental guilt and blame. It would be beneficial if emotional support was offered around this and support on how to manage the emotions when implementing different practices. As the current study suggests, awareness of food parenting practices is not enough to sustain change.

The majority of parents shared stories of their own childhood and their own eating habits, along with some reporting mental and physical health difficulties, and how this impacts on their capacity to sustain HBC for their children. It is important that any future interventions should be open to exploring this with parents, with the aim to have a non-judgemental, non-blaming approach to untangle the ingrained patterns which are difficult to break.

With these factors in mind, a multidisciplinary approach would be best suited. A multidisciplinary team made up of, but not exclusive to, occupational therapists, registered dieticians, and a psychologist.

Running separate groups for parents who have a child with a neurodevelopment disorder may be beneficial, as the current study, as well as previous research, suggests that parents who have a child with ASD/ADHD has specific needs that may differ to neuro-typical children. Stress levels in parents has been reported to be higher when parenting a child with a neurodevelopment disorder (Craig et al., 2016; Miranda et al., 2015). Therefore, the groups may also focus more on supporting parents with these additional stressors.

Arguably, there is a need for prevention work in the context of childhood obesity. There is existing preventative work ongoing at the moment which is focusing on pregnant women who are living with obesity. However, where the preventative work starts is also questionable. Children living with overweight or obesity are likely to become adults living with obesity and if they decide to have children themselves, then they are likely to become parents living with obesity. Therefore, also targeting children living with overweight or obesity is just as important as intervening before children are born. So, thinking about where to break the cycle is important. Moreover, unless the approach is taken with a multifactorial lens, and knowing that the parent alone is not responsible for making changes, it will only add to the intensification of parenting, which is not helpful.

Thinking about the gender of the parent is important for the clinical implications based on the sample in this research. The majority of the parents interviewed for this research were mothers. Arguably, the interventions could be aimed at mothers who appear more invested, or at least feel more responsible for making behaviour change. On the other hand, interventions could specifically target and work to encourage fathers to be more invested in

making HBC at home with their children. What adds to this gender difference, and the importance of thinking about it within clinical practice, is the societal message of gendered eating and weight loss.

Strengths and limitations

This study has both strengths and limitations. One limitation being that the majority of parents interviewed were mothers. One suggestion is that females felt more entitled to speak about the barriers to implementing HBC for their children, but also, that mothers arguably felt more entitled to speak in an interview that called for parents. There were four fathers that were present within the recruitment stages. I had spoken with them about taking part in the interview, but they had not continued to the interview stage due to time pressures. This highlights another example of the intensification of parenting. Therefore, the resulting theory stems predominantly from a mother's perspective and does not capture the views of both mothers and fathers.

Another limitation of this study is that I did not collect the socioeconomic status (SES) of the families interviewed. Studies have found associations between SES and childhood obesity (Wang & Lim, 2012). Whilst it would have been useful to have this information, several participants spoke about the impact of the cost of food and physical activities on their child's weight status in their interviews, therefore demonstrating the impact of coming from a lower income family on childhood obesity.

Some might argue that sensitising myself to a concept from a participant who did not meet the inclusion criteria is a limitation to the methodology. The concept, *relationship with food* emerged from the first interview. The interview data was not used in the final analysis of this GT study. I used my reflexivity diary as a way of ensuring that I was not forcing the data

to this concept. I was aware that this may also be a predetermined concept that I had existing knowledge about, and so I kept open and sensitive to data from subsequent participants, to safeguard against any pre-conceptions being forced upon the data. Although I asked subsequent participants questions about the relationship with food, the concept appeared without the question being asked. Therefore, if I had not amended the interview schedule following the first interview, the concept around the relationship with food would have emerged.

A strength of the research is that it has captured some parents who were not enrolled in a WMP with their children. The majority of qualitative research looking at parental experiences of implementing HBC for their children are sampled from WMPs. It is a strength that I have been able to capture parents' stories on a sensitive topic where they may not have received any prior input from professionals. I may have been the first person that the parent had spoken to about the difficulties they encounter, and was someone who did not give any advice on what they *should* be doing to support their child to making healthy changes. Instead, the interview was a space for parents to share the difficulties they face in a non-judgemental, non-blaming way. I think this was achieved as the parents were open about the difficulties they are facing currently, as well as sharing stories of their own childhood, which added valuable insight into the barriers they face with their children today.

Future research

It would be beneficial to better understand fathers' experiences of the barriers they face when sustaining HBC for their children. Gaining a paternal perspective would help inform clinical practice, as engaging fathers in HBC programmes may differ to engaging mothers. Understanding how fathers manage and regulate their childrens emotions around food would be beneficial in thinking about how to incorporate this with the existing research.

A topic that was discussed in this research that would benefit from further exploration, is the link between fussy eating and neurodevelopmental disorders. Exploring more with parents about the difficulties they encounter with their child who has a ND, and how they perceive barriers, would better inform clinical practice for this group of children and parents.

Interviewing parents about the barriers they encounter captures only the parents experience. Future research may think about interviewing parents and children together, to understand from both perspectives how interactions may play out in the family home. It would also be important to think about what the barriers the child encounters and whether this is linked to the parents experiences. The age of the child would have to be given careful consideration as not to inadvertently portray a message that the child should be aware of the barriers, or that they are responsible for change. It may also be interesting to think about the gender of parents and the gender of the child and whether the dynamics and processes are different in terms of implementing behaviour change.

Future research could also speak with parents who have managed to overcome barriers to sustaining HBC. It would be beneficial to understand how they overcame barriers, and exploring whether the barriers they encounter were similar to the barriers the parents discussed in this study.

Dissemination

This doctoral thesis will be available via the University of Essex thesis repository. A summary of the findings will be sent to all participants that requested a copy. Professionals that were involved in the recruitment stage that had requested a copy will also be emailed. WMPs leads / services will be contacted to see if they would like a summary of the findings. Opportunities for dissemination of findings through working groups and conferences will be

considered. One potential working group that I have been in contact with is the Obesity Research Group (UEA HSCP).

Conclusion

The aim of this research was to better understand the barriers parents encounter when sustaining HBC for their child that is living with overweight or obesity. The literature review demonstrated that there is little research into understanding the barriers parents' encounter when sustaining HBC for their child. A CGT approach was used to answer the research question. GT offers a way of analysing the data which results in an analytical product and theory development is the goal. This GT research theorises that parental guilt and blame, and emotional dysregulation are central to parents' experience when encountering barriers to sustaining HBC for their child. I highlighted the need for additional research in this area, as well as how this research can inform clinical practice.

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Appendices

Appendix A

Table 1 - CASP Quality assessment of studies

CASP Checklist	Cason-Wilkerson et al., (2015)	Ditlevsen & Nielsen (2015)	Holt et al., (2015)	Jackson et al., (2005)	Lorentzen et al., (2011)	Lucas et al., (2014)	Owen et al., (2009)	Pearson et al., (2013)	Putter et al., (2022)	Schalkwijk et al., (2015)	Staniford et al., (2011)	Stewart et al., (2008)	Watson et al., (2020)
1. Clear statement of aims	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
2. Qualitative methodology appropriateness	yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes, but not much detail	Yes
3. Research design appropriateness	yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
4. Recruitment strategy appropriateness	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Can't tell	Yes
5. Data collection addressing the research issue	yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
6. Relationship between researcher & participants adequately considered	Can't tell	Yes	Can't tell	Can't tell	Yes	Yes	Yes, but not in detail	Can't tell	Yes	Can't tell	Can't tell	Can't tell	Yes
7. Ethical issues considered	Only ethical approval	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Only ethical approval was mentioned.	Yes	Only ethical approval was mentioned.	Yes
8. Data analysis sufficiently rigorous	Yes	Can't tell	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
9. Clear statement of findings	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Table 1 continued

10. How valuable is the research	First study to report experiences of a treatment seeking population of low-income Hispanic parents.	The study findings contribute knowledge on health behaviour in ethnic minority families.	Findings emphasise the need to understand how families assume responsibility for making health behaviour change.	The study highlights that childhood obesity is a family, challenge.	The study provides information on implications for practice and policy.	The study highlighted concerns for long-term sustainability of health behaviour change. The research provided information to information policy and practice.	The research compared their findings with existing literature and provides suggestions for future research and clinical implications.	Some clinical implications considered. No future research ideas suggested.	Detailed discussion of clinical implications, future research, and limitations of study.	The study discusses clinical implications and suggestions for future research. The study highlights the need for parents to have parenting support and help from extended family when attempting to make lifestyle behaviour changes.	The study is an evaluation of a weight management programme which can inform policy/clinical practice. Although may be limited to the understanding of parents that have attended a programme. Discussion around future research included.	Expands knowledge about the importance of social support for families that are implementing health behaviour change. However, there is limited clinical implications and no suggestions for future research.	Clinical implications as well as study strengths and limitations were discussed.

Appendix B

Demographic Questionnaire

Part A: Parent/caregiver information

1) How many children are in the family home?

2) Please describe your role/relationship to child/children (mother, father, stepparent, etc.)

3) Please describe your ethnicity

4) Please provide your age (please highlight or delete)

18-25	26-35	36-45	46-55	56-65	66 and over

Part B: Child information

1) How old is your child/children? Please provide their date of birth

2) Gender of child/children

3) Please describe your child / children's ethnicity

4) Please provide the height and weight of your child/children

Height:

Weight:

Appendix C

Study Advert – Version 1

University of Essex

Parents needed for an interview study

What is this study about?

As part of my doctoral research project, I am looking to explore the barriers identified by parents for successful and sustainable health behaviour change in overweight or obese children.

What does the study involve?

The study involves an interview with myself, Liz Eaton, Trainee Clinical Psychologist, lasting up to an hour.

Can I participate?

You can participate if you are:

- A parent of a child who is overweight or obese* aged between 6 and 11 years
- Have been trying to implement health behaviour change / weight management strategies for the past two years.
- Are living in the UK

If you have any questions or would like to take part, please contact the researcher:

Liz Eaton - ee20444@essex.ac.uk

Supervisors: Dr Frances Blumenfeld (fblume@essex.ac.uk) and Dr John Day (Healthwatch Essex)

Ethical Approval Obtained by University of Essex (Ref: ETH2021-1382)

*

Appendix D

Study Advert – Version 2

University of Essex

Parents needed for an interview study

What is this study about?

Implementing health behaviour change strategies *(increasing physical activity, reducing screen time, healthier eating etc.)* for children can be a challenge.

For my doctoral research project, I am interested in exploring the barriers faced by parents when putting strategies in place to improve their child's health.

What does the study involve?

An interview lasting up to an hour, either by phone call or video call (Zoom).

Can I participate?

You can participate if you are:

- A parent / guardian of a child who is aged between 4 & 13 years
- Comfortable interviewing over the phone or zoom with an English-speaking researcher

If you have any questions or would like to take part, please contact the researcher:

Liz Eaton (Trainee Clinical Psychologist)

EE20444@essex.ac.uk

Supervisors: Dr Frances Blumenfeld (fblume@essex.ac.uk) and Dr John Day (jd20538@essex.ac.uk)

Ethical Approval Obtained by University of Essex (Ref: ETH2021-1382), Essex County Council & Suffolk County Council

Appendix E

Participant Information Sheet

A parental perspective of the barriers to sustaining lifestyle changes for their child living with overweight or obesity

My name is Liz Eaton and I am a Trainee Clinical Psychologist at the University of Essex. I would like to invite you to take part in a research study. Before you decide whether or not to take part, it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully.

What is the purpose of the study?

I will be interviewing parents of children who living with overweight or obesity, to explore the difficulties they experience when trying to implement behaviour change at home, and to understand what further support would be beneficial to support families.

Previous research has found that for parents, implementing strategies for weight management and health behaviour change at home with their children who are living with overweight or obesity can be difficult. It is important to gain a better understanding of what the barriers are, so that parents can feel better supported when promoting health behaviour change for their children

The study will be supervised by Dr Frances Blumenfeld and Dr John Day. Ethical approval has been sought by the University of Essex Ethics Committee.

What does taking part in the research involve?

This study involves taking part in a confidential interview (via telephone or zoom), lasting around 60 minutes, and completing a short demographic information survey. The demographic survey will ask you to provide your child's weight and height so that the primary researcher (Liz Eaton) can determine whether the inclusion criteria is met for the interview to take place.

You can choose whether the interview will take place either via the telephone or using a video conferencing platform (Zoom). The interview will be audio recorded and later transcribed by the primary researcher. Consent will be sought should you wish to take part in the research.

What will happen to my data?

Your data will be kept securely within an encrypted folder on the University of Essex network. Your data will be kept confidential and accessible only to the research team. Your data will be anonymised when written up by the use of pseudonyms. Your data will be kept for three years, after which is it will be destroyed and removed from the network.

Should you have any concerns or questions regarding the data collected from yourself, you can use the contact details here: University Information Assurance Manager dpo@essex.ac.uk

Do I have to take part?

No, it is your choice whether or not to take part. If you do decide to take part, you will be asked to provide written (electronically authorised) consent for the interview to be audio recorded for later transcription, and the use of anonymised quotes in a thesis, research reports and publications. You have the right to withdraw from the study without reason and any data

collected will be destroyed. You will be able to withdraw from the study either before or during the interview. Once the interview has finished, you will not be able to withdraw your data from the study.

Will my taking part in this study be kept confidential?
The data collected will remain confidential throughout the research process and a pseudonym will be used to allow for anonymity for write up / publication. Confidentiality will only be broken should you disclose any information that leads me to believe that you, or another person is at harm. Should this happen, this will be discussed with you in the first instance.

What will happen to the results of the research study?
The data collected with be analysed and written up into a thesis, for the Clinical Psychology Doctorate Degree, University of Essex. The study may be published as a journal article. Results may be disseminated to local authorities to help inform current practices.
All data will be anonymised and therefore you will not be identified. Should you wish to receive a copy of the findings, then you can contact me, or the research team to request this.

What are the possible disadvantages/advantages of taking part?
Taking part in this study will involve around 60 minutes of your time. Although there is no financial reward for taking part, we hope that you feel it beneficial to share your experience. A non-judgemental approach will be taken to this study.
Should at any time you feel distressed during the interview, you can take a break, or stop the interview.

What happens if I have a concern or complaint?
If you have any concerns or complaints about this study, please contact the primary researcher, Liz Eaton and/or supervisors Dr Frances Blumenfeld and Dr John day (contact details below). If you are still concerned or feel your complaint has not been addressed, please contact the
HSC Research Director, Dr Camille Cronin (camille.cronin@essex.ac.uk) or the university's Research Governance Officer, Sarah-Manning-Press (sarahm@essex.ac.uk).

Research Team:
Primary Researcher – Elizabeth Eaton (Trainee Clinical Psychologist, University of Essex) - ee20444@essex.ac.uk

Primary Supervisor - Dr Frances Blumenfeld (Programme Director and Clinical lead on the Doctorate in Clinical Psychology at the University of Essex) - fblume@essex.ac.uk

Secondary Supervisor – Dr John Day (Programme lecturer, University of Essex) – jd20538@essex.ac.uk

If anything is unclear, please do not hesitate to ask any questions. Thank you for taking the time to read this participant information sheet. Should you wish to take part in the study, please contact the Primary Researcher by email.

Appendix F

Consent Form

Project Title: A parental perspective of the barriers to implementing and sustaining health behaviour change for their child living with overweight or obesity

Research Team: Elizabeth Eaton (Primary Researcher), Dr Frances Blumenfeld (Primary Supervisor) and Dr John Day (Secondary Supervisor).

Please initial box

1. **I confirm that I** have read and understand the Participant Information Sheet for the above study and have had an opportunity to ask questions and have had these answered satisfactorily. ☐
2. I understand that my participation is voluntary and that I am free to withdraw from the study. ☐
3. I agree to my interview being audio recorded and the use of anonymised quotes in research reports and publications. ☐
4. I understand that my data can only be withdrawn before or during the interview. Once the interview has ended, I can no longer withdraw my data. ☐
5. I understand that any identifiable data provided will be securely stored and accessible only to the primary researcher and supervisor directly involved in the study, and that confidentiality will be maintained. ☐
6. I understand that my data will be anonymised when the results are written up, and therefore I will not be identified. ☐
7. I understand that the study will be written up as a thesis for the Clinical Psychology Doctorate - University of Essex. ☐
8. I understand that the study may be published as a journal article. ☐
9. I agree to take part in the above study. ☐

Participant Name	Date	Participant Signature
_____	_____	_____
Researcher Name	**Date**	**Researcher Signature**
_____	_____	_____

Appendix G

Interview Schedule – Version 1

Introductions

- Introduce self and the purpose of the interview. Confirm that they have consented.
- Explain recording, right to withdraw and confidentiality.
- Ask participant to talk in as much detail as possible about their experience. There are no right or wrong answers. State to the participant that it may feel like they are talking a lot, but that's OK, as I will be asking open questions.
- Ask the participant whether they have any further questions before starting.

1) **Tell me about yourself and your family**
   Prompts: Who lives at home? How many children?

2) **Tell me about your decision to implement weight management strategies for your child.**
   Prompts: How did you know that you needed to make changes? Did you speak with your child before making changes? Resources (WMP, change4life etc).

3) **What was your experience of implementing the strategies?**
   Prompts: What did you find challenging / manageable? How did implementing them make you feel?
   Think about factors: social support for parent and child (whether this was online or in person), support from family, friends, external agencies etc

4) **Tell me about your experience of sustaining these changes (strategies)**
   Prompts: If your child lost weight, when / what happened around the time they started to gain weight again? How does this link to the strategies used?

5) **What will you continue doing in the future to help sustain changes in terms of weight management strategies?**

6) **What support do you feel is needed to help you, as a family sustain the weight management strategies?**

Ending questions

Is there anything you would like to add? Were you expecting me to ask you any questions today that I haven't asked?

What has it been like discussing this today?

Advise to contact GP for support if they require follow up support for themselves or for their child.

Appendix H

Interview Schedule – Version 2

Introductions

- Introduce self and the purpose of the interview. Confirm that they have consented.
- Explain recording, right to withdraw and confidentiality.
- Ask participant to talk in as much detail as possible about their experience. There are no right or wrong answers. State to the participant that it may feel like they are talking a lot, but that's OK, as I will be asking open questions.
- Ask the participant whether they have any further questions before starting.

1) **Tell me about yourself and your family**
   Prompts: Who lives at home? How many children?

2) **Tell me about your decision to implement weight management strategies for your child.**
   Prompts: How did you know that you needed to make changes? Did you speak with your child before making changes? Resources (WMP, change4life etc).

3) **What was your experience of implementing the strategies?**
   Prompts: What did you find challenging / manageable? How did implementing them make you feel?
   Think about factors: social support for parent and child (whether this was online or in person), support from family, friends, external agencies etc

4) **Tell me about your experience of sustaining these changes (strategies)**
   Prompts: If your child lost weight, when / what happened around the time they started to gain weight again? How does this link to the strategies used?

5) **What will you continue doing in the future to help sustain changes in terms of weight management strategies?**

6) **Can you tell me about your child's relationship with food?**
   Where do you think this has come from? How do you think this has developed?

7) **What support do you feel is needed to help you, as a family sustain the weight management strategies?**

Ending questions

Is there anything you would like to add? Were you expecting me to ask you any questions today that I haven't asked?

Appendix I

Interview Schedule – Version 3

Introductions

- Introduce self and the purpose of the interview. Confirm that they have consented.
- Explain recording, right to withdraw and confidentiality.
- Ask participant to talk in as much detail as possible about their experience. There are no right or wrong answers. State to the participant that it may feel like they are talking a lot, but that's OK, as I will be asking open questions.
- Ask the participant whether they have any further questions before starting.

1. **Tell me about yourself and your family**
   Prompts: Who lives at home? How many children?
2. **Tell me about your decision to implement weight management strategies for your child.**

Prompts: How did you know that you needed to make changes? Did you speak with your child before making changes? Resources (WMP, change4life etc).

3. **What was your experience of implementing the strategies?**

Prompts: What did you find challenging / manageable? How did implementing them make you feel?
Think about factors: social support for parent and child (whether this was online or in person), support from family, friends, external agencies etc

4. **Tell me about your experience of sustaining these changes (strategies)**

Prompts: If your child lost weight, when / what happened around the time they started to gain weight again? How does this link to the strategies used?

5) What will you continue doing in the future to help sustain changes in terms of weight management strategies?

6) Can you tell me about your child's relationship with food?

Where do you think this has come from? How do you think this has developed? Is food used for something else other than to satisfy hunger?

7) **Have there been any life events, or stressful experiences that may impact on sustaining changes?**

8**) What support do you feel is needed to help you, as a family sustain the weight management strategies?**

Ending questions: Is there anything you would like to add? Were you expecting me to ask you any questions today that I haven't asked?

Advise to contact GP for support if they require follow up support for themselves or for their child

Appendix J

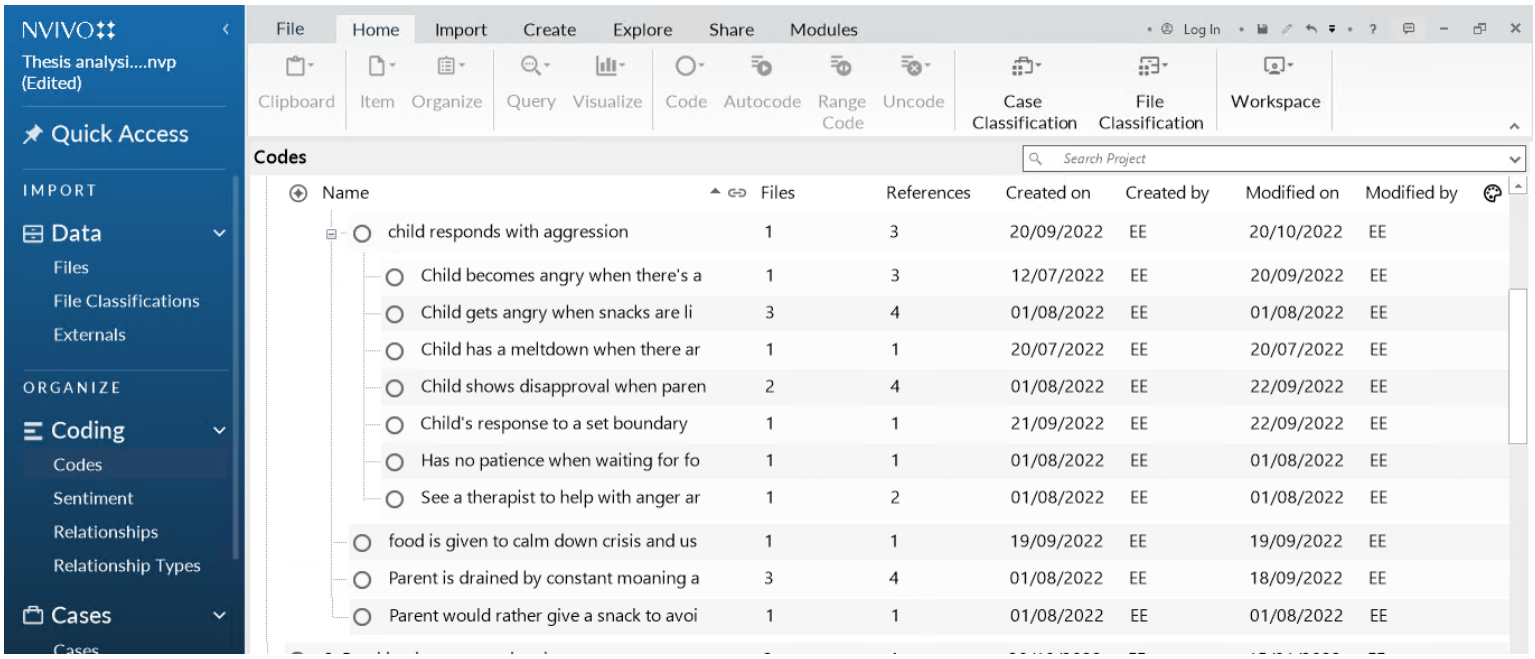
Example of Line-by-Line coding

Interview statement		Initial Line-by-line coding
Interviewee:	Uh huh, so I felt like it kind of had to take over our life quite a little bit. Erm, I, it felt like this huge task of, I was aware there were different elements to address in terms of the physical activity, so I booked a few extra clubs, karate, erm, our local forest club, erm, and just different things to address that side of things. I knew it physical activity was huge obviously, a thing. Erm, I looked on the NHS website and it just, it seemed to come down to, erm move more, eat less. So those are the two categories, but yeah, it really was. Like sitting down and like, note taking (laughs) researching and erm, a huge thing, erm portion sizes. I had no idea, I'd been over feeding [child] his, her, their whole entire life, erm just because I always let my kids lead. So "I'm hungry, I want, I've had my cereal, now I want some toast" and I'm like "OK" and erm, yeah just not even realising the portions, even in terms of sandwiches, you know, always giving them two pieces of bread and when they're like one or two, they don't necessarily need that much. Erm, so that was a huge wake up call for me. Erm, and a huge thing that we have to change, err which also caused huge backlash in the household because my children are used to having (laugh) a certain amount of food and then for me to say "oh actually, you know, it's it's not lunch time yet, you need to wait, maybe you could have some water instead" and like the behavioural backlash of that	Health behaviour change became a priority. Making changes was a huge task. Parent was aware of what needed to change in terms of physical activity. Looked up resources to help make change. Learning about healthy change. Engaging is making changes Making change to lose weight seemed simple – "move more – eat less". Investing time to make changes. Reality hit about portion sizes and how much she had been overfeeding her child. Parent feeling guilty for not being aware? Blaming self? Parent would feed their child in response to their hunger cues without taking into account how much food was fed. Realising now that she was overfeeding. Huge wake up call for parent. Realisation Parent embarrassed about their child being used to eating so much food. Free range of food? No boundaries around food previously? Making changes caused backlash. Parent began to respond to child's hunger demands in a different way. Parent offered alternatives to giving food to their child. Due to the child's behaviour, making changes felt all consuming. Surprised that children would respond in the way they did?

	was really strong, so it was it felt like a fulltime job, all-consuming to manage that, this kind of restrictions I guess, yeah, and the life style changes, so it didn't feel necessarily positive I don't think for myself or the kids, even though I knew it was the right thing to do, and absolutely necessary, erm, yeah it felt quite negative.	Making changes was not a positive experience. Parent knew it was the right thing to do, but It was a negative experience.
Interviewer:	Can you tell me a bit more about what it was like and what you experienced when you did try to implement them in terms of like the behaviour, what did that look like?	
Interviewee:	Erm, often, very ugly, so a better way to explain it, tantrums, err, crying, erm, slamming cupboard doors like rage, erm loads of really, yeah so we also see a therapist now every week to address this anger and rage, erm which is always centred around food, so it it would just be as simple as "you've just had your breakfast, I can't, you know you can't have another snack, it will hurt your tummy it's too much food" , and all the you know, explanation and its met with screaming and yelling and fighting and rage, so erm, that was a huge, erm, has a huge impact on temper. It's really hard to meet that with erm, with logic, (laughs) sometimes, but yeah really really hard going, erm and it still is to this day, really hard going to, to kind of say "mm mm, maybe this is the wrong choice, let's try a healthier choice". Erm, my youngest Is much more receptive I guess because they're younger and hasn't gotten used to having been able to access unlimited food and that kind of thing. Erm, so much more, much easier to err, to distract in terms of food, yeah.	Setting boundaries around food caused a negative behavioural response from child. Child gets angry when there is a boundary set. Child is dysregulated Parent sought professional help from a therapist. Addressing the anger Parent not giving food when child asks results in aggressive behaviour. Child wants to overeat? Child is overeating / was overeating Child is emotionally attached to food. Parent lacking assertiveness Child becomes irrational Parent unable to rationalise with child. Challenging for parent. Suggesting a healthier option. Attempting to teach the child about healthier options. Youngest child is more accepting of boundaries set and does not respond with aggressive behaviour. Distracting away from food.

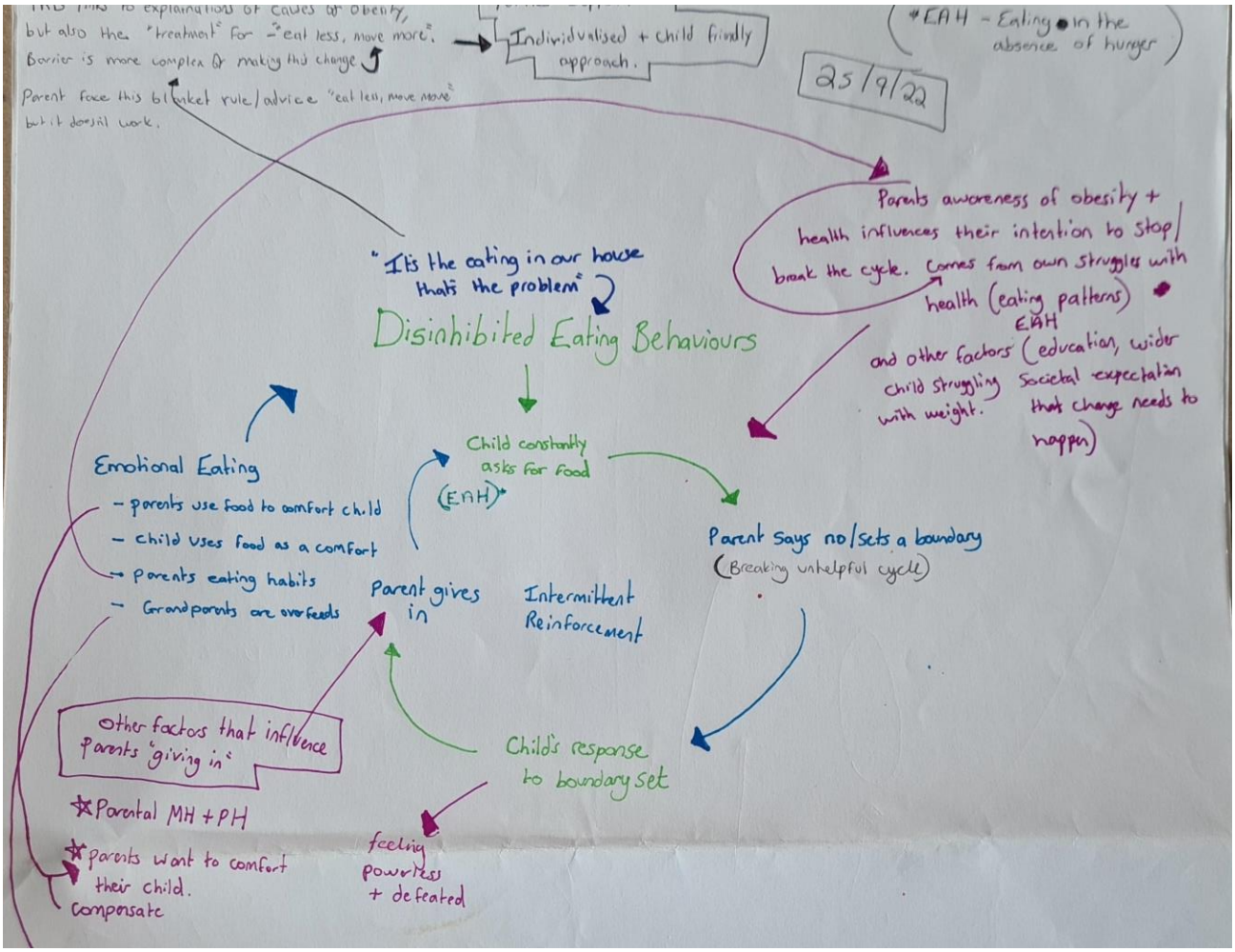
Appendix K

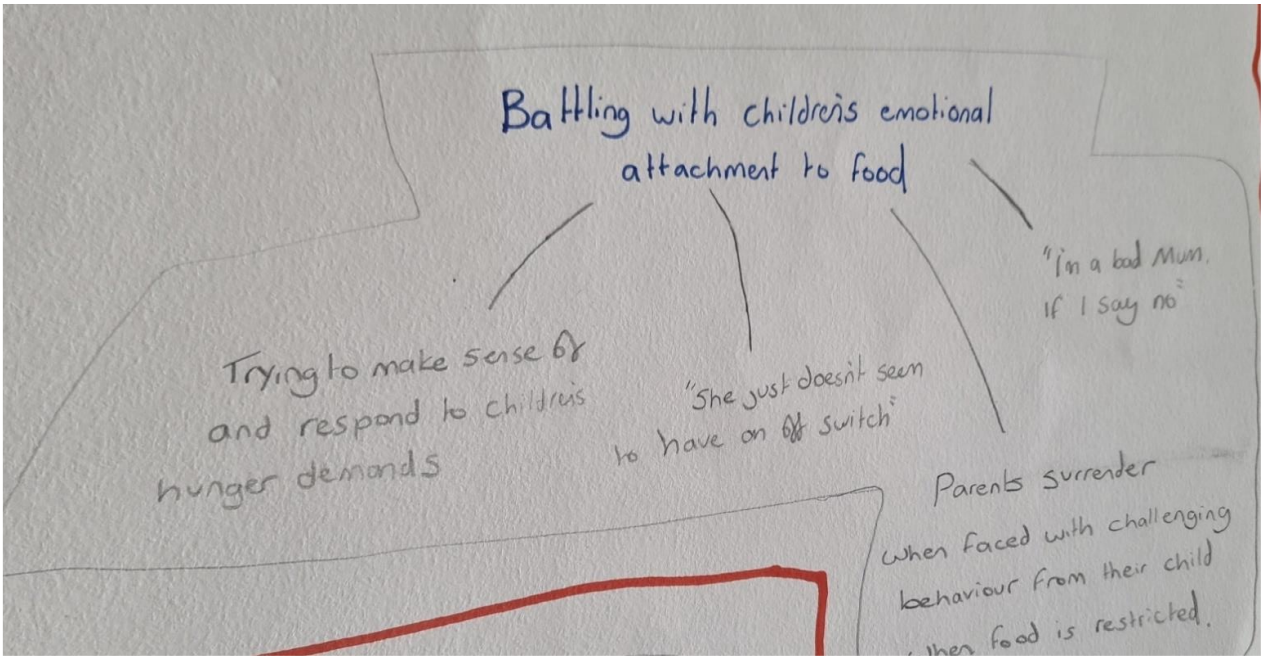
Example of Focused Coding



Appendix L

Diagram of tentative categories and sub-categories





Appendix M

Memos

Title: The child's level of aggression is exhausting the parents

Spark:

(Interview) "the behaviour is just, it's exhausting quite honestly. And the level erm, the level of aggressive around food when its denied is, is unbelievable. Yeah, so much so that we're in therapy (laughs) to, I know there's other factors in play in terms of mental health. But it does shock and surprise me that, so I have to keep a journal about behavioural outbursts because my child is so aggressive to try and get to the crux of what's causing it. And it's very often, if not always when I've said no to a food."

(Interview) "I think, you know, because she can become quite aggressive, and food is such an issue with her, it can become quite draining, erm a bit like you're being ground down type of thing, so it's kind of difficult to maintain that strict level."

(Interview) "if she is hungry, she does yeah she gets angry, erm, she can't, like i'll say she'll get home from school, I'll say "right, tea's in half an hour" she'll get angry say "why can't I have it now" well I say "well it's not cooked" and she'll get angry then. So, she's not very good with waiting for food."

Anger leads to parents giving in. Parents giving in relates to their day… or different thoughts and feelings... if the child has had a bad day or parents are exhausted. Cycle of using food as comfort or to compensate. Its more than just getting a takeaway due to tiredness. It's at a deeper level of exhaustion, not just physical exhaustion, more of an emotional drain. This links to the child's DEB. The child's DEB is exhausting – but it's the child's emotions? Do parents feel guilty about not being able to manage their child's DEB? But also feel guilt for saying no.

Title: Child's- disinhibited eating behaviours (always asking for snack (junk) food, will eat 4 bags of crisps at a time, sneaking/hiding food). Guilt

Category: Child always asks for food and child's relationship with food.

There is a link between child's love for food, and eating in the absence of hunger.

Parents guilt maintains relationship with food?

Parent's enable the overeating by having junk food snacks available, giving extras, bigger portion sizes (practical / physical) then psychologically, parents enable this due to their own feelings of guilt, from being absent, previous abusive relationships, not like seeing them sad, due to constant moaning, wanting to avoid the aggression, own MH and physical health.

This sounds blaming of the parents. What I'm trying to say, is, that on the outside, what people see if the practical side of "over feeding" their children, or "allowing" them to snack on junk food. But what's hidden, and what drives this feeding is the psychological barriers parents face; the guilt from the abusive relationship and therefore wanting to comfort their child, not wanting to see them sad or angry. Not wanting to have conflict with their children, and so a way to avoid this is to "give in". Their own struggles with MH and PH. Feeling guilt for their own struggles. Feeling guilt that they can't regulate the behaviours.

25.2.2023:

Kathryn later goes onto say "*in that moment, in your mind, you are the worst Mum in the world [laughs] as you say no.*" (Kathryn)

This mum is unable to say no – why? Because they struggle to regulate their own emotions? Why, trauma, learnt behaviour of using food to regulate emotions? This is being passed down, guilt for that. So, although on outside some may view this as the parent just needing to stick to the boundary of saying no, what is not understood, but what this study is highlighting is, for these parents, saying no, is not easy. Saying no comes with huge psychological consequences. It comes with intolerable feeling of guilt, thoughts of being a bad Mum, unconsciously repeating traumatising as they are unable to tolerate seeing their child is any distress, but also their own feeling of distress, or vulnerability.

Being a bad mum, or being mean is just intolerable. Parents cannot regulate this. Then when behaviour is challenging, the mean feeling is intensified, and becomes more intolerable – to get rid of this, they give in and feed their child. It not only soothes the child, but also soothes the parent. However, as the underlying issue of the meanness and guilt is not resolved, the short-term behaviour of feeding the child, is actually a miscue of what the child needs. What the child needs is on more of an emotional level and the parent is unable to meet this emotional need at present, therefore he cycle continue, the use of using food continues.

Appendix N

Ethical approval from University Of Essex

University of Essex ERAMS

13/09/2021

Miss Elizabeth Eaton

Health and Social Care

University of Essex

Dear Elizabeth,

Ethics Committee Decision

Application: ETH2021-1382

I am writing to advise you that your research proposal entitled " A parental perspective of the barriers to sustaining lifestyle changes for their overweight or obese child" has been reviewed by the Ethics Sub Committee 2.

The Committee is content to give a favourable ethical opinion of the research. I am pleased, therefore, to tell you that your application has been granted ethical approval by the Committee.

Please do not hesitate to contact me if you require any further information or have any queries.

Yours sincerely,

Aaron Wyllie

Ethics ETH2021-1382: Miss Elizabeth Eaton

This email was sent by the University of Essex Ethics Review Application and Management System (ERAMS).

Appendix O

Ethical approval for amendments from University Of Essex

University of Essex ERAMS

08/11/2021

Miss Elizabeth Eaton

Health and Social Care

University of Essex

Dear Elizabeth,

Ethics Committee Decision

Application: ETH2122-0207

I am writing to advise you that your amendments to your previously approved research proposal entitled " A parental perspective of the barriers to sustaining lifestyle changes for their overweight or obese child" has been reviewed by the Ethics Sub Committee 2.

within the PIS and consent form, and changes to the contact details for your secondary supervisor.

Please do not hesitate to contact me if you require any further information or have any queries.

Yours sincerely,

Dr Aaron Wyllie

a.wyllie@essex.ac.uk

Ethics ETH2122-0207: Miss Elizabeth Eaton

This email was sent by the University of Essex Ethics Review Application and Management System (ERAMS).

Appendix P

Ethical approval for amendments from University Of Essex

University of Essex ERAMS

09/03/2022

Miss Elizabeth Eaton

Health and Social Care

University of Essex

Dear Elizabeth,

Ethics Committee Decision

Application: ETH2122-0950

I am writing to advise you that your research proposal entitled " A parental perspective of the barriers to sustaining lifestyle changes for their child living with overweight or obesity" has been reviewed by the Ethics Sub Committee 2.

The Committee is content to give a favourable ethical opinion of the research, as amended. I am pleased, therefore, to tell you that your amended application has been granted ethical approval by the Committee.

Please do not hesitate to contact me if you require any further information or have any queries.

Yours sincerely,

Dr Aaron Wyllie

(a.wyllie@essex.ac.uk)

Ethics ETH2122-0950: Miss Elizabeth Eaton

This email was sent by the University of Essex Ethics Review Application and Management System (ERAMS).

Appendix Q

Ethical approval from Essex County Council

RE: Essex council ethics approval

PR

Poppy Reece - Senior Researcher <Poppy.Reece@essex.gov.uk>
To Eaton, Elizabeth K
Cc John Day

Follow up. Start by 28 November 2021. Due by 28 November 2021.
You forwarded this message on 14/12/2021 11:49.

Hi Liz,

Thank you for this. Everything is really clear and happy with this, sounds like an interesting project.

Please proceed and best of luck with the research 😊

Many thanks,
Poppy

Appendix R

Ethical Approval from Suffolk County Council

Your Ref:
Our Ref: 2021-11-SRG12
Date: 21.01.2022
Enquiries to: Elena Stanuta
Tel: 01394 605081
Email: Elena.Stanuta2@suffolk.gov.uk

Suffolk County Council

To:
Elizabeth Eaton
Trainee Clinical Psychologist
University of Essex (Colchester Campus)
Wivenhoe Park, Colchester
CO4 3SQ
By email: EE20444@ESSEX.AC.UK

Dear Liz,

Re: *A parental perspective of the barriers to sustaining lifestyle changes for their child living with overweight or obesity Ref. 2021-11-SRG12*

Further to our email correspondence, thank you for providing additional information in relation to your research project, as requested by the panel. The additional information you provided has been considered at the Panel meeting on 11th January 2022. I can confirm that research governance approval has been granted for the project.

As part of the approval please can you let the panel know of any major changes to the methodology or implementation of the research project.

The research governance panel wish you well with your project. I hope everything is clear but please contact me if you have any further queries about Suffolk research governance.

Best wishes,

Elena Stanuta
Chair of Suffolk Research Governance Panel