Socially Constructing Healthy Eating: A Foucauldian Discourse Analysis of Healthy Eating Information and Advice

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Acknowledgements

Section A - Preface

Preface

This portfolio demonstrates how I met the five competencies for the Professional Doctorate in Health Psychology. Throughout my journey over the last four years, the majority of my work has been based in Public Health Department of a local authority. I have also supplemented my work with university teaching. Through my work in public health I have developed and grown as a reflective practitioner. I have been able to find creative ways to apply my learning from each competency to public health and as a result I have been able to shape and develop my current role as the Public Health Evaluation Lead. Over these last four years, I feel my confidence has grown as I have developed my skills and taken on new challenges.

Professional Competence

By working in a large local authority, I have been able to work collaboratively with several teams on a variety of different projects including NHS organisations, district councils and local not-for-profit organisations. Working in partnership projects has enabled me to develop my leadership skills and understand how different teams and organisations work.

I am lucky to work in an organisation that encourages its staff to engage in continuing professional development (CPD). This can be through online learning, shared departmental learning, specialised workshops and/or training courses. By regularly engaging in CPD and reflective practice, I have gained the confidence to practice as an autonomous professional in the workplace.

Behaviour Change Intervention

As I work in a commissioning based organisation, I do not have regular direct contact with service users. When I stated in the role designing interventions was new to me. Therefore, I found that the behaviour change intervention was the competency that I had the least confidence to carry out. I was able to carry out the population needs analysis part of the competency through my regular role. However, I carried out the delivery of the intervention externally to my regular role in order to gain experience in therapeutic relationships under the guidance of my university supervisors. Through this competency I gained experience of applying behaviour change theory (COM-B and social cognition theory) and knowledge of behavioural change techniques to the design of an intervention. When I faced up to the challenge of carrying out the intervention with the client, it went

well and she was happy with the outcome. This has given me the confidence to identify behaviour change techniques in my current work and find ways in testing their effectiveness. It has also given me the confidence to consider working in a face to face role in this area in the future.

Research

My interest in healthy eating originated as an extension from my stage 1 Health Psychology training. For my current study I wanted to take a qualitative approach to research and I also wanted to set myself a challenge of using a theory-based method. I had first learnt about discourse analysis in my 3rd year undergraduate psychology degree and had found it an interesting yet difficult concept. I felt that I was now ready for the challenge of applying a Foucauldian Discourse Analysis to the topic of healthy eating. Healthy eating advice is also in the domain of public health as well as health psychology so I felt this would fit well from both perspectives. Foucault often talked about the power relations between institutions and individuals. Working in a governmental institution myself I felt that this theory-based method would be highly appropriate.

During the research process I often found myself out of my comfort zone. Although I felt uncomfortable at times, I was aware that this was a good place to be as it has enabled me to improve my qualitative analytical skills and it has given me the confidence to use theory-based research methods. I can also see how useful theory-based methods can be as they are able to take qualitative research a step further than non-theory-based methods. The next step for me will be to review my research in relation to publishing. I collected a lot of data and I feel that it would be useful to consider publishing more than one paper in relation to the research project. This may entail some further analysis on some of the focus group data separate to the texts analysis as I feel there are more insights to be gained from this data.

The title for my systematic review was 'Women's experiences of Pregnancy related Pelvic Girdle Pain' (Mackenzie, Murray & Lusher, 2018). The idea came from my own personal experience as I felt that it was under recognised among medical professionals. I chose to carry out a qualitative only review and this gave me the opportunity to apply a meta-synthesis to the identified studies. My supervisors encouraged me to get this review published and it was accepted for publication in Midwifery in January 2018. This was my first published paper and I was really proud of myself of facing up to the challenge of publication and critical peer reviewers.

Consultancy

Consultancy was one of the first competencies as I spotted an opportunity early on in my Professional Doctorate journey. I had carried out consultancy work before in a previous non-health related role so I had the confidence to work with external clients. However, previously I did not initiate or organise the consultancy work as this was carried out by the organisation I worked for. Therefore, by undertaking this competency I gained the skills in setting up the consultancy, negotiating and agreeing the consultancy objectives and managing the consultancy process until the end. This has given me the confidence to set up, manage and carry out internal/external consultancy work with other local authority directorates and district councils running health improvement interventions.

Teaching and Training

Over the last four years I have carried out many teaching and training sessions to a variety of groups, both professional and non-professional. At first, I was nervous about teaching to a small group of MSc Health Psychology students as I felt that they were not that far behind me on the professional journey. However, the more university teaching I carried the more confident I became. Therefore, by the time I came to teach a large group of third year BSc Psychology students I felt a lot more confident in carrying out the teaching. In addition, I have carried out several training sessions around evaluating health interventions in the work place and I now feel confident and enjoy the sessions. I have also found within these training sessions I can learn from my trainees about the work that they carry out. This has helped me to identify gaps in my knowledge and it helps me customise future training sessions for my clients.

Summary and Future Plans

Looking back over my journey towards becoming a registered health psychologist, I can see how I have developed and grown both in my current role and as an individual. I feel confident to work with a wide variety of people in different settings and I enjoy taking on new challenges and opportunities. I will continue to engage in CPD in order to develop further as a professional practitioner and make sure that I look for opportunities to stretch myself and increase my skills and understanding as a professional health psychologist.

References

Mackenzie, J., Murray, E., & Lusher, J. (2018). Women's experiences of pregnancy related pelvic girdle pain: A systematic review. *Midwifery*, *56*, 102–111. https://doi.org/10.1016/j.midw.2017.10.011

Section B - Research Competence

Research

Socially Constructing Healthy Eating: A Foucauldian Discourse Analysis of Healthy Eating Information and Advice

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Abstract

Background

It is well recognised that eating a poor quality diet can lead to a number of long term health conditions and premature mortality. In response, a variety of materials, offering healthy eating advice from both state and commercial sources, have been produced in the UK to help and encourage people to eat well and avoid diet related health issues. However, a large proportion of the population still suffer from long term conditions which could have been avoided through an improved diet. The aim of this research was to consider how healthy eating advice is relayed to the public and how people relate to it by exploring how healthy eating is socially constructed in the 21st century in the East of England. The research aimed to uncover the discourses used in healthy eating texts in the UK, how people positioned themselves in relation to these discourses and the power relations between institutions and the UK public.

Method

A Foucauldian Discourse Analysis was applied to a range of healthy eating texts from both state and commercial sources. In addition, five focus groups were carried out to determine how the participants positioned themselves within the text's discourses and their sense of trust in the materials.

Findings

The analysis of the texts uncovered a combination of discourses including scientific, thermodynamic, natural, childcare, medical and moral discourses which offered up subject positions to their readers in relation to moral citizenship and personal responsibility. Through the use of bio-power, foods within the texts appeared to be categorised as 'good' or 'bad' foods in which bad foods were considered to be risky to health due to their nutritional composition. Most of the texts assumed people have the agency to follow the text's advice and failed to consider the readers' personal context. Focus group findings revealed that many participants felt that healthy eating should be based on common sense and ideally it is better to listen to your body to understand what it needs and there is no one size fits all approach such as that presented in the texts.

Chapter 1 – Introduction

Food and health is a hot topic today in the 21st Century both with the general UK population and with health professionals. When I put the phrase "healthy eating" into Google (in April 2017) it returned 66 million hits. However, even before starting this research project it had always struck me that even through there is so much information on healthy eating and healthy diets around, as a population, we are still experiencing increases in long term health problems related to poor diets. If all this money is being poured into encouraging people to improve their diets why is it not working? Dietary advice seems to be everywhere. As well as being produced by state health organisations, it can also be found in magazines, newspapers, television, cookery books, online blogs, social media as well as other sources. Only 150 years ago our main concern around food and health was getting enough to eat and that our food was not going to make us physically ill due to food adulteration (Burnett, 1989). Therefore, I have found it fascinating how our perceptions, attitudes and behaviours towards food and health have changed in a relatively short period of time.

The health problems of poor diets

Since the mid-20th century, non-communicable diseases have risen considerably in the UK. It is well recognised that eating a poor quality diet can lead to a number of long term health conditions including type 2 diabetes, heart disease, stroke, certain cancers, dental decay and premature mortality (World Health Organisation, 2003). Long term health conditions related to poor diets have one of the biggest impacts on the NHS budget in the UK (Scarborough et al. 2011). Failing to manage these conditions through appropriate diets, can result in further health complications for individuals. Therefore the logical response is to encourage the population to improve their diets by providing dietary advice and guidelines to reduce these health risks and improve life expectancy (Department of Health, 2013).

Healthy eating and institutional guidelines

The definition of a healthy diet can vary depending on an individual's age, health status and cultural background. For example, a healthy diet for children focuses on the requirements for healthy growth and development. On the other hand, for adults in an affluent country like the UK, a healthy diet focuses on achieving optimal health and preventing degenerative diseases (Truswell & Mann, 2012). Understanding the components of a healthy diet tends to evolve historically over time and can depend on geographical location (Mariani-Costantini, 2000). Therefore, the concept of a healthy diet may differ between older and younger generations and where someone grew up (Ikeda, 2004).

NHS Choices (n.d.) currently describes a healthy diet as the following:

> "Eating a healthy, balanced diet is an important part of maintaining good health, and can help you feel your best.
>
> This means eating a wide variety of foods in the right proportions, and consuming the right amount of food and drink to achieve and maintain a healthy body weight."

The advice above is based on the latest national guidance, produced by Public Health England (PHE) in March 2016, The Eatwell Guide. Since April 2013, PHE have had responsibility for providing public health advice on nutrition in England. Previously it was the responsibility of the Food Standards Agency (Public Health England, 2016). The Eatwell Guide consists of a visual image of a plate divided into sections which represent the different types of foods and how much of these foods an individual should eat every day. It is aimed at the whole population except for children under two years old and people who require special diets due to medical reasons.

Historically, the Eatwell Guide began as the Balance of Good Health produced by the Department of Health and the Ministry of Agriculture, Fisheries and Food and Health Education Authority in 1994 (Public Health England, 2016). It was the first official healthy eating guide by a UK governmental organisation (Hunt, Rayner & Gatenby, 1995). It was developed using the findings from The Dietary and Nutritional Survey of British Adults (Gregory, Foster, Tyler & Wiseman, 1990) and the National Food Survey (Ministry of Agriculture, Fisheries and Food, 1992). The Balance of Good Health was developed as an educational tool with the aim of encouraging the UK population to change their eating

behaviours to be in line with government recommendations (Gatenby, Hunt & Rayner, 1995). Thus to achieve the government's National Task Force's targets in diet and nutrition, obesity and blood pressure by 2005 (Richardson, Hignett & Inman, 1994). In 2007, the Balance of Good Health was revised to make it more visually appealing and removed the confusion around the food group labelling (Food Standards Agency, 2007). It was then relaunched as the Eatwell Plate. Finally the Eatwell Plate was refreshed in 2016 to become the Eatwell Guide and to include the latest information on dietary intake data and nutritional content of foods (Public Health England, 2016).

Review of the Literature

Health Information seeking behaviour

Health Information Seeking Behaviour (HISB) studies attempt to understand how and why individuals obtain health information and where they go to obtain information (Lambert & Loiselle, 2007). Baker and Pettigrew (1999) proposed two theories to understanding how people actively obtain health information. The first theory, based on Miller (1987), suggests that some people deliberately seek out health information as a way of coping from uncontrollable stress caused by a health condition. The second theory, based on Granovettor's (1973) theory of social ties, suggests that people obtain information through their social networks and is dependent on the strength of their social ties.

HISB is based on people's decisions to actively seek out health information. Longo (2005) found that many people, regardless of their background, came across health information when they were least expecting it and many people did not consider conversations with health professionals to be health information seeking behaviour. In addition HISB does not consider how the health information is understood or interpreted by people. This suggests that uptake of health information and associated changes in health behaviour is not a straight forward process.

Sources of healthy eating information and misinformation

There are many different sources of healthy eating information which are provided by a range of governmental bodies, commercial organisations and individuals. The methods of delivering healthy eating information are numerous and are continuously increasing with the developments of new technologies.

Studies investigating how the UK population source their healthy eating information are limited. Using the data from the Pan European Survey on attitudes to food, nutrition and health, de Almeida et al. (1997) found that people in the UK obtained their healthy eating knowledge from a wide range of sources. Magazines (37%), television/radio (30%) and newspapers (28%) were cited as the most popular sources of information. Speaking to health professionals was the fifth (19%) most popular source. Using the same data set, Holgado et al. (2000) found that the preferred sources for European citizens varied depending on age, gender and the educational level of individuals. In another UK based survey, 63% of respondents just stated they got their healthy eating information from everyday life (Goode, Beardsworth, Haslam, Keil & Sherratt, 1995). This suggested that many people were not actually sure where they got all their healthy eating information from. Since this research was carried out over 20 years ago, access to the internet has grown exponentially. These results would be very different if these surveys were carried out today. In the UK it is easy to access internet based healthy eating information from around the world. Therefore, it can only be concluded that mass media sources are popular information sources of healthy eating information and this will vary depending on the demographics of individuals.

Early research on online health information has found that it is convenient and people can discuss health issues with both health professionals and other members of the public (Cline & Hayes, 2001). More recent research by Pollard, Pulker, Meng, Kerr and Scott (2015) found that a third of the Australian population regularly used the internet as their main source of nutrition information and this has increased since 2004. However, Li, Theng and Foo (2016) found that internet searches for health behaviours in the US actually declined between 2002 and 2012. This suggests that people may be using alternative sources and/or it depends on the demographics of individuals and language accessibility. A UK study (Powell, Inglis, Ronnie & Large, 2011) found that the most likely characteristics of an online health information seeker was a younger well educated female seeking personal health information. Similar characteristics were found by Li et al. (2016). With health information being so freely available, it raises questions about the quality of the information and the trust that consumers have with online health information (Cline & Hayes, 2001; Eysenbach, Powell, Kuss & Sa, 2002).

A systematic review by Kim (2016), found several factors which affected people's trust of health information websites. These included personality, health literacy and socio-demographics. People made their decision to trust the information based on how professional the website looks, the quality of the information, the source of the

information, the language it used and the ease of use. Interestingly, a qualitative study within this review observed that no participants checked the "About Section" or read the disclaimers or disclosure statements when searching for information (Eysenbach & Kohler, 2002). This suggests that website appearance and personal belief systems will have a considerable impact on trust (Bessi et al. 2015).

The quality of nutritional messages and the problem of mis-information from the media (including internet sources) is a concern (Ayoob, Duyff & Quagliani, 2002) due to a lack of regulation. Using a web tracking service in Canada, Ostry, Young and Hughes, (2008) discovered that 80% of website visits for healthy eating and nutrition information were to commercial websites. Many of these websites had inconsistent advice around fruit and vegetable intake and undermined the key message of the Canadian Food Guide. In the UK, Wills, Dickinson, Short and Comrie (2013) found many inconsistencies on nutritional advice provided both in print and online media. Advice was often value laden and foods were labelled using the dichotomy of "good" and "bad" food. Consumers often misinterpreted the advice due to the subjective language used. Conflicting information about nutrition and healthy eating has also been associated with confusion and doubt about healthy eating recommendations (Nagler, 2014; Spiteri Cornish & Moreas, 2015).

Perceptions of healthy eating

Using the Health Belief Model, Becker, Maiman, Kirscht, Haefner & Drachman (1977) showed that people must believe that they need to eat more healthily in order to make changes to their diets. Lloyd, Paisley and Mela (1993) found that the majority of their participants believed that their diets were healthy and they had taken action to reduce their fat intake according to national guidelines regardless of their actual reported fat intake. Later national surveys have also raised concerns over healthy eating beliefs. The 2007 Health Survey for England found that the majority of the respondents thought that they already ate quite healthily or very healthily (Roberts & Marvin, 2011). This suggested that individuals felt there was little room for improvement to their current diets. The Food and You Survey (Prior, Hall, Morris & Draper, 2010) showed similar results with almost 55% of participants agreeing with the statement "I do not need to make any changes to the food I eat, as it is already healthy enough". These results suggest that some people may have misperceptions as to what constitutes as a healthy diet or have an alternative way of assessing their diet. Unfortunately the latest surveys have removed healthy eating perception questions due to budget cuts.

A US study by Variyam, Shim and Blaylock (2001) reviewed the food diaries of nearly 3000 families and compared the dietary quality to the beliefs of the individuals involved. They found around 40% of the participants had misperceptions about the quality of their diet. One possible explanation for this misperception is that some people are caught out by "The Dieter's Paradox" (Chernev, 2011). In other words, they hold the belief that adding a healthy item of food, such as a side salad, to a less healthy meal cancels out the unhealthiness of the meal (and reduces the calorie content). This can also be explained by the Compensatory Health Belief Model where people believe that one unhealthy behaviour can be counteracted by another healthy behaviour (Rabiau, Knäuper & Miquelon, 2006). For example, an unhealthy food can be offset by a healthy food such as a salad. A UK study found that people who stated they did eat healthily consumed less sugar and fat than those who said they did not eat healthily (Lake et al. 2007) which suggested the opposite to Variyam et al. (2001). However further analysis by Lake et al. (2007) found that those of a higher social class were more likely to say they ate healthily and actually consumed less fat and sugar. This suggests that understandings and misconceptions about healthy eating are not consistent across social classes.

Perceptions and interpretations of healthy eating vary between individuals depending on their environment, culture, personal and social experiences (Bisogni, Jastran, Seligson & Thompson, 2012). For example, a Danish qualitative study found that participants assessed their diet healthiness based on their personal weight status and current feelings of wellbeing (Sørensen & Holm, 2016). Another German study found that lay theories of healthy eating were related to cost, home cooking, keeping slim and eating tasty food in moderation (Yarar & Orth, 2018). In the UK, Chapman and Ogden (2009a) found participants interpreted healthy eating on an accumulation of personal evidence, such as how healthy their body felt. In addition, some people tend to have more of an interest in healthy eating than others and this has been shown to have an indirect effect on their perceived dietary quality (Hansen & Thomsen, 2018).

In terms of gender, women are more likely to attach a greater importance to healthy eating than men (Wardle, Nillapun & Nellisle, 2004) and are more likely to read the nutritional labels on food (Lynam, McKevitt & Gibney, 2011). Another review by Courtenay (2000), concluded that women adopt healthier beliefs about eating than men, though this study only looked at US women. As well as gender, Wardle & Steptoe (2003) found that social economic status (SES) can affect individuals' beliefs around healthy eating. Those of a lower SES were less health conscious and were unlikely to consume fruit and vegetables every day. Educational levels have also been found to have an effect on people's

perception of healthy eating (Margetts, Martinez, Saba, Holm & Kearney, 1997). In the Food and You Survey (Prior et al. 2010), older participants were more likely to state they already had a healthy diet suggesting that age is a factor in healthy eating perceptions. In considering cultural and social contexts within families, the mother's beliefs, attitudes and intentions towards healthy eating has a long term effect on their children's own beliefs and attitudes towards food (Ogden, 2014; Sumodhee & Payne, 2016).

Making sense of healthy eating discourses – qualitative studies

Traditional quantitative approaches to researching and attempting to understand people's knowledge of healthy eating and their eating practices have tended to take a nutritional or sociobiological approach (Lupton, 1996). Other healthy eating studies have investigated people's adherence to healthy eating guidelines by using models of behavioural prediction (e.g. Becker et al. 1977; Armitage & Conner, 1999; Conner, Norman & Bell, 2002). Taking a different approach, qualitative methodologies can be helpful in understanding how people interpret healthy eating messages and help to provide a more comprehensive understanding of what healthy eating means to people (Harris et al, 2009). It can complement traditional research methods to give a more rounded understanding of an issue (Dures, Rumsey, Morris & Gleeson, 2011).

Taking a social constructionist approach, Bisogni et al. (2012) carried out a literature review of qualitative studies exploring how people interpret healthy eating. They found and analysed 195 qualitative studies and discussions since 1995. All the studies used focus groups or in-depth interviews. Bisogni et al. (2012) argued that their study demonstrated how people's beliefs about healthy eating are highly complex and based on the individual's personal life experiences. These beliefs cannot simply be regarded as just right or wrong according to scientific opinions of healthy eating. As well as describing food in terms of nutrients, participants also talked about healthy eating in terms of consequences, psychosocial wellbeing such as guilt and pleasure, traditional food beliefs, morality and responsibility.

Devine (2005) suggested that a life course approach can be used to understand food choices and behaviours. She identified three frameworks within a life course approach: temporal, social and historical contexts. A temporal framework considers how food choice changes throughout an individual's lifetime depending on their personal situations. A social framework takes into account the effect of gender, social class, ethnicity and culture on individuals or groups. Finally the historical context accounts for the food practices in

relation to food knowledge, economic situation and health policies of the time. For example, Backett & Davison (1995) noted that participants in their studies tended to refer to their personal contexts when explaining their health behaviours demonstrating a temporal context. In another study, Wiggins (2004) analysed family mealtime conversations in the Midlands and North of England and found that people construct their perception of healthy eating through their everyday talk. They may use this talk to justify what they are currently eating or what someone else should eat to be healthy, demonstrating the social framework that families use to decide what healthy eating is.

Culture and Tradition

Exposure to different food cultures and traditions will impact on people's healthy eating beliefs (Devine, 2005). Using thematic analysis, Ristovski-Slijepcevic, Chapman and Beagan (2008) found that within three ethnocultural groups in Canada, knowledge about food and health was embedded in cultural tradition and accumulated through the family and community over generations. The older generation firmly believed in traditional food practices, however the younger generation were more influenced by Western nutrition messages (Ristovski-Slijepcevic, Chapman & Beagan, 2010). Gans et al. (1999) found a similar pattern of holding onto traditional knowledge and values about health in Hispanic subgroups in the US. In the UK, A systematic review of health beliefs among UK South Asian found that healthy eating practices were strongly influenced by social and cultural norms (Lucas, Murray & Kinra, 2013). Even when people are advised to make dietary changes due to a diagnosed health condition, it can be very difficult to change as it leaves them feeling alienated from their culture (Lawton et al. 2008).

Trust

Several studies have uncovered issues of trust around healthy eating information in the UK including public health messages. In interviews with twelve mothers in the North of England, O'Key and Hugh-Jones (2010) found a general scepticism of all healthy eating information. The participants felt that as a mother you should trust your instincts about what foods your children need rather than follow someone else's advice. Crossley (2003) ran four focus groups in the North of England with men and women which included a wide range of ages. She found that the participants were sceptical about all health promotion messages and material. Trust among the participants towards the health messages was poor due to conflicting information from different research studies. Gough and Conner (2006) reported similar findings in their interviews with men in the North of England from a

wide range of ages and social classes. They found cynicism around public health messages on healthy eating due to conflicting advice reported in the media. Backett, Davison and Mullen (1994) also identified that participants in three interview studies which took place in Edinburgh, Glasgow and South Wales, exhibited scepticism towards scientific information about healthy foods as it kept changing over time. Instead, participants believed that health is based on your social and economic environment rather than scientific evidence about healthy food and lifestyle. Spitera Cornish and Moraes (2015) concluded conflicting healthy eating messages also led to distrust and confusion. They interviewed university staff from a UK university which suggests that this issue covers a range of backgrounds and educational levels.

Distrust of advice has been reported in other countries. For example, a study with parents of young children in New Zealand reported frustration with conflicting nutritional information as it kept changing over time (Maubach, Hoek & McCeanor 2009). A study analysing the content of correspondence sent to the Swedish state health authority found that some members of public wrote to either clear up their confusion around a healthy eating issue or to question the authority about the evidence of their advice (Bergman, Eli, Osowski, Lövestam & Nowicka, 2019).

Bisogni et al (2012) noted that people tend to create their own healthy eating guidelines based on their own personal experiences and knowledge gained from media, social interactions and information from health professionals. For example, Lupton and Chapman (1995) found through focus groups in Australia, that participants were cynical of news in the media about diet. They believed that anything around diet and cholesterol was sensationalised to sell more papers. Participants felt they were supposed to trust medical professionals because of all their qualifications. However, participants felt it was more important to trust and know yourself because dietary knowledge is about common sense and personal experiences. In another Australian study, Lupton (2005) found that participants distrusted mass media advice on food risks (such as GM foods, food poisoning risks) due to contradictions and the perception that all food contains a risk if you consume it. The participants felt a need to trust their own judgement and felt that family and friends were more trustworthy. On the other hand, these participants did show trust towards governmental health bodies.

Both professional and lay people have reported feeling overloaded with forever changing healthy eating information. As a result they feel that this information can be unreliable. Even some articles aimed at professionals are considered confusing due to the

inconsistency in advice within the articles (Wills et al. 2013). A Danish study (Kristensen, Askegaard & Jeppesen, 2013) found that an overload of constantly changing health information can create confusion and anxiety in some people. Participants in the study showed mistrust towards corporate agendas behind healthy eating guidance. They were also sceptical that businesses were having an input into healthy eating advice provided by health authorities. Luomala, Paasovaara and Lehtola (2006) uncovered similar findings in Finland around suspicion about healthy eating advice from health authorities.

Healthy eating dichotomies

An idealised view of what constitutes a healthy diet can result in binary thinking in which food becomes constructed as either 'good' or 'bad'. For example, Watt and Sheiham (1997) found that UK adolescents often classified food as either "healthy" or "fast" foods and Connors, Bisogni, Sobal and Devine (2001) identified the categorisation of food into "healthy", "unhealthy" or "junk" food in adults living in upstate New York. Even children as young as six have been found to use binary thinking to categorise food as either 'healthy" or "unhealthy" (Pugmire & Lyons, 2018).

Interviews with women in British prisons, uncovered a division of food into healthy and unhealthy categories (Smith, 2002). The women described all prison food as unhealthy. They felt that the lack of healthy food was an extra punishment as they were being denied good health. Healthy eating may be regarded as a balancing act between 'unhealthy' and 'healthy' food which can be likened to the Compensatory Health Belief Model (Rabiau et al. 2006). For instance, a Dutch study by Bouwman, te Molder, Koelen and van Woerkum (2009), revealed that participants believed that eating enough healthy food could compensate for eating unhealthy foods. Eating situations have also been found to be categorised into dichotomies. Falk, Sobal, Bisogni, Connors and Devine (2001) discovered that as well as categorising foods, participants in Upstate New York also labelled their eating situations as either healthy or unhealthy. In particular, eating at home was considered to be healthier than eating out at a restaurant.

Morality and responsible citizenship

Categorising food into binary oppositions, such as 'good' and 'bad', can impose moral values on food. Eating 'bad' foods may be deemed as a sign of weakness in modern Western countries (Lupton, 1996). As a result, living an unhealthy lifestyle, such as eating "bad" foods, has become associated with irresponsibility and immorality (Crossley,

2002a). This moralisation of health came to be described as the ideology of Healthism by Crawford in 1980. He described Healthism as arising in the 1970s from new middle-class American attitudes towards health and wellbeing in which optimal health was aspired to as the new 'good life'. It shaped the belief that everybody should take personal control or responsibility for their own health in order to engage in good citizenship (Crawford, 2006). Healthism inspired people to seek perfectionism in health and to perfect their imperfect bodies through fitness regimes and healthy diets in a quest for immortality. People became encouraged to carry out their own self-surveillance of health behaviours and to practice self-discipline in order to avoid ill health. For if they were to become ill, it would be considered to be their own fault (Cheek, 2008).

When talking about taking personal responsibility for health, there is an awareness that as an individual, there are only some things you have control over. A study exploring morality and resistance to health behaviours revealed that participants felt that food was something you could have control over in order to achieve good health and avoid disease, unlike genes which were considered as uncontrollable (Crossley, 2002b). Therefore, the aspects of morality become focused on lifestyle activities that you 'should' and 'should not' do. For example, foods that you "should" and "should not" eat to stay or become healthy (Connors et al. 2001).

A study of Canadian adults found that participants discussed how people "should" eat fruit and vegetables to be a healthy and morally good person (Paisley, Sheeshka & Daly, 2001). A similar theme around moral behaviour was found in a discursive analysis of healthy eating in British families (Koteyko, 2010) in which eating a balanced diet was considered to be responsible and something you 'should' do and something other family members should also be encouraged to do. Eating for pleasure was considered as being separate from eating for health and was something that should be restricted. Both these studies demonstrate how people create their own internalised rules around eating and how they carry them out in everyday life (Lupton, 1996).

Backett (1992) carried out interviews with middleclass families in Edinburgh in the late 1980s looking at lay health moralities. She found that in general, participants had good knowledge of healthy eating and believed that being healthy is socially responsible. Extreme unhealthy behaviours were met with disapproval. Although participants felt under moral and commercial pressures to follow healthy eating guidelines, they did not always follow them. They felt that if you were too disciplined in healthy eating practices it stopped you enjoying life.

Interviews with middle class white adults in New York, revealed that participants felt a need to exert control and discipline around food in order to be healthy. Being seen as a healthy eater was a source of accomplishment and self-esteem to participants (Bisogni, Connors, Devine & Sobal, 2002). Discipline around food was also recognised in a study with young male hockey players at a US college. They felt they had a moral duty to follow a healthy diet and refrain from "treating themselves" to remain healthy during the sports season (Smart & Bisogni, 2001). Similar findings were uncovered in a study of a healthy eating programme in a US school, in which school leaders, such as teachers, had a strong sense of morality towards eating healthily. Those who were responsible for monitoring food choices of the pupils, felt morally obliged to discipline themselves to restrict themselves to only healthy foods. They felt guilty if they ate bad foods as they felt pressured to set a public example to the pupils (Vander Schee, 2009).

The need to be recognised as a morally good citizen flows through the lifespan and is also evident in older people and those with health conditions. In a study exploring the theme of moralisation discourses of healthy eating among older people in the UK and Canada, Spoel, Harris and Henwood (2012) found that in both countries, older people were motivated to eat healthily to offset the burden of health conditions on society due to aging. Participants were influenced by government produced guidelines on healthy eating and they used a self-monitoring vocabulary to evaluate their choices when talking about how they chose and prepared food. For example, they talked of moral failure by "being bad" if they ate something considered as unhealthy according to the guidelines. In another study with older people in Ireland (aged 50-70), healthy eating was considered to be a sacrifice one needed to make in order to meet a 'healthiest' ideology. It was likened to a cultural or religious project of working on the self in attempt to meet that 'healthiest' ideal. Eating unhealthy foods was viewed as a sin even though healthy foods were considered boring and not as enjoyable (Delany & McCathy, 2014).

Different people will take on different levels of moral responsibility towards healthy eating and not everyone will feel the same level of pressure to conform. In attempt to categorise people's moral values and perceptions of healthy foods, Kristensen, Askegaard, Jeppesen & Anker, (2010), found four distinct types of consumer discourse. The most dominant group (common people) had a relaxed attitude to health risk and although they were always seeking information on healthy eating they didn't take it too seriously. However, informed consumers took health risks and healthy eating very seriously. At the other end of the spectrum, indulgent consumers cared more about taste and enjoying the good life.

They were cynical about foods promoted as healthy. Finally, the resigned consumers were judged as unhealthy eaters by others and considered morally weak people.

Women and moral standards

Some women may feel additional pressures to follow healthy eating advice, as they are often responsible for the health of others, such as their family. Traditionally women's roles in society have been linked to the provision of food for other people. Within families it has been, and often still is, the woman's responsibility to feed the family. Therefore, women tend to be targeted in nutritional educational campaigns and advertising as they are recognised as the gate keepers to changing the whole family's diet. In addition, women are also considered to be responsible for both choosing the appropriate foods to eat; preparing and cooking these foods correctly and serving the appropriate amount of each food types (Crotty, 1995).

Chapman and Ogden (2009b) interviewed UK mothers of teenage children and found that all the mothers felt they had to try and aim for a gold standard of nutrition to be considered a good mother. However, they found this difficult due time constraints and their children's food preferences. In another study based in New Zealand, Madden and Chamberlain (2010) explored the perspectives of women with children around healthy eating both as individuals and as mothers. They discovered that these women felt they had extra responsibilities by first being morally good individuals and second being morally responsible mothers as they were responsible for feeding others. They often felt guilty for eating bad foods and in response they used 'lite' or 'fat-free' food to regain their moral status. They positioned themselves as deserving of a treat to avoid being seen as immoral. In addition to feeling pressured to be a morally responsible mother, they also faced a moral dilemma between treating their children to pleasurable foods and feeding them healthy foods.

The media and nutritional information

The media has been a popular source of nutritional information for several decades. Schneider and Davis (2010) explored how food and eating were represented in Australian women's magazines throughout second half of 20th century and found a strong discourse of "healthism" throughout the years. The nutritional information in the magazines was portrayed as a code of conduct in self-governance over healthy eating. Starting in the 1950s they found a shift in focus from improving health and preventing infectious diseases

to preventing non-communicable chronic disease. The female readers were originally represented as housewives who were responsible for looking after the health of their families by providing them with healthy meals. The articles assumed that the women required educating in nutrition. However, through the decades the representation of the readers changed to include them as individuals and advised them how to work towards self-improvement as a healthy food consumer.

Madden and Chamberlain (2004) uncovered similar findings to the above. They identified five different discourses running through popular women's magazines in New Zealand. As individuals, the women's dietary practices were embedded in moral choices and anything self-indulgent was considered morally wrong unless they could prove it was deserved. Women were considered as inexpert about their bodies and in need of expert help through being educated about nutrition for the body. This was the only way to achieve the ideal of feminine beauty. As mothers, women were positioned as needing to make sure their children followed correct dietary practices in order to achieve the status as a morally good mother.

Research into the understanding of how nutritional information is received has tended to focus on women due to the historic role of women as food providers. Men have been assumed to have a lack of interest in diet and nutrition and therefore seen as novices to healthy eating (Gough, 2007). However, more recently there has been more interest on how men respond to the healthy eating messages. Through interviews with a wide range of men in Yorkshire, Gough and Conner (2006) uncovered feelings of intrusion and scepticism of health eating messages from a variety of sources. These messages were often rejected as the participants felt that eating should be a free choice and healthy foods were considered unsatisfying.

Looking at how expert nutritional information is communicated through the media from a more gender neutral position, Dodds and Chamberlain (2017) explored how nutritional science influences the meaning of food and how it legitimises food practices. Through a thematic analysis of a New Zealand magazine aimed at upper-middle class and middle aged people, it was identified that scientific knowledge was presented as authoritative and superior to lay knowledge of food and eating. The articles used fear based motivation and presented overweight people as a burden on society. It was stressed that individuals should take personal responsibility for implementing and maintain self-control towards healthy eating. Finally, overweight people were constructed in a negative way in which

they were considered to be unhappy and inferior members of society in addition to their unhealthy status.

Rationale

Overall, the literature around healthy eating and its' social construction provides a good foundation for research. Similarities in terms of right and wrong ways to eat can be seen across the studies carried out in Westernised countries. Therefore, I chose to include studies from outside the UK in my literature review to enable me to compare and contrast my findings of the current research study. In addition to many of these studies taking place outside the UK, much of this research is now out dated. The Western world has evolved in many ways over time, with changes in nutrition research, communication technology, social, cultural and political practices. With the development of new technologies and access to education, the relationships of power between people and institutions are rapidly changing. In the UK there has been a pre-occupation with quantitative methods and behaviour change models to understanding health behaviours (Stainton-Rogers, 2012). However, healthy eating is always situated in personal, social, cultural, historical and geographical contexts and it is essential to take these into account when attempting to encourage people to improve their health.

To my knowledge there is a lack of recent research exploring how healthy eating advice is socially constructed in the UK. Carrying research out in this area would enable us to uncover interpretations of healthy eating advice to the general UK public and how people may respond to this advice. It can also uncover insights as to why many diet related health issues may not be improving and how advice and interventions could be re-designed to achieve a greater effect.

Aims and objectives

The aim of this research was to explore how healthy eating is socially constructed in the 21st century in the northern Home Counties of England though the analysis of healthy eating texts and focus groups. It looked to understand how people form their concept of healthy eating by either taking up or rejecting discourses related to healthy eating.

The intentions were to:

1. Uncover the discourses within seven texts providing healthy eating information and advice to the UK public. These included:
   a. State health information
   b. Commercial information
2. Identify the institutions produced by the discourses, explore how power and knowledge is used within the texts and explore the power relationships between the identified institutions and the UK public.
3. Uncover the ideological functions of the texts.
4. Explore how people position themselves in relation to these texts by either taking up or rejecting the discourses within them.
5. Uncover some insights into people's perceptions of the truths around health eating advice.

The research proposed will make an original contribution to knowledge by building on the previous research discussed above.   It will specifically focus on a local perspective in the UK and take into account the changes to our social world. It will explore how people are influenced by healthy eating messages from different sources and the flow of power from these messages to the public. Finally, it will consider the choices people make in deciding what healthy eating research to trust.

Chapter 2 – Theory and Method

In this chapter, I will cover why critical health psychology in health psychology research is important and how its underlying epistemology differs from mainstream health psychology research. I will discuss why a social constructionist epistemology and a critical realist ontology is appropriate for the research study and how they underpin the Foucauldian Discourse Analysis (FDA) approach taken in this research study. This chapter will explain the theory behind FDA in the way language constructs our world and how the discourses surrounding us in everyday life enable people to choose how to position themselves in relation to these discourses and construct their own identity. It will show how knowledge and power are related and how this relationship enables power relations to form between institutions and individual people. Finally, this chapter will discuss the importance of reflexivity in which the researcher acknowledges their position in relation to the research process in terms of personal experience and professional identity.

Introduction

Most research informing health psychology in a public health setting comes from mainstream health psychology which is quantitative in nature. The focus tends to be on psychological models with the aim of predicting and changing people's health related behaviours in order to avoid risks to their health. It relies on the safety of collecting data using well tested, validated measures in which the data is analysed using popular statistical packages. However, by treating people as sources of measurable data, it ignores the reality and complexities of their everyday lives. Most health issues and behaviours are embedded in complex moral and emotional issues which cannot be uncovered using models or measurable scales (Crossley 2008). Critical health psychology, on the other hand, can uncover and explore these issues. It is able to analyse the effect of power, economics and macrosocial processes between individuals' health and health institutions using qualitative approaches (Hepworth, 2006). Therefore, the most effective way forward would be for mainstream and critical HP to complement each other in order to reach the unified outcome of improving health and preventing avoidable health problems. Critical health psychology can uncover sensitive issues, yet mainstream health psychology can reach a much wider population (Hepworth, 2006). Therefore a 'methodological pluralism' approach would be advantageous so that we can combine interdisciplinary ideas and use research methods that aim to understand the wider social contexts of health (Hepworth, 2004).

Critical health psychology emerged in the 1990s and is still a relatively young discipline. Therefore, studies taking this perspective are in a minority compared to mainstream health psychology. The Foucauldian Discourse Analysis (FDA) method was constructed specifically for critical psychology (Parker, 2013). Therefore, critical health psychology researchers have often drawn on the work of Foucault to examine societal discourses in relation to health behaviours, ideologies and how power is constructed between individuals and experts within heath institutions (Bunton, 2006). As studies using FDA are underrepresented, I felt that FDA would be a useful and interesting way to explore the topic of healthy eating in the UK in the 21st century. We are entering a post truth era in which trust in expert knowledge is declining (Prozorov, 2019) and the domains of health and nutrition are not immune (Rowe, & Alexander, 2017). Therefore, FDA makes an ideal approach in the way it aims to understand power, knowledge and the power relations in society.

Epistemology

Epistemology is concerned with what data is considered acceptable, valid and legitimate for research in relation to the topic area and chosen research method (Saunders, Lewis & Thornhill, 2019). Therefore, the epistemological approach for a FDA will be different to the approach taken in a mainstream health psychology research study using a reductionist approach. Epistemologies can take either a realist or a social constructionist approach depending on the theory of knowledge underpinning the research method. A realist epistemological approach assumes that there are social and/or psychological processes in the world which can be identified and uncovered through the research process. In contrast, a social constructionist approach, aims to understand how people construct the world through the use of language (Willig, 2013). This research study used a social constructionist epistemology because it underpins the FDA methodology.

Social constructionism

A social constructionist approach tends to accept one or more of the following assumptions. First, it is likely to challenge the assumptions made by conventional knowledge, for example, that knowledge is based on unbiased objective observations of the world. It states that there is no such thing as a fact and you cannot assume that research methods used in the physical sciences can automatically be applied to psychological science to obtain the true answer to a question. Second, it argues that you cannot understand the world without taking into account the historical context and the

cultural and social position of the researchers. Third, people construct knowledge through both social interaction and social processes. We socially construct our world and our own versions of reality through language (Burr, 2015).

Social constructionists argue that our way of understanding the world comes from other people both past and present, such as through conversations with other people and from written literature and recorded information. Instead of focusing on structures and categories, social constructionism emphasises the importance of social processes and how people create knowledge through their interactions with others. In other words, instead of focusing on the individual to explain a social phenomenon and then categorising or labelling that individual, social constructionism will look outside the person to their environment to explain how a social phenomena is constructed.

Social constructionism within critical health psychology, typically critiques mainstream health psychology (Crossley, 2008). For example, the limitations of behaviour change models. It explores how individuals or minority groups fit into society in relation to the population majority. It aims to give these people a voice and focuses on inequality and the power relations between them and the rest of society. Critical health psychology is politically focused in that it identifies issues of oppression and exploitation through questioning the assumptions of mainstream health psychology and its idea of the 'truth'.

Ontology and critical realism

Ontology considers the nature of knowledge and asks what knowledge exists. It reflects on the assumptions that methodologies about the world (Willig, 2013). For example, a realist ontological perspective makes assumptions both about the world and about being a person. Although this perspective, labelled as empirical realism, dominates mainstream health psychology (using quantitative methods), it can also be found in some qualitative methodologies, including FDA, labelled as critical realism. Researchers taking a realist approach consider their assumptions to be common-sense as opposed to those coming from a constructionist's ontological perspective who make no assumptions about the world or being a person. In addition, they question our beliefs about what is 'true' in the world (Holt, 2011).

Critical realism is a philosophical position in which its primary concern is ontology, meaning it always begins with questions around what exists. According to critical realists, reality and our knowledge of reality are independent of one another. Our knowledge of

social objects is formed from our perceptions of what we are attempting to understand and emerges from discursive relations. Critical realism is also concerned with social structure and social action. Although some of these may be unobservable, they can be inferred to exist through the observation of other parts of social life. These features can be revealed by observing their effects in the social world (e.g. power relations). Social institutions (e.g. families, workplaces and educational institutions) which form our social structure, can both constrain and enable social actions. These social structures pre-exist any social actions and are forever changing over time (Frauley & Pearce, 2007).

Within this research study, the knowledge produced is from a critical realist's perspective and the ontological assumption is that all the healthy eating texts in this study have an agenda to persuade their audience that their advice will be of benefit to the general public. In addition, it assumes that people reading this advice have to choose which advice they take on-board for their best interests.

Foucauldian Discourse Analysis

Traditionally, Foucault has been the point of reference for social constructionism in psychology and has been associated with relativism. However, some Foucauldian discourse analysts have argued that the work of Foucault can be viewed as a combination of critical realist and social constructionist stances (Al-Amoudi, 2007) and they have incorporated critical realism into their analytical methods (Parker 1992; Willig, 2013). From the social constructionist perspective, language is considered to create the social structures in society and from the critical realist perspective, reality is acknowledged to produce the knowledge and description of the world (Burr, 2015). As a research method, FDA explores how language constructs different versions of reality in our lives (Willig, 1999). It considers how discourses create structures or frameworks in our society and incorporates both social practice and language. FDA states that the language available to us in society imposes limits on us by what we can think, say and do (Burr, 2015), however it is also acknowledges that the historical and environmental context of society also has an effect.

Foucault describes discourses as 'practices that systematically form the objects of which they speak' (Foucault, 1972: 49). These objects are the focus of study or research, for example in this study objects are often types of foods. Discourses create dichotomous categories in which people may assign these objects to. For example, people may categorise objects such as food or people using dichotomies such as 'healthy' or

'unhealthy'. Foucault (1988) also talked about the technologies of power and the technologies of the 'self' which work together within discourses to produce subjects or ways in which bodies or people are given meaning (Coveney, 1998). Through these discourses, people choose to take up or reject subject positions depending on how they think and feel about the truth of the object of focus (Parker, 1992). People reflect on the subject positions available; take into account their own life experiences and what these positions mean to them to create their own sense of self or subjectivity (Willig, 2013). Subjectivity is about how people make sense of themselves in relation to other people and their own life experiences. It takes into account that the self is highly changeable and set within the cultural, historical and social context of the individual (Lupton, 1996).

Foucault was interested in how discourses came to be constructed through history. He termed this process as the Archaeology of Discourses. He also acknowledged that knowledge and truths were located in time (episteme) and based on the understanding and views of people at that point in history (Shirato et al. 2012). Therefore, understanding how discourses emerge historically and revealing each discourse's story of origin is an important part of the FDA process. This is because it enables us to see how discourses reinforce institutions, how their knowledge and power have come to be and how they support the ideologies in our society today (Parker, 1999a).

Discourse, power and knowledge

In attempting to understand people's relationship with food and health, it is helpful to consider how healthy eating is represented in society through associated discourses. Depending on these representations of what healthy eating is or is not, means that people will treat others in a certain way depending on their eating habits. These representations create power relationships in which people's sense of self in the context of healthy eating becomes constructed. Power relationships can be observed in the way people offer, accept, claim and resist subject positions within the everyday discourses they use and hear.

Within government and health institutions, power relations can be found between health professionals and the lay population in a variety of settings (Lupton, 1997). Foucault (1978) argued that bio-power is used through discourse by governments to manage the public's health in the way that the population's health is measured using epidemiology. Through this process, the body becomes an 'object' of knowledge in which health education and promotional is used to create health discourses and set the norms for

healthy behaviours. Health professionals become the holders of 'healthy lifestyle' knowledge and are put in a position of power to relay the information to their service users. Depending on how well the services users adhere to those healthy lifestyle discourses will determine how they are positioned by society in terms of being a responsible citizen (Gastaldo, 1997).

Health institutions produce knowledge about what constitutes good health and with that comes power and a hold over 'the truth about health'. By producing knowledge they are also making a claim of power. Power in terms of Foucault is not power in the traditional sense of domination or being given a title of status which can be suddenly taken away, instead power is considered to be everywhere, like a network and always present in society (Mills, 2003). However, it is important to be aware that power can be productive as well as negative. For example, supporting people to prevent them developing health problems through improved lifestyle could be regarded as a productive use of power. Even though this may be considered a positive use of power, conflicts of power can develop, and people may become resistant to that power and ask questions about whose interest does that knowledge serve (Shirato et al. 2012)? Therefore, Foucault's bottom-up approach can be useful in understanding power and how some people choose to actively challenge the power relationships in society as opposed to accepting the structures of society (Mills, 2003).

Reflexivity

Reflexivity is an important part of research using a Foucauldian discourse analysis. Foucault, who is often forgotten as being a trained psychologist, used reflexivity by drawing on his experience of working in a clinical environment to inform his theory and work on identity and institutions (Parker, 1995). Reflexivity is the process of recording the researcher's thoughts and position on the research topic. This includes why they have chosen the research topic and their feelings and insights into the research as they conduct their research study. This is important because observations will be affected by the researcher's understanding and opinions of the research topic. For example, the researcher's pre-conceptions on the topic will make certain observations more relevant, while other observations may be discarded, by the researcher, as not important (Parker, 1999b). In addition, Parker (1999b) argued that the researcher must not take a passive approach to reflectivity by assuming that just by adding in some reflexivity it will solve any issues of power relations between the researcher and the participants. Rather they

should take an active approach, in which the researcher considers critical reflection as a way of encouraging action from the results of the research.

According to Burr (2015), reflexivity in research based on social constructionism has three purposes. The first is to acknowledge the power relationships between the researcher and the participants in an attempt to manage issues with equality. The researcher may reflect on their personal and political agenda for carrying out the research and acknowledge their biases towards the topic. Second, the research needs to acknowledge the researcher's personal and political values around the research topic. Third and finally, the researcher should reflect on how they may have affected and socially constructed the outcomes of any interviews or focus groups undertaken. This informs the reader of the researcher's position in order to help the reader if they decide to carry out further research in this area (Parker, 2005). In this research study I aimed to address each of the three points raised by Burr (2015). I will cover points one and two below in this chapter and point three will be addressed in the discussion chapter.

First, in reflecting on my personal agenda and motivation for this research, I am interested in why diet related health problems continue to increase despite the plethora of available healthy eating advice. I acknowledge that I am also a consumer of healthy eating advice and I make my own personal decisions as to what I feel is good and bad advice. However, this research is not about what a healthy diet is, but about how people construct themselves as a healthy or unhealthy eater. I have had many debates with other people as to what healthy eating is and I have found these conversations fascinating in the way people argue their case. From experience I have found people to have firm views on what foods are considered to be healthy or not healthy and they do not like to be persuaded otherwise. From my perspective I have observed that initially this type of conversation seemed to attract women, however recently I have noticed that more men are getting drawn into this debate.

Second, in acknowledging my professional identity, I am a trainee health psychologist working in a public health setting (embedded in a governmental organisation) so I am surrounded by public health discourse. It would be easy to apply the traditional mainstream healthy psychology approach to healthy eating interventions and campaigns. However, from a critical health psychology perspective I believe it is important to explore the barriers to healthy eating and to avoid making assumptions as to why these campaigns and interventions are not having the desired long-term impact. I am a strong believer in not just relying on a reductionist approach as I feel there is a risk of reducing

issues down to a single cause. I believe that there are multiple reasons as to why people may not adopt state institution healthy eating advice and these may be based on peoples' personal situations including their backgrounds, beliefs and resources available to them. Therefore, I feel that the FDA approach I have chosen is most appropriate for this study. Even though I have not used this method before, I felt that it was important to challenge myself and not try to adapt the research to stay within my comfort zone.

Summary

This chapter has covered the theoretical and methodological approach of a FDA which underpins my research study. It has explained how this approach sits within current research methods and why it is appropriate for this research study. The following chapter will outline the research procedure taken in this study.

Chapter 3 – Procedure

This chapter describes my process for planning and collecting the data for this research along with my approach to analysing the data using a Foucauldian Discourse Analysis.

Research design

A Foucauldian Discourse Analysis (FDA) was chosen for this research because it can uncover the discourses in healthy eating texts. It shows how people talk about healthy eating and position themselves against the identified discourses in a historical and cultural context. FDA is a useful tool for uncovering healthy eating ideologies embedded in messages people receive from a variety of sources around them (Parker, 2005), including media and every day talk. FDA can reveal the power relationships between the information providers and identify how people position themselves in relation to these healthy eating discourses in society.

Discourse analysis can be applied to a wide range of material and is not limited to conversational text. It can be carried out on 'ready-made' text and pictures which convey a message, such as magazine articles and advertisements (Willig, 2013). Pre-existing material is a popular choice for FDA because it provides naturally occurring data which can reveal power relations in society (Payne, 2007). Focus groups are also a popular choice as they are more naturalistic and closer to everyday conversations than one to one interviews (Wilkinson, 2008). For this research project, an analysis was carried out on a set of printed materials. In addition, focus groups were carried out to determine how peopled talked and positioned themselves against the information.

Data Collection

Printed materials

The materials used for the analysis included texts from governmental organisations and commercial healthy eating advice. The healthy eating advice materials from governmental organisations chosen for this research were: the Eat Well Guide currently produced by Public Health England; the NHS Choices web pages on healthy eating and the advice from Change 4 Life (Appendices A-C & M). The commercial healthy eating advice consisted of two commercial weight loss programme web page print outs (Appendices D & E) and two food company web page print outs (Appendices F & G). The

aim was to select a variety of texts from information producers with differing motivational interests in order to compare and contrast how they used discourses to try and achieve healthy eating outcomes.

Participants in the focus groups were presented with this material to see how they talked about healthy eating and positioned themselves in relation to my analysis of the materials. In selecting the written materials, I made sure I could answer the four questions on discourse analytic reading for each text as suggested by Parker (2005). That is, that each text had to be interesting, I had to know something about how the text was constructed, the text had a purpose and the text could be related to patterns of power in society.

Focus groups

Focus groups are a way of collecting qualitative data which involves recruiting a small number of people to informally discuss a series of questions or topics focused on a particular issue (Wilkinson, 2008), which in this research was healthy eating. Focus groups were an appropriate choice for this research because people do not always do their thinking alone but through sharing ideas with others (Parker, 2005). Discourse analysis looks for shared understanding between people about how the world is constructed which makes focus groups ideal for this type of research (Wilkinson, 1998).

There are various recommendations for the size of a focus group, however, for the type of research I carried out, the recommendation was four to eight (Crossley, 2002b; Krueger & Casey, 2009; Wilkinson, 2008). Smaller size groups will lack ideas and views while large groups risk group fragmentation and whispering as participants do not feel they have an opportunity to give their views (Krueger & Casey, 2009). For this research, I held five focus groups, including the pilot, containing between five and eight people in each group.

In order to provide a comfortable environment and help the focus group conversation flow, participants need to feel comfortable and free to give their opinions without feeling judged or pressured to reach a consensus. To manage these issues, it is helpful to have some homogeny between the participants in each group so there is a shared level of understanding (Krueger & Casey, 2009). Therefore, when advertising and recruiting for the focus groups I was mindful of what participants might have in common. For example, they might have belonged to the same educational course, worked in the same place or all had small children. This also allowed for the exploration of the viewpoints of different

groups of people which is more appropriate for this type of qualitative research than specific sampling (Crossley, 2003).

Recruiting for focus groups can be challenging as you need five to eight people to be in the same place at the same time. In order to counteract potential issues, I made sure that participants did not have far to travel and I provided a selection of venues to choose from. I asked them to tell me what times suited them and I was clear about how long the focus group would take. As an incentive I provided refreshments for all the participants. It is a well-recognised problem that participants will drop out or not turn up on the day for various reasons (Crossley, 2002b; Krueger & Casey, 2009). Therefore, I made sure that I over recruited for each focus group. However, just in case everyone did turn up (which was the case for one group), I made sure that the venue was big enough for all the participants.

Recruitment Strategy

Participant criteria

The inclusion criteria for the focus groups was fairly broad. However, as the focus groups were conducted in English it was important that participants were fluent in English. Exclusion criteria for the focus groups was anybody who did not live or work in Hertfordshire, was under the age of 17, could not speak English or was classed as a vulnerable adult. I aimed to recruit participants from a wide range of ages, education levels, cultural and socio-economic backgrounds in order to get a fuller picture of this subject (Chamberlain, 2004). However, I was also mindful that Hertfordshire is predominantly a white middle class county.

Recruitment process

Focus group participants were recruited through advertising on Facebook and Yammer (a private social networking service in the council), weekly newsletters and word of mouth. When a response was received, I e-mailed the potential participants the information sheet (Appendix H) to provide them with more information about the research. If the participant was happy with the information sheet they were asked to e-mail me back with suitable times they could make and their preferred venue. When I had enough people for a focus group, I set up a Doodle Poll to find the best time to suit most people. When everyone had completed the poll, I contacted each participant with the final date and time. If

someone could not make it but was still interested I kept them on a reserve list for the next focus group. Nobody participated in more than one focus group.

Participants

In total, 31 participants took part in the focus groups in which six were men and 25 were women. Participant ages ranged from 17 to mid-60s, 27 were classed as White British and four were from BME groups. Eight participants were from low socio-economic backgrounds and 23 from mid socio-economic backgrounds.

Focus group questions

The focus group took a semi-structured interview approach with open questions to allow for natural conversation to emerge. A structured interview approach using pre-set categories would have affected the variability and flow of the discussions (Parker, 1992). The focus groups began with two broad general questions and this was then followed by seven pieces of material (Appendices A – F) with the same three questions for each one. To end the focus group there was one question to summarise the discussions. The questions for the materials had prompts to use if I felt this was necessary to encourage conversation. The list of questions can be found in Appendix L.

Transcription

Each focus group was transcribed verbatim. Although this can be a time consuming task, I chose to transcribed the data myself to enable me to become familiar with the material and pick up things in the conversations that I may have not noticed if I had outsourced the transcription process. In addition, it allowed me to make the decisions about how the conversations were transcribed when talk became hard to hear as opposed to an external service making these decisions. Once talk has been committed to paper it can be difficult to undo these interpretations (Parker, 2005). To speed up the process, an Olympus transcription kit was used to make it easier to navigate through the audio recording and to filter out background noise from the air conditioning in some of the recordings.

Ethics

Ethical approval for this research project was received from London Metropolitan University Ethics Research Committee in March 2016 (Appendix K). The ethics proposal

contained a detailed list of the research procedure, focus group questions, materials and a distress protocol.

All potential participants who expressed an interest in taking part in a focus group were sent an information sheet (Appendix H) before they decided to commit to taking part.

Each focus group was held in a private room to ensure confidentiality and to reduce background noise. Before each focus group began, I provided each participant with the recruitment letter and consent form (Appendix I) and reminded them about the purpose of the research and how their data would be used. I made it clear that everything they said would be anonymised and that they had the right to withdraw from the research at any time. They were also given the opportunity to ask questions about the research and the use of their data. If they were still happy with everything, they were asked to sign a consent form to confirm that they had read and understood the information and were consenting to take part. Before the focus group started I made it clear that there were no right or wrong answers and it was an opportunity for the participants to give their own opinions on healthy eating without being judged.

Once the focus group had ended, I thanked the participants for giving up their time and taking part and reminded them that they still had the right to withdraw from the research if they were unhappy with anything they said. Each participant was given a debrief letter to take away with them (Appendix J)

All the recordings and transcriptions were stored on a secure password protected computer. The names and any identifiable information in the focus groups transcripts were anonymised.

Procedure

Pilot focus group

A pilot focus group with five people was run to test the suitability of the questions in November 2016. The focus group lasted for approximately 50 minutes. Afterwards, the focus group process was assessed for any necessary changes. As no changes were required and the focus group produced some good quality data it was analysed as part of the main project. There is an argument that pilot data should not be used for the final results in research studies, however this is really an issue for quantitative research where

you may be defining a research measure. As this was a qualitative research project and the questions were not radically altered between the pilot and main focus groups, this was not considered an issue and would have resulted in the loss of some valuable data (van Teijlingen & Hundley, 2001).

Subsequent focus groups

There were 26 participants across four focus groups. These took place between June and December 2017.

Each focus group was recorded onto a digital Dictaphone and the recording was transferred to a secure location on my computer the same day. The recording from the Dictaphone was then deleted. Each focus group was transcribed verbatim and once this was completed, the audio files were deleted. To ensure confidentiality, the names of the participants were changed in the transcripts and any information that would have identified the participants was either changed or deleted.

Throughout the focus groups I was mindful of my position as the group facilitator, a trainee Health Psychologist working in Public Health. I was aware that I could be seen as someone who works in an authoritative position working with health information. Therefore, I made it clear that there were no right or wrong answers and everything that was said would be treated with respect and be kept confidential.

Discourse analysis coding and analysis

The written materials and the focus groups transcripts were imported into NVIVO 12 to enable ease of analysis and to keep all the materials in one place. It also added another layer of data protection for the focus group transcripts as they did not have to be printed out for analysis.

A Foucauldian Discourse Analysis based on Parker (1999a) was carried out on the selected materials before analysing the focus groups. After familiarising myself with the texts, I carried out the analysis which consisted of twenty steps as outlined in table 1. Further details of the analysis can be found in Appendix N.

Table 1: The steps of the analysis on the selected materials

Step Number	Description
1	Pictures within the texts were turned into words.
2	Creative free association to explore the connotations of the texts
3	All the objects within the texts were itemised
4	How the objects were constructed in the texts were described
5	All the subjects within the texts were listed
6	Speculations of what may be said within these discourse systems were written down
7	A map of the network of relationships between subjects was created and power flows identified
8	Accusations which may be made if subjects do not participate in the discourse system
9	Patterns of discourses at play across the text were identified
10	Different ways of talking about the same object were identified
11	How the discourses speak to different audiences were described
12	Labels were given to the identified discourses
13 & 14	How these discourses emerged historically were researched. How these discourses worked together to position subjects were identified
15 & 16	How these discourses re-enforced and subverted the interests of institutions were identified
17	The winners and losers from these discourses were identified
18	The types of people and organisations who would support or discredit these discourses were identified
19	The ideological functions of the text were identified
20	How the discourses justify the present were considered

The first twelve steps uncovered the subjects, objects and labelled the discourses. Once I had uncovered these discourses in the texts, I familiarised myself with the focus groups texts by reading and re-reading them several times. After this stage I analysed the focus group transcripts and identified examples of the named discourses in the transcripts and I explored how the participants responded to these discourses. I identified examples of institutions, power, ideologies and the way the participants positioned themselves and others against the identified discourses.

A further eight steps of analysis were carried out on the materials to understand the history of how each discourse emerged and worked together in the texts to offer up subject positions. These steps also uncovered the power relations between the subjects and institutions by: identifying the subject positions offered to the reader; the different ways of talking about food and health; the ideological functions of the texts and how the discourses justify our present time and culture. As qualitative research is an iterative process, the data was re-visited and re-worked several times during the analysis and write up.

In order to support the historical element of a FDA, the reflective historical talk from the participants was identified and used to support how the discourses are set in time and culture.

Reflexivity

During and after each focus group, I made notes of interest about the discussions that came from the questions and printed materials. I also kept separate notes during the transcription process of the focus groups and as I analysed the printed materials. This helped me reflect on my original choices of discourses and determine if they were true discourses or in fact themes. On re-examination of the text, if I found a labelled discourse to be constructing an object I decided that it was in fact a topic or a theme (Parker, 1992) and not a true discourse, therefore I discarded it. Topics and themes do not play a part in discourse analysis as they do not tell you anything about the meaning of what was said but rather categorise segments of text. A discourse however, will interpret what was said in relation to the context it is in (Parker, 2005).

I found that there were variations in the type and quantity of conversation in each focus group. In particular, one of the groups made up with people from a low socio-economic background, found reading difficult as they were all attending a literacy improvement class. This made it harder for them to discuss the information provided as they relied mainly on the pictures. I found that I had to ask more probing questions than any of the other focus groups. However, this did make me reflect on the accessibility and barriers to access of health information to different groups in our society. In each focus group I was careful to follow my questions sheet and ask open non-directive prompts to avoid influencing the answers. However, I am aware that my bias could have affected the actual questions. For example, that not everybody trusts healthy eating from all sources.

Summary

This chapter has described the research design and my reasons for choosing focus groups and printed materials for analysis to answer my research questions. I have outlined the recruitment procedure and my analysis process.

Chapter 4 – Findings

This chapter contains the findings and interpretation from my analysis of the healthy eating texts and how the focus group participants took up or rejected some of these discourses. It focuses on steps 1 to 12 of the analysis to identify the named discourses in the texts (Appendix O). Some of the texts are grouped together and some are standalone depending on the overlap of discourses and the position the texts are coming from. I took this approach as I felt it presented my analytical findings in the most informative way. Steps 13 to 20 will be covered in chapters five and six.

Analysis of the materials

NHS Choices and the Eatwell Guide

The NHS Choices – Eight tips for healthy eating and the Eatwell Guide texts are both produced by government health bodies and are promoted as the most appropriate way to eat for optimum health. NHS Choices – Eight tips for healthy eating is a website produced by the NHS. It was commissioned by NHS England, funded by the Department of Health and draws on content and knowledge from the Eatwell Guide. The Eatwell Guide was written by Public Health England (PHE) who have been responsible for public health and healthy eating advice since 2013. The Eatwell Guide was developed by the Association for Nutrition who are voluntary registered trained nutritionists and nutrition scientists in the UK who regard themselves as nutrition experts. Both the NHS and PHE are powerful state health organisations due to their links to government. Therefore, the information they provide is presented as the accepted truth and their advice is rarely questioned.

Both texts target the UK population with the aim of improving long term health and reducing demands on the NHS. The Eatwell Guide is used in health settings such as GP surgeries and hospitals and it is used for nutrition and healthy eating education in schools and colleges. It contains a visual image of a plate as a way of helping people think about how they should put each food section on their own plate when eating. It is accompanied with a 12 page booklet (Appendix M) which is aimed at health professionals.

Both texts describe the ideal daily diet as healthy and well-balanced. The Eatwell Guide presents a healthy balanced diet using a picture of a plate showing divided into five food groups. A natural discourse constructs food into a dichotomy of good/bad and healthy/unhealthy foods where healthy natural food is shown placed on the plate and unnatural unhealthy snack food is shown placed off the plate.

Both texts construct the UK population as lay people in need of educating about eating healthily in the way they talk about how people 'should' and 'should not' eat. The Eatwell Guide constructs itself as a helpful friend by telling the reader how they can use the guide when shopping, cooking and eating out. It suggests that everyone has the agency to eat healthier diets in the way it talks about 'healthier choices'. It tries to be inclusive by using the pronoun "us" to include the authors as needing to improve their diets too. In contrast, the NHS Choices text uses an authoritative style and comes across as a prescription or set of rules for a healthy life through food choices.

With NHS Choices, a moral discourse constructs the reader as having the agency to take personal responsibility for their long term health by eating healthily. This can be seen in the logo "Your health, your choices". Eating a healthy balanced diet is framed as easy and all you need to do is to follow their eight tips. If the reader needs further help they should seek advice from either a GP or dietitian who have the correct healthy eating knowledge. The moral discourse offers two subject positions, a responsible citizen and an irresponsible citizen through the use of the word 'should'. This implies that responsible citizens follow healthy eating advice and those who reject the advice are therefore irresponsible and considered a burden on society when they develop long term health problems.

In both texts, a scientific discourse constructs people as needing to consume a variety of foods from different food groups in the correct amount in order to obtain all the nutritional components they require for optimum health. It implies there is an ideal balance between food groups which everyone should strive for. Within the carbohydrate sections, both texts construct people who question advice on consumption of starch carbohydrates as ignorant in the way they say 'some people think starchy food is fattening, but gram for gram it contains less the half the calories of fat'. These people would also be considered deviant for challenging an accepted truth about a healthy diet and putting themselves at risk of long term health problems.

The Eatwell Guide justifies the accepted truth above by drawing on a thermodynamics discourse which constructs fats added to the carbohydrates in cooking as the cause of weight gain because fats are higher in energy. This concern around fat and weight gain can be seen in the way there is only a tiny segment for oils and spreads on the plate and the word 'fat' is excluded. A special box entitled "Foods high in fat, salt and sugars" is emphasised under a heading called "A closer look at". The consumption of foods

containing saturated fat, sugar and salt should be monitored with the help of the bad/unhealthy food list and select foods from the alternative good/healthy food list. A medical discourse constructs foods containing saturated fat, sugar and salt as dangerous and responsible for weight gain and long term health problems. The UK population is constructed as putting themselves at risk of becoming overweight or obese by consuming too many foods high in fat, salt and sugar and not enough fruit and vegetables. Overweight and obese people are then constructed as at risk of a variety of long term health conditions such as high blood pressure, stroke, heart disease and tooth decay and the texts correlates an individuals' health directly with their body weight.

Foods are also constructed in the Eatwell Guide as either good/healthy or bad/unhealthy using a traffic light discourse. Food producers are offered two subject positions in which they are either positioned as supportive or unsupportive of the consumers' health by providing colour coded food labels with recommended portion sizes. On these labels, red is associated with risk and danger, green is associated with healthy and amber is associated with a warning to be careful. This is intertwined with a moral discourse which constructs the consumer as having agency and responsibility over their food choice. Two subject positions are offered in which the consumer can either take personal responsibility for healthy eating or put themselves at risk of poor health by ignoring the food labels.

NHS Choices also uses a thermodynamics discourse to construct the body as a machine which requires food as fuel in the way it talks about the importance of calories and balancing energy intake and expenditure. This discourse offers three subject positions. The overweight, unhealthy and unrestrained eater, the healthy, normal weight restrained eater and the underweight over restrained eater who may need help. Most of the UK population is positioned as lacking discipline and self-control around food and consume too many calories. This can be seen in the way both texts claim that most adults eat more than they need. Therefore they should monitor their caloric intake to become a healthy weight. Healthy weight people should still monitor their caloric intake to avoid becoming overweight and unhealthy. It is as though the reader should not trust their body's hunger and satiety messages as they are unreliable and therefore need to structure their diet around caloric values of food.   NHS Choices also insists that people must not skip breakfast and must eat a wholegrain, low-sugar cereal. This will help them to consume more healthy starchy foods for weight loss or maintenance. People who skip breakfast are positioned as overweight and ignorant about weight loss whereas those who eat breakfast are positioned as sensible, slim and healthy.

In both texts, fat is dichotomised as essential in the diet but, at the same time, bad due to its high energy content. It is dichotomised into unsaturated and saturated fats in which unsaturated equals good or healthy and saturated fat is bad or unhealthy. However, unsaturated fat can become bad/unhealthy if too much is consumed. Therefore, the reader should monitor how much and what type of fat they consume. A medical discourse is drawn on to inform the reader of the health consequences of eating too much saturated fat and increasing their risk of heart disease. The UK population is constructed as consuming too much saturated fat and needing to reduce intake. Examples of dangerous foods containing saturated fat include butter, cheese and fatty cuts of meat. A monitoring discourse and a moral discourse are used to place personal responsibility on the reader to not exceed the 20 – 30 grams of saturated fat limit per day. People exceeding these limits are positioned as irresponsible and a burden on society when they become ill.

Scientific and medical discourses are drawn on in the Eatwell Guide to emphasise the importance of consuming vitamins and calcium for strong bones which is found in dairy products. However, they then warn the reader about the dangers of saturated fats in dairy products and to limit consumption, especially dairy fat. The monitoring and medical discourses in the section on proteins emphasises being responsible by choosing sustainable proteins that are low in fat and includes two portions of sustainable fish a week. Here the population are positioned as having the agency to select a variety of foods to consume an environmentally friendly diet and a diet which reduces their risk from long term health conditions.

In response to the discourses identified above, several participants felt it was important to use their own agency in deciding if these rules and discourses worked for them. For example, the participant below felt that so many eating rules were unnecessary and could create other issues:

> Participant 31: I think the more we get too involved in the technicalities the less we tune into what our bodies are saying to us, I haven't got a set of scales in our house, so I haven't weighed myself for a long time, I've been to the hospital for appointments, nothing to do with eating, and they weigh you and measure you um, but that's the only way I would know but I've been the same size for the last, since I was 25 so the last 26 years I've been exactly the same size

She felt that by rejecting the thermodynamics and monitoring discourses and focusing on her feelings of hunger and satiety, her body was able to manage its own body weight. Another participant had concerns over the starchy carbohydrate message feeling it may not apply to everyone:

> Participant 6: my Dad has got type 2 diabetes um he is an absolute carb fiend bless him um and you know the advice for him is the same, eat starchy vegetables, well isn't diabetes an inability to properly process carbohydrate? So should his diet be based around carbohydrate?

Therefore, participants felt that personal experimentation was important and it was not immoral to do so:

> Participant 3: But I think also trialling out for yourself, I know when I was quite overweight actually, I cut down on the sugar, I cut down on the carbs and that was the only way in which I lost weight

When somebody had personal health successes, they felt it was necessary to draw on their own agency to question the knowledge within the standard guidance and institutional advice and query the discourses around food risks.

Change 4 Life

Change 4 Life targets people with families and encourages them to make positive changes to their lifestyles in order to live healthier lives. It tries to take a fun approach with bright colours, an informal font and a fun logo using people characters in active positions to give the impression of being fit and healthy. It aims to motivate children, via their parents, to eat healthily from a young age in order to prevent health problems later in life as an adult and reduce future health care costs. Although this material was produced by the NHS and Public Health England, it takes an informal approach by not including healthy body logos. They construct themselves as friendly, helpful and wanting the best health outcomes for the reader rather than being a source of authority.

The reader is constructed as the main care giver of the family who is in need of education about different portion sizes suitable for adults and children to make sure nobody overeats. A traditional discourse is used to identify the reason why people eat too much.

It states that having to eat everything on your plate is outdated and comes from a time when food was expensive and in short supply. The belief that leaving food is wasteful encourages us to overeat especially with today's bigger plates. Several focus group participants took up this discourse by drawing on their reflections and personal experiences.

> Participant 2: I just think, you know it's the kind of baby boomer generation where they had, where they were brought up by people who had very little and then wanted to stuff the children silly because it was a sign of wealth and prosperity.

> I think attitudes towards food you know, always finishing everything that's on your plate, in our house it was sacrilege to not finish what was on your plate, despite the fact that what was on your plate was probably twice as much as what your parents were eating when they were children because the food wasn't available at that time.

> Participant 25: 'Waste not want not' was something that I, you know, that was a phrase that I grew up with in the early 60s when WW2 still resonated the culture then.

Through a monitoring discourse the reader is advised to eat slowly and use smaller plates to trick themselves into believing they have eaten a bigger meal. However, Change 4 Life states that they must then resist the temptation to go back for seconds. They need to focus on their food and not be distracted by the television. The reader is advised to plan all their meals for the day in advance and balance the quantity of food at each meal accordingly such as balancing a 'proper meal' with a lighter meal. This can be seen as a contradiction in the way they associate a proper meal with being a big meal where big meals need to be reduced in size.

A childcare discourse constructs children at risk of obesity and parents as responsible for providing their family with a healthy balanced diet and to make sure their children do not over eat. They use the phrase 'special tips' to acknowledge this is difficult to accomplish and constructs children as greedy and lacking agency to control their appetites. Therefore children should have their food intake constrained and be taught about portion sizes. This

is evidenced in the way they state that 'children only need small amounts of food which should be served on a child's plate to avoid over feeding'.

Some children are constructed as 'picky eaters' who refuse to eat healthy food. Therefore the parent should encourage them to eat more healthy food. Two subject positions are offered up, the responsible parent and the irresponsible parent. Parents who do not monitor their children's intake, teach them about portion sizes and encourage them to eat healthy food are positioned as irresponsible parents putting their children at risk. However, the text then suggests children do have the agency to control food intake in the way they state that children will ask for more if they are hungry or will say they are full if they are not hungry. Parents should respond to these cues for feeding their children. The text then attempts to mitigate any resistance from parents by contradicting itself. It suggests that food consumption control is not innate and children's bodies need training by giving them regular snacks to prevent over eating at meal times. The responsible parent, however, will be able to negotiate through all the above contradictions.

A monitoring discourse, constructs the reader is as in need of learning the calorie content of foods even if they are not trying to lose weight. This suggests that the calorie content of meals needs to be controlled as bodies cannot be trusted to tell us when they are full. Two subject positions are offered up; restrained and unrestrained eaters. Restrained eaters conform to this advice and strictly control their daily calorie intake whereas unrestrained eaters reject the advice and eat as much as they like. The unrestrained eaters are then accused of putting themselves and their families at risk of overweight and ill health. Within the focus groups, some rejected the monitoring discourse as they found calorie counting too restrictive:

> Participant 21: I haven't got a clue how many calories I eat in a day and I certainly don't go around counting them,

Whereas others took up the position of a restrained eater and based their eating choices on the calorie content of foods:

> Participant 30: I look at the energy, and ignore everything else, then if I fancy the meal I have the meal and if I don't I won't

Food labels are constructed as helpful for choosing healthy ingredients to make healthy balanced meals and reduce calorie consumption. Food manufacturers are constructed as trying to trick consumers into eating more than they should in the way they talk about large portions may seem like value for money. Therefore, the responsible parent must carefully measure out portions from packaged foods to shield their children from the temptations created by food manufacturers.

Some of the focus group participants took up the childcare discourse to position themselves as responsible parents. For example, the participant below talked about how she made the time to prepare healthy meals for her children every day:

> Participant 3: Some of the campaigns that I see, particularly around parents being role models for their children, so I will make an absolute effort to literally plan my meals every week from a recipe book, buy the ingredients and cook from scratch every evening. But you are right it isn't easy. I, I struggle with it, I really do.

She admitted that she struggled to live up to this idealised image of a responsible parent. However, in not doing so, it would leave her feeling guilty for not doing the best for her children.

In another focus group, participants also positioned themselves as responsible parents through their choice of pack lunch for the children:

> Participant 9: Children do eat out a lot more, I mean I take my grandchildren, we go out quite a lot don't we, and we go to, we always look for places that do um pack lunch for children, I mean we went to Waitrose
> Participant 10: Waitrose
> Participant 9: They do a brilliant one for £3.95, it's got fruit it's got yoghurt, it's got some crispies in it, got a nice sandwich, and it's got a nice drink.

They then went on to compare themselves to other parents who they position as irresponsible for not providing their children with a healthy packed lunch:

Participant 9: But I do think, I do think you can make excuses all the time

Participant 8: If you saw some of the pack lunch boxes that came to school!

Participant 9: Oh yeh

Participant 8: You'd be shocked you know and some of the things in there and we're like 'no way', you know

By positioning themselves as responsible parents, the participants identified as being 'good' parents doing the best they could for their children's health. Their comments about 'other' parents suggested that they would feel guilty and 'bad' parents if they did not provide their children with healthy lunches. By comparing themselves to others helps them to feel that they are achieving responsible parent status.

Weight loss organisations

The two texts from weight loss organisations target anyone overweight or obese who want to lose weight. However, the majority of each organisations' members are middle aged women and as one of the male focus group participants put it:

Participant 27: I always see this thing as not very, maybe it's me, not very inclusive for men

Both organisations are commercial companies which were set up in the 1960s by women trying to solve their own weight issues. The texts were created by the marketing and nutrition teams within the organisations. Both organisations are commissioned by some UK local authorities for weight loss services. The materials conform to patterns in society by constructing poor diet, overweight and obesity as socially undesirable.

The first organisation aims to attract people by offering a modern way to improve health and lose weight without having to eat traditional diet foods which leave people feeling deprived. They construct themselves as innovative in weight loss methods and challenge and reject traditional dieting discourse through contradictory pictures. For example, they use a picture of a fried breakfast, which is traditionally considered as unhealthy and fattening, to challenge current beliefs around food and health by claiming you can still lose weight eating these foods. Salad is constructed as rabbit food and unrealistic as a basis for a weight loss diet. However, a few participants, with lower levels of education and

income, struggled to relate to this rejection of the traditional dieting discourse as it contradicted their ideas of healthy eating:

> Participant 16: To, to just that, it's not a diet and you're looking around trying to find why, why it is saying it is not a diet

> Participant 12: Well it isn't healthy is it? Fried eggs and bacon are not healthy foods.

The second weight loss organisation, on the other hand, take a different approach by presenting healthy eating as something to aspire to and a way to live the good life by being healthy and attractive. They use pictures of fresh, appetising and restaurant quality food to convince readers that they will not be deprived and to dispel myths that healthy food is bland and tasteless. Healthy foods are framed as delicious and foods you want to eat, rather than being told you have to eat.

Through an emotional discourse, the first organisation's reader is constructed as somebody who needs to lose weight but weary of trying traditional diets which make them feel deprived, miserable and hungry. The logo "touching hearts, changing lives" constructs the organisation and their consultants as nutrition and weight loss experts who are offering readers a life line to help transform their lives. The reader is offered two subject positions, they can remain overweight and unhappy or they can change and become slim and happy with the help of the organisation. They can become like 'Gill' a successful slimmer in the before and after picture. Gill is constructed as 'smiling for real' now she is a normal, healthy weight. It infers that Gill was faking her smiles when she was overweight as it was not possible to be happy before she reached a normal weight.

Using a family/caring discourse, the reader is constructed as responsible for their family's health as well as her own health. To be a responsible wife/mother she should provide her family with healthy meals. The organisation's eating plan would enable her to meet this expectation. Two subject positions are offered to the reader. They can take up the subject position of being a responsible citizen who cares about their own and their family's health. By joining the 'club' they would transform themselves into a new, healthy and better person and be able to lead by example to the rest of their family. If they rejected this subject position they would be accused of giving up on themselves and their family health and remaining overweight and unhappy.

As an alternative to traditional dieting, the reader is offered personal support and a generous 'Food Optimising' plan to eat for health and weight control. A rebellious and freedom discourse constructs this plan as just eating normal good tasting food with no restrictions. People who follow this plan are positioned as liberated and set free from deprivation and hunger. On the other hand, those who reject this plan are positioned as wanting to be tied down to a restrictive regime of bland and tasteless foods or remaining overweight and unhappy. For people attracted by quick fixes, a natural discourse constructs diet pills as unhealthy for the body and mind. This offers up two subject positions; those who put themselves at risk for a quick fix to losing weight, against people who care about their health by eating normal food.

The second organisation construct itself as a healthy eating expert by saying they are all about good health and refer to the latest nutritional research. A health discourse constructs the reader as plain, unhealthy, overweight and living a mundane life. However, by following their easy healthy eating plan, they can become healthy, full of energy and have a positive outlook on life. They have created special 'healthy and delicious' recipes to demonstrate how they have mastered making healthy foods taste good.

A natural discourse constructs fresh individual and colourful foods as best for health which can be seen in the picture entitled 'Balancing Act'. People who consume these fresh foods in the right balance are constructed as slim and healthy. The title "Real food is on the menu" could be interpreted as not having to buy special meals or meal replacement products. For example, the dish of grilled salmon, couscous, grilled cherry tomatoes and fresh herbs on a blue and white plate looks like something you would find in a Mediterranean restaurant. It gives the impression of being on holiday rather than everyday mundane life. It presents healthy eating as exciting and having a positive outlook for the future.

A picture of three young and attractive people (two women and a man), enjoying a meal and each other's company outside in the warm weather produces a lifestyle discourse. It constructs healthy eating as a lifestyle to aspire to and a way to become slim, attractive, happier and more fun to be with. The natural and lifestyle discourses work together to offer two subject positions; a fun and popular slim person or an overweight boring person with few friends.

A health discourse constructs people as needing to follow specific rules for planning, cooking and eating meals to be slim and healthy. For example, everyone should eat at least five portions of fruit and vegetables and two portions of dairy a day. This is combined with a scientific discourse which constructs healthy food as containing important vitamins, minerals and fibre which is essential for good health. However, further rules create a dichotomy of good/healthy foods and bad/unhealthy foods based on fat content. For example, dairy is described as the best source of calcium, but only if the fat has been removed. Protein is described as essential to health and weight loss. However, the reader must get the exact amount each day and avoid proteins that come with fat. A moral discourse constructs the reader as at risk of being tempted to consume bad/unhealthy foods over good/healthy foods. Therefore, to protect themselves from temptation, the reader must avoid getting hungry and consume wholegrain foods as the fibre it contains is essential to helping them to feel full.

Through the discourses above, the reader is offered two subject positions; compliant and healthy or uncompliant and unhealthy. People who follow the healthy eating rules and avoid temptations are positioned as caring about their health enough to make the effort to become slim and healthy. On the other hand, those who do not follow the rules are positioned as lazy and not caring about their health.

Focus group comments showed that some participants rejected the emotional and lifestyle discourses and their association with happiness due to the negative effect they had on self-esteem. For example, one of the participants reflected on her own experience of weight loss programs:

> Participant 29: I was realising how much of a negative effect the whole weight loss industry can have on people and their self-esteem and things.

Therefore, even though the text projected a way to happiness through their discourses, this participant could not identify with somebody like 'Gill'. However, another participant felt that by taking up the compliant and healthy subject position it enabled them to feel empowered, achieve their personal health goals and identify as a healthy, happy person.

Participant 8: I think for me it was a real incentive to go and get weighed and to be healthy. I was definitely like healthier and I was watching what I was eating

On the other hand, the participants below rejected the natural and health discourses within the texts based on their experience of weight loss organisations. They questioned how healthy the weight loss programmes were based on their reliance on artificial sweeteners and the replacement of fat with sugar:

Participant 2: I would really dispute some of the stuff they advise because they are very heavy on things like sweeteners

Participant 5: Oh god yeah

Participant 2: and the actually replace a lot of fat with sugar

Participant 5: Yeah

Participant 2: But say it's okay because you're you know effectively losing weight but I think there is a difference between actually actively wanting to lose weight and just maintaining a healthy balanced diet,

Through the questioning of the discourses, the participants queried the relationship between weight loss and health and questioned the knowledge of these institutions.

Commercial food companies

Breakfast Cereals

This text focuses specifically on breakfast from a commercial perspective. The purpose of this material is to promote eating cereal for breakfast as part of healthy lifestyle. The target audience is the general UK population, particularly time poor working families. It was produced by the cereal manufacturer's marketing team and nutritionists for their website. It aims to justify the healthiness of their products and how they can fit into anybody's busy lifestyle.

The text conforms to patterns of power in society by aligning its health message to governmental health advice. It demonstrates how the nutritional content of breakfast cereals meets the advice in NHS Choices to base your daily diet on starchy carbohydrates

and low fat foods. They construct themselves as nutrition experts in the way they describe themselves as having a passion for nutrition. Through a scientific discourse, fortified breakfast cereals are constructed as ideal for breakfast because they provides the nation with 15% of iron needs and 10% of thiamine, riboflavin and folic acid as well as being low in fat, especially saturated fat. To counteract bad press about the sugar and salt content of breakfast cereals, they have sections on salt and sugar intake to show that they care about limiting sugar and salt consumption.

The scientific discourse constructs the UK population as needing to eat breakfast every day for good health. Two subject positions are offered to the reader; breakfast eaters and breakfast skippers. People who skip breakfast are positioned as malnourished and lacking in energy in the way they are described as missing the opportunity to get all the vital vitamins, minerals and fibre they need to start the day. On the other hand, those who do eat breakfast are positioned as being more successful in life, will feel alive and ready to take on the day. This is evidenced in the way breakfast is described as the springboard to opportunities therefore those who miss breakfast will miss opportunities and be at risk of failures.

Under the heading "The Power of Breakfast", a thermodynamics discourse constructs the body as a machine in the way it talks about eating breakfast cereal to refuel the body and brain, kick start the metabolism and getting the energy needed to embrace the morning. Using the subject positions; breakfast eaters and breakfast skippers, it positions families who eat breakfast as fit, healthy, happy and harmonious. On the other hand, families that skip breakfast are positioned as unfit, unhealthy, unhappy and argumentative. For example in the picture showing a father with his two children on a sunny summer's day playing in the garden.

A natural discourse constructs breakfast cereal as a healthy combination of 'simple grains and sunshine' through a picture of a happy and relaxed woman dressed for warm weather, eating breakfast outside on a sunny day. Half a piece of citrus fruit is placed to the side of the cereal to imply freshness. A second picture shows blueberries on top of breakfast cereal and an apple and a bottle of milk is placed to the side to give the impression of natural, fresh and contributing to the recommended five a day advice.

A childcare discourse constructs children who miss breakfast as malnourished. Parents, in particular mothers, are constructed as responsible for making sure children eat breakfast every day. This is evidenced with a picture of a smiling mother feeding her

children breakfast cereal. A family discourse constructs women as carers of the whole family which is seen in the picture of a women giving her husband breakfast cereal before he leaves for work as well as the previous picture. Through these discourses, women are offered up two subject positions; the responsible mother/wife and the irresponsible mother/wife. The responsible mother/wife will care about her children and partner's health and future by providing them with breakfast every day. On the other hand, the mother/wife who does not provide breakfast will be considered irresponsible and uncaring about her family's health and future prospects.

Reflections from the focus groups towards the scientific and natural discourses were mixed. For example, the participant below rejected the scientific discourse about missing out on essential nutrients. She felt it was more important to rely on your own agency and trust your feelings of hunger to determine if you need to eat breakfast:

> Participant 28: I think if you are not hungry don't eat breakfast

However, the participant below took up the scientific discourse and positioned herself as healthier than other women of her age (meaning older) who do not eat breakfast:

> Participant 9: Women of my age, quite a lot of them it is a fag and a cup of coffee, and I don't equate that with healthy or if not, I don't smoke anyway, and that was then and they wouldn't eat anything then until lunchtime, so, I have always been a breakfast person

She takes this further by making reference to the other women smoking for breakfast to demonstrate that she has taken more responsible towards her health over the years and hence making her a better citizen.

There were also many questions across the focus groups about how nutritious breakfast cereal really was which questioned the natural discourse in the text and its association with good health. Several participants positioned themselves as healthier by eating an alternative breakfast. For example:

> Participant 5: I mean I must have at least 2 eggs in the morning, because breakfast is one of my best meals

This participant is also rejecting the low fat starchy carbohydrate advice that runs through this text and the NHS Choices and Eatwell Guide texts.

Cholesterol lowering spread

This text is produced by a commercial company which specifically links healthy eating to lowering and maintaining cholesterol levels. The target audience are middle aged and older people who are at risk of higher than normal cholesterol levels. It aims to promote a cholesterol lowering healthy lifestyle. This material contains information on cholesterol, healthy eating, healthy lifestyles and success stories. The content was created by company's nutrition team and marketing team to find the appropriate research which backs up the health claims its products. This has then been embedded into traditional healthy eating advice based on the EatWell Guide and NHS advice.

This text aligns itself with governmental health advice by placing emphasis on the importance of reducing fat intake and reducing heart disease risk. They construct themselves as trustworthy and knowledgeable about food and healthy lifestyle by referencing NHS guidelines and clinical studies within their advice to demonstrate they have used acceptable knowledge sources. Through a moral discourse, the reader is constructed as needing and wanting to learn how to improve their cholesterol levels to reduce their risk of heart disease. Two subject positions are offered up to the reader; those who take responsibility for long term health and those who are irresponsible about long term health. Suggestions for improving health are provided in the form of physical activity advice and healthy recipes. These are constructed as 'quick and fun exercises' and 'fun and easy recipes' to further position people who do not conform as boring and lazy.

A natural discourse constructs a balanced diet through a picture of natural fresh foods and the phrase 'you are what you eat'. This interacts with a medical discourse which constructs a direct relation between food and health and implies that an unbalanced diet puts the body a risk from heart disease. A chart divided into five sections and balanced like a see-saw gives the impression that achieving a balanced a diet is a skill.

The reader is advised to eat most of their food from the starchy foods and fruit and vegetable sections. The text quotes NHS guidelines to align their advice on fruit and vegetable consumption with governmental health advice. A medical discourse constructs

high blood cholesterol levels as dangerous and putting the body at risk. To mitigate this risk the reader is advised to consume starchy foods, and in particular oats, to lower blood cholesterol levels. Food is therefore medicalised as the text suggests that some foods can act as medicine by reducing risks of health problems. The medical discourse constructs protein as important for growth and muscle maintenance. However, animal protein comes with dangerous saturated fats. As an alternative nuts and oily fish are promoted as a good source of protein with unsaturated fats which can reduce cholesterol levels. Here fats have been dichotomised into good/safe and bad/dangerous where saturated fats are constructed as a risk for heart disease. This dichotomisation of fat continues throughout the text and extends to other foods. For example a scientific discourse constructs milk and dairy foods as good sources of protein and calcium. However, these are only good if they are the low saturated fat versions such as skimmed milk or a vegetable oil based soft spread such as a special cholesterol lowering margarine. In particular, the medical discourse constructs cholesterol reducing margarines as alternatives to medicine evidenced in the way they talk about the cholesterol lowering effect of plant sterols.

The text warns of invisible fat hiding in some foods therefore constructing these foods dangerous to eat. Food is divided into lists of dangerous foods and alternative safe foods. Through a monitoring discourse safe limits on fat and saturated fat are constructed. This offers up two subject positions, healthy restrained eaters who stick to these limits and unrestrained eaters who put their health at risk. The lack of advice on sugar consumption suggests that the authors have a vested interested in the effects of fat on health as their product is constructed from fats and oils.

Some of the participants from the focus group challenged the medical and monitoring discourses around fat. The participant below positions herself as healthy because she eats the fat:

> Participant 31: just eat the fat, the fat's nice, I'm always having the full fat
> sauces and cause it's healthy and more natural

The natural discourse was challenged by other participants as they felt that a cholesterol lowering spread cannot be healthy as it contains unknown artificial ingredients:

> Participant 3: But it's what else they put in [the spread]

Participant 2: I agree

Participant 3: that then your body can't then break down

Participant 2: But buying food that doesn't have the "what else is in" is
actually really difficult

However, the moral discourse and the position of taking responsibility for your health was taken up by most people as they felt it was important to look after your own health. However, processed commercial foods were rejected as healthy as they were not considered to be natural.

Participants' concept of healthy eating

When the participants were asked to describe what healthy eating meant to them and how they knew this, a prominent theme was that healthy eating was just common sense. This suggested that knowledge is unconsciously taken in and becomes shared knowledge in which people base their choices and judgements. This knowledge becomes internalised as rules for healthy eating which then becomes acted out on a daily basis (Foucault, 1988 as cited in Lupton, 1996). When these rules become normalised to a person they may be regarded as obvious and common sense:

Participants 17: It is quite simple isn't it, it is more like common sense really,
most of it.

Participant 7: So much of it I think is common sense and like you were saying
at the start it's what you have grown up with and what has got ingrained. I
don't know, I, when I see things like this and sort of skim through it and think
either that sounds nonsense and that's not really good for you or that sounds
yeh I can see that might work, and sort of compare it with common sense

However, as Foucault has stated, common sense will change over time depending on what knowledge is available (Mills, 2003). Participants reflected on the texts above by drawing on their own knowledge of healthy eating that they had acquired from various sources over the years. Examples of knowledge sources identified through the participants' conversations showed that healthy eating knowledge is everywhere. Some of this knowledge is actively sought while other knowledge is unconsciously taken on

through every day talk. As well as traditional media such as magazines, television and cookery books, participants cited the internet as a popular source of healthy eating information. Some participants raised their concerns that many people were claiming to be experts on health and food and it was all too easy for someone with no nutrition qualifications to present themselves as a guru on social media. Therefore they felt it was important to exercise caution in choosing which advice to accept.

Trust in advice

The nature of knowledge changing over time affected participants' ability to place trust in healthy eating information.

> Participant 30: The trouble is they, they issue this, they say one thing then a month or so later it's changed and you know and it's changed again so you know it gives guidance but it, you know, it gives you an idea but after that you know I wouldn't trust it

> Participant 3: and also I think you hear one piece of information one day and then it literally changes the following week or the next month

Due to the changeability of knowledge, some participants felt it was important to acknowledge that everyone is an individual with different nutritional needs. Therefore, instead of relying on standard nutritional advice they preferred to use their own agency and listen to what their body was telling them in terms of nutritional needs.

> Participant 9: At my age you know if you eat too much pastry or mash potato with too much butter in it, then you suffer with heart burn and indigestion so straight away that tells me that my body's rebelling against something that it doesn't want me to eat so much of

> Participant 31: If it feels good eat it and if actually if that's making me feel really horrible and bloated the next day, I'm gonna have less of that and try something else, or if my body is craving somethings I listen to it, so if it's craving fresh fruit it's probably a bit low on vitamin C so I'll go and get some.

The participants above talked about how they have made their own health links to food through their own observations. They felt it was important to trust your personal experiences over external advice. In some cases, participants felt they needed to create their own healthy eating rules, such the participant below:

> Participant 6: I think for then it is kind of, if it comes out of a packet, if it comes out of a factory, leave it alone. If it grows on a tree or eats in a field you are all right basically.

Another participant rejected the standard advice and questioned why milk is not promoted more to women to help prevent the bone disease osteoporosis and to children for growth due to its calcium content:

> Participant 2: I think the one that I always take issue with here though is, is the milk because actually milk is terrific I think for kids and also women and osteoporosis

This suggested that the participant felt that some nutritional advice was biased in favour of adult men while women and children's needs were ignored. Another participant talked about her experience of health professionals questioning her nutritional choices because she was a vegan.

> Participant 26: when I've gone to nurse, like nurse appointments or doctor appointments, which diet and they don't even know where, they say to you where do you get your protein? You're a nurse, you're a doctor you should have a little general idea of that and then straight away you know, I'm lucky I've never been deficient, but when I was pregnant cause I was vegetarian, doctor, midwife adamant I must be deficient in iron, didn't event like wait for the blood test results, wacked me on iron tablets I was really ill blood tests came back nothing absolutely wrong with my bloods

She commented that although she felt she had sufficient nutritional knowledge, the health professionals she encountered treated her as an object of study under a medical gaze and assumed they knew what her needs were. However, she summed this up by

positioning herself as more knowledgeable about her nutritional needs than the health professionals by drawing attention to the error they made with the iron tablets.

Summary

This chapter has uncovered the findings from the analysis of the texts using steps 1 – 12 of the FDA process outlined in Parker (1999). The analysis identified several discourses within the texts and the subject positions offered up by the discourses. In addition, this chapter has reflected on how the focus groups participants responded to the texts in terms of which discourses they chose to reject and how they chose to position themselves against the discourse they took up.

The following chapter will trace the histories of the dominant discourses as outlined in steps 13 and 14 of the analysis process. It will consider how the discourses emerged historically and how these discourses work together.

Chapter 5 – Discourse Histories

According to Foucault, all discourses are bodies of knowledge (Coveney, 2006) and are shaped by history. They are continually evolving as our understanding of the world changes over time. In order to understand how an issue has come to be the way it is, Foucault argued that it was important to trace the historical roots of the discourses (Shirato et al. 2012). During the analysis process, it is important to recognise where and when, in historical terms, the discourses developed and became naturalised. When a discourse becomes naturalised it becomes accepted by society and nobody questions it (Parker, 1994). Therefore, in this chapter I will trace the historical roots of the dominant discourses and consider how they are reflected in the focus groups through the uptake and rejection of the related subject positions.

Scientific - Health and Nutrition

The scientific discourses of health and nutrition have developed over the last 150 years by linking physical health to specific nutrients in individual food items. The science of nutrition came out of a problematisation of food and concern about the health of the UK's labour force, in which people became 'objects of nutrition' (Coveney, 2006). In the 1880s, the US chemist Wilbur Atwater took food into the laboratory for the first time to analyse the macronutrient content (Welsh, 1994). Atwater was particularly concerned with the protein and energy content of working-class citizens' diets and whether they were eating enough for good health (Crotty, 1995). His work on food and nutrients led to the first nutritional guidelines in the United States. Within the UK, at the beginning of the twentieth century, Atwater's work influenced the perceived need to monitor population estimates and the country's food stock to determine if the population was getting the appropriate nutrition required for good health (Flux, 1930). By the end of 1939, work was being carried out to test the nutritional value of rationed diets in anticipation of war food rationing. This was to ensure that everyone would have access to sufficient food to be productive citizens. This research informed the nutrition handbook McCance and Widdowson's The Composition of Foods, now in its 7th edition, and published by the Food Standards Agency and Public Health England (2014). It is still used to inform modern dietary guidelines such as the Eatwell Guide. Since the 1940s, annual national food surveys have continued to the present day in the UK. Although the focus is no longer on national food security, the information gained from these surveys is used to inform state health organisations on the quality of people's diets and to predict risks to health (Lee & Worth, 2017).

Before food was taken into the laboratory for nutritional analysis, healthy eating was based on the humoral model for disease, in which the consumption of food was based on restoring balance in the body. This advice was given to the more privileged members of society who were then expected to spread this knowledge to the less privileged (Lupton, 1995). Another health concern was the adulteration of food with non-edible and sometimes toxic ingredients. For example, food producers would add water (often contaminated) to milk, remove the cream and then add lead chromate to give back the creamy colour (Wilson, 2009). This became prolific in the mid-19th century as food producers competed among themselves for sales to poor members of society. Often the substitutes used resulted in poor nutritional food quality leading to malnutrition or even death in those who consumed them (Burnett, 1989).

The discovery of food nutrients and their relation to health led to a shift in knowledge of food and health as it took on a scientific perspective. This could be considered as a change in what Foucault termed as an episteme (Shirato et al. 2012). Therefore, in the modern day, talking about food in terms of nutrients has become an accepted way of conceptualising food and eating. Providing information on the nutritional content of food to consumers is now common practice.

The scientific discourse is closely linked to a medical discourse in the way food and nutrients become linked to good or bad health.

Medical

Chamberlain (2004) argued that food is becoming increasingly medicalised due to the close link between food and health. This has been driven by the development of nutritional science and the identification of specific nutrients within foods and how these are connected to specific illnesses and diseases. Several of the materials studied, particularly those produced by government bodies, play on the reader's fear of disease and advise them how to avoid health problems.

The scientific study of medicine dates back to around 460 BC when Hippocrates first prescribed a form of aspirin to manage pain. Then, in around 300 BC the first known anatomy book was written (Hajar, 2015). The institution of medicine has always been highly respected and has had a powerful influence on society. In Birth of the Clinic, Foucault (Foucault & Sheridan, 2003) describes how medicine evolved with the coming on the modern age and how it became free from the power of the church. People became

the objects of study under the medical gaze of medical practitioners (Shirato et al, 2012). By the 1970s several critics argued that the medical profession was using its power to take on the role of social regulation through the process of medicalisation. It was argued that medicalisation was removing the autonomy of individuals by dictating to them how they should behave. This was how one of the focus group participants described how she felt during a hospital visit while pregnant. She felt disadvantaged because she had no voice in an imbalanced power relationship with medical professionals, even though she considered herself to have an equal understanding of nutrition of herself: This made her feel marginalised and reduced her trust in the medical profession.

Thermodynamics and monitoring

A calorie is the amount of energy required to raise the temperature of 1g of water by 1C°. The word became part of the English language in 1863 and was taken from studies in heat that originated in France in the early 19th Century. Wilbur Atwater was the first person to apply the calorie (or kilocalorie) measure to food and nutrition at the end of the 19th Century. He published an article in 1887 using the calorie as an energy measure of food. Calories soon became part of dietetic databases and were quickly adopted by people interested in weight loss (Hargrove, 2006). Lulu Hunt Peters (1918) was the first author to publish a diet book which focused on counting calories to lose weight. It was aimed at women with the emphasis on exercising self-control and taking personal responsibility to become and remain slim by monitoring caloric intake. Hunt Peters believed that in times of food shortages, such as the First World War, it was immoral to be overweight and to consume more than your fair share of food. Today, the most common advice for keeping a healthy weight is still to monitor caloric intake along with limiting total fat intake. The theory behind this is that fat contains more calories per gram than either protein or carbohydrate.

The notion of an ideal, healthy weight originated from a concern about thinness and the risk of tuberculosis in the 19th Century. However, from the analysis of client records and deaths at the turn of the 20th century by the Metropolitan Life Insurance Company, it was found that people who were considerably higher or lower than their 'ideal' weight had a higher risk of early mortality (Chrisler, 1994). From these findings, the Metropolitan Life Insurance Company created 'ideal' weight tables in 1959 using the data from 4 million adults. These tables were widely used as a measure for ideal body weight until the World Health Organisation adopted the Body Mass Index (BMI) in the 1990s (Nuttall, 2015).

During the post war years, concerns over an increase in deaths from cardiovascular disease (CVD) led to many research studies into the cause of CVD. One of the most famous studies, the Seven Countries Study (Keys, 1970), determined that the over consumption of saturated fats was associated with raised blood cholesterol and CVD. As a result, recommendations for daily limits on saturated fat intake were set in an attempt to reduce mortality from CVD in the population. Since then, other dietary components have been identified as having the potential to cause health problems and now have recommended daily limits. For example, salt has been associated with hypertension and it is recommended to restrict salt intake to less than 6g per day (Ha, 2014). Sugar is associated with increased risk of dental caries and therefore it should be limited to less than 10% of total energy intake (WHO, 2015). One of the newer recommendations is to eat at least five portions of fruit and vegetables per day which originated in California in the early 1990s as part of a cancer prevention programme (Harcombe, 2010). The appearance of limits and targets of specific foods and nutrients have created 'eating rules' which could be seen as implying that people need to exercise self-discipline and practice self-surveillance in keeping their food choices and consumption under control. These rules have also led to the development of social norms in which people feel they need to adhere to in order to be healthy individuals (Shirato et al. 2012).

Within the monitor and thermodynamic discourses, three subject positions were offered up: healthy weight, restrained eaters; overweight, unrestrained eaters and underweight over restrained eaters. Throughout the texts it became clear that being positioned as a healthy weight restrained eater provided an advantage in terms of health and social acceptability. Focus group participants preferred to identify with this subject position though some found it harder to achieve than others. Being positioned as unhealthy and overweight can disadvantage people as they may be blamed by health professionals for self-inflicted health conditions and in some cases they have been excluded from routine surgical operations. This can lead them to feel powerless when in need of medical help. In addition, people positioned as overweight may be the victims of fat shaming which can make their health problems worse through avoiding contact with healthcare professionals and have reduced motivation to engage in health improving behaviours (Tomiyama et al. 2018).

Morality and personal responsibility

The construction of an ideal diet evolved from the development of nutritional science and the understanding of the relationship between health and the consumption of difference types and quantities of foods. When people become sick, they often become economically inactive. In the UK, if this becomes long term, they become a cost to society in terms of medical care and lack of contribution to the economy. Therefore, there can be an expectation from society for people to take personal responsibility for their health, and the health of those they care for, by not putting themselves at risk through health damaging behaviour (Lupton, 2012).

Foucault (1985) talked of moral codes or rules of action which are recommended to people by institutions (Shirato et al, 2012). For example, there are moral codes around maintaining health, such as following rules around food choices and consumption. Institutions with expertise in health and nutritional science use rules associated with these moral codes in order to govern our health behaviour (Coveney, 2008a). Examples of rules include 'Five portions of fruit and vegetables a day' and limits on fat and sugar consumption. Following rules requires people to exercise self-discipline (Lupton, 1996). Thus, the rules about food choices and eating become internalised and are subconsciously drawn on when making decisions about food. This process is what Foucault (1988) referred to as 'technologies of the self' which are internalised mechanisms of power (Schirato et al. 2012). People may internalise these rules for both themselves and others and can be quite harsh if they consider themselves or others to be non-conforming.

Within the moral discourse the two subject positions of responsible and irresponsible citizens were offered up. When focus groups participants accepted this discourse, they took up the responsible citizen subject position in order to identify with others who associated with being responsible citizens (Burr, 2015). Identifying as an irresponsible citizen could invite criticism from others, including health professionals, for causing self-inflicted health problems and being a burden on society and lead to feelings of guilt and shame. The texts assume that everybody has the agency to re-position themselves as a responsible citizen. However, for some people there could be numerous barriers to change putting them at a disadvantage.

Family and childcare

Women have traditionally been seen as the gatekeepers of food in families and have been responsible for buying, preparing and serving food for the family (McIntosh & Zey, 1998). Therefore, nutrition and health education has tended to be aimed at women so they can fulfil their domestic role as a provider of nutritious meals for their husband who 'needs' the support as he is the income provider for the family (Crotty, 1995). Nutritional education has been provided in schools since the turn of the 20th Century and was originally provided only to girls in the form of 'domestic science'. Although boys are now able to study nutrition at school within 'food technology', it is still a subject dominated by girls (Bramley, Vidal Rodeiro & Vitello, 2015). This suggests that food provision is still seen as the responsibility of women even though approximately one in three mothers now contribute to at least 50% of household expenses (Cory & Stirling, 2015). In 2015, UK women still took on more cooking responsibilities in the home than men (Office for National Statistics, 2016).

The role of a parent can come under intense surveillance in society, by many professionals who come into contact with their children (Rose, 1999). This includes the health of the child and their risk of malnutrition and/or obesity. Parents, and particularly mothers due to their role as a food provider, may internalise this surveillance and in turn draw on the plethora of feeding and nutrition advice available for babies and children. This enables them to feel that they are viewed as good parents or mothers, and are fulfilling their ethical responsibilities by monitoring their children's food intake (Coveney, 2008a).

One of the focus groups, who were also parents, took up the responsible parent subject position in order to identify as good parents. They achieved this by demonstrating how they made the effort to conform to healthy eating rules when feeding their children and compared themselves positively to a group of parents at one of the participant's school who did not provide healthy packed lunches for their children. By positioning the other parents as irresponsible, it helped them to reinforce their own responsible parent positions. It also became apparent that the other parents they referred to were disadvantaged and unable to easily re-position themselves as responsible parents. They were immigrants with poor English skills, facing language barriers which prevented them understanding healthy eating information and they were not used to the foods available in their new environment. Therefore, these parents were not in a position to defend themselves from blame.

Natural

Several of the analysed texts contained pictures portraying fresh foods in their unprocessed state as natural and healthy. Food processing is about transforming raw, and sometimes inedible, ingredients into a consumable product. There are three levels of food processing that ingredients can go through. Primary processing is where inedible food (such as wheat grain) is grown, cultivated, harvested and/or milled to make a basic ingredient such as flour. Secondary processing is where primary ingredients are combined and often cooked to make an edible product such as bread. This can be done at home or in a factory. Finally, tertiary processed foods are convenience foods such as ready meals, packets of crisps and biscuits often containing artificial flavourings and preservatives (Hitzmann, 2017).

Both the texts and focus groups participants are referring to tertiary processed foods when they talk about unnatural food. Food processing has been around for centuries. However, it is tertiary processing that is relatively new. For example, margarine appeared at the end of the 19th Century which made factory production of baked goods possible on a large scale. Throughout the 20th Century, tertiary food processing became more popular and increased dramatically from the 70s and 80s (Burnett, 1989). Now in the 21st century our grocery shops contain many tertiary processed foods which have come become a normal part of the modern diet.

Within the natural discourse, the subject positions of health risk takers and health risk avoiders are offered up in relation to types of food consumed and diet pills within the texts. Several of the focus group participants positioned themselves as health risk avoiders through the way they expressed their disapproval of artificial ingredients and over-packaged foods. They preferred to identify as healthy by stating that they regularly made the effort to cook meals from scratch as opposed to being labelled a health risk taker using shortcuts when preparing meals, which they implied was lazy and unhealthy. However, there is an assumption that everyone can use their agency to find the time and money to source natural ingredients as well as cook healthy meals. Some people classed as risk takers may be disadvantaged due to a lack of access to fresh foods and access to cooking facilities (Purdam, Garratt & Esmail, 2016).

Summary

This chapter has covered the histories of the dominant discourses uncovered in the analysis of the healthy eating texts. It has shown how the discourses have developed and become accepted by society. In addition, it has shown how some of the focus group participants have related to these discourses and the subject positions offered. Finally, it has captured how participants also recognise, and have reflected on, how healthy eating has changed over time.

The final chapter will describe how some institutions are served and some are subverted by the identified discourses. In addition, it considers how power and knowledge works within these discourses to produce the ideological functions of the texts.

Chapter 6 – Discussion

In this chapter I look at how the identified discourses work together to serve different institutions through knowledge and power, the ideological functions of the texts and how the discourses justify the present. I will also link my findings to Foucault's theories, previous literature and research on this topic.

Institutions, power and knowledge

According to Foucault (1978), bio-power or bio-politics, is a technology of power employed by governments for managing the health of populations in order to extend and preserve life (Shirato et al. 2012). Technologies of power do not force people to make prescribed food choices, but problematise certain food choices as risky to health and potentially less socially desirable with the aim of influencing people to feel a moral responsibility towards their health (Coveney, 2006). They can create 'rules' which can become internalised so that people engage in the self-surveillance of their own behaviours and actions which in turn can become a normal way of life or the 'social norm' (Mills, 2003). The internalisation of rules and self-regulation are what Foucault referred to as technologies of the self. Most of the texts (Appendices B-F & M) in my analysis employ bio-power to encourage the population to practice in the self-regulation of food consumption by applying eating 'rules' in order to address concerns over long term health and mortality. Internalising control over which foods should be purchased and eaten is the main focus of all the texts. In some texts the quantity of food and the timing of meals and snacks are also included. Some of the texts encourage parents to extend this surveillance over their family, especially their children.

Through a combination of moral, medical, scientific and thermodynamic discourses, the NHS Choices (Appendix B) and the Eatwell Guide (Appendix M) texts produce knowledge to demonstrate how food is related to health and longevity in order to encourage individuals to take responsibility for their own health. Both texts could be seen as having a prescriptive nature which could be interpreted as a set of rules. A rule based approach can be described as a 'dose response' to optimum health in that it attempts to make it easier for individuals to meet their food consumption targets (Whitelaw, 2012). For example, in the texts people are encouraged to eat at least five portions of fruit and vegetables a day and two portions of fish a week. They are also asked to limit their fat consumption to no more than 95g fat per day.

In the Eatwell Guide a reference is made to consulting a dietitian if the reader has concerns about diet and health. This attempts to re-enforce a power relationship between registered nutritionists and the lay public by implying that power is held by the dietitian due to their specialised training. The Change 4 Life text (Appendix C) can be interpreted as producing knowledge to support family and healthcare institutions through the combination of monitoring and childcare discourses. These discourses work together to encourage parents to place an importance on their children's long term health through correct feeding practices so that children will be less likely to need health care treatment in the future. The monitoring discourse could be considered to subvert the interests of food producers and retailers who benefit from selling larger portion sizes and cheaper, less nutritional foods. Therefore, this may be seen as a positive use of power as healthy people are considered to be less of a financial burden on health care institutions. However, people may feel that they are being instructed on how they should live their lives in terms of what they should and should not eat.

Many people seek pleasure from food. Therefore, suggesting that people restrict certain foods for health reasons may lead to feelings of guilt and anxiety about eating enjoyable food (Macht & Dettmer, 2006; Kuijer, Boyce & Marshall, 2015). Food is also linked to emotions, memories and social interactions, which may conflict with healthy eating advice (Lupton, 1996). In regards to children's food consumption, it may seem simple to ask parents to govern their children's food intake and choices. However, children themselves may attempt to exercise their own perceived sense of agency over food choice which is likely to have been influenced by food marketing practices (Gibson & Dempsey, 2015; Mahoney, 2015) which will therefore challenge the ethical responsibility of the parent (Coveney, 2008a).

Academic institutions are also served by the discourses mentioned above as government institutions look to them to provide them with knowledge of what makes a healthy population. However, some academic institutions may have a vested interest in the knowledge outcomes as nutrition research teams and individuals may be sponsored by corporate food companies who favour certain outcomes. It could therefore be in the researchers' interests to design research studies (within ethical remits) which will benefit their sponsors and secure future funding (Brownell, 2015). This can create a conflict of power between government health institutions and corporate food companies because corporate food companies have large financial reserves, which give them the power to influence dietary guidelines though both the threat of withdrawing political party donations and legal action. (Nestle, 2013; Newton, Lloyd-Williams, Bromley & Capewell, 2016)

Within the weight loss organisation texts (Appendices D-E) bio-power is used to align body weight with health and wellbeing to imply that overweight and obesity is both risky to health and socially undesirable. Through a combination of moral, scientific, natural and lifestyle discourses, the second organisation's text intends to produce knowledge of an ideal way to live in order to be happy and a healthy weight. These discourses can be seen to support both weight loss and state health institutions who would like everyone to aim to be a healthy weight. The first organisation uses an alternative set of discourses (natural, dieting, emotional, family and rebellious) to try to produce similar knowledge. However, this knowledge only supports their weight loss institution as it subverts other organisations by presenting them as old fashioned and oppressive through a rebellious discourse about traditional weight loss diets. The first organisation re-enforces the family institution by suggesting their knowledge is ideal for the whole family. It also subverts pharmaceutical organisations as producers of unnatural and dangerous weight loss medication.

Bio-power is used indirectly within the commercial texts (Appendices F-G) to encourage readers to change their food purchasing and consumption habits by selectively aligning their advice to government advice in attempt to show that they care about the readers' health. By combining a natural, scientific, childcare and a family discourse, the breakfast cereal text aims to produce knowledge to show a positive relationship between good health and eating a low fat, high carbohydrate breakfast every day. It supports the family institution by implying that it is a mothers'/wives' role to take responsibility for the whole family's health by using pictures showing women carrying out caring roles. However, it also claims to empower mothers/wives, by providing a cheap and easy solution to feeding her family a nutritious breakfast without disrupting her busy day and with the intention she will still be regarded as a good mother and wife (Pedersen, 2016). These discourses can be seen to serve corporate food industries (such as agriculture) who produce foods identified with breakfast by framing parents/mothers as responsibility for family health in order to increase the demand for their products.

The cholesterol reducing spread text combines a moral, medical, natural and monitoring discourse which aims to produce knowledge about reducing the risk of heart disease. It supports corporate food producers who make the spread and its ingredients by increasing demand for their products. It also supports state health institutions, who will benefit from a reduced demand on health care, by framing the food producer's product as a functional food which contains an active ingredient to reduce blood cholesterol levels in the same

ways as a medicine (Lawrence & Germov, 2004). The practice of medicalising foods is common practice in food advertising (Zwier, 2009). Saturated fat is cited as causing high cholesterol, which may therefore subvert the milk and meat industries. The text re-enforces the power and knowledge produced in the Eatwell Guide and NHS Choices texts by drawing on their advice for daily saturated fat limits and referencing peer reviewed medical studies. This strategic practice enables food producers to create a healthy brand image, which is attractive to people who want to improve their health, with the end goal of increasing their sales (Chrysochou, 2010). However, it is important to be aware that corporate interests can work both in conjunction and against public health policy (Duff, 2004) creating a conflict of power. For example, in the case of cholesterol lowering spread, consumers may actually eat more overall fat than recommended as they may believe eating large quantities reduces their cholesterol levels (Lawrence & Germov, 2004). In addition, food companies may sponsor nutrition journals and conferences with the intention of influencing what research and knowledge is accepted into these journals and conferences to promote their own interests (Nestle, 2013; Newton et al. 2016) which undermines health related research (Flint, 2016).

Concerns about corporate interests and the effects they have on governmental health and dietary advice were raised in some of the focus groups. Therefore, some of the participants questioned the trustworthiness of dietary guidelines. This issue has been raised by Nestle (2013) and was also uncovered in the study by Bergman et al. (2019). The NHS branding instilled the most trust in the participants though some did wonder if corporate interests were infiltrating into the NHS. Mistrust in health information may lead to people looking for alternative sources of information in which there is an ever increasing supply in the 21st century due to the development of online and social media sources (Pollard et al. 2015). Many of these sources have associated books and question conventional wisdom on healthy eating often with their own references to peer reviewed journals (Harcombe, n.d., 2010; Taubes, n.d., 2009). Foucault might argue that these new technologies give power to marginalised groups by giving them a voice. However, how can we be sure that the information really is the truth (Hobbs, 2018)?

Foucault referred to the process of people rejecting an accepted truth as a strategic reversibility of power relations. When enough people put up resistance to discourses, government practice can be turned around and new opportunities and practices can take place (Gordon, 1991). For example, Minihane (2018) calls into question the science behind the link between fat and coronary heart disease and states that not all studies have been able to replicate this link. If it was determined that the link was false what

would be the effect on society? A radical change to nutrition advice could potentially cause economic and political chaos (Germov & Williams, 2008) and it would also call into question the credibility of future nutritional advice.

Ideological functions of the texts

Ideologies originated from Marxist theory and describe how people may be oppressed by being expected to accept certain views or ways of being that are either not in their interest or actually true. Foucault was not interested in identifying ideologies as such but rather how ideologies are constructed through discourses and how they came to be to support the dominant powers in society (Mills, 2003). Among the texts in this study, several ideologies became apparent during the analysis and are discussed below.

An ideology of statism ran through the state health organisations' texts. Statism promotes the idea that every citizen is entitled to the right to good health and that the state has a duty to protect its citizens from health risks. Therefore, it is the government's responsibility to provide the public with health advice; monitor the nation's health and intervene if deemed necessary. To implement this, health institutions draw on 'technologies of health' such as, health policies and epidemiology to produce population health statistics. This is intertwined with an ideology of health education to promote health at a population level using technologies of health such as psychological or behaviour change theories within campaigns and interventions to encourage people to change their health-related behaviours. Therefore, these two ideologies work together so that the state can carry out their duty of providing the health knowledge and the citizens carry out their duty to modify their behaviour appropriately to improve their health (Lupton, 1995).

All the texts suggest there is an optimum balance of foods that people can eat for longevity and good health. The discourses within the texts produce an ideology that every citizen should take personal responsibility for maintaining their own health, which includes eating an optimum diet, so they are not a burden to society in terms of healthcare costs and an inability to work (Crawford, 2006; Lupton, 2012). Crawford (1980, cited in Lawrence & Germov, 2004) referred to this ideology as 'healthism' in which the 'health consumer' takes on board the latest healthy lifestyle advice and modifies their life accordingly. The 'health consumer' therefore attempts to achieve perfect health through lifestyle modifications in their quest for immortality (Cheek, 2008) which they consider to be the morally right thing to do and good citizenship (Crawford, 2006).

A healthism approach to healthy eating, in which the individual appears to be taking personal responsibility for their health, may come across as a positive ideology at first. However, there can be unexpected outcomes in which some people take healthy eating so far that it negatively impacts their life. It has been suggested that Orthorexia is a type of healthism in which people are obsessed with the pursuit of perfect health (Håman, Barker-Ruchti, Patriksson & Lindgren, 2015). People with orthorexia are fixated on with taking personal responsibility for health and constantly strive for diet and lifestyle perfectionism. Therefore, eating is based on strict rules governing what can and cannot be eaten, according to how healthy the food is deemed to be, and rules governing the quantity eaten. As a result, orthorexics can become anxious around food and socially isolated by refusing to eat any food they have not prepared themselves (Dennett, 2018). Orthorexia may be more prevalent in occupations with higher levels of nutrition education such as nurses, dietitians and medical students, compared to the general population (Tremelling, Sandon, Vega and McAdams, 2017; Dennett, 2018), though earlier studies have not found a correlation between the two (Korinth, Schiess & Westenhoefer, 2010; Mealha, Ferreira & Ravasco, 2013). However, measurement tools to identify orthorexia have not been fully validated (Missbach, Dunn & König, 2017) which suggests more research is required in this area.

Occupations such as dietetics and nursing tend to be predominantly taken up by women and are less likely to be considered as career options by men (British Dietetic Association, 2014; Gheller & Lordly, 2015). Research investigating low numbers of men in dietetics suggests that the profession is associated with 'women's work' by society (Lordly, 2012) and that it is perceived as being of a lower professional status than other careers such as medical doctors (Lordly & Dube, 2012). Therefore, when choosing careers, males may be discouraged by family and peers from taking up dietetics as a profession. However, for the few that do take up the profession, they find it to a satisfying choice even though they feel they have to adapt to a female dominated culture (Gheller, Joy & Lordly, 2018). Dietetics as a profession tends to attract people with previous experience of health issues or weight loss and women tend to be more pre-occupied with weight loss and body size than men (Atkins & Gringas, 2009; Lordly, 2012). This suggests that careers requiring higher levels of nutrition education are still associated with the family institution and the traditional patriarchal definition of roles in the family.

One focus group participant, who was in her early 60s, talked about learning about food and nutrition at school in domestic science. Domestic science was originally created as a school subject just for girls in the early 20th century as an alternative to genuine science

(Manthorpe, 1986). At that time, education authorities felt that, as women were the gatekeepers to food in the family, it was more important for girls to be taught how to cook and provide nutritious meals for their future families and to support their mothers at home (St John, 1994). This helped enforce a domestic ideology of a woman's role as a homemaker and as a provider of food (McIntosh & Zey, 1998). Crotty (1995) argued that through the provision of food, women were also responsible for the health of their family including protecting their husbands from the risk of heart disease by providing them with a heart healthy, low fat diet and helping them to maintain a healthy weight. Although boys are now able to study for the food technology GCSE (a replacement for domestic science) and men are providing a greater contribution to household chores today, a higher percentage of women in families in the UK still take on more of the grocery shopping and cooking than men (Office for National Statistics, 2016; Phillips, Curtice, Phillips & Perry, 2018). Therefore, although attitudes are slowly changing, the domestic ideology that women are central to the work in the home is still embedded in society.

An ideology that everyone can achieve and maintain a healthy weight in order to reduce health risks seems apparent in most of the texts. In recent decades the rise of an 'obesity epidemic' has been described as a 'moral panic' in which it has been argued that the risks of obesity have been exaggerated as an impending health disaster (Campos, Saguy, Ernsberger, Oliver & Gaesser, 2006). As obesity has become an increasing social concern it has led to questions around the populations' moral and social responsibilities to adopt healthier behaviour to counteract the risks of obesity and its associated health problems (Brown, 2013). This ideology has led to an accepted truth that there is a direct correlation between health and weight and that most people need to lose weight to improve their health (Heyes, 2006). As a result, it has helped increase business for commercial weight loss organisations, both through individuals with a desire to lose weight and through commissioned contracts with local authorities as a public health initiative.

Commercial weight-loss companies, such as those used in this analysis, tend to attract women rather than men, as men tend to associate them as clubs for women (Ogden, 2010; Hunt et al. 2014). This was reflected in the reactions of two of the male focus group participants (in different focus groups) who could not relate to the commercial weight loss texts as they considered them to be aimed at women. Both Crotty (1995) and Chrisler, (1994) have argued that many health studies focusing on diet, healthy weight and longevity have been carried out on middle aged men and are then automatically applied to the dietary advice for women and children. This assumption that women's bodies are the

same as men's is still a problem today as women are left out of medical trials to save money and to avoid confounding variables around the female reproduction system (Saini, 2017). Perez (2019) argued that our society has an issue with a gender data gap, which is impacting on women's health and putting them at risk. Excluding women from medical studies and when women's data is collected, failing to disaggregate this data into male and female datasets, has resulted in women living in a world designed for men. Therefore, we have no way of knowing if dietary advice should be the same for men and women at all stages of life. In relation to this, one of the focus group participants questioned the advice on milk and said how it could be beneficial for women and children for bone density. Fat distribution also plays a part in obesity and cardiovascular risk in which upper body fat is considered to be a greater risk than lower body fat. This pattern of fat storage is typically found in men which suggests that weight loss diets may be of a greater benefit to men. In addition, yoyo dieting or continuous changes in weight can put stress on the cardiovascular system as there is a risk that the regained weight can end up in the upper body (Chrisler, 1994). Therefore, repeated dieting and calorie restriction can actually make weight issues worse (Ogden, 2010) and could be putting people (especially women) more at risk of muscle loss and cardiovascular problems (Montani, Schutz & Dulloo, 2015).

For approximately the last 100 years, the ideological expectation to maintain a slim body has been particularly prominent for women, as Suzie Orbach (2006) puts it, 'fat is a feminist issue'. Women's bodies have long been objectified in society, both for commercial purposes and for social benchmarking, whilst women's voices have been ignored. Female bodies presented in the mass media are usually in an idealistic young and slim form in which a woman is then judged and valued solely on her appearance as opposed to intellectual ability, both by society and women themselves (Ponterotto, 2016). Overweight or 'fat' is therefore seen as a problem of social acceptability for women whereas for men, overweight or fatness, tends to be hidden behind terminology such as 'big' and 'large' which is considered more socially acceptable, even though it may not be healthy (Monaghan & Malson, 2013). As well as working on appearance and resisting tempting food, women have traditionally been expected to be the providers of appealing, nutritious and good tasting food for their families. Therefore, they become trapped in the battle to resist food intake as they are expected to produce good family meals and continue dieting. Heyes (2006) described dieting as a self-construction of a docile body in which women are subjecting themselves to constant self-surveillance and discipline. It has been argued that it is a way for the patriarchal society to control women and keep them in a childlike state (Chernin, 1983). If the focus of women's attention is on domestic

duties and controlling their weight, they will have less cognitive resources available for alternative interests such as developing a career (Bordo, 1993). As one focus group participant put it, 'it can be your life's work'.

This ideology can be seen in the first weight loss organisation's text (Appendices D). The pictures of women are all slim and happy except for the 'before' picture of an overweight 'Gill' who is portrayed with a fake smile because she is overweight. However, the ideology to maintain a slim body through diet is conflicted in which health and appearance are at odds with each other. On the one hand it is considered to be sexist and unacceptable to expect a woman to lose weight for her looks, yet on the other hand it is considered acceptable to ask a woman to lose weight for her health (Welsh, 2011). This can put women in a conflicting position: on one hand, they may want to rebel against the ideology of how a woman should look to be attractive to men, while on the other they may want and need to be healthy. This organisation has taken these ideas to appeal to their perception of the rebellious nature of women by offering foods not normally associated with weight loss but with the aim to arrive at the same end goal of a slim body.

The encouragement to maintain a 'healthy weight' for women is also connected to their role and responsibility as a mother to produce and bring up healthy children including avoiding overweight and obesity (Welsh, 2011). Parents may feel morally bound to protect their children from overweight and obesity and may fear being labelled as neglectful by other people (Coveney, 2008b; Elliott & Bowen, 2018). The Change 4 Life text (Appendix C) draws on this protective ideology to encourage parents to monitor their children's food intake to protect them from the dangers of obesity and exploitative food manufacturers. It therefore implies that it is the parent's responsibility to restrain themselves and their children from eating too much to remain a healthy weight by monitoring calories and portion sizes. If children do become overweight, some parents may feel guilty and be blamed by health professionals for being poor parents when seeking help for their child's weight problem (Edmunds, 2005). On the other hand, Syrad and colleagues (2015) found that some parents defended their children's overweight by insisting that health and happiness was more important than weight. In addition, they also found that some cultures did not recognise overweight as unhealthy but rather as a health advantage.

Interpretation of the research

The analysis of the texts, particularly the state health texts, revealed that the discourses and ideologies within them placed an emphasis on moral responsibility and taking a personal responsibility for health. However, in doing so, many assumptions are made about people's lives. Through these discourses and ideologies there is an assumption that unhealthy eating is a behaviour that is carried out by choice or ignorance which can easily be changed through advice and education (Tesh, 1988 cited in Coveney, 2006). This moralistic approach assumes that people have the agency to make informed choices through self-reflection and self-regulation (Coveney, 2006) based on scientific knowledge and by not doing so is an act of deviant behaviour. In addition, the texts ignore the structured environments of people which may restrict and constrain their ability to eat the advised ideal healthy balanced diet (Duff, 2004).

Most of the texts assume that everyone has the resources to eat nutritionally well and the only barriers are people's attitudes towards food. Therefore, those with limited resources may be viewed as in need of education to make better nutritional decisions when there may be other factors behind their choices (Crotty, 1995). For example, the cost of healthier food has been shown to be more expensive than poorer quality convenience and snack foods (Morris, Hulme, Clarke, Edwards & Cade, 2014), which are more likely to be on special offer than fresh food, and appear to represent better value for money (Mallison, Russell & Barker, 2016). Convenience food may be appealing to people who work long hours or have caring responsibilities and feel they lack the time for cooking and food preparation (Jackson & Viehoff, 2016; Welch et al. 2009). Those with families may avoid buying food which their children are unlikely to eat as they do not want to waste food and time (Noble, Stead, Jones, McDermott & McVie, 2007). The Change 4 Life text, which is aimed at families, overlooked this issue. The barriers of time and cost to healthy eating were picked up on in the breakfast cereal text and turned around to sell a 'healthy solution' to these problems through the childcare and family discourses.

People who live in more deprived areas of the country are less likely to have access to shops with a variety of healthy foods. Instead of well stocked supermarkets, nearby shops tend to be convenience stores in which food is on average 5-7% more expensive than their supermarket equivalents (Shannon, 2014; Corfe 2018). In addition, people on low incomes are less likely to have access to a car and a greater proportion will have a disability which adds to the difficulties of accessing good quality food shops (Corfe, 2018). Being on a low income is likely to create food insecurity which removes people's agency

to choose what food they have and anyone reliant on a food bank will soon discover that you have to take what you are given. On top of this, some people may not have access to food preparation and cooking facilities (Purdam et al. 2016). For example, people living in temporary accommodation and waiting for social housing to become available or those living in multiple occupancy housing with shared facilities. All of the texts analysed ignored the structured environment of the reader and assumed that all adults have the agency to choose their food and the space and facilities to do so.

All the state health produced texts, focus solely on improving health and minimising risks to health. They fail to acknowledge that food and eating is bound with pleasure, social connectedness and identify. Food has always been central to people's lives, not just in terms of survival but also in celebrations such as religious and cultural festivals and life events. Many of these events have special foods, such as cake, which may not be considered healthy when referring to healthy eating advice. Taking part in these events and eating the associated foods forms part of a person's identity. If someone does not participate in these events and/or eat the associated foods for 'health' reasons, it could affect their social wellbeing and/or cultural identity and lead to feelings of social isolation and rejection by others. Different cultural groups may have traditional recipes that have been handed down through family generations and to reject these foods could be interpreted as rejecting cultural roots and family history (Hastorf, 2017). For example, Lindsay (2010) found in an analysis of Australian state health dietary guidelines, that the importance of social wellbeing for health was ignored in the guidance. In another study of popular magazines, social occasions and religious festivals were identified as being problematic and obstacles to eating a healthy diet (Dodds & Chamberlain, 2017). The weight loss texts within this analysis came across as being better at recognising the link between food and social wellbeing. For example, the second organisation's text includes pictures of healthy young people socialising and eating restaurant style food to bring health and wellbeing together. Through a rebellious discourse, the first organisation's text acknowledges the pleasure of food in the way it rejects the restrictions of old dieting practices.

The social marketing text, Change 4 Life, fails to recognise the social world of children and that children have their own preferences. This may have been one of the reasons why the campaign failed to have the desired effect on parents even though the majority of parents in a mixed methods evaluation of the campaign knew about the campaign (Croker, Lucas & Wardle, 2012). Some parents rejected the campaign as they found it patronising and unrealistic as it did not fit into their day to day lives. Parents have cited

the wider family, schools, peers and children's personal preferences as barriers to their efforts to provide a healthy diet for their children (Hart, Herriot, Bishop, Truby, 2003; Pocock et al. 2010). In addition, concerns have been cited about inconsistent health and food messages and the influence of food manufacturers by mothers, which has reduced trust in healthy diet information (O'Key & Hugh-Jones, 2010).

The focus group findings showed that some participants questioned some of the advice in the texts. A YouGov survey in 2012 (Pirie, 2012) had similar findings in which 48% of the British population were reported as rejecting dietary advice from government sources. Respondents reported feeling that politicians and civil servants were not equipped to make those personal decisions for them. Some raised their concerns about the intentions of scientists as they felt that the government had a lack of control over science and technology, due to the speed of development in this area. Others were generally distrustful of the government in terms of science and research (Watson & Wyness, 2013).

The theme of trust in state dietary information has also been studied in Sweden. Through the analysis of letters sent to the National Food Agency, Bergman et al. (2019) found that people fell into three categories in regards to trusting state health information. First, they found that some people put full trust in the agency by asking for personal nutritional advice or to settle a nutritional debate around 'good' and 'bad foods. A second group showed scepticism by asking the agency to provide the evidence supporting their nutritional advice. Finally, a third group completely distrusted the governmental advice and advised the National Food Agency to update its research and advice with what the writer considered to be the correct dietary advice. From a Foucauldian perspective, this third group would be considered a deviant group because they questioned the accepted truth. It is people who fall into this category that the Eatwell Guide and the NHS Choices guidelines refer to when they talk about 'some people' questioning their starchy carbohydrate advice. Therefore, the focus group participants who questioned the healthy eating advice shown to them could potentially be classed as deviant by state health institutions.

Combining discourses within texts can sometimes lead to contradictions in truths which can cause confusion or appeal to some people's biases (Parker, 1990, 1999a) and may be used as a political tool to undermine any resistance in a power relationship (Kawasaka, 2018). For example, the medical and natural discourses contradict each other in the Eatwell Guide and the cholesterol lowering spread text particularly when they talk about fats and saturated fats. The plate in the Eatwell Guide and the see-saw picture in the

cholesterol lowering spread text both use a natural discourse to portray a message that unprocessed whole foods are good, healthy foods and should be chosen over bad and unhealthy refined factory processed foods. However, a medical discourse frames naturally found saturated fats as bad and a risk to health as opposed to good/healthy unsaturated fats and oils which may have been factory processed. Both texts recommend replacing butter with margarine 'spreads' as a healthier alternative even though butter is the natural food which has been used for hundreds of years. On the other hand, the margarine spread is a highly processed factory food which only first appeared in the 1870s (Burnett, 1989). The same could be argued for unprocessed red meat as it is also a natural food, but contains risky saturated fat. However, people eat food in a social context and not isolated nutrients and this is a weakness of the reductionist approach to research (Penders, 2018). Saturated fat is just a small part of some natural foods and is present with a whole host of other nutrients the body needs and hence is part of a complex biological system. This can make it extremely difficult to come to an exact conclusion over how it effects health that can be replicated every time (Minihane, 2018).

Throughout the texts and the focus groups, foods were categorised according to their effects on health creating a dichotomy of 'good' and 'bad' foods or 'right' and 'wrong' foods to eat. Fats in particular were dichotomised further into good/unsaturated and bad/saturated categories with the later considered to be a considerable risk to heart health. Similar findings have been found in studies in other countries spanning over at least 15 years suggesting that the dichotomising and moralising of food is common practice in many westernised countries (Madden & Chamberlain 2004, Lupton 2005; Palascha, van Kleef & van Trijp, 2015; Bergman et al. 2019). The process of moralising foods into binary categories could be regarded as another use of bio-power to influence people's choices of food. It can therefore imply there are behaviour 'rules' stating what people should and should not eat in order to be healthy. For example, when someone eats something considered to be a 'bad' food they associate it with being unhealthy and may feel guilty for consuming it. On the other hand, when they eat a 'good' food they may feel virtuous for eating something that could help them improve or maintain their health. However, this process of moralising food can leave people feeling emotional overwhelmed resulting in them giving up on any attempts to make dietary improvements (Askegaard et al. 2014).

Several of the texts positioned the population as lacking nutritional knowledge and assumed that the most appropriate way to change health behaviour towards food and eating was to educate the population through medical and scientific discourses. Madden

and Chamberlain (2004) had similar findings in their analysis of women's magazines from New Zealand. By providing people with nutritional knowledge, the rationale is that they are being empowered. However, this approach assumes that people are rational beings who just need to change their attitude towards food choices. It also assumes that people actively want to avoid long term health conditions and improve their overall longevity (Lupton, 1995).

The creators of the Change 4 Life Campaign state that they developed their own model of behaviour change specifically for the campaign (The NSMC, n.d.) in order to help people to change their behaviour through health education. Even though this is not a formally recognised social cognition model, it still puts the onus on the individual to be morally responsibility for their own health (Stainton-Rogers, 2012). However, getting people to change behaviour can be difficult. Sutton, McVey & Glanz (1999) admitted in a study attempting to predict behavioural intentions, when people have health beliefs based on personal experience, they are extremely difficult to change. Within the current study, the way the participants reacted to the texts showed how they based their comments and opinions on their own personal beliefs, which they then negotiated with other members of the group. These findings align with Bisogni et al (2012) who came to the conclusion in their literature review that people tend to create their own healthy eating guidelines.

As an alternative, Mielewczyk and Willig (2007) suggested that it is more important to understand the meanings and functions of a health related practice if you want to encourage behaviour change. People need to find some way of relating to healthy eating texts or materials in order to take advice on board. The commercial texts within this study were better at appealing to the target audience's self by suggesting that either something was missing from their lives or by trying to inspire their audience to become a new or better person. The personal responsibility approach also works well for corporate interests as they can market their products to consumers as a way to be a morally responsible citizen (Bergman et al. 2018). In comparison, state health authority texts lack the same appeal. They stick to an instructional approach and try to play on people's fear of developing long term health conditions. The optimistic bias has long been known to protect people from fear of health risks (Weinstein, 1980). The state health texts take a blanket approach to the whole population and assume everyone has the same motivations towards health, which is not the case. Although on the surface it may seem to be a logical approach to improve the population's diet, people are not blank slates waiting for information. Rather they are people living in complex social and economic environments (Baum & Fisher, 2014) and may not appreciate being told what to eat by

people who do not understand their personal lives (Watson & Wyness (2013). They are likely to consider healthy eating to be "just common sense" (Lupton & Chapman, 1995) as was raised in some focus groups, though life can sometimes make it difficult stick to that common sense.

Reflections and unexpected outcomes

Throughout this research study I kept a reflective diary. It enabled me to reflect on my choice of research question, record my reflections during the data collection, transcription and analysis of the focus group data and the analysis of the healthy eating texts.

During the analysis of the texts, I recorded my reactions to the different texts and acknowledged how my personal opinions could affect the analysis. I noted that I was drawn to the ideologies of women and food, in terms of food providers and the relationship between healthy weight and happiness as it is something that I personally feel can restrict women's lives and opportunities. I found that the authoritative approach used by the state health texts rather irritating as it made me feel that their eating advice was so structured by rules it took away the option of choice. I felt that all the monitoring was very time intensive and difficult to fit into a busy life which made me question how well the authors of those texts understood the lives of their target audiences.

During the focus group recruitment process, I found it interesting that the majority of people expressing an interest in taking part were women. Being a woman myself, it made me question and consider women's relationships to food and nutrition in light of the traditional roles women have had in the home, as a provider of food and as a carer of the family, as well as a pre-occupation with diet and body shape. Thankfully some men volunteered so I could get their perspective and a more balanced view on healthy eating advice. Therefore, I prioritised their time and location to avoid having women only groups where possible. During the focus groups, I found it interesting to observe how the men could not relate to the weight loss texts as they found them too 'feminine'. I did have one all women group who were all mothers which I found, being a mother myself, easy to identify with the perceived pressure to be a 'good' mother. I do recognise that this has influenced my direction of analysis.

One of the focus groups was from a low socioeconomic background and I found this the hardest focus group to run. I was surprised at how difficult it was to get the participants to give more than brief answers and I found that the participants needed many prompts to

get them to elaborate further. They did get better at discussion towards the end of the focus group. I felt that they lacked confidence with written materials and relied heavily on the pictures which made me think about the accessibility of health information to some groups, which can put them at a disadvantage. I found the way they reacted to the play on discourses used in the first organisation's text fascinating. I felt that they did not understand why the discourses were being contradicted deliberately to attract people the organisation perceived to be frustrated with traditional dieting. Therefore, the group claimed that this organisation was providing bad advice as it did not align with the healthy eating advice in the Eatwell Guide. Personally, I thought that the contradicting traditional dieting discourses was a clever way to draw people in as it challenged their perceptions of dieting.

During the focus groups, I was aware how I may have affected and socially constructed the outcomes as I was the one who chose the materials to discuss and I wrote the questions which steered the discussions. I was surprised how each focus group spent differing amounts of time on specific questions compared to the other focus groups. In particular, two of the focus groups did not generate much conversation with the first two question of the focus group. Although I found this disappointing, I felt that if I gave too many prompts, I would have steered the focus group in the direction of my own personal opinions, therefore I felt the best option was to let these questions go and move onto the materials. I was conscious that I could potentially affect the outcomes of the focus groups in terms of the power relationship between a health professional and the lay public. Therefore, I ensured that I emphasised that there were no right or wrong answers to any of the questions and no one would be judged for their comments. I did not mention my work in public health as I was concerned that this could lead people to feeling there was a right and wrong answer to my questions. Therefore, I only told them that I was carrying out the research as a health psychology researcher to minimise the power relationship as much as I could and I felt more comfortable doing this too. In addition, I was conscious to wear clothes appropriate for each the focus group I was running.

Limitations, future research and practical applications

This was my first time carrying out a full Foucauldian Discourse Analysis. I found it difficult as there are no specific rules to follow unlike a quantitative study or a non-theory based qualitative approach such as a content or thematic analysis. I found it was a highly iterative process and I found myself constantly moving between the different steps and seeing new insights emerge. It was therefore challenging to judge when to stop the

analysis stage and move onto the write up. Even then I found myself re-visiting the analysis. However, these are some of the limitations of the FDA method as there are a lack of explicit analytic techniques and the fact that the analysis is never fixed and always open to further interpretation (Morgan, 2010). FDA has been criticised for not being able to uncover how people come to form their selves from the discourses around them. In addition, it is not always possible to determine why someone may become emotionally invested in a subject position or resist a discourse particularly when it disadvantages them. Some researchers have therefore chosen to incorporate psycho-analytic techniques into their analyses in attempt to understand these issues by exploring people's unconscious processes (Willig, 2013; Burr, 2015). However, this method has been criticised on an ethical basis for potentially putting words into people's mouths (Wetherall, 2005).

I found it frustrating that I had to be selective over the content I used for this research due to the limits of this thesis. In particular, I would have like to have used more material from the focus groups discussions as there were many interesting conversations that came out of them. Therefore, I feel that the focus groups discussions could warrant further analysis of the power relations between state health institutions, food producers and the public which is independent from the text analysis. However, this was beyond the scope of this research project though I could consider further research with this material in the future.

In terms of the participant demographics, women dominated all of the focus groups, so I am mindful that men's views of these materials and discourses are limited. However, I am aware that women still attach more importance to healthy eating than men (Wardle et al. 2004; LeBlanc, Bégin, Corneau, Dodin & Lemieux, 2015). Overall, the participants reflected the demographic make-up of a northern home county in the UK (except for gender) in which the age range of the participants was broad, some were from different socio-economic backgrounds and a few were from minority ethnic backgrounds.

For practical reasons, only a few texts were used in this research. In an age of the internet and social media, information on healthy eating can be found in many diverse places and can be provided by anybody with access to this technology regardless of actual nutritional knowledge and beliefs about healthy eating. This will have an impact on readers' views and beliefs on eating for health. It would be interesting to consider how Foucault might have talked about the use of social media for health information. On one hand it might be argued that it is giving ordinary people power to express their views and beliefs. However, there is also the risk of the rise of fake news which could have an

adverse effect on the population's health (Hobbs, 2018). These areas would be interesting for future research.

In terms of the application of this research to health psychology, I feel that practitioners working on healthy eating campaigns and advice need to take particular care over the language they use. It would be helpful to think about the discourses they use and the effect they may have on their target population in the same way that commercial organisations do. Practitioners need to consider how their target population may react within the power relationship and take into account the variable social contexts of the population.

Conclusion

To summarise, this research study applied a Foucauldian Discourse Analysis based on (Parker, 1999a) to seven different healthy eating texts in order to explore how healthy eating is socially constructed. These texts were produced by state health authorities, commercial weight loss companies and food producers. Through a FDA I was able to provide insights into the complex world of healthy eating literature and associated healthy eating behaviour. The analysis showed how healthy eating literature is not value free and that all the texts served the interests of different institutions in our society. I also carried out five focus groups to explore how people took up or rejected these discourses within the texts. This provided insights into people's perception of the accepted truths around healthy eating in our society. An example of an accepted truth is that most people 'should' lose weight in order to be healthier, therefore if anyone should question this truth they may be considered deviant for putting themselves or others at risk or poor health.

The analysis uncovered sixteen discourses used to promote healthy eating from within the texts. Among these were scientific, medical, moral, childcare discourses. Many subject positions offered through the discourses originated in morality and the concept of being a good citizen. The focus groups analysis revealed some of the different ways people position themselves in relation to the discourses according to their personal beliefs (Parker, 2005). I explored the power relations to reveal how health state institutions positioned the public as in need of education. The commercial texts positioned the public as in need of solutions the organisations could offer as well as in need of education. Through tracing the histories of the discourses, the analysis revealed how the ideologies portrayed within the healthy eating texts came to be. For example, healthism is rooted in

morality in which the public were expected to take personal responsibility for their health through the practice of self-surveillance.

Within the texts, individual foods tended to be categorised as either good or bad for health. This over simplifies healthy eating and fails to take into account that people eat a variety of foods within meals. Many assumptions were made about the population by the texts and the social context of eating was not considered by several of the texts. This is important in understanding barriers to healthy eating. The commercial texts tended to take a dose response approach in which some foods were portrayed as health enhancing and others as a health risk. I felt that the commercial texts were better at appealing to their audience through discourses than the state health texts.

In terms of understanding healthy eating, this research has shown that some people trust some information more than others. Though it does not mean they will necessarily follow that information. In this research, the NHS brand created a firm sense of trust in most of the participants as they bought into the ideology of statism. However, the participants in the focus groups already had firm beliefs about healthy eating and reflected on the advice as if it was aimed at other people. In other words, they did not consider themselves as part of the general population.

Finally, it is important to remember that this research is not about who is right or wrong about healthy eating. Rather it is about the importance of how healthy eating information is relayed to people by different institutions and how people choose to identify with that information depending on the discourses used.

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Appendices

Appendix A – The Eatwell Guide

Image removed for copyright reasons

Source: The Eatwell Guide Retrieved 4 October 2015, from
https://www.gov.uk/government/publications/the-eatwell-guide

Appendix B - NHS Choices – Eight tips for healthy eating

Image removed for copyright reasons

Source: NHS Choices - 8 tips for healthy eating. Retrieved 4 October 2015, from:
http://www.nhs.uk/Livewell/Goodfood/Pages/eight-tips-healthy-eating.aspx

Appendix C – Change 4 Life

Image removed for copyright reasons

Source: Change 4 Life. Retrieved 4 October 2015, from:
http://www.nhs.uk/Change4Life/Pages/healthy-eating-tips.aspx

Appendix D – Weight loss organisation 1

Images removed for copyright reasons

Appendix E – Weight loss organisation 2

Image removed for copyright reasons

Appendix F – Breakfast Cereals

Image removed for copyright reasons

Appendix G – Cholesterol lowering spread

Image removed for copyright reasons

Appendix H – Information Sheet

**LONDON
METROPOLITAN
UNIVERSITY**

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Healthy eating information and advice. An opportunity to discuss your understanding and views on current healthy eating information.

Information sheet

I am currently undertaking a Professional Doctorate in Health Psychology at London Metropolitan University and I am inviting you to take part in my research project. Before you decide to take part in this research study, it is important for you to understand why the research is being carried out and what it will involve. Please take time to read the following information carefully and discuss it with others if you wish. Ask me if there is anything that is not clear or if you would like more information. Thank you for reading this.

What is the purpose of the study?

The purpose of this study is to explore people's understanding and opinions on healthy eating messages and literature. I am interested in what people believe healthy eating is and where they get that information from. In addition I am interested in the decision making process for selecting healthy eating information. I would like to understand how much people trust different information sources and their reasons for trusting that information. Understanding people's views on healthy eating information and why they prefer some information sources more than others will help to inform future public health initiatives for healthy eating.

Why have I been chosen?

You have been chosen because you responded to a request for participants for this particular study.

Do I have to take part?

No, you do not have to take part if you do not want to. It is up to you to decide whether or not to take part. If you do decide to take part you will be asked to sign a consent form. If you decide to take part you are still free to withdraw at any time without having to give a reason for withdrawing.

Who can take part in the study?

I am looking to recruit around 20 to 30 participants to participate in focus groups. A focus group is a group interview. The focus groups will be small groups of people (around 5 to 6

people in each group) who will be discussing some questions around current literature on healthy eating. Participants need to be 18 years or over, either live or work in Hertfordshire and be fluent in English.

What will happen to me if I take part?

Participants who wish to take part will be assigned to a focus group depending on their availability and ability to get to the specified location. The locations of the focus groups will either be in the Hertford, Stevenage or Apsley campuses of Hertfordshire County Council or a community venue used regularly by the participants. Each focus group will last 40-50 minutes.

What are the possible disadvantages and risks of taking part?

It is unlikely that taking part in this study will put you at risk, however if in the unlikely event you do experience upset you have the right to withdraw from the project at any point. This can be before, during or after the focus group takes place. All interviews will be held in a safe location. This will be either a meeting room in one of Hertfordshire County Councils offices or a community venue regularly used by the participants.

What are the possible benefits of taking part?

By taking part, participants will be contributing to the understanding of the general public's knowledge of healthy eating information. Participants will be helping to find out some of the reasons why people may or may not follow healthy eating information. The results from the study will help to inform future public health interventions and initiatives. It may also help participants make informed choices in selecting healthy living information in the future.

What do I do if I wish to make a complaint?

If you wish to complain, or have any concerns about any aspect of the way you have been approached or treated during the course of this study, the normal London Metropolitan University complaints mechanisms will be available to you. If you do not feel comfortable with contacting my supervisor, Dr Esther Murray (e-mail - e.murray@qmul.ac.uk), then please direct concerns to Chris Chandler, Head of Psychology, London Metropolitan University, 166-220 Holloway Road London N7 8DB.

Will my taking part in this study be kept confidential?

All the data collected will be made anonymous. This will involve changing your name and any other information that would identify you will also be changed. The data will not be shared with anyone and kept in a secure location. Once the project has been completed, the data will be destroyed.

What will happen to the results of the research study?

When the study is finished, I hope to publish the results in academic journals. I also hope to present the findings of the study at conferences but I will ensure that no individual participants in the study can be identified.

Who is organising and funding the research?

The research is being carried out by Joanna Mackenzie as part of the Professional Doctorate in Health Psychology. It is being supervised by Dr Esther Murray. Both have the

responsibility for ensuring that this research study is conducted safely, ethically and according to best practice and have no financial interest in the study.

Who has reviewed the study?

This study has been reviewed by the London Metropolitan University ethics committee who have raised no objection to it on ethical grounds.

Contact for Further Information

If you are interested in taking part in the study please contact me via e-mail jo.mackenzie@hertfordshire.gov.uk or telephone 01992 556870. If you have any questions please feel free to contact Joanna Mackenzie using the details above or my supervisor Dr Esther Murray, by telephone on 020 7882 7085 or by email to e.murray@qmul.ac.uk.

Thank you for taking the time to read this information sheet.

Appendix I – Recruitment Letter and Consent Form

LONDON METROPOLITAN UNIVERSITY

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Recruitment Letter

Healthy eating information and advice. An opportunity to discuss your understanding and views on current healthy eating information.

Dear ....

Thank you for your interest in taking part in a study to discuss your understanding of healthy eating information and giving me your views on this topic.

Before continuing any further, please take the time to read the information sheet before deciding whether to participate in the study.

Taking part in this study will involve you attending a focus group (a group interview) with myself the researcher and three to five other participants. The focus group will take approximately 45 to 50 minutes and will be conducted in a meeting room provided by Hertfordshire County Council or a location suggested by the participants. There are various locations around the county and we will select the locations most suitable for the participants. The time of the focus group will be arranged to suit all the participants and the group facilitator. There will be no late evening interviews.

The focus group recording will be transcribed and analysed by myself. Only my supervisor and I will see the transcripts. Any information that would identify you will be changed during the transcription process. For example all names and job titles.

Before starting the discussion, we will discuss what confidentiality means and how everyone (the facilitator and all participants) in the focus group will maintain that confidentiality.

All the data that you provide will be regarded as confidential and will be stored in a secure location. The data will be held for a maximum of five years before it will be destroyed. This is in compliance with the BPS Code of Ethics and Conduct. Please remember that if at any time you are unhappy about taking part in the study, you have the right to withdraw and your data will be destroyed. If you do wish to withdraw please contact me on the e-mail or phone number above, I will need to be informed by 31st January 2018.

If you have any further questions about the study then please do not hesitate to contact me.

Yours Sincerely,
Joanna Mackenzie

Consent

☐ I have read the information sheet regarding the study and have had the opportunity to ask questions.

☐ I understand that I will need to attend a focus group with other participants.

☐ I understand that my responses will be kept anonymously and will be stored in a secure location. This will be at the point of transcribing the spoken data into written data.

☐ I understand that my participation is voluntary and that I am free to withdraw at any time, without any penalty or giving any reason.

Signed (Participant)..

Print..

Date ....

Signed (researcher) ....

Print..

Date ....

Appendix J – Debrief Sheet

LONDON
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Healthy eating information and advice. An opportunity to discuss your understanding and views on current healthy eating information.

DEBRIEF SHEET

Thank you for attending this focus group to discuss your understanding of healthy eating information and giving me your views on this topic. This data will be used to provide an understanding of the general public's views on healthy eating information. Your personal details will not be included in this process.

The purpose of this study is to explore people's understanding and opinions on healthy eating messages and literature. I am interested in what people believe healthy eating is and where they get that information from. In addition I am interested in the decision making process for selecting healthy eating information. I would like to understand how much people trust different information sources and their reasons for trusting that information. Understanding people's views on healthy eating information and why they prefer some information sources more than others will help to inform future public health initiatives on healthy eating.

If you have any questions regarding this please feel free to **contact me at jo.mackenzie@hertfordshire.gov.uk or 01992 556870. You can also contact my supervisor Dr Esther Murray on 020 7882 7085 or e.murray@qmul.ac.uk** and we will be happy to answer any questions or receive any comments/feedback.

I would also like to take this opportunity to remind you that your responses are confidential and all results will be published anonymously as group data. The data will not be shared with anyone and will be kept in a secure location. The data will be held for a maximum of five years before it will be destroyed. This is in compliance with the BPS Code of Ethics and Conduct. The project completion will be at the end of March 2019. You still have the right to withdraw you responses, as your participation is completely voluntary, however I must be notified by the end of January 2018 if you wish to so. To do this, simply phone or send an email to the address provided at the top of this page.

If you would like to talk to someone or find out any information about where you can receive help for any health related problems. The following registered agencies and links may be useful to you:

NHS Choices – Live Well

General advice on healthy living
http://www.nhs.uk/livewell/Pages/Livewellhub.aspx

Health in Herts
Provides information on healthy living and is aimed at people who reside or work in Hertfordshire
https://www.hertfordshire.gov.uk/services/health-in-herts/health-in-herts.aspx

British Association for Counselling and Psychotherapy (BACP)
Provides information on how to find a registered counsellor.
Tel: 01455 883300
Web: www.bacp.co.uk

Again, I would like to thank you for helping me with this study.

Joanna Mackenzie

Appendix L – Focus group questions

The focus group questions:

It will begin with two general questions:

- How would you describe a healthy diet?
- How do you know that what you described is healthy?

We will then look at a selection of literature outlined below:

- The Eatwell plate
- NHS Choices
- Change4Life
- Information from two weight loss organisations
- Information from two commercial food companies.

The following questions will then be asked about each piece of literature:

- How well do you feel this information represents healthy eating?
  - Why?
- Do you feel that it is good advice?
  - Why
- What makes it/doesn't make it a trustworthy source of information?

One final question will be asked in relation to all the pieces of literature:

- Looking at all the information, which one comes across as strongest to you?
  - Why is that?

Appendix M – Eatwell Guide Booklet

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Source: Public Health England. Retrieved 4 October 2018, from:
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_
data/file/742750/Eatwell_Guide_booklet_2018v4.pdf

Appendix N – The analysis process

Step Number	Description
1	All pictures within the texts were turned into words. This step was skipped for any text without pictures
2	A creative free association was carried out to explore the connotations of the texts. This step focuses on the symbolic connections in the text and not the unconscious of any individual.
3	All the objects within the texts were identified and itemised. The general rule was to look for simple nouns. However, some implicit objects came from short phrases and adjectives.
4	The objects were described as how they were constructed in the texts.
5	All the subjects within the texts were listed and described how they were presented in the texts.
6	Speculations of what may be said by subjects within these discourse systems were written down
7	A map of the network of relationships between subjects was created and the flow of power between subjects were identified.
8	Considerations to what type of accusations may be made of subjects who refused to participate in the systems of discourse in the text.
9	Patterns of discourses at play across the text were identified by looking at the contracts of talk used within the text
10	Different ways of talking about the same object were identified depending on the discourse at play
11	How the different discourses speak to different audiences were described
12	Labels were given to the identified discourses and an example was given for each discourse
13 & 14	How the discourses emerged historically and their stories of origin were researched. How these discourses worked together (or contradicted each other) to position subjects were identified.
15 & 16	Identifying institutions and how the discourses work to either re-enforce or subvert the interests of institutions
17	How institutions offer up subject positions through discourses and who the winners and losers from these discourses were identified
18	The types of people and organisations who would either support or discredit these discourses were identified
19	The ideological functions of the text through the use of the discourses were identified
20	How the discourses in the texts justify the present

Appendix O – Discourses table from analysis

Discourse Name	Text Name	Examples
Thermodynamics	NHS Choices	Eat the right amount of calories for how active you are, so that you balance the energy you consume with the energy you use. If you eat or drink too much, you'll put on weight. If you eat and drink too little, you'll lose weight. It is recommended that men have around 2,500 calories a day (10,500 kilojoules). Women should have around 2,000 calories a day (8,400 kilojoules). Most adults are eating more calories than they need, and should eat fewer calories.
	Eatwell Guide	We all need different amounts of energy (or calories) from food to be a healthy weight. How much you need depends on lots of things, including how active you are. Whenever we eat more than our body needs, we put on weight. This is because we store the energy we don't use as fat. Even if we have just small amounts of extra energy each day, we can put on weight. Some people think starchy food is fattening, but gram for gram it contains less than half the calories of fat. You just need to watch the fats you add when you're cooking and serving this sort of food, because that's what increases the calorie content.
	Change 4 Life	Be Calorie Smart - Counting calories doesn't have to mean you are on a diet! They are a really handy way of helping you choose balanced meals each day, and not eating more than your body needs. Keep an eye on the calories by having a lighter lunch
Deprivation	Weight loss organisation 1	'rabbit food' diet plans Calorie counting going to bed early because you are hungry eating regime
Family and Childcare	Weight loss organisation 1	everyday foods that the whole family can enjoy Take care of your family's health as well as your own
	Breakfast cereals	Important nutrients that adults, and especially children, may not make up for later in the day. The picture of the two children with their father playing in the garden The picture of a mother watching her two children eat breakfast

		Quick to prepare and easy to eat on the go, even for the busiest of families your family can get all the benefits of a nutritious breakfast for just a fraction of the cost of other breakfast foods
	Eatwell Guide	Remember, you can also purchase high fibre white versions of bread and pasta which will help to increase your fibre intake using a like-for-like substitute of your family favourites.
	Change 4 Life	Try our simple tips to get you and your family into great healthy eating habits. Don't give a whole packet to a child, let them share a bag of crisps or save some for later
Health	Weight loss organisation 2	It is important to have a balanced diet for a host of health reasons We're all about good health "Good Health Guidelines"
	Eatwell Guide	Try to choose a variety of different foods from each of the groups to help you get the wide range of nutrients your body needs to stay healthy and work properly. Eating well and having a healthy lifestyle can help us feel our best – and make a big difference to our long-term health.
Traditional	Change 4 Life	We were all brought up to finish the food on our plates, but sometimes it's more than we really need. These days larger portions are more readily available.
Happiness	Weight loss organisation 2	The picture "Eating out on a diet" shows three young people having a good time eating their healthy meal. It is indicating that eating this way can make you happy. Pile on the positivity with healthy eating
	Weight loss organisation 1	set off on your new, exciting journey to success with us The picture of the "successful" slimmer that quotes "Gill's smiles are for real after losing 3st 10lbs"
Medical	Weight loss organisation 2	Protein is the delicious building block that helps your body to grow and repair itself
	NHS Choices	Eating too much salt can raise your blood pressure. People with high blood pressure are more likely to develop heart disease or have a stroke

		Being overweight or obese can lead to health conditions such as type 2 diabetes, certain cancers, heart disease and stroke. Being underweight could also affect your health.
	Cholesterol reducing spread	For those of us interested in maintaining cholesterol at the recommended level, a balanced diet with a variety of different foods is very important. Studies on oats suggest that a daily intake of 3g beta-glucan can lower cholesterol as part of a healthy diet and lifestyle High cholesterol is a risk factor in the development of coronary heart disease. There are many risk factors for coronary heart disease and it is important to take care of all of them to reduce overall risk of it. Nuts and oily fish are good sources of unsaturated fat which can help reduce cholesterol levels when used as a replacement for saturated fats as part of a healthy balanced diet
	Breakfast cereals	When you start with a nutritious and balanced breakfast, you're refuelling your body and brain, kick starting your metabolism and getting the energy you need to embrace the morning By skipping breakfast, even only one occasion, we miss out on vitamins, minerals and fibre that are important for a well-balanced diet. Important nutrients that adults, and especially children, may not make up for later in the day.
	Eatwell Guide	Anyone with special dietary requirements or medical needs might want to check with a registered dietitian on how to adapt the Eatwell Guide to meet their individual needs. Cutting down on saturated fat can lower your blood cholesterol and reduce your risk of heart disease. Eating too much salt can raise your blood pressure, which increases your risk of developing heart disease or stroke
Monitoring	NHS Choices	If you eat and drink too little, you'll lose weight. It is recommended that men have around 2,500 calories a day (10,500 kilojoules). Women should have around 2,000 calories a day (8,400

|		
		kilojoules). Most adults are eating more calories than they need, and should eat fewer calories. Try to cut down on your saturated fat intake, and choose foods that contain unsaturated fats instead, such as vegetable oils, oily fish and avocados.
	Cholesterol reducing spread	Eating at least five 80g portions of fruit and vegetables a day The average man should have no more than 30g saturated fat a day. The average woman should have no more than 20g saturated fat a day.
	Eatwell Guide	Remember that all types of fat are high in energy and should be limited in the diet. Food and drinks high in fat and sugar contain lots of energy, particularly when you have large servings. Check the label and avoid foods which are high in fat, salt and sugar! The average man should have no more than 30g saturated fat a day. The average woman should have no more than 20g saturated fat a day Alcohol also contains lots of calories (kcal) and should be limited to no more than 14 units per week for men and women. If you eat more than 90g of red or processed meat per day, try to cut down to no more than 70g per day. Aim to eat at least five portions of a variety of fruit and veg each day. If you count how many portions you're having, it might help you increase the amount and variety of fruit and veg you eat.
	Change 4 Life	Try eating just one plate of food and don't go back for seconds Swap a big dinner plate for a smaller one and you'll have a smaller portion.
Motivational and supportive	Weight loss organisation 2	We will help you lose weight your way and improve your overall health so that you can feel your best
	Weight loss organisation 1	receive the support, encouragement and motivation of a fully trained consultant and together with a supportive group of like-minded people, to help them reach their personal weight loss target In the logo with "touching hearts, changing lives"

	Cholesterol reducing spread	All the "how to guides" on the last page, along with things like 10 simple 10 minute workouts - the use of the words "quick" and "fun" to make the exercise seem more attractive. These balanced recipes are quick fun and easy
	Change 4 Life	Top tips for healthy eating Love your labels Try our simple tips to get you and your family into great healthy eating habits.
Natural	Weight loss organisation 2	The picture at the top of the document contains foods which are considered to be fresh and natural. There is an absence of packaging of the foods
	Weight loss organisation 1	Forget diet pills that interfere with your body and your mind's natural, healthy function
	Cholesterol reducing spread	In reference to the picture at the top of the page which shows fresh foods. Only the milk and oil are in containers because they are liquid.
	Breakfast cereals	The picture of the two children with their father playing in the garden, surrounded by country side to emphasise the naturalness of life. The woman eating her breakfast outside in the sun as opposed to eating inside Placing pictures of fruit with the cereal to create an image of freshness They talk about simple grains and all the pictures emphasise plenty of sunlight
Nutritional/Scientific	Weight loss organisation 2	The picture at the top contains the phrase "Balancing Act" over the top of the fresh foods Choose low-fat options for your daily fill of vitamins A, D, B12 and zinc. For the best calcium hit, aim for two portions every day. We've designed the SmartPoints plan with the latest nutritional research in mind
	Breakfast cereals	By skipping breakfast, even only one occasion, we miss out on vitamins, minerals and fibre that are important for a well-balanced diet. 15% of the nation's iron, and 10% of the nation's intake of thiamine, riboflavin and folic acid comes from fortified breakfast cereal.
	NHS Choices	A healthy breakfast is an important part of a balanced diet, and provides some of the vitamins and minerals we need for good health. A

		wholegrain, lower-sugar cereal with fruit sliced over the top is a tasty and nutritious breakfast. Eat a wide range of foods to ensure that you're getting a balanced diet and that your body is receiving all the nutrients it needs
	Cholesterol reducing spread	You may have heard the phrase "you are what you eat" and in a sense, this is true: a healthy balanced diet helps provide your body with the energy and nutrients it needs to function. Studies on oats suggest that a daily intake of 3g beta-glucan can lower cholesterol as part of a healthy diet and lifestyle Providing energy and essential nutrients, starchy foods can also be a good source of fibre dairy products like cheese, cream and butter are also good sources of protein or minerals like calcium, but are often high in saturated fat
	Eatwell Guide	Wholegrain food contains more fibre than white or refined starchy food, and often more of other nutrients. These are good sources of protein and vitamins, and they're also an important source of calcium, which helps to keep our bones strong These foods are sources of protein, vitamins and minerals, so it is important to eat some foods from this group.
Personal responsibility - Morality	Weight loss organisation 1	Make it a gift to yourself, that you'll ditch any excess 'dieting' baggage you've been carrying with you and set off on your new, exciting journey to success with us
	Breakfast cereals	For those of us interested in maintaining cholesterol at the recommended level There are many risk factors for coronary heart disease and it is important to take care of all of them to reduce overall risk of it. There are a whole selection of options on recipes, exercises and stress management to help the reader take personal responsibility
	NHS Choices	The logo on the page that says "Your health, your choices"
Rebellion & Freedom	Weight loss organisation 2	If you follow our No Count approach you'll eat the best foods possible without ever having to count them.

		Most fruits and vegetables are zero SmartPoints values No foods are off limits
	Weight loss organisation 1	DIET is a four letter word Freedom, flexibility and generosity of food optimising Free food because they are unlimited - no obsessive counting or tedious weighing, no feelings of hunger and deprivation The picture of the fried breakfast
Traffic lights	Eatwell Guide	Food labels can help you to choose between foods and to pick those that are lower in energy, fat, saturated fat, sugar and salt. Where colour coded labels are used you can tell at a glance if they are high, medium or low in fat, saturated fat, sugars and salt. For a healthier choice, try to pick products with more greens and ambers and fewer reds.
Weight loss Dieting	Weight loss organisation 2	It is a vital part of a balanced diet and can aid in weight loss Want to feel fuller for longer? Wholegrain foods and fibre and just thing You get to eat real food and still lose weight
	Weight loss organisation 1	Eating regimes Strict rules and regulations Dieting do's and don'ts Calorie counting
Lifestyle	Weight Watcher	The pictures depict attractive, young, happy, slim people enjoying themselves over a healthy balanced slimming meal The food pictures represent fashionable foods and foods served in a way you would expect on holiday or at a restaurant.
	Breakfast cereals	Some of the food pictures depict an idealised lifestyle through alfresco dining for breakfast

Appendix P – Example of Power Relationships Map
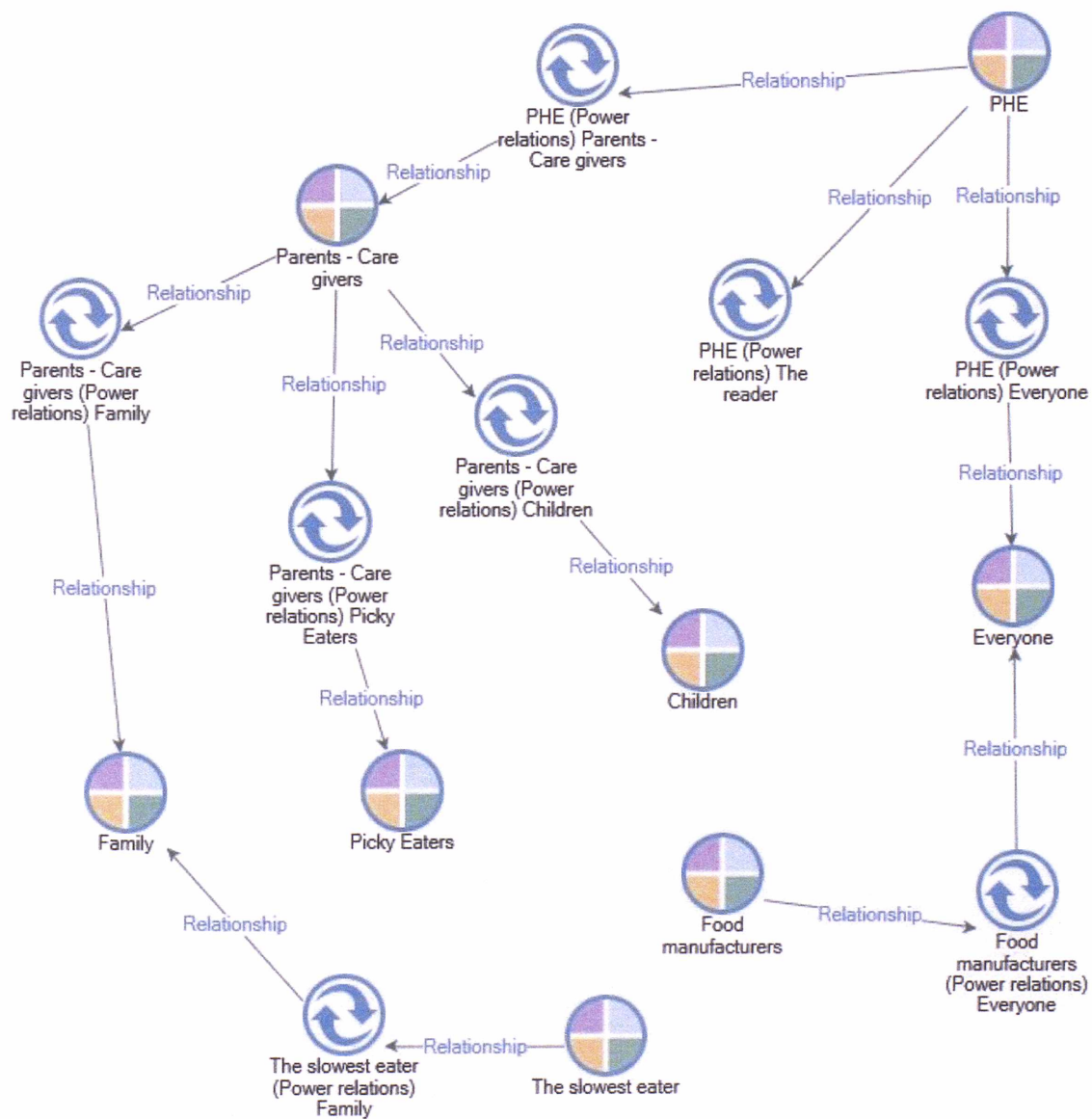
Systematic Review

Women's Experiences of Pregnancy Related Pelvic Girdle Pain:
A Systematic Review

Contents

Abstract

Background: Pregnancy related Pelvic Girdle Pain (PGP) is a condition which affects the sacroiliac joints and the symphysis pubis in the pelvis causing considerable pain, immobility and reduced quality of life. As a result this can have a negative emotional and psychological impact on women suffering from this condition.

Research question: What are the experiences of women affected by pregnancy related pelvic girdle pain and how does this affect them emotionally and psychologically?

Method: A systematic review and meta-synthesis of women's experiences of pregnancy related PGP was conducted for qualitative studies dated between 2005 and 2016. Predefined search terms, inclusion and exclusion criteria were used to search nine central databases, hand search two journals reference lists of identified studies.

Results: Eight studies were included in the review. The pain from PGP impacted on the women's daily lives both at home and the workplace. It had a negative emotional and psychological impact as it took away the women's independence leaving them feeling frustrated, guilty, irritable and upset they could not carry out their normal roles in life. PGP affected the women's identity and ability to care for their children.

Conclusion: PGP should be recognised as a serious health issue. Women should be informed about the symptoms of PGP at the beginning of pregnancy. Healthcare professions need to be better at identifying women who develop PGP so they can be referred for treatment as soon as possible and given help to identify their social support network. Maternity units need to recognise that PGP can continue after birth and provide women with information on managing and treating PGP.

Background

Pregnancy related Pelvic Girdle Pain (PGP) is a condition which affects the sacroiliac joints and the symphysis pubis in the pelvis. It causes considerable pain and as a result it can affect women's mobility and functioning both during and after pregnancy (Pelvic Partnership, n.d.). PGP can appear at any stage during in pregnancy and it is estimated that about one in five women experience PGP during and/or after pregnancy that requires medical help (Wu et al. 2004). Symptoms often occur after the woman has been physically active or has slipped into an awkward position (Fishburn & Cooper, 2015).

PGP is sometimes referred to as Symphysis Pubis Dysfunction (SPD), however, this is considered to be misleading as it infers that pain is only experienced in the symphysis pubis and not the sacroiliac joints (Fishburn & Cooper, 2015; Keriakos, Bhatta, Morris, Mason & Buckley, 2011). PGP was previously thought to be caused by the pregnancy hormone relaxin and would therefore resolve itself at birth (Maclennan, Green, Nicolson & Bath, 1986). However, more recent research has shown there is no relationship between relaxin and PGP (Aldabe, Ribeiro, Milosavljevic, & Bussey, 2012). It is more likely that PGP is the result of a mechanical joint problem (Beales, O'Sullivan & Briffa, 2009). The main risk factors for developing PGP are a history of lower back pain, previous trauma to the pelvis or previously given birth (Albert, Godskesen, Korsholm & Westergaard, 2006; Vleeming, Albert, Östgaard, Sturesson, & Stuge, 2008).

Many terms have been used to describe pregnancy related low back pain and PGP which have created confusion in the past. In response, Wu et al. (2004) proposed that two different types of back pain occur during pregnancy; PGP and Lower Back Pain (LBP). Together PGP and LBP come under the umbrella term Lumbopelvic Pain (LPP). The 2008 European guidelines for the diagnosis and treatment of PGP (Vleeming et al. 2008), consider PGP to be more painful than LBP, intermittent and specific to certain movements (Vermani, Mittel & Weeks, 2010). Pain can occur around the lower back and/or the symphysis area and this affects everyday activities such as walking, bending and climbing stairs. European guidelines recommend that PGP is diagnosed using the active straight leg raise (ASLR) functional test (Vleeming et al. 2008).

For some women the impact of PGP is severe. The pain from PGP reduces mobility and consequently reduces the women's quality of life. In a study investigating the impact of PGP on function, Robinson, Eskild, Heiberg and Eberhard-Gran (2006) found that seven

percent of pregnant women required the use of crutches and 15% were regularly woken at night from pain when turning over in bed. In extreme cases women can end up house-bound, bed-bound and require the use of a wheelchair (Fishburn & Cooper, 2015).

From an economic perspective, PGP can affect the ability to function in the work place. As a result, there is an increased level of sickness absence in working women with PGP (Malmqvist et al. 2015; Mogren, 2006). Gutke, Östgaard and Öberg (2006), found that pregnant women with PGP took significantly more sick leave than pregnant women with only LBP. Some women find it difficult to legitimise their need for sickness absence due to PGP as they may be accused of exaggerating what is considered to be a normal part of pregnancy (Fredriksen, Harris, Moland & Sundby, 2014).

A lack of mobility, due to back pain in pregnancy, can have a negative impact on a women's quality of life. It becomes difficult to perform tasks around the home, enjoy a social life and engage in hobbies (Olsson & Nilsson-Wikman, 2004). Poor sleep due to back pain is also associated with a reduction in quality of life (Skaggs et al. 2007). Women with back pain in pregnancy often report sleep disturbances due to the pain (Close, Sinclair, Liddle, McCullough & Hughes, 2016; Skaggs et al. 2007). It has been suggested that sleep deprivation during late pregnancy can result in post-natal depression (Chang, Duntley, & Macones, 2010).

The emotional impact of PGP, due to the resulting pain and disability, can be high and many pregnant women with PGP feel that they are not taken seriously by healthcare professionals (Mogren, Winkvist & Dahlgren, 2010; Wellock & Crichton, 2007b). Qualitative studies investigating the experience of PGP have uncovered feelings of frustration and helplessness (Crichton & Wellock, 2008), anxiety and worry about the birth (Elden, Lundgren & Robinson, 2014) and social and psychological challenges especially for those who continue to suffer from PGP after the birth (Engeset, Stuge & Fegren, 2014). For women who already have young children, it can affect their role as a mother and the ability to carry out normal child caring duties. This can lead to feelings of guilt for being a burden to others (Persson, Winkvist, Dahlgren & Mogren, 2013). PGP can also affect how women feel towards subsequent pregnancies as they worry how they will manage with a small child (Wuytack, Curtis & Begley, 2015).

Rationale

PGP is not regarded as a serious pregnancy complication or a life threatening condition. PGP is often confused with LBP (Liddle & Pennick, 2015) and LBP is considered to be a normal part of pregnancy (Pierce, Homer, Dahlen & King, 2012). As a result, it can be overlooked and dismissed (Wellock & Crichton, 2007a) by healthcare professionals as they focus on what they consider to be more serious conditions. However, as the literature above indicates, PGP can have a negative psychological effect on the mother and her family as she becomes unable to carry out daily tasks and social activities. This systematic review is required because there is a need for an increased awareness of the negative psychological and emotional effects of PGP among healthcare professionals working with pregnant and post-natal women. Lack of awareness can result in the poor management of PGP (Candelier, Bird & Wood, 2010).

Vermani et al. (2010) carried out a review looking at terminology, epidemiology, risk factors, pathophysiology and prognosis of PGP. Systematic reviews have been carried out on treatment interventions for low-back and pelvic pain during pregnancy (Liddle & Pennick, 2015), core strength for PGP (Lillios & Young, 2012), the role of exercise in treating PGP (Boissonnault, Klestinski & Pearcy, 2012) maternity support belts for PGP (Ho et al. 2004) and terminology (Wu et al. 2004). However, there are currently no systematic reviews of qualitative studies on women's experiences of PGP and the associated psychological effects. Unlike quantitative research, qualitative research is able to uncover knowledge on a topic and ask questions such as 'what', 'why' and 'how' (Willig, 2013). Therefore a qualitative approach is most suited to exploring the experience of a health condition. A qualitative systematic review on the experience of PGP will help reviewers interested in qualitative PGP studies to easily find and interpret the relevant research (Thomas & Harden, 2008).

Review Question

The aim of this systematic review was to review all the available qualitative studies since 2005 which provided an insight into women's experiences of pregnancy related PGP. The included papers considered the psychological aspects and the emotional effects experienced by women suffering from PGP as a result of pregnancy.

The research question was:

What are the experiences of women affected by pregnancy related pelvic girdle pain and how does this affect them emotionally and psychologically?

Method

Search Strategy

The literature search was carried out in July 2016. Both published and unpublished studies were searched for using PsycInfo, Academic Search Complete, PubMed, Web of Science, BPS EBSCO Discovery Service, Google Scholar, Zetoc, ETHOS and Dart Europe.

The search criteria below was applied to PsycInfo, Academic Search Complete, PubMed, Web of Science and BPS EBSCO Discovery Service.

1. ("Symphysis pubis dysfunction" OR "Pelvic Girdle Pain" OR "Pelvic Pain" OR "Lumbopelvic pain") AND ("pregnancy" OR "prenatal" OR "postnatal")
2. 1# AND Experience
3. 1# AND Psycho*
4. 1# AND Coping
5. 1# AND "Quality of Life"

Within Google Scholar, the following exact phases were searched for within the title of the article:

1. Pelvic Girdle Pain
2. Symphysis pubis dysfunction
3. Pelvic Pain
4. Lumbopelvic Pain

Zetoc, ETHOS and Dart Europe used the following search terms in the primary search field:

1.   "Pelvic Girdle Pain"
2.   "Pelvic Pain"
3.   "lumbopelvic pain"
4.   "Symphysis pubis dysfunction"

In addition, the journals British Journal of Midwifery and Evidence Based Midwifery were hand searched and the reference lists of identified papers and websites were searched. Individual authors were also contacted to enquire of any further unpublished research in this area.

Inclusion/Exclusion criteria

The aim of this review was to search for published and unpublished research studies investigating the experiences of women suffering from pregnancy related PGP. Therefore studies not including women with PGP which started during pregnancy were excluded. Studies investigating PGP post pregnancy were included because women after often told that their symptoms will go after the birth. Unfortunately this is not the case for all women (Röst, Kaiser, Verhagen & Koes, 2006). Due to the nature of the research question, only qualitative studies were included as the scoping search showed that quantitative studies could not directly answer the question. Only studies that gave an understanding of what it was like to have PGP, demonstrated the impact of PGP on women's lives and showed the emotional and psychological effects of PGP on women were included. Treatments, experience of the health care system and peer to peer support studies were excluded. Only papers from 2005 onwards were included due to previous issues around confusion in distinguishing between LBP and PGP and the terminology for PGP (Leadbetter, Mawer & Lindow, 2004; Wu et al. 2004). This also kept the review manageable. Table 1 lists the full inclusion/exclusion criteria.

Table 1: Inclusion and exclusion criteria

	Include	Exclude
Population	Women for whom PGP started in pregnancy	Men Children Women who have not experienced pregnancy related PGP Women with just pregnancy related LBP
Types of studies	Qualitative studies that convey the experience of living with PGP and the psychological and emotional effects on the women.	Reviews Discussions Quantitative studies
Types of outcome	Provides an understanding of what it is like to have PGP Demonstrates the impact of PGP on women's lives Reports on the emotional/psychological effects of PGP	Treatments Diagnostics Experience of the health care system
Timeframe	2005 to 2016	Before 2005

Selection Process

The first reviewer carried out the initial screening of the titles and abstracts to provide a short list of studies. The full text for all the short listed studies were obtained and screened by both the first and second reviewers in order to agree on the final papers to include in the review.

Quality Assessment

The selected papers were assessed for their quality using the CASP (2013) qualitative research checklist. No studies were excluded on the outcomes of the quality assessment as there is still debate as to whether this is appropriate for qualitative studies and there are no clear rules for eliminating studies in qualitative systematic reviews (Dixon-Woods et al. 2006). All the studies gave clear statements and aims of their research with appropriate recruitment strategies. Qualitative methodologies were appropriate for all the studies and data was collected ethically and in ways which addressed the research questions. All the studies produced valuable research with clear statements of findings. It was not clear if Persson et al. (2013) analysed their data rigorously enough. It was not

possible to tell if the relationship between the researchers and participants had been adequately considered in four studies (Crichton & Wellock, 2007; Elden et al. 2013, 2014; Shepherd, 2005).

Data Extraction and Meta-Synthesis

Data was extracted and analysed using a textual narrative synthesis (Lucas, Baird, Arai, Law & Roberts, 2007). The first step was to read and re-read the studies to develop a set of questions related to the aim of the review and the overall research question. This was achieved through the coding of the study results in the software package NVIVO 11. The questions were:

1. How did the PGP affect the women's daily life?
2. How did PGP affect the women's identity?
3. What were the effects on the women's mothering role?
4. What were the emotional and psychological effects of PGP?
5. How did the women cope with the pain?

The second step identified sub groups within the studies from the reading of the studies. In the third step study commentaries were produced in relation to the questions above and the study design. Finally conclusions on the similarities and differences were drawn across the studies.

Results

Summary of included papers

The initial search generated 614 studies after deduplication. Sixteen studies were retrieved for full review. After the review process, a further eight studies were excluded. Four of the studies were not specific to PGP and included pregnant women with generic LBP, two studies solely focused on interactions with healthcare professionals and two studies focused on peer support. The selection process is shown in figure 1.

Figure 1: Selection Process

Figure 1: Selection Process
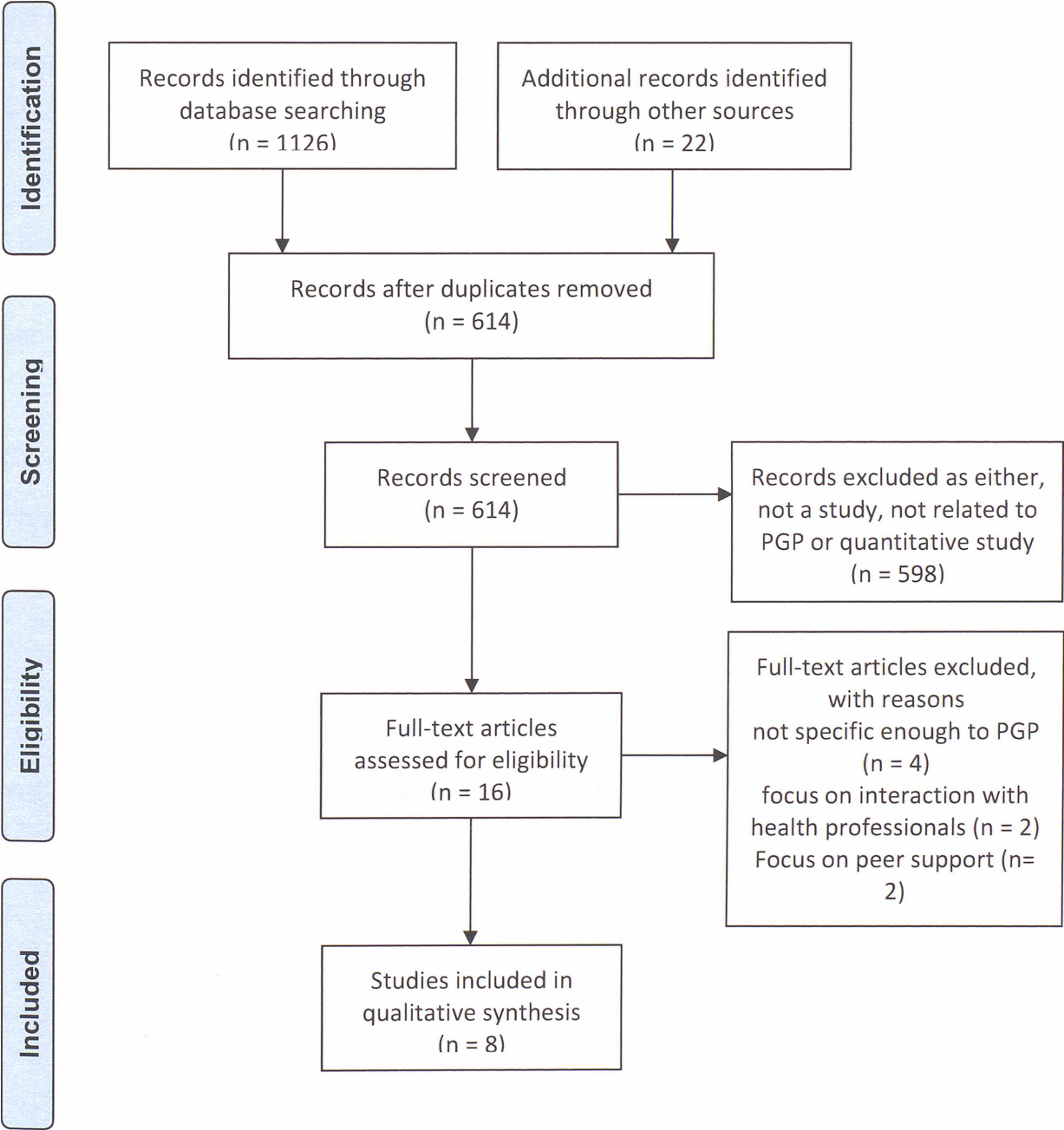
In the eight remaining studies, there were 92 participants. Two of the studies used the same participants (Crichton & Wellock, 2008; Wellock & Crichton, 2007a), but the data was analysed by different authors. Participants were recruited from RCT trials of PGP treatments, a longitudinal cohort study or referrals from physiotherapists, midwives and hospital departments. The participants were a mixture of primiparous and multiparous women with one study containing only primiparous women (Wuytack et al. 2015). Overall the age range of the participants was from 18 to 42 years. Five studies included women with a wide age range, two studies did not report on the women's ages (Engeset et al. 2014; Shepherd, 2005) and one study had a narrow age band of 27 to 33 years (Persson

et al. 2013). The educational and occupational backgrounds were only reported in half of the studies. No studies reported ethnicity details, however two stated there was a wide range of ethnic backgrounds among the participants (Shepherd, 2005; Wellock & Crichton, 2007a). Wuytack et al. (2015) did report the country of birth for each participant. Four studies reported that all participants lived with partners, the remaining did not discuss partner status.

There were three English studies, three Swedish studies, one Norwegian and one Irish study. The studies were analysed using grounded theory, thematic analysis, qualitative content analysis, descriptive phenomenology and interpretive phenomenology.

Study Findings

Three sub-groups were identified within the included studies:

- The experience of PGP during pregnancy or after the birth
- Data analysis method
- Country of the study location

The findings are summarised in table 2.

Table 2: Summary and findings of included studies

Authors	Date study conducted	Study location	Sub group	Study Aim	Research design	Participants recruited from	Participant details	Key Findings
Persson et al. 2013	2002 - 2004	Sweden	During pregnancy	To investigate the experiences of women living with PGP in pregnancy	Interviews analysed with Grounded Theory	Hospital outpatient clinic	N=9 (aged 27 to 33) 5 university educated 4 high school educated Primigravida and multigravida women All living with partners	Unprepared for the pain and worried it would never go away. Reliant on practical and psychological support. Household chores and childcare difficult to do. Personal and professional relationships were affected. Loss of professional identity. Disrupted sleep led to negative moods. Loss of independence affected self-esteem. Felt anxious and frustrated by PGP. Only way to cope was to rely on others and plan well in advance. Those with children struggled with childcare and felt they were not being a proper mother.

Authors	Date study conducted	Study location	Sub group	Study Aim	Research design	Participants recruited from	Participant details	Key Findings
Engeset et al. 2014	Dec 2011 to Jan 2012	Southern Norway	After pregnancy	To explore how women with post-partum PGP experience living with PGP pain and its influence on their daily life, and the challenges they encounter concerning their physical, psychological and social function	Interviews analysed with a Phenomenological-hermeneutical design	Physiotherapists and a hospital department	N=5 Mix of high school & university educated Primigravida and multigravida women All living with partners	Disabilities created pain and mental stress and their health problems affected families and friends. Exhausted from the pain and disability affected social interactions. Required help with household chores and lacked physical activity. Missed hobbies and social activities. Lack of mobility affected moods. Coping strategies were good planning, delegation and reduced activity levels. Some colleagues and employers did not understand. Relationships changed and children were affected by mother's lack of interaction and activity. Low mood affected relationships with children. Some had hope for the future.

Authors	Date study conducted	Study location	Sub group	Study Aim	Research design	Participants recruited from	Participant details	Key Findings
Elden et al. 2014	May 2009-June 2010	Sweden	During pregnancy	To explore and describe pregnant women's experiences of severe PGP physically and in regards to the health care system	Interviews analysed with Qualitative Content Analysis	Another RCT study on treatment for PGP	N =27 (21-38 years, mean 31 years) Primigravida and multigravida women All living with partners	Felt unprepared and lacked information on PGP. Felt alone in suffering. Unable to take their bodies for granted. Frustrated by immobility of PGP and missed being physically active. Concerns about the birth. Sleep affected leaving them exhausted. Felt guilty for being unhappy in pregnancy. Some felt depressed resulting in difficultly bonding with children. Felt insulted by health professionals' lack of support and understanding. PGP made working difficult. Worried that PGP was not a legitimate reason for sick leave. PGP changed their self-perception.
Wellock & Crichton 2007a	March 2003 to Feb 2005	North-west England	Both (6 weeks post-partum)	To explore pregnant women's experiences of SPD and its effect on their quality of life during and up to 6 weeks post-partum.	Interviews analysed with a Heideggarian phenomenological approach	Referrals from midwives and physiotherapy departments	N=28 aged between 18-42 years Primigravida and multigravida women Range of cultural & SES backgrounds Partner status not stated.	Pain described using metaphors, facial expressions and sound. Felt out of control and powerless. Some coped by using pain medication and a few took more than prescribed dosage. Relied on partners, family and friends for support. Very hard for those without a partner. Felt guilty for being unable to do household chores or look after young children. Affected personal relationships and young children did not understand their mother's pain. Created anxiety for some women

Authors	Date study conducted	Study location	Sub group	Study Aim	Research design	Participants recruited from	Participant details	Key Findings
Crichton & Wellock 2008	March 2003 to Feb 2005	North-west England	Both (6 weeks post-partum)	To explore the disabling effects of SPD on the lives of pregnancy and newly-delivered women and their families	Interviews analysed with a Heideggarian phenomenological approach	Referrals from midwives and physiotherapy departments	N=28 aged between 18-42 years Primigravida and multigravida women Range of cultural & SES backgrounds Partner status not stated.	Lost identity as a mother or wife. Identity now as a dependent disabled person. Could not do everyday activities and household duties, felt powerless, guilty, angry and tearful. Worried about double pain in childbirth. Professional identity in the workplace affected resulting in financial impact on the family. Struggled to look after their children and upset not being able to meet child's needs, felt mother-child bond was being lost. Personal relationships affected. Feared another pregnancy.
Shepherd 2005	Not stated	England	Both (to 3 months)	Aimed to describe SPD (PGP) from a woman's perspective of living with the condition	Interviews analysed with a Heideggarian phenomenological approach	Referrals from midwives and physiotherapists	N=5 – ages not specified Primigravida and multigravida women Partner status not stated	Pain affected daily activities and was physically and emotionally exhausting. Fear of PGP exacerbating labour pain. Decisions towards birth and breastfeeding affected. Pain changed attitudes towards subsequent pregnancies. Coped by relying on help from partners, friends and family. Felt anger, guilt and frustration. Some felt anxious about lack of ability to do household chores. Some felt depressed pre and post-natally. Pain caused conflict in work and home relationships. Inability to work created financial pressure

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Authors	Date study conducted	Study location	Sub group	Study Aim	Research design	Participants recruited from	Participant details	Key Findings
Wuytack et al. 2015	Feb 2012 – Oct 2014	Ireland	After pregnancy (3+ months)	To explore primiparous women's experience of persistent PGP and its impact on their lives postpartum, including caring for their infant and their parental role	Interviews analysed with Thematic analysis	MAMMI longitudinal survey based cohort study	=23 (aged 18+) Primigravida women Majority university educated Partner status not stated	Felt they had to endure pain and get on with daily life especially if no one around to help. In severe pain didn't leave the house. Childcare was difficult and feared dropping baby due to pain. Felt old and tired. Concerned for future when returning to work and when child was mobile. Lack of mobility caused frustration and affected ability to play with children. Moods negatively affected. Surprised pain did not go away at birth. Would have liked more help and information. Felt under pressure to reduce pain to return to work and/or have another child

Authors	Date study conducted	Study location	Sub group	Study Aim	Research design	Participants recruited from	Participant details	Key Findings
Elden et al. 2013	2010 - 2011	Sweden	During pregnancy	To describe pregnant women's experiences of living with PGP related to daily life	Interviews analysed with Qualitative Content Analysis	Another RCT study on treatment for PGP	N =27 (21-38 years, mean 27 years) Primigravida and multigravida women All living with partners	Felt out of control and socially isolated. Pain was difficult to cope with and felt judged by others. Preferred supportive friends and discarded those who didn't understand. Childcare and playing with children was difficult. Toddlers got angry towards their mothers. Family roles changes with partners and older children doing household chores. Frustrating and embarrassing for the women. Moods and personal relationships negatively affected. Lost professional identity and worried about how employer would react. Social interaction missed. Being at home was boring. Reconsidered subsequent pregnancies

The effect of PGP on daily life

All of the studies demonstrated how PGP affected the women's daily lives. During pregnancy, all the studies reported that the women struggled to carry out general everyday tasks within the home including housework, cleaning and childcare. The findings were similar regardless of the country of study. The women were highly dependent on partners, family members and friends for help. Two studies reported how this extended to the women's personal hygiene (Shepherd, 2005; Crichton & Wellock, 2008). For example, one woman was unable to climb the stairs for clean clothes and another struggled to reach the toilet on time (Crichton & Wellock, 2008). After the birth women still struggled with housework. Some women felt their only option was to struggle on with as much pain as they could bear especially if there was no one around to help (Wuytack et al. 2015).

Six studies reported how PGP affected the women's daily life in the workplace. During pregnancy, women found it difficult to maintain their usual standard of work as they felt exhausted from the pain. Some women had to make adjustments to their work and/or reduced their hours. Others had no other choice but to go on sick leave (Crichton & Wellock, 2008; Shepherd, 2005) which they found hard to adjust to (Persson et al. 2013). This created an extra financial pressure for the women. In the workplace some women found co-workers sympathetic to their suffering, however, others felt under pressure to prove they were not lazy (Elden et al. 2013, 2014). Post pregnancy, women were concerned how they would manage when they returned to work (Wuytack et al. 2015) and others found that employers did not understand their pain (Engeset et al. 2014).

Regardless of the country of study, all the women, were dependent on others and they found this very frustrating. In the workplace, the studies from Scandinavia reported more negative experiences and concerns about PGP being accepted as legitimate reason for taking sick leave (Elden et al. 2013, 2014; Engeset et al. 2014). However, two of the English studies reported that taking sick leave for PGP created financial pressure due to loss of income (Crichton & Wellock, 2008; Shepherd, 2005).

The effect of PGP on identity

Changes in the women's lives often impacted on their identity and self-image. During pregnancy, three studies discussed how PGP had an impact on the women's identities. The effects on professional identity were similar in both Sweden and England where the

studies took place. Only one study discussed identity as a disabled person (Crichton & Wellock, 2008).

Where work played a significant role in a woman's life, they felt a loss of professional identity from taking sick leave or reducing their hours (Elden et al. 2013; Persson et al. 2013). They often felt bored at home and missed the social interactions in the work place. Some women were upset that they could no longer contribute to the household income and missed carrying out their professional work (Crichton & Wellock, 2008). The effect of PGP also affected the women's identity as a mother and a wife or partner as they could no long carry out their usual household roles (Elden et al. 2013), instead they now identified themselves as disabled people (Crichton & Wellock, 2008).

The effects of PGP on the mothering role

Although the effect of PGP on the identity as a mother was only explicitly identified in two studies (Crichton & Wellock, 2008; Elden et al. 2013), all the studies discussed how the women struggled to carry out their mothering roles in the way they wanted to.

During pregnancy, women who already had children felt guilty for being unable to interact with their children (Elden et al. 2013; Shepherd, 2005) and be a "proper mother" (Crichton & Wellock, 2008; Persson et al. 2013). Young children struggled to understand why their mothers could not play with them which affected the mother - child relationship (Elden et al. 2013, 2014; Wellock & Crichton, 2007a). PGP made it difficult for the mothers to supervise young children in the process of toilet training and they felt as if all their progress was being undone (Crichton & Wellock, 2008). Safety was another concern as the women worried about not being able to catch or lift run-away toddlers (Persson et al, 2013), or having an accident on the stairs (Shepherd, 2005).

Safety was also an issue for women after pregnancy as they worried about dropping their babies due to pain (Wuytack et al., 2015). Some women struggled to lift their babies just after the birth (Crichton & Wellock, 2008). Women found it difficult to play with their babies (Wuytack et al. 2015) and these reduced interactions led to concerns about mother - child bonding (Engeset et al. 2014). The lack of bonding and being able to be a "proper mother" affected many of the women's mental states both during and after pregnancy.

The emotional and psychological effects of PGP

All the studies demonstrated that the cumulative result of pain, disability and the changing roles and identity of the women led to many negative emotional and psychological effects. During pregnancy women experienced a lot of frustration and embarrassment for having to rely on others for help when they were used to being independent, able-bodied women (Elden et al. 2013; Crichton & Wellock, 2008). This was in both personal and professional roles (Persson et al. 2013) and regardless of the country of study. Being unable to carry out everyday activities they used to take for granted made some women angry and emotional (Elden et al. 2014; Shepherd, 2005). Guilt or disappointment was sometimes felt for not enjoying pregnancy (Elden et al. 2014; Persson et al. 2013). Pain disrupted many of the women's sleep making them irritable (Persson et al. 2013) and close to tears (Elden et al. 2014). In a couple of severe cases, the women threatened to self-harm resulting in the researchers having to intervene (Wellock & Crichton, 2007a). Several women believed that PGP was the underlying cause of their pre or post-natal depression (Elden et al. 2014; Shepherd, 2005). PGP pain made some women fearful for the birth as they did not think they could cope with two sets of pain (Shepherd, 2005).

Post-natal women were surprised to still have the pain as they were told it would go away after the birth (Wuytack et al. 2015). Both Engeset et al. (2014) and Wuytack et al, (2015) found that the continuous pain often contributed to low moods which only lifted when the women thought the pain could be subsiding. The low moods and lack of interactions with their children due to the pain affected the mother - child relationship making the women feel guilty for not fulfilling their children's needs (Wuytack et al. 2015).

Coping with pain

Every study discussed the topic of pain and six studies identified pain explicitly as a theme. During pregnancy, pain dominated the women's lives (Elden et al. 2014; Wellock & Crichton, 2007a). They felt unprepared for the pain (Persson et al. 2013) and it left them feeling exhausted (Elden et al. 2014; Persson et al. 2013; Shepherd, 2005), powerless and out of control (Crichton & Wellock, 2008; Elden et al. 2013; Wellock & Crichton, 2007a). Coping with the pain was difficult as they had a limited choice of analgesia and the support belts often did not work (Shepherd, 2005; Wellock & Crichton, 2007a). Some women took more than the recommended doses in an attempt to reduce the pain (Wellock & Crichton, 2007a). Lifestyle changes were the only way to cope and this meant planning

well in advance and relying on others for support (Persson et al. 2013; Shepherd, 2005). Elden et al. (2013) found that the women in their study only kept company of supportive friends and discarded those who did not understand.

Post-natal women were also exhausted and psychologically stressed from struggling to cope with the pain (Engeset et al. 2014). Wuytack et al. (2015) found that the women felt they had no choice but to put up with the pain. The women in both studies thought it would have been easier to cope if they had been given more information after delivery from their hospital. Other coping strategies were planning well in advance, like the women during pregnancy, and relying on others for help where possible. If the pain was severe, they avoided leaving the house (Wuytack et al. 2015).

Discussion

This review has systematically explored the experiences of women affected by pregnancy related pelvic girdle pain. In total, eight studies answered the overarching research question of this review. They all provided detailed information about the women's experiences of daily life with PGP and how this affected them emotionally and psychologically. Every study answered the question about daily life, though two studies did not discuss life in the workplace (Engeset et al. 2014; Wellock & Crichton, 2007a). Three studies discussed the effect of PGP on identity (Crichton & Wellock, 2008; Elden et al. 2013; Persson et al. 2013). All the studies demonstrated how PGP affected their mothering role, the negative emotional and psychological effect of PGP and how the women coped with the pain of PGP.

The effect of pain on daily life and how women become dependent on family, friends and neighbours can be seen in other pain studies. In a qualitative study of chronic pain sufferers in a family context, Richardson, Nio Ong and Sim (2007) found a theme of relying on family members for practical support. Similar findings were identified in a US study of injured workers by Strunin and Boden (2004). They also identified similar issues around a lack of support in the work place as in the study by Elden et al. (2013). Care must be taken in interpreting experiences in the work place as each country will have different disability, sickness and maternity laws. In addition, different organisations will also have their own cultural attitudes towards sickness and disability.

Three studies showed how the pain of PGP impacted on the women's identities. Other qualitative studies have had similar findings. A review of qualitative studies by Osborn and Rodham (2010) identified that pain affected people's sense of self and identity and they felt detached from the person they had become.

All the studies showed how PGP impacted on the women's mothering roles and the guilt they felt for being unable to fulfil their childcare duties. This was consistent across all the studies regardless of the country of study. Women with children feel a social pressure to be the ideal mother. When the mothering role is affected by disability it can lead to feelings of guilt and frustration in the mother (Farber, 2000; Shpigelman, 2015). Disabled women can feel judged for becoming a mother because they are considered to be unable to care for their children properly (Grue & Laerum, 2002; Prilleltensky, 2003).

All the studies identified that the pain from PGP led to negative emotional and psychological effects such as low mood. There were also greater fears around the birth due to extra pain from PGP (Elden et al. 2014; Shepherd, 2005; Crichton & Wellock, 2008). Close et al. (2016) identified similar findings in a qualitative study on LBP in pregnant women. Gukte et al. (2007) found that women with LBP in pregnancy were at a greater risk of postpartum depression. Many women in the included studies believed that sleep deprivation due to pain contributed to irritability and low mood. Robinson et al. (2006) found that 63% of women with PGP in their study woke regularly in the night due to pain.

Pain and coping were dominant topics among all the studies. Some women tried to cope by using analgesics and a few took more than recommended creating a risk to the unborn child. Similar findings have been found in Sinclair et al.'s (2014) study of women with LBP in pregnancy.

Assessing the reliability, validity and generalisability of studies is based on quantitative research methods and they do not always work well with qualitative studies (Silverman, 2011). Yardley (2000) suggests using a process of quality control for qualitative research and will be referred to in this review. The qualities are: sensitivity to context; commitment and rigour; transparency and coherence; impact and importance.

Purposeful sampling was carried out in all the studies to make sure that all targeted participants were clinically diagnosed with PGP and not general LBP. Six studies reported carrying out further testing for PGP if there was any doubt about the diagnosis.

Purposeful sampling with clear details on the recruitment process is recommended to improve the validity for qualitative research. (Creswell, 2013). Therefore all the participants met the commitment and rigour standards of Yardley (2000). Ethical approval was also obtained for each study demonstrating sensitivity to context. All the studies demonstrated some level of impact and importance as each study demonstrated that PGP and the pain it causes has a physical and emotional impact on the women's lives.

Each study collected data using open-ended, in-depth interviews which were appropriate for the four different analytical approaches used in the studies and demonstrated coherence in study design. Sensitivity to social context was taken into account in all the studies as the interview locations were considered important by the authors. This could affect the answers given by the participants. The heterogeneity of the participants in each study varied in terms of age range, socio-economic background, educational level and ethnicity. The number of participants in each study ranged from five (Engeset et al. 2014) to twenty eight (Crichton & Wellock, 2008; Wellock & Crichton, 2007a). Engeset et al. (2014) did not state the age range, ethnicity or socio-economic status of the participants. This information would have improved the sensitivity to context in their research. Shepherd (2005) also did not report on the age range though she does state a variety of ethnic backgrounds and that English was not the first language of some women. The participant age range in Persson et al. (2013) was narrow, 27 to 33 years, however they did demonstrate a range of occupational and educational backgrounds. All the studies collected data from both primiparous and multiparous women except for Wuytack et al. (2015) who only include primiparous women.

A key word in this review was "experience". Six studies had aims explicitly stating they were exploring, describing or investigating women's experiences of PGP. Phenomenological methods are often used to explore and understand the human experience of specific phenomena (Willig, 2013). This process enables the researcher to engage with the phenomena produced by the participants' account of the research questions. Phenomenology can take either a descriptive or an interpretive approach. Descriptive phenomenology aims to describe specific situations lived through by participants in their everyday life (Giorgi & Giorgi, 2008). Whereas Interpretive Phenomenological Analysis (IPA) looks at how people make sense of a particular life experience (Smith, Flowers & Larkin, 2009).

Half of the included studies took a phenomenological approach. Three studies (Crichton & Wellock, 2008; Shepherd, 2005; Wellock & Crichton, 2007a) used Colaizzi (1978)'s

descriptive phenomenological approach. They all carried out respondent validation by asking participants to comment on the analysis (Silverman, 2011) demonstrating commitment and rigour. Wellock and Crichton (2007a) and Crichton and Wellock (2008) both provided rich and detailed information on the experience of PGP. However, Crichton and Wellock (2008) provided a better overall description of the effect on daily life and the emotional and psychological effects. Wellock and Crichton (2007a) took a more focused approach on the experience the pain. As both studies used the same participants this was most likely deliberate in order to cover a broad area between them. Shepherd (2005) also attempted to provide a rich description of how PGP affected women. However, there was a lack of sensitivity to context around existing theory. There was no reference to previous research in this area, limited reference to phenomenological theory and no discussion of the findings unlike Wellock and Crichton (2007a) and Crichton and Wellock (2008). Engeset et al. (2014) applied Lindseth and Norberg's (2004) interpretive phenomenological approach, however, they did not justify their choice of approach or relate it to phenomenological theory. The discussion on methodological strengths and weaknesses only refers to qualitative methods and not phenomenological methods. They therefore failed to demonstrate sensitivity to context of existing theory. The first author however, does carry out good reflection demonstrating transparency.

Grounded theory methods enables the researcher to develop a theory based on their research question (Charmaz, 2008). Persson et al. (2013) applied Corbin and Strauss's (2008) grounded theory approach using an abductive method. Data was collected until they reached saturation demonstrating rigour, however they lack transparency as they do not discuss their coding and category checking process. Transparency is shown through keeping reflective diaries during the research process. A conceptual model of the actions and consequences caused by the women's experience of PGP was developed from the results. The results were in line with the other included studies, though the model did not add anything further to the research. The authors did not state why grounded theory was the most appropriate method or why they needed to create their own theory. In the methods section they discuss life world. Lifeworld is a term used by phenomenologists meaning how a phenomenon appears in everyday life (Giorgi & Giorgi, 2008). The grounded theory approach was able to provide information about how PGP can affect women's daily lives. However, it was unable to reach the experiential detail in the same way as a phenomenological approach.

Elden et al. (2013, 2014) used inductive qualitative content analysis, a non-theory driven method. Elden et al. (2013) stated there was no previous qualitative research looking at

the experiences of women with PGP showing a lack of sensitivity to context in existing research. However, this was revised in Elden et al. (2014) to say limited research in this area. Both studies carried out rigorous data analysis to ensure validity. Content analysis has been criticised for not being a true qualitative method (Morgan, 1993), however, it is a popular method in health and psychology research (Elo & Kyngäs, 2008). Elden et al (2013) give good reasons for using a qualitative approach but do not justify why content analysis was the best choice. Elden et al. (2014) stated that a qualitative content analysis approach can provide different levels of interpretation of a phenomenon. However, IPA would have provided more depth to the analysis.

Wuytack et al. (2015) chose a thematic analytical approach. A rigorous approach to data analysis consistency was carried out and the main author kept a detailed reflective diary during the research process showing transparency. Their aim was to capture a rich description of the phenomenon and to stay close to the participants' descriptions of their experiences. According to Giorgi and Giorgi (2008) a descriptive phenomenological approach aims to achieve this and provide psychological meaning to those experiences. Wuytack et al. (2015) may have been deterred from using a phenomenological approach by Sandelowski's (2010) discussion on poor phenomenological research.

In considering the strengths and weaknesses of this review, most of the participants lived with partners so the experience of single mothers is not explicitly reported. Partner status would have affected the level of the women's support. All the studies took place in four Western European countries in which women are able to be independent and are accepted in professional roles. The women also may have had less social support from extended family which is normal in many other countries. Therefore, findings are culturally embedded. In addition, it is unusual not to have any US based studies.

Qualitative studies naturally have lower numbers of participants than quantitative studies so it cannot be assumed that all women with PGP will experience the findings in this review. However, some quantitative studies in this area have found it difficult to recruit large numbers of women with clinically diagnosed PGP (Elden, Gutke, Kjellby-Wendt, Fagevik-Olsen & Ostgaard, 2016; Gausel et al. 2014). By applying a textual narrative synthesis to the findings of these studies the review has been able to identify similarities and differences within the studies. The textual narrative synthesis revealed that all eight studies identified how the pain of PGP affected all the women's daily lives and had a negative emotional and psychological impact. Using a textual narrative synthesis has also helped to keep the heterogeneity of the studies and showed that some women feel that

their identity changes particularly in terms of professional identity and identity as a "proper mother". Other meta-synthesis approaches such as thematic synthesis (Thomas & Harden, 2008) and meta-ethnography (Noblit & Hare, 1988) would lose heterogeneity through the generation of new theory. However, it would be interesting to carry out a comparison with one of these methods.

Conclusion

This review has systematically explored the experiences of women affected by pregnancy related pelvic girdle pain. The studies in this review provided detailed information about the women's experiences of daily life with PGP and how this affected them emotionally and psychologically. All the studies demonstrated how PGP affected their mothering role, the negative emotional and psychological effect of PGP and how the women coped with the pain of PGP.

This meta-synthesis puts a spotlight on the reasons why PGP should be recognised as a serious health issue. Health professionals working with pregnant and postnatal women need to be aware of the anger, frustration and negative emotions women suffering with PGP may have. In addition, the women are likely to be tired and irritable as a result of the pain. These women may be unhappy identifying as a disabled person and may become socially isolated. Financial pressure due to being unable to work may add to their emotional distress. If the women have young children it is important to be aware of safety issues they face with carrying babies and controlling toddlers. Young children will not understand their mother's pain and reduced interaction may have a negative effect on the children.

The women may not have others to rely on for help and therefore feel that they have to put up with as much pain as they can bear to carry out essential tasks. Coping with this pain could put the women at risk of abusing analgesics which can be dangerous especially in pregnancy. It is therefore important that health professionals approach this condition sensitively and refer to appropriate treatment as soon as PGP is suspected.

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Section C - Professional Practice

Generic Professional Competence

Contents

Introduction

When I began my Professional Doctorate in Health Psychology training, my role in the work place was very different to what it is today. I am still working in Public Health yet I can look back and see how far I have come since those early days of attending my first workshop at the university. My first role, back in 2014, was as a Public Health Analyst in a Home Counties upper tier local authority. My main responsibility was to provide health and population data to the Public Health Directorate to inform the commissioning of services. Now in 2019 my role is the Public Health Evaluation Lead in which I lead on the evaluation of health services and interventions both within Public Health and in other areas of the Local Authority. It is a much broader role which includes elements of all the competencies of the Professional Doctorate.

At the same time as starting the Professional Doctorate, the Director of Public Health was also keen to encourage the use of Health Psychology concepts within Public Health. Therefore I feel that my role has grown alongside the growth of Health Psychology in Public Health in my local authority. One of the key challenges for me has been to apply the knowledge and skills of health psychology in a non-patient facing role. Although I have sought experience for some of the Professional Doctorate competencies outside my contracted role, it has encouraged me to consider the wider remit of who my clients are and to think outside of the box in applying health psychology theory and techniques in my day to day work.

Professional Autonomy and Accountability (1.1a, b)

Working within the legal and ethical boundaries of health psychology has been a core part of my work. Throughout my time on the Professional Doctorate I have worked with sensitive data and information both through research and day to day work. It has therefore been essential for me to familiarise myself with the British Psychological Society's Code of Conduct and Ethics (2018), the Health Care Professional Standards of Conduct, Performance and Ethics (2015) as well as safeguarding procedures and internal data protection regulations of the local authority which comply with the General Data Protection Regulations (2018). Therefore whenever I collect and handle data, I follow these guidelines and complete an internal Data Protection Impact Assessment and seek

advice from the Data Protection team if necessary. In addition, I always consider the ethical implications of how I go about collecting data.

Even though I do not have face to face contact with service users, I am still mindful about the power imbalances between a local authority and their service users and make sure I practice in a non-discriminatory manner when working with data. This is particularly important for Health Psychologists as they rarely reflect the population they work for in terms of social and educational background (Michie, 2004). For example, I demonstrated this through the analysis of our organisation's annual Improving Health and Lives survey for people with learning disabilities. When analysing the free text data, I was always mindful that I was making decisions about the interpretation of this data from this group of vulnerable residents and how the results would be reported to senior commissioners. In addition, I found within the free text comments evidence of potential abuse of a service user by their carer. Therefore I followed safeguarding procedures to report this issue.

In order to practice as an autonomous professional, it is essential that I manage my time and work in a professional manner. I always work on several projects simultaneously, therefore I prioritise my workload through diary management and task lists to meet the needs of my clients. In my role as the Public Health Evaluation Lead, my main clients are other teams in Public Health, Adult Care Services and third sector organisations. One of the biggest challenges is working in an environment with an ever reducing budget and increasing demand for services. Therefore I am mindful of how much I can commit to. Therefore I either have to decline some work or ask for financial contributions for larger projects. This approach has enabled me to increase my contracted hours and take on some fixed term contract employees to carry out the extra work.

To minimise unnecessary risk to myself and clients, I take care to work within the boundaries of my qualifications and capabilities and I am aware of my limits to my working practice. I have found it helpful to build up a network of people in specialist areas I can call on for support when needed and make use of supervision. For example, when I set up a working agreement with an external client for some chargeable work, I sought the advice of a senior commissioning manager to ensure that I had covered all areas of the agreement and had not put myself at risk with any legal issues.

Since starting the Professional Doctorate, I have come across several personal and work related challenges. One of the biggest challenges was returning from maternity leave at the end of my first year of the doctorate. As well as adjusting to juggling working life,

university and childcare, I found that the work place I left before going on maternity leave was a different place to when I returned nine months later. I felt that there was not a role for me to come back to as my maternity cover was not keen to hand back my role and I felt my professional ability was being judged. Reflecting back, I can see how this affected my confidence as a professional especially at a time when I felt quite vulnerable. However, with the support of my academic supervisor and from speaking to another colleague, another trainee health psychologist, I was able to see that this may have been a combination of unconscious bias and assumptions about working mothers from others. In addition, I felt there was resistance to the implementation of Health Psychology in Public Health by some members of the Public Health team. Public Health as a discipline has been established for a lot longer than Health Psychology. Some members of the wider team may have felt that their traditional ways of working were threatened by new ways of working following the introduction of Health Psychology into Public Health.

My academic supervisor encouraged me to find my own specialism within health psychology to develop and to raise this issue with my line manager and workplace supervisor. I chose to concentrate on the evaluation of services and interventions as I felt this was an overlooked area within our public health team. After a period of time I requested to have my job description re-written and re-graded. I found this process pushed me far out of my comfort zone and it took two re-writes and re-gradings to get to my current position and grade. However, looking back, I am glad I went through this process as it has helped me to develop professionally and I feel that I am respected for my work by other members of the wider team.

Continuing Professional Development (1.1c)

Throughout the Professional Doctorate I have engaged in continuing professional development (CPD). I have aimed to cover a broad range of topics in order to help me achieve my competences and develop my role in the workplace. I have attend training courses, conferences and the university workshops. Examples of my learning include applying health psychology theory to public health and learning specific skills such as 'R' and 'CBT principles'. In addition, I have found attending workplace journal clubs helpful as it enables me to see how other people's interpretations of research differ from my own. I am aware of the importance of keeping up to date with the literature so that Health Psychology theories shown to be weak are replaced with more appropriate theories

(Michie, 2004). For example, we are encouraged to apply behaviour change models to public health interventions. Yet the NICE recommendations have received criticism for only predicting behavioural intentions and not the actual behaviour (Stainton Rogers, 2012). Another issue is that some models are better suited at an individual level rather than the population level which Public Health work with. Taking these issues into account and drawing on my CPD learning, I therefore feel the Behaviour Change Wheel (Michie, van Stralen & West, 2011) is currently the most appropriate model for my work which is normally at the population level. However, I am aware that future research could always challenge this.

Over these last few years I have endeavoured to apply my learning to the workplace and put myself in the stretch zone in order to develop my professional skills. Too often I have seen people attend training courses and then return to work and go back to their comfortable old ways of working. Although the origin of the comfort-stretch-panic model is unclear, it is recognised that most learning and development takes place in the stretch zone (Palethorpe & Wilson, 2011). I have found that engaging in reflective practice has helped me to stay in the stretch zone and recognise how my learning will be limited by remaining in the comfort zone. However, I am also aware of the risks of the panic zone so it is about getting the right amount of stretch. Through reflective practice I can consider what has and has not worked so well. For, example reflecting on a training course I have run. At first I used to focus on the negative in my reflective practice which was not good for my confidence. Now I can see that it is just as important to reflect on the positive as that boosts confidence.

One area I decided to stretch myself in was publishing. I received good feedback for my systematic review and was offered support by one of my supervisors to get this published. Although the thought of going through the peer review process made me feel nervous due to the bad things I had heard about it, I decided it was a hurdle I had to overcome. In reflection, the process was not as bad as I feared and my systematic review (Mackenzie, Murray & Lusher, 2018) was published in Midwifery in January 2018 and this gave me a great confidence boost.

Through reflective practice I was able to identify that understanding leadership skills was a challenge for me and this was something I needed to work on. This encouraged me to apply for an internal leadership programme with the support of my workplace supervisor. I was offered a place and it has provided me with new insights to leadership. This course included a 360 degree appraisal in which I was able to see that my expectations of myself

were more demanding than most of my colleagues. In addition, an important take away message for me was to be comfortable with being uncomfortable. Therefore I am now able to see that it is acceptable to take on new challenges without having to know all the detail and people are not always judging my performance.

Communication, Advice and Guidance (1.2a,b)

Communicating effectively has been an important part of my work as a health psychologist and I am aware of the importance of using the appropriate language and communication methods for the target audience or client group. For example, when I ask for consent from participants taking part in interviews or focus groups for research or evaluation, I consider how I present the information participants need so they can make an informed decision to give consent to take part.

When teaching or training different clients groups, I tailor the language and the ideas within the course materials so it is appropriate for the target audience. During my evaluation training sessions with third sector clients, who deliver physical activity interventions, I ensured the ideas of evaluating services and interventions were based on a simple study design as evaluating services was a new concept to them. In addition, I was aware that the word 'intervention' was perceived as too academic for this group and the word 'programme' was more acceptable. On the other hand, when I taught MSc Health Psychology students, I covered more complex study designs and used the word 'intervention' as these concepts were more appropriate for this group.

Over the last two years I have been working on a physical activity intervention, funded by Sport England, targeting elderly people. During the design of the intervention evaluation, I discovered that older people found the behaviour change technique 'goal setting' off putting which prevented them from engaging. As the aim of the intervention was to encourage older people to increase their physical activity levels, I had to find an alternative way to achieve the same outcomes using different language. Therefore I developed an 'aims and achievements' worksheet with my colleague which was more acceptable to the service users. This worksheet was also designed to be easy to evaluate, so I could determine if this behaviour change technique had the desired effect on the participants. When I presented this worksheet to Sport England they were excited about this novel approach and are keen to find out how well it works. If it works well, it could be recommended for use in other interventions to this client group. Feedback so far

is showing that the worksheet is encouraging service users to actively engage in the intervention.

For my behaviour change competency, I felt that my regular working role did not give me enough of an opportunity to engage in therapeutic relationships with clients. Therefore I chose to design an intervention based on psychological theory that I could run outside of my day to day work. I decided to design an intervention to support parents of children who were not keen to eat healthy food as I felt there was a gap in this area. Most interventions in public health focus on educating parents about healthy eating and fail to take into account the child's willingness to eat the food and the personal interactions between the parent and child. Having a fussy eater myself I was able to easily establish a rapport and empathise with my client and felt that I was able to work with her in a non-judgemental manner. Feedback from my client was good and she reported that she felt supported and able to use the psychological techniques we discussed when appropriate with her young son.

Collaborative Working and Leading Groups and Teams (1.2c,d)

When I returned from maternity leave four years ago, I found myself and my immediate team working in a silo concentrating on population health data. I felt this was not good working practice and it would be difficult to complete all my Professional Doctorate competencies working in this way. I raised this issue with my line manager and their manager and although there was not much appetite for this way of working, I got the go ahead to make some links with evaluating services. Although it took some time to get off the ground, I have now made many professional links and I am actively applying the principles of change management and organisational development in terms of evaluating services to improve the health and wellbeing of local authority residents. I am finding working collaboratively across departments (Adult Care Services in particular) in my local authority more productive and interesting as we are able to share knowledge and insights into different ways of working across teams and departments. This way of working is encouraged by the leadership course I attended due the nature of a systems approach to working. Health organisations are very much part of a system and cross the boundaries of several different NHS organisations, local authorities and third sector organisations. I am now finding that people from other areas of my local authority are coming to me to ask for advice and support which is encouraging.

As a result of these changes, I am working with Adult Care Services to lead on evaluating a large social prescribing project which involves several organisations. Due to the scale of the project, it has not been easy to put in place an evaluation plan with appropriate measures and I have had to overcome resistance from staff not wanting to engage in service evaluation. For example, to encourage link workers to collect evaluation data from service users, I arranged a couple of workshops to discuss with them why we were evaluating the service and to get feedback from them to find out what issues they had about collecting the data. I discovered that as well as time being an issue for the link workers, they also felt unsure about asking their clients about their wellbeing using the SWEMWBS measure (Tennant et al. 2007). They were concerned the questions could trigger an emotion reaction in which they may not be qualified to deal with. From these finding we were able to have an open discussion about the importance of asking about wellbeing so that if there is a problem they can refer onto someone who is qualified to manage these issues. I also encouraged the link workers to make use of supervision, which they all had, for these issues. In addition, I assured them that this wellbeing measure was produced by a reputable university and had been well tested.

I have found that attending the internal nine month leadership programme, New Horizons, has had a positive effect on my leadership skills. I have found this course has increased my confidence in leading teams and implementing change. I am now clearer on how leadership differs from management and the different styles of leadership that people chose to use. I have found that leadership style also needs to adapt to the situation you are in. With my direct reports I prefer to use an empowering style (Tannenbaum & Schmidt, 1958) as they are closer to their projects than I am and I trust that they can do a good job. When working in multi-disciplinary teams I prefer to use a democratic leadership style (Goleman, Boyatzis & McKee, 2004) to encourage cross working. However, if there is something essential to a project that needs to be done an authoritarian approach is better placed. Using an authoritarian approach in the work place is something I have had to work at. However, as my confidence as grown over the last few years I have found it easier to use when appropriate.

Reflective Summary

Reflecting back over the last four and a half years, I can see how far I have come as a professional in terms of skills, influence and confidence to implement my knowledge learnt through the Professional Doctorate. Although it has been very challenging at times, I do not have any regrets to taking on this challenge. I can also see how my team is more open to health psychology and aware that it is much more than a one to one counselling role. Working to complete each competency has made me work in the stretch zone even when I was feeling resistance from people around me. By stretching myself and carrying out work beyond my original job description I have been able to create the role I am in now.

Even though I am close to completing the Professional Doctorate, I intend to continuing developing myself professionally through self-reflection and taking on new challenges. I plan to continue implementing change in my work place and I have identified some key areas to work on with like-minded colleagues across the local authority. They are also keen to embed theory, evidence based practice and evaluation into everyday working practice in order to work in the most time and cost efficient way to produce the expected outcomes.

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Behaviour Change Intervention

Contents

Introduction

This intervention aimed to help parents of under 5s get their children to eat healthier diets in order to avoid long term health problems such as obesity related diseases and tooth decay. Although there are already interventions available for this population, they tend to focus on how to cook and eat healthily. Many parents already know how to cook and eat healthily, but they still struggle to get their children to eat healthy food. Therefore there is a gap for interventions in this area.

This case study includes a baseline assessment, the theory behind the behaviours which inhibit and re-enforce healthy eating in young children, the design and delivery of the intervention.

I chose to carry out my intervention in this area as this is a common topic of frustration among my parenting peer group. I also have first-hand experience of this problem with my three year old which has led me to carry out research in this area. This intervention was carried out in 2017/18 and evaluated as a case study with one participant.

Designing and implementing the baseline assessment

I started by carrying out a baseline assessment which I wrote up as a briefing note (Appendix A) for the Hertfordshire Health Evidence website. Briefing notes are aimed at commissioners and designers of health interventions to inform them of health issues in specific populations which need addressing. This assessment included: the latest statistics for childhood obesity and children's dental health in Hertfordshire; a literature review of pre-school healthy eating interventions; the results of a local questionnaire with parents on young children and healthy eating and my conclusion to the review.

As I worked as part of this team and I was carrying out a Professional Doctorate in Health Psychology I determined that I was competent to carry out this assessment.

Background to healthy eating in pre-school children

Eating behaviour and dietary quality during childhood can have a long term impact on an individual's health throughout their lifespan. Eating behaviours learnt during childhood can be difficult to change once an individual reaches adulthood (Birch, Savage & Ventura, 2007). Poor diet and eating behaviours in children have been linked to obesity and dental caries (Hooley, Skouteris & Millar, 2012). As a result, overweight children are more likely to become overweight and/or obese adults (Reilly et al. 2003). Obesity has been linked to many long term health problems including type 2 diabetes, cardiovascular disease, stroke and reduced lifespan (Reilly & Kelly, 2011). In addition, a poor diet (particularly high in sugar) can impact on dental health due to the interaction of sugars with saliva in the mouth (Selwitz, Ismail & Pitts, 2007).

In 2016/17, 22.6% of children in England started school either overweight or obese, which is just over one in five children (National Child Measurement Programme, n.d.). In terms of dental health, in 2014/15, approximately 20% of five year olds in England had one or more decayed, missing or filled teeth (Public Health England, 2015) and between 2013/14 and 2015/16, 24,816 children aged 4 and under were admitted to hospital for dental caries (Hospital Episode Statistics, 2016). Hospitalisation for teeth extraction can be a traumatic experience for both the child and their parents (Albino, 2002) so it is therefore best avoided.

Review of existing interventions aimed at parents of pre-school aged children

I carried out a literature review of pre-schooler healthy eating interventions to determine what already existed. I concluded that there were limited existing interventions for improving dietary quality in under 5s as most existing interventions focus on reducing childhood obesity in school age children (Mikkelsen, Husby, Skov & Perez-Cueto, 2014). For the few interventions that do focus on under 5s, they are aimed at improving parental healthy eating knowledge and cooking skills. Although Public Health England (2017) recommends addressing healthy eating as part of preventing tooth decay, most recommended interventions only focus on tooth brushing and the use of fluoride (Public Health England, 2016).

In the UK, the two main interventions aimed at under 5s which have been evaluated and published are the HAPPY intervention (Taylor et al. 2013) and HENRY (www.henry.org.uk).

The HAPPY intervention was developed using intervention mapping and behaviour change techniques (Abraham & Michie, 2008). It targets overweight and obese pregnant women up until nine months after the birth of the child. It is a group based intervention and aims to help mothers manage their weight through healthy eating and physical activity as the mother's weight is considered to be a precursor to childhood obesity (Taylor et al. 2013).

HENRY (Health Exercise Nutrition for the Really Young) is an eight week group based intervention which addresses eating behaviours, dietary intake and parental self-efficacy. It has been widely implemented across the UK. It was developed using guidance from the COM-B behaviour change model to identify specific health related behaviours which require changing (Bryant et al. 2017). The intervention uses weekly goal setting to help parents focus on changing a specific health behaviour. Evaluations of this programme have shown good results (Willis et al. 2014; Willis, Roberts, Berry, Bryant & Rudolf, 2016). However, parents who already have good healthy eating knowledge and cooking skills may be put off by the nutrition education part of the intervention.

Local area healthy eating questionnaire for parents of pre-school aged children

To gain an understanding of how local parents and carers feel about their children's eating behaviours, I created a questionnaire (Appendix B) based on the COM-B model (Michie, van Stralen & West, 2011). In this model, behaviour is considered to be determined by an individual's capability, opportunity and motivation to engage in a particular behaviour (see Figure 1 below). Each component can be divided into two dimensions to analyse behaviour. I used the COM-B model to look at the physical and psychological capabilities, physical and social opportunities, reflective and automatic motivations of parents and carers in order to determine the underlying behaviours in the provision of healthy meals for their children.
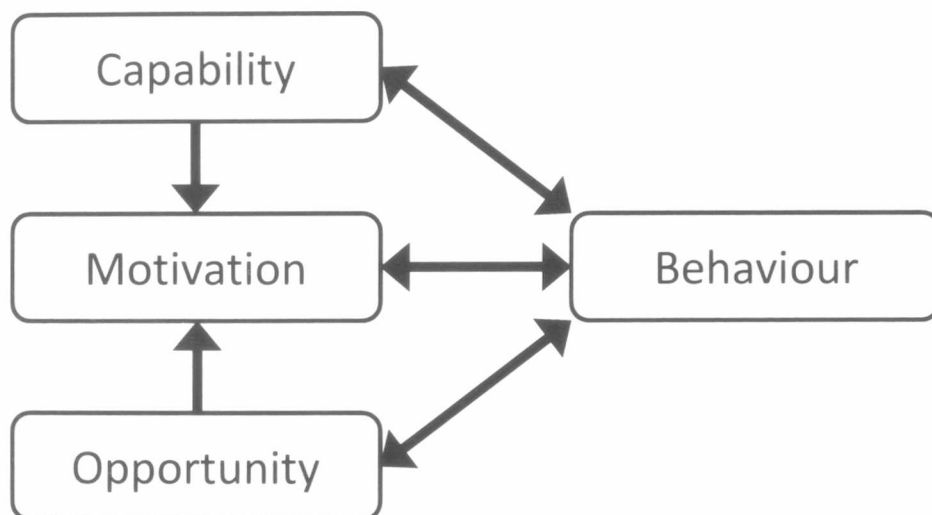
Fig 1 – COM-B model – (Michie et al. 2014)

I began the process by brain storming my ideas on parental concerns around healthy eating and the barriers they could face. I then mapped the questions to the Theoretical Domains Framework (Michie, Atkins & West, 2014). This enabled me to have an even spread of questions and remove duplicate questions. The questionnaire also asked parents and carers what support they would like and how their children currently reacted to healthy food.

Before putting the questionnaire online, I ensured the privacy notice at the start of the questionnaire met current data protection requirements and I checked if needed to register the questionnaire with the data protection team. As the questionnaire was anonymous and I was not collecting any personal data this was not required. The questionnaire was carried out using Smart Survey and circulated via Hertfordshire Children's Centres' Facebook pages.

Reflection

Writing and researching the briefing note was a really useful exercise in understanding a problem that I was all too aware of from both my own experiences and from speaking to my peers with young children. I found the process of putting the questionnaire together helped me to gain a better understanding of how the COM-B model works and how it can be used for the foundations of intervention design.

Assessment outcome and working hypotheses

Questionnaire results

In total, 171 people completed the questionnaire. The majority of respondents (89%) had either one or two children under 5 and most respondents were the child(ren)'s mother.

Overall most respondents were capable in feeding their children healthy food. Nearly 90% of respondents thought their knowledge of healthy food was either good or very good (psychological capability) and 93% said they were able to cook and provide healthy meals for their children in the home (physical capability).

In terms of motivation, 50% of respondents believed their children already ate a healthy balanced diet and 90% felt it was possible to get their children to eat healthy meals (reflective motivation). On the other hand, 34% of respondents were concerned at least some of the time that their children's health may be affected by their current food preferences and 63% would like their children to eat healthier meals. Approximately 50% of respondents had some concern about their children's food choices (automatic motivation).

Many respondents reported that the opportunities to get their children to eat more healthily were difficult. For example, respondents reported that eating out was difficult due to no control of food and drinks served in nurseries and poor choices on menus at cafes and restaurants (physical opportunities). Time was cited as a problem both in terms of the child wanting food instantly and the parent cooking food they did not think their child would eat. Nearly 20% felt that they lacked support from others to encourage their children to eat healthy food (social opportunity).

Behaviour toward some foods given to children was reported as an issue by some parents. The most common foods rejected were vegetables, meat and fish. Novelty was a problem and some children changed their minds about their likes and dislikes on a regular basis. Children also had tantrums about the food and put pressure on their parents to provide different food and juice/squash.

In terms of support, 43% of respondents would like to be able to access advice on encouraging their children to eat healthy food. Twenty five percent would like to access

written support such as on a website, 10% attend a course and 8% to access one to one support.

Baseline assessment conclusion

In conclusion, areas with higher levels of obesity and tooth decay would benefit from HENRY as a first choice for a group based intervention especially if parents/carers lack nutritional knowledge in terms of psychological and physical capability. However, for the parents/carers who have already tried educational programmes like HENRY or believe they are nutritionally aware and are still struggling with the behavioural side of healthy eating, one to one support may be appropriate. One to one support should be based on psychological theory, evidence to support these behaviour change techniques and emotional support for struggling parents.

Reflection

I found the questionnaire results interesting in terms of how many parents/carers already considered themselves to be knowledgeable on healthy eating and preparing healthy meals. In a way I am not surprised as this is one of the reasons I chose this topic area as conversations from my peers with children mirror similar results. From watching television documentaries on children's diets, it is easy to falsely believe that many children are brought up in families that cannot cook and do not understand healthy eating. However, I am also aware that Hertfordshire is a fairly well off and well educated county compared to other areas of the UK so this county will have different needs to the more deprived counties.

In addition, I have to consider the type of people who would complete my online questionnaire. As the questionnaire was advertised via the children's centres Facebook pages, I am aware that children's centres struggle to reach some of the parent's really in need of their services, so these people are unlikely to have answered the questionnaire.

Behavioural issues and influencing factors

The underlying behavioural issues to this problem can be found both with the child and the main caregivers. It is therefore important to consider the context that these behaviours sit within. Over the decades, the meaning of food has changed from being

just a source of nourishment to becoming a source of pleasure, comfort and a lifestyle marker (Dehghan, Akhtar-Danesh & Merchant, 2005). Both parents and children are influenced by the pressures of food advertising and packaging of unhealthy foods (Ogba & Johnson, 2010). Parents are also living in a time poor society in which quick meal solutions are attractive (Paes, Ong & Lakshman, 2015).

While the COM-B was helpful for understanding the behaviours of the parents and carers, I found that Social Cognition Theory (SCT) was required to understanding the child's behaviour and the interactions between the parent/carer and the child.

SCT explains how people's behaviour is the result of a combination of cognitive, environmental and other personal factors (Bandura, 1986). It can be used to explain the difficulties that some parents may face when trying to improve their children's diet. A key component in SCT is self-efficacy. In order for a parent to attempt to make changes to their children's diet (and their own diet if necessary) they require a good sense of self-efficacy. Perceived self-efficacy is the belief that you have the ability to implement change and has a direct influence on the individual's behavioural goals and then their actual behaviour (Bandura, 1997). The relationship between self-efficacy and the behavioural goals are mediated by outcome expectances and socio-structural factors as shown in Figure 2 below:
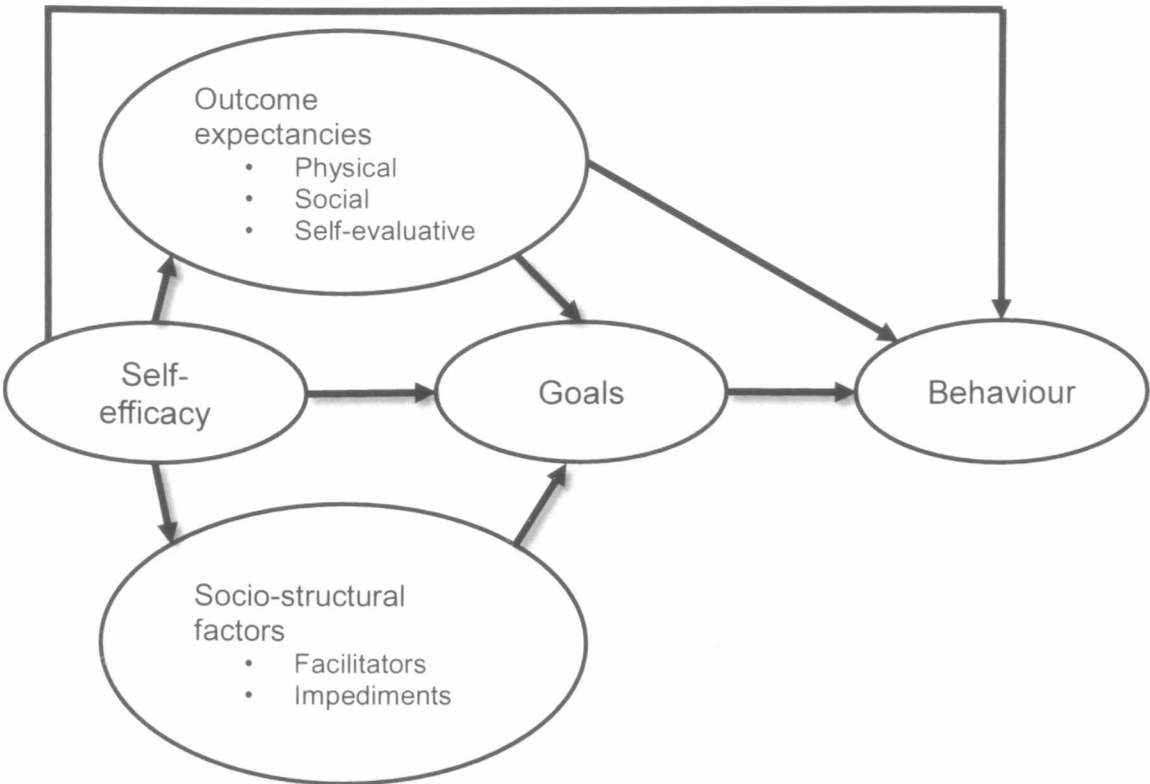

Fig 2 - Social Cognitive Theory – (Bandura, 2000 in Luszcynska & Schwarzer, 2015)

In attempting to encourage children to eat a healthy diet, parents/carers will normally face several barriers put up by the child(ren) such as picky eating and food neophobia. Food neophobia is a rejection of unknown or novel foods and a normal stage that all young children go through. The peak age for food neophobia is between two and three years. Picky/fussy eaters are children that do not have a varied diet and reject many foods which are both familiar and unfamiliar to them (Dovey, Staples, Gibson & Halford, 2008). These experiences will affect the parents' outcome expectancies and in turn may lead parents to believe that they cannot get their children to eat healthy food. Referring to the COM-B model, the parents' motivation to encourage their children to eat healthy food can fall as a result.

Parents may resort to high controlling parental practices by either restricting foods and/or putting pressure on children to eat. This can create negative emotions and reactions towards specific foods and result in further rejection of healthy foods and increased acceptance of unhealthy foods (Lafraire, Rioux, Giboreau & Picard, 2016). Too much pressure to eat a healthy food can increase the child's dislike for the food and reduce the child's ability to regulate intake (Galloway, Fiorito, Francis & Birch, 2006). Another problem is using food as a reward as this can increase liking for the reward food and decrease the liking for the food the parent/carer actually wants them to eat (Wardle & Cooke, 2008). In addition, it is possible that food rejection by the child may increase the pressure parents/carers put on their child(ren) to eat specific foods, creating a vicious circle. Unfortunately there is a lack of evidence in this area to confirm this (Lafraire et al. 2016).

Barriers in terms of socio-structural factors may include lack of time to cook healthy food, parents believing they cannot afford to buy healthy food and pressure from their children for unhealthy food (Paes et al. 2015). Some parents/carers may become concerned that their child will not eat anything at all due to rejecting the healthy options and may resort to unhealthy food in desperation (Ogden, 2014).

An external locus of control may also be a problem for a parent/carer. People with an internal locus of control believe they are able to take responsibility for the outcome of a situation or health issue. Those with an external locus of control believe that they have no control over the outcome of a health issue and believe that any outcomes are down to external factors such as luck (Rotter, 1966).

According to Social Learning Theory (Bandura, 1971), children learn by observing other people's behaviour and the consequences of that behaviour. If children observe that the behaviour of others receives a positive response they will attempt to model that behaviour. Therefore if the child(ren)'s parents/carers eat a poor quality diet and observe no negative consequences, they will copy this behaviour. Conversely, if they see their parents/carers eat a healthy diet they are more likely to consume a healthier diet (Wardle & Cooke, 2008). For example, consumption of fruit and vegetables tends to be higher in children who have parents that eat plenty of fruits and vegetables and eat at the same time as the children (Scaglioni et al. 2008). Children can learn from parents, family members, other significant carers, peers and even characters on television programmes (Ogden, 2014).

Design, formulation and delivery of the intervention

Aim of the intervention

The aim of this intervention was to help parents/carers of pre-school aged children identify the issues they had in improving their child(ren)'s eating behaviour. This would help them to encourage their child(ren) to eat a greater variety of healthier food and reduce reliance on unhealthy food. In addition, the intervention aimed to improve parental self-efficacy and manage emotional feelings towards the situation.

Intervention design

Based on the outcomes of the assessment, I determined that this intervention needed to focus on the COM-B model components opportunity and motivation as capability was not a reported issue. In terms of SCT the components to work on were self-efficacy, outcome expectances and the client's perception of barriers and opportunities to their goals to help them feel more in control of the situation (Luszcynska & Schwarzer, 2015).

The expected outcomes of the intervention were:

- Improved parental self-efficacy around the child's diet.
- Improved the parent's emotional feelings towards feeding their child.
- Increased variety of healthy foods consumed by the child

As this was a one to one intervention that was tailored to individuals, I recognised it was impossible to entirely predict the clients' problems. Therefore flexibility was designed into the intervention. I created a template to work from and adapted this to the needs of the client after the initial session (Appendix C). I decided to aim for four sessions and space these over six weeks. I felt that it was important to have a reasonable amount of time to enable changes to happen, however, I was also aware that people drop out of interventions that are too long.

Although I ran this as a face to face intervention, I was also mindful of barriers to access including transport costs and access to childcare. Therefore I was open to using online technology such as Skype. I had access to private client rooms in the work place, but could also meet at alternative locations if they were private and safe for both myself (the practitioner) and the client.

I chose to use a combination of brief motivational interviewing techniques (Rollnick, Mason & Butler, 1999) and behaviour change techniques (Michie et al. 2014). The aim of using brief motivational interviewing techniques was to allow the client to feel that they had personal autonomy other the situation which would help to reduce resistance to change. With the behaviour change techniques, I created a table of 16 different techniques as a toolbox (Appendix D) which I could draw from during the intervention depending on the needs of the client.

Recruitment

I used word of mouth to recruit to this intervention. Through my parenting peers I was put in touch with two potential clients. I arranged a screening telephone call with the potential clients to make sure I was capable of working with them and they were within my limit of practice. I checked that their child did not have any health issues that would affect their ability to eat and that the client would be able to commit to the intervention. Only one client was able to commit to the intervention and I got verbal consent that she was happy to take part and for her information to be used in this report.

Delivering the intervention

Session 1

The first session lasted for 45 minutes and the aim was to gather enough information to understand the client's problems. Before starting, I explained my role, my qualifications and capabilities as a trainee Health Psychologist to my client in order to set her expectations. I repeated how I would use the information generated from this intervention and gained written consent (Appendix E) to use the data for this report.

Gathering information

I started this session by finding out about her family setting and her son and what she would like to achieve from this intervention.

I asked the client two questions to collect baseline information on how she felt about the situation. I asked her to rate (on a scale of 1 to 10) her feelings emotionally towards the situation and how much control (self-efficacy) she felt she had over the situation. I noted this down so that I could compare these ratings in the final session. Afterwards I gathered information using the typical day strategy outlined in Rollnick et al. (1999) in which I aimed to get the client doing most of the talking. I asked the client to take me through a typical day in their life in terms of food preparation, meals with her son and how he reacted around food. This took around 10 minutes and helped to establish rapport between the two of us and helped me understand in more detail as to what was happening.

To put the client at ease, I explained to her about food neophobia in young children and that this was a normal process of growing up. She felt better in knowing this and that she was not alone. I also explained that young children have little control in their lives and choosing what they will eat is one thing they can control.

I decided that a good place to start would be to record information about antecedents by keeping an observation diary of what food the client gives her son and how he reacts to it. I gave her the worksheet (Appendix F) to fill in for the second session.

Individual client formulation

After this session I created the client formulation below:

The client was a married stay at home mother with a 2 year old son. She was well-educated and felt that as she had given up paid employment she now saw this as her job/career and wanted to be the best mother she can be for her son. She described her son as an easy baby in terms of sleeping and weaning. At first he ate well but has got fussier as he has got older. Compared to her son's peers it seemed that other children are a lot more adventurous around food.

She felt frustrated that her son refused to eat the food she prepared and described it as soul destroying. She did not expect him to eat everything, but she wished he would just try some and not respond so negatively. Eating out was also challenging as he would not even eat anything from the children's menu or the adult menu. She tried eating as a family but it made no difference.

He ate little at breakfast time and ate most of his food at lunchtime and snack time. Teatime was the biggest struggle and sometimes he would not eat anything. Pasta with cheese, or yogurt and dried apricots were the only things he ate. He did not demand other food. However, the client then worried he would go to bed hungry and found him alternative food.

He knew which cupboard the food he liked was kept in and pointed to it for meals.

I felt that we needed to work on the client's self-efficacy and I should provide emotional support. As the client wanted help trying some techniques to improve his food variety I suggested trying the techniques below.

- Swapping meal times around to take advantage of lunchtime
- Not giving alternative food if tea was rejected
- Social reward - praise
- Material reward - stickers
- Giving her son a choice between foods to help give a sense of control.

Sessions 2 to 4

Over the following three sessions we tried out the options above. The client felt that rewards made no difference to her son's eating behaviour, nor did swapping lunch and tea around. She reported that by not giving her son an alternative tea, he still did not eat the meal and he was happy to go to bed without eating. As he did not make a fuss about this it was most likely he was not hungry. Off the back of this observation we discussed that children's growth slows down between the age of one and two. The client reported that she did not realise this and had always wondered why children's clothes sizes stopped going up so fast at this point. As a result she felt less concerned about teatime.

Although she felt frustrated with her son not eating the food she cooked, she did notice that her son was more likely to try something new if the food was not given directly to him to eat. For example, he tried some grapes he found on the table and was also interested in trying a food when he saw his older cousins eating the food. I explained to her about modelling behaviours (Bandura, 1971).

The client often referred to other mothers and their children when eating on play dates. I advised the client to be careful about comparing herself to others as this can create negative emotions. In addition, she will not see the full story and there may be other issues around food that these parents do not talk about. We then focused on the importance of positive peer support.

The client kept the observational diary for the whole intervention period so we could see what she had given her child and what he had eaten. She reported that the diary helped her to be more aware of what was happening and she found this a useful exercise. She said that when she looked back on it, her son was actually eating a greater variety of food than she actually realised. I was able to see this too.

For sessions two and four, the client's husband joined us and it was interesting to hear his perspective on the issue. He was less worried and believed that his son would eat better over time. This may have been because he was not as close to the situation as he worked long hours. He was able to provide further observations from weekend meal times that helped to re-enforce that the client's son was eating reasonably well.

By the end of the intervention, the client reported feeling better emotionally and felt that she was able to continue by herself as she could slowly see her son try new things as she was not worried that he was going hungry. She was still frustrated about him not always eating the food she cooked for him but accepted that this was going to happen sometimes. She decided to keep the food diary going as it reassured her when she worried about her son's eating.

Reflection

This was the first time I had run a one to one intervention like this and I often had to remind myself that I had to help the client find her own answers and I did not have a magical fix for her. It was about setting expectations for myself and the client. Running

interventions is outside of my normal job role and not something I do on a regular basis. Therefore, I sometimes felt out of my comfort zone. However, I am also aware that this is the only way you learn and get better at using skills.

Throughout the intervention I was mindful of the power imbalance between the client and myself. I chose to wear casual clothes and not work attire to reduce this. I was careful to not refer to my daughter's eating behaviour as this was not a comparable situation and I did not want the client to think my child always ate healthy meals. However, I was able to empathise that it can be a challenging time for parents. I made sure that I followed the client's needs throughout the intervention and did not stick to a rigid plan. I always reflected on each session and made notes for the following session.

I found the observation diary helpful too, and was pleased and surprised that the client did such a good job with it. This may be because she volunteered to attend the intervention and if I had a client who was unwillingly referred to me they would have been less likely to complete their homework.

Evaluation of the intervention

Evaluation method

As this intervention was for one person, I evaluated the intervention as a case study. Case studies should rely on data from multiple sources (Yin, 2014). The data for this case study included quantitative measures, a food diary, client feedback and my reflective notes.

In the planning phase, I set some objectives and outcomes that I wanted the intervention to achieve. These were to:

- Improve parental self-efficacy around the child's diet.
- Improve the parent's emotional feelings towards feeding their child.
- Increase the variety of the child's consumption of healthy foods

For this intervention evaluation, validated measures were not appropriate as I would not be able to determine any statistical significance in improvement. However, I did need to find a way of measuring the objectives above. Bandura (2006) suggested that response

scales are a useful way of measuring self-efficacy on a specific activity. Therefore I used a response scale (of 1 to 10) to measure self-efficacy and another for emotional feeling towards feeding children healthy food. A food diary was used to record the child's consumption and responses to food. At the end of the intervention, I gave the client a feedback questionnaire (Appendix H) to get her views on the intervention. She completed this after I left and e-mailed it back to me. This way she did not feel pressured to write something positive while I was present.

Evaluation results

Overall the client reported an improvement in both self-efficacy and emotional feelings towards feeding her child (Table 1).

Table 1: Results for self-efficacy and emotional feelings towards feeding healthy food

Measure	Starting score	Ending score
Emotion	5	7
Self –efficacy	4	7

The food diary showed myself and the client that her son was not eating as badly as she originally thought and that towards the end her son was eating slightly better than at the start of the intervention.

Overall the client reported that she was satisfied with the intervention and felt that I listened to her needs. She liked being able to talk to somebody that understood her concerns and offered support in a non-judgemental way. She felt reassured that she is doing a good job and her son is now eating a more varied diet. The client did not offer any suggestions for modifying the intervention. The client felt that she did not need any further support after the fourth session and was happy to continue by herself.

From my reflective notes, it was clear that the client was putting a lot of pressure on herself to be the ideal mother in trying to provide only the best food for her son. This may have come from her giving up a professional job to become a stay at home mother. She was comparing herself to other mothers in her peer group and felt that the other mothers were more successful with feeding their children. With the use of the food diary, the client was able to see that her son's diet was not as bad as she originally thought. By reducing

expectations on her son to eat, he gradually became more adventurous in trying new foods. She is now aware that her son will not let himself go hungry without making a fuss. With the understanding that fussiness over food in toddlers is normal and not to compare herself to others, she felt better about herself towards feeding her son.

Reflections on being a practitioner

As a practitioner I felt pleased that I was able to support the client and help her feel better about herself. At times I felt pressured to provide solutions for the client and I had to refer back to the literature to remind myself that the role of the practitioner is to help the client find their own solutions (Rollnick et al. 1999). This reduced the pressure on myself to come up with the right solution. I now feel more confident as a practitioner to carry out one to one interventions. However, I am also aware that next time I could have a less compliant client who could be more resistant to change.

Next steps

If I had to carry out this intervention again I would focus more on getting the client to come up with their own answers to their problems. I think that this intervention could work well as an online intervention using software such as LifeGuide as it could reach more people and they could carry out the intervention in their own homes. The local questionnaire showed a demand for an online intervention too so I will consider this for the future when the opportunity arises. It would also be a more cost effective intervention in times where budgets are continually being cut.

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Appendices

Appendix A – Briefing Note

Public Health Briefing Note
Health issues related to poor diet in children under five

Key Messages

♦ On average in 2015/16, approximately one in five children aged 4 to 5 years, were either overweight or obese in Hertfordshire.

♦ The average number of decayed, missing or filled teeth in 3 year old children in Hertfordshire was 0.30 teeth in 2012/13.

♦ To manage this issue support for parent/carers to improve their children's diets would be helpful.

♦ There are limited existing interventions aimed at tackling early childhood overweight and obesity and the main focus is nutritional guidance.

♦ It would be helpful to provide some support and guidance for helping parents who are nutritionally aware change their children's behaviour towards healthy foods.

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Background

What is the issue?

Eating behaviour and the quality of diet consumed during childhood can have a long term impact on an individual's health throughout their lifespan. Eating behaviours that are learnt during childhood can be difficult to change once an individual reaches adulthood[1]. Poor diet and eating behaviours in children have been linked to obesity and to dental caries[2]. Children that are overweight are more likely to become overweight and/or obese adults[3]. Obesity has been linked to many long term health problems such as type 2 diabetes, cardio vascular disease, stroke and a shorter lifespan[4]. In addition, a poor diet (particularly high in sugar) can also impact on dental health due to the interaction of sugars with saliva in the mouth[5]. Regularly eating a poor diet can also have an impact on a child's cognitive abilities[6].

Local evidence

The prevalence of overweight and obesity in children aged 4-5 in Hertfordshire has fallen in the last five years, figure 1 shows that in 2015/16, 19.1% of children aged 4 to 5 were still considered to be either overweight or obese. Although this is significantly lower than the England rate of 22.1%, it still equates to nearly one in five reception aged children. Within Hertfordshire in 2015/16, Broxbourne had the highest rate of early childhood overweight and obesity at 22.5%. This was significantly higher than the Hertfordshire average. St Albans had the lowest level of early

childhood overweight and obesity at 16% and was significantly lower than the Hertfordshire average. This shows that obesity levels vary across the county.

Reception: Prevalence of overweight (including obese), Persons, 4-5 yrs
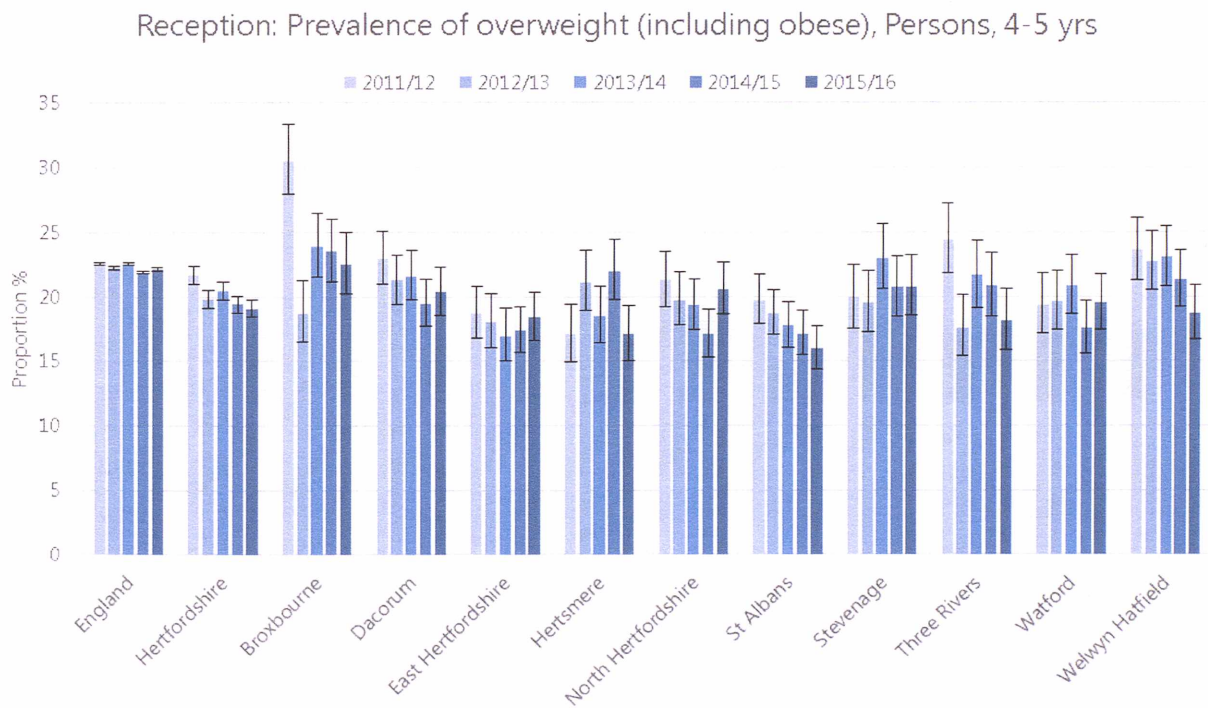

Source: National Child Measurement Programme (NCMP)   PH.Intelligence@hertfordshire.gov.uk

Figure 1: Prevalence of overweight & obese children 4-5

For more information on the NCMP data and the yearly trends of changes in overweight and obesity levels, please see the **Hertfordshire NCMP briefing note** on the Hertfordshire Health Evidence website.

Figure 2 shows that in Hertfordshire in 2012/13 the mean number of decayed, missing or filled teeth (dmft) among three year olds was 0.30 teeth per child. Although this was lower than the England average it was not significantly lower. Within Hertfordshire, Stevenage had the highest rate with 0.68 decayed, missing or filled teeth among three year olds which is double the average for Hertfordshire. St Albans had the lowest number with 0.16 decayed, missing or filled teeth per three-year-old child. Broxbourne and Stevenage had the highest levels of overweight and obesity in Hertfordshire and the highest levels of tooth decay. This supports the correlation between obesity and dental caries[7].

Decayed, missing or filled teeth (DMFT) in three year olds, persons
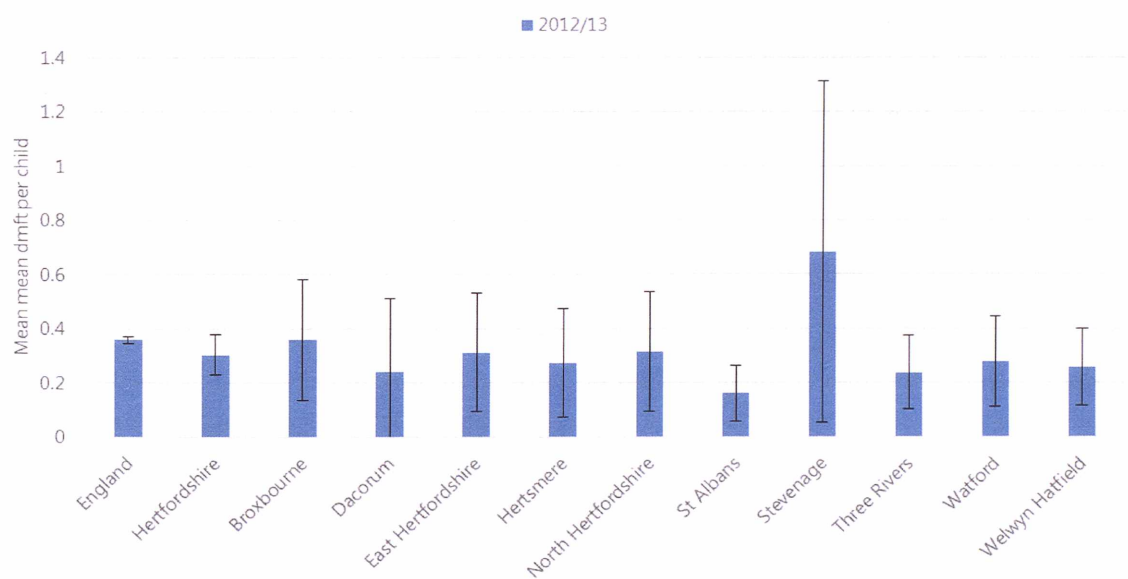

Source: http://www.nwph.net/dentalhealth/survey-results%203(12_13).aspx   PH.Intelligence@hertfordshire.gov.uk

Figure 2: Decayed, missing or filled teeth in 3 year old

Figure 3 shows that 162 children aged four and under in Hertfordshire were admitted to hospital for dental caries between 2013/14 and 2015/16. This was a rate of 69.9 per 100,000 children aged 0-4. Although this is significantly lower than England, hospitalisation for teeth extraction can be a traumatic experience for both the child and their parents[8].

Hospital admissions for dental caries (0-4 years), Persons, 0-4 yrs
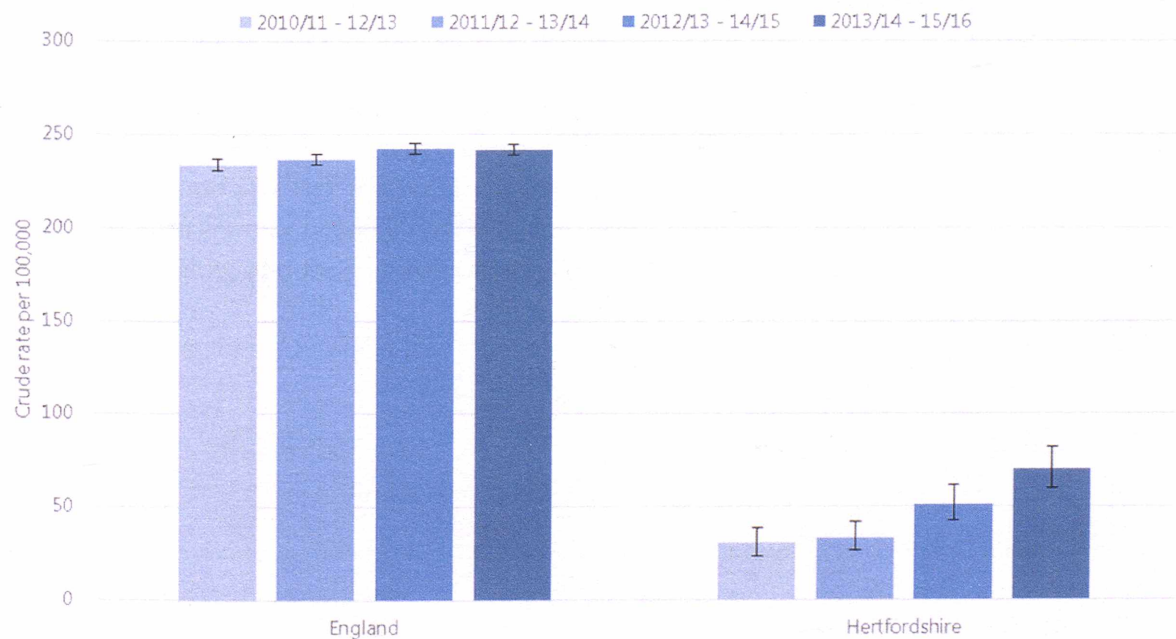
Source: Hospital Episode Statistics (HES) Copyright © 2016\NHS Digital   PH.Intelligence@hertfordshire.gov.uk

Figure 3: Hospital admissions for dental caries in children 0-4 years

Behavioural issues and influencing factors

The underlying behavioural issues and influencing factors to this issue can be found both with the child and the main care givers. It is therefore important to consider the context that these behaviours sit within. Over the decades, the meaning of food has changed from being just a source of nourishment to becoming a source of pleasure, comfort and a lifestyle marker[9]. Both parents and children are influenced by the pressures of food advertising and packaging of unhealthy foods[10]. Parents are also living in a time poor society in which quick meal solutions are attractive[11].

In attempting to encourage children to eat a healthy diet, parents/carers will normally face several barriers including picky eating and food neophobia by the child(ren). Food neophobia is a normal stage that all young children go through and it is a rejection of unknown or novel foods. The peak age for food neophobia is between two and three years. Picky/fussy eaters are children that do not have a varied diet and reject many foods which are both familiar and unfamiliar to them[12]. Children may attach positive and negative emotions to particular foods which can lead to them either rejecting or accepting particular foods. Negative emotions and reactions towards specific foods can be increased by high controlling parental practices where parents/carers either restrict foods and/or put pressure on children to eat[13].

There are many reasons why parents and care givers may unconsciously encourage their child(ren) to consume unhealthy food. These may include: using food as a reward; putting too much pressure on their child(ren) to eat certain foods and parents/carers not setting an example by eating a healthy diet. Using food as a reward can actually increase a liking for the food which is the reward and decrease the liking for the food the parent/carer actually wants them to eat[14]. Too much pressure on a child to eat a healthy food can increase the child's dislike for the food and reduce the child's ability to regulate intake[15]. It is also possible that food rejection by the child may increase the pressure parents/carers put on their child(ren) to eat specific foods, creating a vicious circle. Unfortunately there is a lack of evidence in this area to confirm this[13].

Other issues that lead children to consume poor diets include: parents/carers providing unhealthy food because they are unaware that the food could be unhealthy; believing that they cannot afford to buy healthy food or a lack motivation and confidence to cook healthy meals[11]. Additionally, some parents/carers may become concerned that their child will not eat anything at all due to rejecting the healthy options and may resort to unhealthy food in desperation[16].

Psychological constructs

In addressing these behavioural issues, it is important to consider some of the psychological constructs behind them. In order for a parent to attempt to make changes to the children's (and their own diet if necessary) they require a good sense of self-efficacy. Self-efficacy is the belief that you have the ability to implement change[17]. Some parents may put up barriers to change by believing that they cannot afford to buy healthy food and if they did they would not be able to get their child to eat the food anyway. Other barriers may include believing that they do not have the time to cook and pressure from their child(ren) for unhealthy foods or the belief that their child may not eat enough[16].

Another issue to consider is whether a parent/carer has an internal or external locus of control. People with an internal locus of control believe they are able to take responsibility for the outcome of a situation or health issue. On the other hand, those with an external locus of control believe that they have no control over the outcome of a health issue and believe that any outcomes are down to external factors such as luck[18].

According to Social Learning Theory[19], children learn by observing other people's behaviour. If they observe that the behaviour of others receives a positive response they will attempt to model that behaviour. Therefore if the child(ren)'s parents/carers eat a poor quality diet and observe no negative consequences, they will copy this behaviour. Conversely, if they see their parents/carers eat a healthy diet they are more likely to consume a healthier diet[14]. For example, consumption of fruit and vegetables tends to be higher in children who have parents that eat plenty of fruits and vegetables and eat at the same time as the children[20]. Children can learn from parents, family members, other significant carers, peers and even characters on television programmes[16].

Local data– Community Needs Assessment

A local survey in Hertfordshire (based on the COM-B model) was carried out to find out the physical and social opportunities, motivations and capabilities of parents and carers in order to determine the underlying behaviours in the provision of healthy meals for their children[21]. The survey also asked what support parents and carers require in this area.

The majority of respondents (89%) had either one or two children under 5. Most people who answered were the child(ren)'s mother. Nearly 90% of respondents thought their knowledge of healthy food was either good or very good, 93% felt that they are able to provide healthy meals for their children and 50% believed their child already eats a healthy balanced diet. However 63% would like their children to eat healthier meals.

Thirty four percent of the parents and carers were concerned at least some of the time that their children's health may be affected by their current food preferences. However 90% felt it was possible to get their children eating healthy meals.

Eighty eight percent of parents and carers said they provided their children with plain water to drink. However many parents and carers commented that they felt pressured for requests for juice and squash from their children.

Nearly 20% felt that they don't have enough support from others to encourage their children to eat healthy food.

In terms of support, 43% of respondents would like to be able to access advice on encouraging their children to eat healthy food. Twenty five percent would like to access written support such as on a website, 10% attend a course and 8% to access one to one support.

Review of existing interventions

There are limited existing interventions to improve dietary quality in the under 5s and most childhood obesity interventions are aimed at school age children. In review of existing interventions to try and address the issues discussed above, the majority focus on specifically addressing childhood obesity in the under 5s by aiming to improve parental knowledge of healthy eating and cooking skills.

In a systematic review of obesity interventions[22], eight interventions were identified that addressed obesity issues in young children. Five of these interventions addressed dietary behaviour and only one of these interventions was based in the UK and this was based solely on physical activity[23]. There were three studies from the United States which focused on diet and activity, however all of them focused on minority groups so care must be taken in generalising the results to the UK. One educational based intervention in France showed an improvement in deprived areas only at 2 years post intervention[24].

Focusing specifically on the UK in the last five years, the two main interventions for under 5s which have been evaluated and published are the HAPPY intervention[25] and **HENRY (www.henry.org.uk)**.

The HAPPY intervention is a theory based intervention, developed using intervention mapping, which targets overweight and obese pregnant women up to 9 months after the birth of the child. The aim is to help the mothers to manage their weight as this is considered to be a precursor to childhood obesity. The secondary aim is to prevent the women's infants from becoming obese. It addresses the mother's healthy eating practices and physical activity and it is based on the Family Links programme[25]. In an RCT trial of the HAPPY intervention[26], the results showed that after the intervention there were more infants in the control group above the 50th centile for their age related weight than in the intervention group. However the difference was not significant. In addition, the food quality in the mother's homes was slightly better in the intervention group but again not significantly different.

HENRY (Health Exercise Nutrition for the Really Young) is an 8 week course addressing eating behaviours, dietary intake and parental self-efficacy which has been widely implemented across the UK. It was developed using guidance from the COM-B behaviour change model to identify specific health related behaviours which required changing[27]. The intervention includes the use of weekly goal setting for the parents to help them focus on changing a particular health behaviour. Several evaluations of this programme have taken place. A small scale evaluation of the HENRY programme reported an 85% completion rate[28]. The results showed parents reported an increase in self-efficacy (using the validated Parenting Self-Agency Measure), an increase in consumption of fruit and veg in both parents and children and a reduction in sweet foods in adults. A larger study of the HENRY programme run over two years, analysed data from 144 programmes with 1100 parents[29]. Overall, a 72% completion rate was achieved. Both children and adults significantly increased their consumption of fruit and vegetables and parenting confidence increased significantly. A large scale RCT evaluation across 24 local authorities in the UK is currently in progress[27].

Although Public Health England recommends addressing healthy eating as part of preventing tooth decay[30], many of the recommended interventions at individual level only focus on tooth brushing and the use of fluoride[31]. Although these are essential in tackling dental decay, it is important to be aware of negative unintended consequences. For example, as explained by the compensatory health belief model[32], some people may believe that an unhealthy behaviour can be neutralised by a healthy behaviour. In terms of oral health, this could be taken as 'I can eat as many sweets as I like as long as I clean my teeth'. The use of displaying sugar boards in children's centres and schools have aimed to raise awareness of the amount of sugar in unhealthy foods, however there is a lack of evaluation in this area, possibly due to difficulties measuring the long term outcomes of reducing dental decay.

The above section has reviewed the most popular interventions currently attempting to address issues in this area, however it is important to note that this review is not exhaustive and there are other small scale interventions running which do not have published evaluation reports.

Conclusion

Although Hertfordshire as a whole appears to be doing better than the England average in terms of early childhood overweight, obesity and dental decay, it is important to be aware that there are variations within the county and there are still further improvements to be made. In areas with higher levels of obesity and tooth decay, HENRY would be a good first choice for a group based intervention especially if parents/carers lack nutritional knowledge. However as seen in the local survey results above, many parents/carers believe they are already nutritionally aware. For the parents/carers who have already tried educational programmes like HENRY, believe they are nutritionally aware and are still struggling with the behavioural side of healthy eating, one to one support may be appropriate. One to one support should be based on sound psychological theory for changing eating behaviour and evidence to support these behaviour change techniques.

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Appendix B – The Local Questionnaire

Front Page

Are you a parent or carer of a child or children under the age of five? Would you be able to spare approximately ten minutes to tell us about your experiences of providing healthy food for your child(ren)?

Privacy Notice

This data is being collected to help understand the need for parent/carer support in encouraging young children to eat healthy meals. All the information you provide will be anonymous and will only be used to identify requirements for future services. The combined results of all the data will be published in a report that will be publicly available on the Public Health Evidence and Intelligence information website. However, no individual results will be published.

I confirm that I understand that the information that I provide will only be used by the HCC Public Health Evidence and Intelligence team and will not be shared with any external organisation. [checkbox here]

This questionnaire will be open until Friday 11th August 2017.

Questionnaire (on the next page)

	Questions	Answers
1	Do you live in Hertfordshire	Yes/No (radio buttons)
2	How many children under 5 do you have?	(Numeric box)
3	Are you the child(ren)'s	Mother, father, other carer (radio buttons)
4	First child's age	Years and months (Two numeric boxes with a of max 4 years, 11 months)
	Second child's age	Years and months (Two numeric boxes with a of max 4 years, 11 months)
	Third child's age	Years and months (Two numeric boxes with a of max 4 years, 11 months)
5	How good would you consider your knowledge of healthy food to be?	very poor/poor/okay/good/very good (radio buttons)
6	Do you believe your child eats a healthy balanced diet?	Yes/No/Most of the time/Some of the time (Radio buttons)
7	Do you cook/prepare healthy meals for your child(ren)?	Yes/No/Most of the time/Some of the time (Radio buttons)

8	Do you feel you are able to provide healthy meals for your child(ren)?	Yes/No/Most of the time/Some of the time
9	Are you concerned about your child(ren)'s food choices?	Yes/No/Most of the time/Some of the time (Radio buttons)
10	Would you like your child(ren) to eat healthier meals?	Yes/No/Not sure (Radio buttons)
11	Do you worry that your child(ren)'s health may be affected by their current food preferences?	Yes/No/Most of the time/Some of the time (Radio buttons)
12	Do you believe it is possible to get your child(ren) to eat healthy meals?	Yes/No/Not sure (Radio buttons)
13	Will your child(ren) eat fruit?	Yes/No/Sometimes (Radio buttons)
14	Will you child(ren) eat vegetables?	Yes/No/Sometimes (Radio buttons)
15	What types of food does your child/do your children refuse to eat?	Free text
16	Do you worry that your child(ren)'s health will be affected by what they drink?	Yes/No/Most of the time/Some of the time (Radio buttons)
17	What barriers do you encounter when trying to get your child(ren) to eat healthy food	None (checkbox) Free Text
18	Do you provide your child(ren) with plain water to drink?	Yes/No/Most of the time/Some of the time (Radio buttons)
19	Will your child(ren) drink plain water?	Yes/No/Sometimes (Radio buttons)
20	Do you believe your child(ren) can drink plain water?	Yes/No/Not sure (Radio buttons)
21	Do you have enough support from others to encourage your child(ren) to eat healthy foods?	Yes/No/Most of the time/Some of the time (Radio buttons)
22	What barriers do you encounter when trying to get your child(ren) to drink plain water?	None (checkbox) Free text
23	What help would you like in encouraging your child(ren) to eat healthier foods?	I do not need support/Attend a course/Written information (i.e. leaflet or website information)/One to one support/Other (radio buttons)
24	If "other" please state	Free text
25	Is there anything else you would like to add?	Free text

Appendix C – Intervention Plan for Client

Session 1 – Exploring the situation and looking at the environment and role models

- Get written consent from the client that I can use the data for the intervention write up
- Explain my role and define clearly my qualifications and capabilities to the client in order to set expectations (1.1a (4))
- Be mindful of power imbalances between the client and the practitioner (1.1a (6)

Gathering information

Explain that the first meeting will be about gathering information and agreeing on where we think we can get to.

I will start this session by gathering information using the typical day strategy outlined in Rollnick et al (1999). The client will be asked to take the practitioner through a typical day in their life. This should take between 6 to 10 minutes and help to establish rapport between the client and the practitioner.

Start with "Can you take me through take me through a typical day in your life, so that I can understand in more detail what happens?"

I will use questions like:

- What happened then?
- How did you feel?
- What made you feel that way?

To help elicit information from the client if necessary. The client should be doing the majority of the talking.

The type of information that may come out of this conversation could include:

- How does the client currently feel about the situation at the moment?
- What is the current eating behaviour of the child at the moment?
  - Will the child eat at the table?
  - Does the child fuss about certain foods?
  - Does the child demand other foods?
- How does the client respond to the child's behaviour?
- Who else lives in the household?
- Do they all eat together?
- Do the other household members all eat the same food at the same time?
- How healthy are the meals of the other household members?
- What is the child's typical weekly/daily routine?
- What is the food environment like in the home?
- How often does the child eat outside the home?
  - If so where (if nursery, there will be limited control over what the nursery provides)

In order to get an idea of how the client is personally feeling about their situation and will ask the following:

- How much control (self-efficacy) do they feel they have over the current situation? – scale of 1-10
- How do they feel emotionally about this? – scale of 1 - 10

The next step is to find out what the client would like to see change and investigate any resistance to change.

We will explore the client's diet and eating behaviour and consider how the client(s)/carers sees themselves as a role model for their children (13.1). Are all family members willing to help? If adjustment is required for the client, what would they like to change?

Emphasize that there are two people involved in the process – the client and child. The client can only go as far as preparing and serving the food after this stage it is up to the child to eat the food they have been given. The client cannot force the child to eat and there may be a number of factors why the child won't eat it including that the child just may not be hungry. I will emphasize that it is not the client's fault that their child will not eat what is given to them and they must not blame themselves about it.

Make the client aware the all children go through a stage of being selective and fussy about food and that the peak age is around 2 to 3 years of age. Also let the client know that children will not let themselves starve.

Create the formulation and determine which BCTs will be appropriate for the client

Depending on the outcome, determine one or two BCTs from the appendix for the client to work on over the next week.

It may be useful for the client/care to keep an observation diary so that it can be used for reflection in the next session.

Materials

- Observation diary
- BCT reference list

RULE

- Resist the righting reflex
- Understand their motivations
- Listening and believing they can find the solutions
- Empower them

Session 2 – Communication and Emotions

This session will focus on the observation worksheet that was provided in session 1.

To begin with, ask the parent how they feel that last week have been. Has it been the same, easier, worse? Have there been any particular meals or situations that they want to talk about?

How did they find the process of working with the observation diary? Was it straight forward? Did they have any problems with it?

Can we go into detail over a particular breakfast or evening meal to see if there isn't any details that has been hidden?

- How does the parent feel about the situation today?
- Review of the progress from session 1.
- Reflect on the observation diary
- Look at Problem Solving in more detail to identify what could be done.
- Is there any resistance to change showing?

Problem Solving examples

Consider how the parent and child may be interacting at meal times. If the child feels that they are being coerced into eating certain foods they may develop a further dislike to eating the food.

Explore any negative emotions for the parent and the child at the meal table. What are the interactions like? Can they give some examples?
What would the parent like?

Explore ways of interacting with the child which can **diffuse negative reactions** and making food an issue. Is any fussing a way of trying to hold your attention?

Consider the time of day for the main meal, if they eat better at lunch time maybe this is the best time to get them to eat the most nutritious foods.

Help the child feel in control – if the child is using food as a way of controlling their world, try and give them some control by letting them choose between a couple of food options. Maybe they can choose between two types of vegetables or fruits. Ask them before you prepare the food. Take the time to explain clearly what the choices are, crouch down to their level and get their full attention.

Is there any interest from the child about food preparation? Do they want to see what is happening?

Focus on past successes – what can we learn from this?

Use social reward – Give plenty of praise to the child for trying different foods. Use positive language. E.g. Well done for trying the broccoli, it tasted nice didn't it?

Look at how to managing the stress and anxiety of the situation. This will include dealing with negative self-talk. How do they feel in comparison to their peers? Find ways to build self-esteem by finding evidence for managing the situation well and disproving that there is evidence for their negative beliefs.

Using **material rewards** for the children – explore with the client what may be most effective (this could be stickers but every child is different so the parent may be able to identify something else – not sweets or chocolate though!) – this maybe something to hold back on until we have tried social reward.

This needs to happen immediately after the behaviour otherwise they will not make the connection.

The important thing is to let the parent choose which option above they would like to try first.

Peer relationships. Does the client have any peer relationships with other parents/carers? If they do not, how could they find some peer support. The practitioner will help the client recognise that some peer relationships are good and some are not (competitive friendships) help the client identify which peer relationships are best for them to make more of and to distance themselves from the unhelpful peer relationships. Discuss the downsides of social media and how to use it positively.

Other ideas

To encourage more interest in food, let him see what you are doing when preparing food, explain what you are doing.
Has he got any or access to toy food? This could be at a toddler group as well as at home.

Session 3 – Review session

How does the client feel emotionally about the situation today?

Do they feel they are managing the situation better? Why do they feel this? Can they give some examples?

Review progress from last week and identify which areas they would like to work on?

What do they feel worked well and what did not work well?

- Social reward
- Swapping meal times around
- Reflective listening to give the child a sense of control and attention.
- Material reward

Why do they think something worked well?

Why do they think something did not work well?

It could be helpful to look at the observation diary to look for patterns. What did she notice about her son's eating behaviour on the weekend they went away?

Work on confidence building and giving the service user a sense of autonomy. This is important so that they can continue the journey after the invention comes to an end.

Identify any problems that may be remaining – trouble shooting session

Sharing of ideas with peers (peer support) – Useful question:

Do you know any other ways that have worked for your mum friends?

If they client says that they are not managing the situation, find out why they think that.

Key Points if asked

These are long term strategies but still important:

- Keep setting an example by eating healthy foods as parents in front of child. They are learning even though it may not seem like it at the time.
- Continued exposure to the foods you would like them to eat – up to 15 times according to Wardle et al (2005).
- Too much coercion can have a negative affect

Session 4 – Follow up session

Review the progress and determine the following

- How does the parent currently feel about the situation today?
- How much control (self-efficacy) do they feel they have over the current situation? – scale of 1-10
- How do they feel emotionally about the situation now? – scale of 1 – 10
- Do they feel that they are able to keep these changes in place without support?

Working on positive beliefs – to show that the situation is actually better than the client believes it to be. Work sheet to record the positives.

Maybe we could go through the last 2 weeks of the dairy and get the client to rate the success of each day.

Sign-posting to other services if necessary

Would the client prefer a final follow up session?

Appendix D – Behaviour Change Techniques Tool Box

Behaviour change techniques taken from Michie et al. (2014) and examples adapted to this intervention.

No	Label	Definition	Examples
1.1	*Goal setting (behaviour)*	Set or agree on a goal defined in terms of the behaviour to be achieved *Note: only code goal-setting if there is sufficient evidence that goal set as part of intervention; if goal unspecified or a behavioural outcome, code **1.3, Goal setting (outcome)**; if the goal defines a specific context, frequency, duration or intensity for the behaviour, <u>also</u> code **1.4, Action planning***	Agree on a goal to eat one healthy meal at the table with the child every day. Set the goal of eating 5 pieces of fruit and vegetables per day as specified in public health guidelines
1.2	*Problem solving*	Analyse , or prompt the person to analyse, factors influencing the behaviour and generate or select strategies that include overcoming barriers and/or increasing facilitators (includes '**Relapse Prevention***' and '**Coping Planning***') *Note: barrier identification without solutions is not sufficient. If the BCT does not include analysing the behavioural problem, consider **12.3, Avoidance/changing exposure to cues for the behaviour, 12.1, Restructuring the physical environment, 12.2, Restructuring the social environment**, or **11.2, Reduce negative emotions***	Identify specific triggers that lead to the child making demands for unhealthy food or drink. Find ways to remove or reduce those triggers. Prompt the client to identify barriers preventing them from cooking healthy meals, and discuss ways in which they could help overcome them e.g., getting the child to 'help'.
1.4	*Action planning*	Prompt detailed planning of performance of the behaviour (must include at least one of context, frequency, duration and intensity). Context may be environmental (physical or social) or internal (physical, emotional or cognitive) (includes '**Implementation Intentions***') *Note: evidence of action planning does not necessarily imply goal setting, only code latter if sufficient evidence*	Encourage a plan to carry healthy children's snacks when going out with the child for a long period of time. Prompt planning when there is time to prepare and cook healthy meals
1.5	*Review behaviour goal(s)*	Review behaviour goal(s) jointly with the person and consider modifying goal(s) or behaviour change strategy in light of achievement. This may lead to re-setting the same goal, a small change in that goal or setting a new goal instead of (or in addition to) the first, or no change *Note: if goal specified in terms of behaviour, code **1.5, Review behaviour goal(s)**, if goal unspecified, code **1.7, Review outcome goal(s); if discrepancy created consider also 1.6, Discrepancy between current behaviour and goal***	Examine how well a person's performance corresponds to agreed goals e.g. whether they sat down at the table and ate a healthy meal with their child, and consider modifying future behavioural goals accordingly

4.2	*Information about antecedents*	Provide information about antecedents (*e.g. social and environmental situations and events, emotions, cognitions*) that reliably predict performance of the behaviour	Advise to keep a record of refusal of healthy food by the child and of situations or events occurring prior to this behaviour.
6.1	*Demonstration of the behaviour*	Provide an observable sample of the performance of the behaviour, directly in person or indirectly e.g. via film, pictures, for the person to aspire to or imitate (includes '**Modelling**'). *Note:* if advised to practice, <u>also</u> code, **8.1, Behavioural practice and rehearsal;** *If provided with instructions on how to perform,* <u>also</u> *code* **4.1, Instruction on how to perform the behaviour**	Be a role model to the child by eating healthy meals with them and showing that you enjoy eating them.
8.3	*Habit formation*	Prompt rehearsal and repetition of the behaviour in the same context repeatedly so that the context elicits the behaviour *Note:* <u>also</u> *code* **8.1, Behavioural practice/rehearsal**	Make a habit of sitting down at the table as a family for a healthy meal at the same time each day.
10.2	*Material reward (behaviour)*	Arrange for the delivery of money, vouchers or other valued objects if and only if there **has been** effort and/or progress in performing the behaviour (includes '**Positive reinforcement**') *Note: If reward is social, code* **10.4, Social reward**, *if unspecified code* **10.3, Non-specific reward**, *and* <u>not</u> **10.1, Material reward (behaviour)**; *if reward is for* **outcome**, *code* **10.10, Reward (outcome).** *If informed of reward in advance of rewarded behaviour, also code one of:* **10.1, Material incentive (behaviour); 10.5, Social incentive; 10.6, Non-specific incentive; 10.7, Self-incentive; 10.8, Incentive (outcome)**	Give the child a sticker for eating their vegetables Allow the child to earn some television time.
10.4	*Social reward*	Arrange verbal or non-verbal reward if and only if there **has been** effort and/or progress in performing the behaviour (includes '**Positive reinforcement**') *Note: if reward is material, code* **10.2, Material reward (behaviour)**, *if unspecified code* **10.3, Non-specific reward**, *and* <u>not</u> **10.4, Social reward**; *if reward is for* **outcome** *code* **10.10, Reward (outcome).** *If informed of reward in advance of rewarded behaviour, also code one of:* **10.1, Material incentive (behaviour); 10.5, Social incentive; 10.6, Non-specific incentive; 10.7, Self-incentive; 10.8, Incentive (outcome)**	Congratulate the child for eating the healthy meal you provided for them.
11.2	*Reduce negative emotions* [b]	Advise on ways of reducing negative emotions to facilitate performance of the behaviour (includes '**Stress Management**') *Note: if includes analysing the behavioural problem,* <u>also</u> *code* **1.2, Problem solving**	Identify ways to improve self-esteem as a parent such as recording evidence for those beliefs which either enforce or disprove those beliefs

12.1	*Restructuring the physical environment*	Change, or advise to change the **physical** environment in order to facilitate performance of the wanted behaviour or create barriers to the unwanted behaviour (other than prompts/cues, rewards and punishments) *Note: this may also involve* **12.3, Avoidance/reducing exposure to cues for the behaviour**; *if restructuring of the social environment code* **12.2, Restructuring the social environment**; *if only adding objects to the environment, code* **12.5, Adding objects to the environment**	Advise to limit the number of unhealthy foods in the house and keep anything you do have out of children's sight.
13.1	*Identification of self as role model*	Inform that one's own behaviour may be an example to others	Inform the person that if they eat healthily, that may be a good example for their children
15.1	*Verbal persuasion about capability*	Tell the person that they can successfully perform the wanted behaviour, arguing against self-doubts and asserting that they can and will succeed	Tell the person that their child will eventually eat healthy food and that it takes a lot of persistence to get there. Young children are fickle and it is a normal part of a child's development.
15.2	*Mental rehearsal of successful performance*	Advise to practise imagining performing the behaviour successfully in relevant contexts	Advise to imagine eating a healthy meal as a family at the table.
15.3	*Focus on past success*	Advise to think about or list previous successes in performing the behaviour (or parts of it)	Advise to describe or list the occasions in which the parent has not given into demands of unhealthy food or drink from the child.
15.4	*Self-talk*	Prompt positive self-talk (aloud or silently) before and during the behaviour	Prompt the person to tell themselves that they are a good parent and not to compare themselves to seeming perfect peers.

Appendix E – Consent Form

Pre-schooler healthy eating intervention

The aim of this intervention is to help parents and/or carers identify any issues they have in improving their child's eating behaviour. It will also help them manage their own frustrations and concerns around their child's eating behaviour.

The intervention will cover:

- What is the current situation and what are the parent/carer's concerns.

- How children model their eating behaviour on the people around them

- Identify any environment changes that could improve the situation.

- Explore what motivates their child to make good choices and re-enforce the wanted behaviour.

- Explore how the parent feels about the situation and consider how they can manage any power struggles with the child around food and feel more confident in managing this.

Consent

The data collected from this intervention will be used by the Trainee Health Psychologist (Joanna Mackenzie) at London Metropolitan University to write up an anonymised case study to submit as part of the portfolio for the Professional Doctorate in Health Psychology (Accredited by the British Psychological Society and the Healthcare Professions Council). At all times any data collected from this intervention will be stored in a secure location and destroyed once the qualification has been achieved.

I confirm that I am happy for my data to be used for the purpose stated above:

Participant Name

Participant Signature

Date:

Appendix F – Food and Behaviour Observation Diary

	Description of meal or snack	Observations
Breakfast		
Mid-morning snack		
Lunch		
Mid afternoon snack		
Tea – late afternoon meal		

Day 2

	Description of meal or snack	Observations
Breakfast		
Mid-morning snack		
Lunch		
Mid afternoon snack		
Tea – late afternoon meal		

Appendix G – Feedback Questionnaire

Thank you for taking part in this pilot intervention for support in improving the diet of pre-school children. Any feedback and comments about the service you received will be gratefully received and will help to improve the design of the intervention.

Please could you answer the following questions as honestly as you can.

How satisfied are you with the support you received?

Very unsatisfied	Unsatisfied	Unsure	Satisfied	Very Satisfied
1	2	3	4	5

Did you feel that the practitioner listened to you and understood your needs?

No	Sometimes	Yes
1	2	3

What tools and tips that you have learnt from these sessions do you plan to carry on using in the future?

What did you like most from the service you received?

If you could change one thing about this intervention, what would it be?

Thank you for taking the time to fill out this questionnaire.

Consultancy Competency

Contents

Introduction

The purpose of this assessment is to demonstrate the skills and knowledge of consultancy in an external organisation (British Psychological Society, 2012). A consultant is someone who is able to influence an individual, group or organisation. Consultants give advice but do not have the authority or power to make changes (Block, 2011).

This case study will apply consultancy theory to an evaluation of a psychological health intervention for families. According to Block (2011), an evaluation is a consultation on change (in this case behaviour change). My consultancy role was to advise the client on the evaluation process, analyse the data and write the evaluation report.

The structure of this report will be modelled on the five phases of consultancy as outlined in Flawless Consulting by Block (2011). This will be mapped to the competency requirements in the Qualification in Health Psychology (Stage 2) Candidate Handbook (BPS, 2012).

Assessment of Consultancy

Entry and Contacting

In 2014 each district council in Hertfordshire was given £100,000 by the County Council allowing local charities and organisations to bid for funding to run health interventions. A colleague at Hertfordshire County Council (HCC) put me in touch with the project manager for Dacorum Borough Council (DBC) as they required support with the evaluation of the health interventions. I met the project manager at a Public Health England workshop and networking event in October 2014 and discussed what I could offer. Following this I was invited to a meeting at the end of the month to meet all the health intervention providers and to give a 20 minute presentation on evaluating health interventions. At this meeting I was given details of all the projects which had received funding and met with several of the providers. From these projects I had to assess which projects were most suitable for my evaluation skills.

One of the providers, a local children's centre, was running a group intervention to improve the emotional and mental wellbeing of young children. The provider was interested in having consultancy work to produce an unbiased evaluation of their health intervention. I contacted the potential client by phone, after reading their information pack, to discuss the requirements and expectations. According to Block (2011) the first stage of consultancy is

to identify the client's problem. The problem for the client was there was no evaluation expertise in house. As part of the funding deal, they were required to provide an evaluation of the intervention to DBC. I explained to the potential client about my Professional Doctorate work and my previous experience of evaluation work and she was keen to work together. We agreed that the next step was to set up a meeting at the client's office.

Discovery and Dialogue

Before attending the meeting I was aware that the children's centre was a council funded organisation. I was meeting with the children's centre manager who was the overall decision maker. The stakeholders were: the children's centre manager, the project manager at DBC; the project manager at HCC and the Director of Public Health.

The initial project meeting was held in a meeting room at the client's office in mid-November 2014 to discuss the scope of the consultancy. The course was already scheduled so the evaluation plan had to be in place before the start date. I used Cope's (2010) rapid mapping questions to discover that the client was required to evaluate the Families Feeling Safe parenting course (Benjamin and Austin, 2012) to determine the impact on the families attending the course. This was the main anticipated outcome from this consultancy project (Earll and Bath, 2004). The issue for the client was that they did not have the evaluation skills required. Previously they had only collected monitoring information and participant comments for interventions.

Cope (2010) advises to carry out a risk assessment because all projects have risks. I had to determine if the client and the staff involved were willing to work towards the end goal and act on my advice particularly with gaining client consent and collecting the evaluation data. I was also aware of significant change in the organisation (Earll and Bath, 2004) as the children's centres were being put out to tender by the County Council. This was discussed in the initial meeting. I was assured that the intervention was definitely going ahead as both courses were starting before the end of the financial year before any possible management change. We reviewed the contents of the course material and discussed how they had reviewed a previous, shorter presentation of the course. They did have an evaluation form but it hadn't been tested for validity and reliability and was really a check list devised by the course creators. We agreed that we needed to evaluate using tried and tested measures. The issue of ethics and consent was also discussed as consent was essential if we wanted to do anything with the analysed data.

Before going further, we agreed that a working agreement was required. A contract or working agreement provides clear communication about what will happen in a contract and by whom (Block, 2011). In order to put the working agreement in place, we discussed the aims and objectives of the consultancy and negotiated who would be responsible for the tasks involved in the meeting. After the meeting, I obtained a working agreement template from a colleague and adapted it to include the aims, objectives and responsibilities we negotiated in the meeting (Appendix A). Once completed, I e-mailed the agreement to the client for review. The client was happy with the original agreement so no revisions were required. The agreement was then signed and the consultancy officially commenced.

Plan the Consultancy

Analysis and Decision to Act

The next task was to create a plan that outlined the process and listed the time-scales for meetings and completing tasks (Appendix B). The first training programme was due to start in January 2015 so I had to make sure I had the first key tasks completed by December 2014. There were two presentations of the training programme each consisting of 8 x 2 hour sessions plus a two hour follow up session 12 weeks later. Each presentation would have approximately twelve participants attending. The full programme was due to complete in June 2015 after the last follow up session and this when I planned to collect the evaluation data.

To gain an understanding of the history and background of the Families Feeling Safe programme (Benjamin and Austin, 2012), I carried out a literature review using academic databases. The intervention was based on Flandreau-West's (1989) Protective Behaviours which aims to improve emotional stability in children through improved parent/child relationships. Poor parent/child relationships can result in unhealthy behaviours in childhood and as adults (Steward-Brown, Fletcher and Wadsworth, 2005). The Families Feeling Safe programme works with the parents/carers to create a safe environment for their children through good parent/child relationships. Reviewing the literature helped me identify the aims and objectives of the intervention and select the most appropriate evaluation measures. The children's centre manager provided me with the workbook and gave me the contact details for the course creator. I contacted the course creator and she told me about another evaluation carried out by McMurray, Roberts and

Lamb (2013) at the University of Bedfordshire. I used this report along with the other literature I had found to develop the evaluation plan.

When carrying out consultancy, it is important to be aware of where you are on the Process versus Expert Consultancy continuum depending on the type of consultancy work (Cope, 2010). According to Schein (1999), expert consultants do the work the client is unable to do whereas process consultants guide the client through the work in a joint process. I tried to find a point somewhere in between and I switched between process and expert depending on the stage of consultancy. For example the next stage was to create the participant consent form (Appendix C). It was essential to adhere to ethical guidelines otherwise the data obtained from clients could not be used for publication (Michie, 2004). I was aware that the results could be used in future reports made available to the public. Working as a process consultant, I helped develop the consent form with the client based on the mandatory points around consent which complied with the BPS code of conduct (2009). I also asked my supervisor to review this document. When I e-mailed the form to the client, I advised them as to what could be altered and what could not be changed and the reasons why. I had a couple of queries from the client about the consent form in which I advised her accordingly. However, once I reached the data analysis and report writing stage I switched to the expert consultant because it was my responsibility to analyse the data and write up the report.

Conduct and Monitor Consultancy

Engagement and Implementation

The next step was to design the evaluation and create the plan (Appendix B and D). One of the consultancy objectives was to use valid and reliable measures. McMurray et al (2013) used the Warwick-Edinburgh Mental Well-being scale (WEMWBS) (Tennant et al, 2007) and the Parental Sense of Competency scale (PSOC) (Gibaud-Wallston and Wandersman, 1978 as cited in Johnston and Mash, 1989) measures to evaluate the intervention. In the executive summary, they recommended that subsequent evaluations should also assess the impact of the programme on the outcome for children.

For my evaluation I also used the PSOC to measure the effect of the course on the parents. This enabled me to compare my intervention to McMurray et al (2013). The PSOC has been tested for reliability and validity (Johnston and Mash, 1989; Ohan, Lueng and Johnston, 2000; Gilmore and Cuskelly, 2009). I chose not to use WEMWBS because

it was a measure of wellbeing for the parents and I felt it was more appropriate to measure the impact of the programme on the parent's children. Therefore I selected the Strengths and Difficulties Questionnaire (SDQ) (Goodman, 1997). This measure had been well tested for reliability and validity (Goodman, Meltzer and Bailey, 2003; Muris, Meesters and van de Berg, 2003). I decided that two questionnaires pre and post intervention and follow up would be sufficient as participants may have been put off with too many questionnaires. I checked for licensing and cost issues before providing the client with the questionnaires and instructions in when and how to collect the evaluation data. I also provided the opportunity for the client to get back to me by phone or e-mail with any queries to the instructions.

I originally planned to collect the completed evaluation forms at the end of June 2015 and meet with the client to discuss the progress of the consultancy. However I received an e-mail in May 2015 saying that the forms were ready for collection. I went to the client's office at the beginning of June to collect the forms and meet with the client. She informed me that due to the children's centre being taken over by another organisation the follow up session hadn't taken place. In addition, she had been made redundant along with other staff and would be leaving at the end of the week. This gave us little time to make alternative arrangements. However the client suggested that we work with the data that had been collected and the final report should be sent to project manager at DBC as there was no replacement for her role. I agreed that this was the best option. In response to this news, I reviewed the consultancy plan and implemented the changes.

The next step was to analyse the data using SPSS. I used the same analysis method (paired samples t-tests) as in McMurray et al. (2013). The results showed that this intervention only had partial success. The results for the PSOC measure showed no significant difference between the start and the end of the course. This was interesting as the evaluation by McMurray et al. (2013) did find a significant difference. This could have been due to McMurray et al. (2013) having a larger sample size and therefore smaller confidence intervals. The SDQ only found a significant difference for the emotional domain for the parents' children.

Using the results of the data analysis and my research into the theory and background of the Families Feeling Safe, I wrote my findings into a report to present to the stakeholders (Appendix E). At all times the evaluation forms and the electronic data were kept in a secure location in order to adhere to ethical guidelines.

Evaluate Consultancy

Extension, Recycle or Termination

To close the consultancy I e-mailed the report in February 2016 to the main stakeholders for review and invited them to ask questions and give any feedback. I also followed up with a phone call to the main stakeholders and offered them the opportunity to meet if they wished.

I met with the project manager for the funding at HCC at the end of March 2016 to discuss her feedback. She informed me that it was an interesting read and it made her aware that not all health interventions make much difference. If the children's centre had applied for further funding she would have had to consider very carefully. However the new management of the children's centre have no current plans to run this intervention again. It also raised the issue of other intervention providers not understanding the process of evaluation. She has now invited me to run a training workshop on evaluation to key people involved in the second phase of the district offer.

Once I reached the end of the consultancy, I looked at evaluating its impact on the client. In order to evaluate it is important to refer to the aims and objects of the consultancy written into the working agreement (Earll and Bath, 2004). I therefore referred to these when assessing the consultancy's impact.

I managed to achieve all the aims and objectives in the working agreement, however I believe I could have improved upon some of them. From a process consultancy view (Schein, 1999) I could have involved the client more in selecting the measures for evaluation as this was new to them. However this was hard as we had our initial meeting mid-November and it had to be completed before the Christmas holidays. We were also restricted to measures that had no cost attached due to the limited budget. I felt the work on the consent form was good as the client had never produced a consent form and they learnt about the importance of ethical considerations gaining consent from participants.

The objectives for the intervention were based on the measures used to evaluate the course which made the data analysis straight forward. I am glad that I spoke to the course creator before selecting the evaluation measures as having a previous evaluation made it easier to plan this one. It also gave me something to compare this one to. With the analysed data I was able to write an unbiased report and I did not let the results of McMurray et al (2013) influence my evaluation report.

I managed to complete the report within the timeframe specified. I made sure I had contingency time put into the project plan as I have underestimated completion time in previous projects and not accounted for external influences.

Overall Reflection and Conclusion

My first concern about this competency was finding something suitable. When I found out about this consultancy opportunity just after I started the doctorate in September 2014 I jumped at the chance. Looking back, I wished I had had more time to prepare for it, however everything had to be completed by the end of 2014 as the first course started mid-January 2015. I therefore had to prioritise the most important tasks which I considered to be the consultancy working agreement, how to measure the intervention and advising the client with the consent form. I feel that I could have been more organised with my planning notes and documentation and in the future I will make this a priority too and take this into account when estimating consultancy time.

I have carried out consultancy work before as I used to work as an IT consultant for a commercial company. This had its advantages and disadvantages. The advantages were that it gave me the confidence to approach the client, set up the initial meeting and put together a work plan. However the disadvantages were that I did not read enough consultancy theory at the beginning because I was used to carrying out consultancy in an expertise role. This competency has increased my awareness of different consultancy styles and processes when planning a consultancy project. In future I would like to take on more of a process consulting role (Schein, 1999) as I feel that Health Psychology is highly suited to this style.

My Health Psychology training has increased my awareness of the importance of organisational culture and how it affects working relationships. I felt that I had a good working relationship with the manager at the children's centre and I was disappointed when she left due to redundancy. I believe I could have helped her improve her understanding of intervention evaluation a lot more if she had stayed to the end.

The children's centre manager's redundancy and the change of management also affected the intervention because the follow up session of the intervention was cancelled and therefore the third data collection did not happen. This data collection could have made a big difference to the outcome. It was also frustrating that the management change also

affected their IT systems and some of the client's monitoring data was lost. In the future I will make sure that the provision of the monitoring data is included in the contract/working agreement so the client is aware of its importance in evaluation.

I found the negotiation of the working agreement straight forward as there were no revisions to the agreement. I believe this was because evaluation was new to the client and they were grateful to have some support without any cost involved. With no cost was involved the client did not feel the need to scrutinise the contract for value for money. In the future when money is involved I will need to allow time for contract revisions.

In conclusion, this consultancy opportunity has given me a greater insight into the role of children's centres and how they can improve both physical and mental health at an early stage. It has helped me gain confidence in using health psychology skills in a public health setting. In particular I have gained confidence in working with people outside of my team and applying my evaluation skills. This has enabled me to take on a large evaluation project within the public health team at Hertfordshire County Council where I am applying what I have learnt about planning and documentation.

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Appendices

Contents

Appendix A – Working Agreement

Evaluation of Families Feeling Safe Project - Working Agreement

Introduction and definitions

This agreement is between ███████████████████████ (herein after called "the client") and Joanna Mackenzie (from Hertfordshire County Council) ("herein after called the consultant").

The agreement will commence on 17th November 2014 and run until 31st March 2016 when the final report and recommendations are submitted:

Aims of the consultancy:

- To advise the client on the evaluation process of the Families Feeling Safe Project.

- To provide advice and an example of the participant consent documentation.

- To collate, analyse and evaluate the data collected from the project.

- To write up the final report with the outcomes and recommendations.

Objectives:

- To work with the client to select valid and reliable evaluation questionnaires to measure the success of the course by 31st December 2014.

- To produce a written report containing the outcomes of the evaluation by 31st March 2016.

Agreed responsibilities:

The Client:-

- Will provide an outline of the course for families feeling safe to the consultant.

- Will gain consent from the participants to collect and use the evaluation data

- Will collect the data from the participants on the two cohorts of the course.

- All data collected from the participants must be kept in a secure location and transferred to the consultant using a secure method.

The Consultant:-

- Will ensure that all data received will be kept in a secure location in accordance to Hertfordshire County Council's data protection policy.

- Will analyse the results and evaluate the effectiveness of the families feeling safe course.

- Will produce a written report by the end of the consultancy period.

Accountability and Supervision:

The consultant will be accountable to the Public Health Consultant for Evidence and Intelligence of Hertfordshire County Council Public Health Directorate

Additionally the consultant will receive supervision relating to this consultancy from the Public Health Consultant for Evidence and Intelligence of Hertfordshire County Council Public Health Directorate.

Confidentiality and Ethics:

The Consultant will not divulge any confidential information relating to the project without written permission from the client.

The Consultant will work within the British Psychological Society Code of Ethics and Conduct and Hertfordshire County Council values and behaviours.

Insurance:

The consultant will not personally hold any insurance or indemnity cover as this will be covered by Hertfordshire County Council.

Termination of Contract:

The contract may be terminated by either party giving twenty one days' notice in writing. The contract will cease to be valid after 31st March 2016.

Contractual agreement:

I have read and am in agreement with all of the terms and conditions of the contract.

Client:

Name:..
....

Position:...
....

Organisation:...
....

Date:..
....

Consultant:

Name:...

Position:...Public Health Analyst (Trainee Health Psychologist with London Metropolitan University

Organisation:...Hertfordshire County Council.

Date:...
......

Appendix B - Consultancy Plan and Evaluation

Outline of the intervention and what it aims to achieve

The Families Feeling Safe programme is and eight week course based on the protective behaviours process developed by Peg Flandreau-West (1989). It is based on the two themes below:

Theme 1 -"we all have the right to feel safe all of the time"
Theme 2- "we can talk with someone about anything even if it is awful or small"

These themes are supported by seven strategies which put the themes into action:

- the language of safety
- protective interruption
- persistence
- one step removed
- network review
- Risking for a purpose
- Strategy Review

The aim of this course is to empower parents by improving parental self-efficacy and increasing parental satisfaction so that the family is able to feel safe. The expected outcomes of the course are:

- Improved parental self-efficacy
- Improved parental satisfaction
- A reduction in emotional issues
- A reduction in behavioural issues
- Improved social relationships in the children.

████████████████████████████ will run two presentations of this course. The first will start in January 2015 and the second in February 2015. The aim of the consultancy is to evaluate the programme using reliable and valid measures and report on the findings.

Literature on the protective behaviours programme.

There is a limited amount of literature available on the protective behaviour programme. Mazzucchelli (2001) carried out an intervention on people with learning difficulties, however he used two self-designed questionnaires and one questionnaire specific to people with learning difficulties. The original literature by Flandreau-West (1984, 1989) is now out of print. In a comparison study of the protective behaviour processes, Briggs and Hawkins (1994) used a self-designed questionnaire to determine that the New Zealand version was more effective than the original version.

There are organisations using the protective behaviours process (e.g. Protective Behaviours Consortium, Safety Net and Families Feeling Safe), however they do not provide peer reviewed evidence on their websites. I was able to contact one of the directors of the Families Feeling Safe organisation and they provided me with an unpublished evaluation report of their programme by McMurray, Roberts and Lamb (2013) at The University Bedfordshire. This was the most useful piece of literature and was used to development the evaluation process.

How will be the programme be evaluated?

The measures used in the evaluation by McMurray et al (2013) which had been tested for reliability and validity were the Warwick-Edinburgh Mental Well-being scale (WEMWBS) (Tennant et al, 2007) and the Parental Sense of Competency scale (PSOC) (Gibaud-Wallston and Wandersman, 1978 as cited in Johnston & Mash, 1989). Both these scales were measurements of the parenting ability of the parents. McMurray et al (2013) recommended that in future evaluations of the Families Feeling Safe course, the changes in the children's behaviour should also be measured. I have decided that I will have one measure for the parents/carers and one measure for the children's behaviour. Both measures are free to use and have been tested for validity and reliability. For the parents/carers I will also use the Parental Sense of Competency scale (PSOC) as this will enable me to compare results with McMurray et al (2013). For the children I will use the Strengths and Difficulties Questionnaire (SDQ) (Goodman, 1997 Two questionnaires will be sufficient for the parents as I do not want to put participants off with too many questionnaires. These measures will be used to determine if the aim and objectives below have been met:

Aim

To empower parents by improving parental self-efficacy and increasing parental satisfaction so that the families are able to feel safe.

Objectives

*   Improved parental self-efficacy
*   Improved parental satisfaction
*   A reduction in emotional issues
*   A reduction in behavioural issues
*   Improved social relationships in the children.

The above will be considered met if they have significantly improved by the end of the eight week course.

How will the data be analysed?

The questionnaires will be scored as per the instructions provided by the authors. The scores for each dimension of the questionnaires will then be compared to each stage of the intervention as shown below:

Pre-intervention scores	Post-intervention scores
Pre-intervention scores	Reunion scores
Post-intervention scores	Reunion scores

The software package SPSS will be used to run independent t-tests for the combinations above. If the results come back statistically significant, the effect size will also be calculated.

These results will be discussed in the final report.

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Consultancy Timetable

Timescales – November 2014

Date	Activity	Who
17th November 2014	Project Meeting	The consultant and Manager HLCC
18th November 2014– 12th December 2014	Background literature search on intervention and suitable measures for evaluation to create an evaluation plan	The consultant
22nd January 2015	Start of first course – Baseline data collection	HLCC
4th February 2015	Start of second course – Baseline data collection	HLCC
19th March 2015	End of first course – End of course data collection	HLCC
1st April 2015	End of second course – End of course data collection	HLCC
9th June 2015	First course reunion – Follow up data collection	HLCC
24th June 2015	Second course reunion – Follow up data collection	HLCC
July 2015	Collect evaluation forms from HLCC and discuss progress	The consultant and Manager of HLCC
October 2015	Analyse the data	The consultant
November 2015	Write the report based on the data	The consultant
31st March 2016	Submit the completed report	The consultant

Revised timescales – April 2015

Date	Activity	Who
17th November 2014	Project Meeting	The consultant and Manager HLCC
18th November 2014– 12th December 2014	Background literature search on intervention and suitable measures for evaluation to create an evaluation plan	The consultant
22nd January 2015	Start of first course – Baseline data collection	HLCC
4th February 2015	Start of second course – Baseline data collection	HLCC
19th March 2015	End of first course – End of course data collection	HLCC
1st April 2015	End of second course – End of course data collection	HLCC
April 2015	Collect evaluation forms from HLCC	The consultant
June 2015	discuss progress	The consultant and Manager of HLCC
October 2015	Analyse the data	The consultant
November 2015	Write the report based on the data	The consultant
31st March 2016	Submit the completed report	The consultant

Appendix C - Participant Consent form

Course Title: **Families Feeling Safe – Promoting healthy minds and emotional wellbeing in families**

Dear Parent

Thank you for attending this course on promoting healthy minds and emotional wellbeing in families.

Who is organising and funding the course?
This course is being organised by ███████████████████████ as part of a larger project being organised by Dacorum Borough Council. The course is being funded by Hertfordshire County Council's Public Health Directorate.

This course, 'Families Feeling Safe' has been designed by Action for Children, will be evaluated for its effectiveness in promoting healthy minds and emotional wellbeing in families. This will involve collecting questionnaire information from the people attending the course.

Will my evaluation forms kept confidential?

All the information that you provide will be kept anonymous, confidential and stored in a secure location. Once the evaluation has been completed, all the data will be destroyed. Please remember that if at anytime you are unhappy about taking part in the evaluation, you have the right to withdraw. If this is the case please contact xxxxxxx using the telephone or e-mail address at the top of this page quoting your participant code. If you do wish to withdraw a partial or fully completed questionnaire, we will need to be informed by 31st July 2015.

What will happen to the results of the evaluation?
When the two of people attending this course have finished and all the evaluation forms have been collected, the results may be used in the Hertfordshire Annual Public Health Report, published in an academic journal and possibly put onto the Hertfordshire JSNA website. However the results will be displayed in a way that it will be impossible to recognise any individual who took part in either group of the 'Families Feeling Safe' course.

If you have any further questions about the study then please do not hesitate to contact us on the telephone or e-mail address at the top of this page.

Yours Sincerely,

Consent

☐ I have read the information above regarding the study and have had the opportunity to ask questions.

☐ I understand that I need to complete a questionnaire at the beginning of the course an end of course evaluation and that extra comments are optional. I also understand that I will be asked a series of questions about the course 12 weeks after completing the course.

☐ I understand that all my responses will be kept anonymously and will be stored in a secure location.

☐ I give my consent for my anonymous comments on the course to be used for future promotional material ████████████████████.

☐ I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason.

Signed..

Print..

Date ....

Appendix D - Evaluation Measures

Parenting Sense of Competence Scale

(Gibaud-Wallston & Wandersman, 1978)

Please rate the extent to which you agree or disagree with each of the following statements.

Strongly Disagree	Somewhat Disagree	Disagree	Agree	Somewhat Agree	Strongly Agree
1	2	3	4	5	6

1. The problems of taking care of a child are easy to solve once you know how your actions affect your child, an understanding I have acquired.   1 2 3 4 5 6

2. Even though being a parent could be rewarding, I am frustrated now while my child is at his / her present age.   1 2 3 4 5 6

3. I go to bed the same way I wake up in the morning, feeling I have not accomplished a whole lot.   1 2 3 4 5 6

4. I do not know why it is, but sometimes when I'm supposed to be in control, I feel more like the one being manipulated.   1 2 3 4 5 6

5. My mother was better prepared to be a good mother than I am.   1 2 3 4 5 6

6. I would make a fine model for a new mother to follow in order to learn what she would need to know in order to be a good parent.   1 2 3 4 5 6

7. Being a parent is manageable, and any problems are easily solved.   1 2 3 4 5 6

8. A difficult problem in being a parent is not knowing whether you're doing a good job or a bad one.   1 2 3 4 5 6

9. Sometimes I feel like I'm not getting anything done.   1 2 3 4 5 6

10. I meet by own personal expectations for expertise in caring for my child.   1 2 3 4 5 6

11. If anyone can find the answer to what is troubling my child, I am the one.   1 2 3 4 5 6

12. My talents and interests are in other areas, not being a parent.   1 2 3 4 5 6

13. Considering how long I've been a mother, I feel thoroughly familiar with this role.   1 2 3 4 5 6

14. If being a mother of a child were only more interesting, I would be motivated to do a better job as a parent.   1 2 3 4 5 6

15. I honestly believe I have all the skills necessary to be a good mother to my child.   1 2 3 4 5 6

16. Being a parent makes me tense and anxious.   1 2 3 4 5 6

Strengths and Difficulties Questionnaire

For each item, please mark the box for Not True, Somewhat True or Certainly True. It would help us if you answered all items as best you can even if you are not absolutely certain or the item seems daft! Please give your answers on the basis of the child's behaviour over the last six months or this school year.

Child's Name ....   Male/Female

Date of Birth..

	Not True	Somewhat True	Certainly True
Considerate of other people's feelings	☐	☐	☐
Restless, overactive, cannot stay still for long	☐	☐	☐
Often complains of headaches, stomach-aches or sickness	☐	☐	☐
Shares readily with other children (treats, toys, pencils etc.)	☐	☐	☐
Often has temper tantrums or hot tempers	☐	☐	☐
Rather solitary, tends to play alone	☐	☐	☐
Generally obedient, usually does what adults request	☐	☐	☐
Many worries, often seems worried	☐	☐	☐
Helpful if someone is hurt, upset or feeling ill	☐	☐	☐
Constantly fidgeting or squirming	☐	☐	☐
Has at least one good friend	☐	☐	☐
Often fights with other children or bullies them	☐	☐	☐
Often unhappy, down-hearted or tearful	☐	☐	☐
Generally liked by other children	☐	☐	☐
Easily distracted, concentration wanders	☐	☐	☐
Nervous or clingy in new situations, easily loses confidence	☐	☐	☐
Kind to younger children	☐	☐	☐
Often argumentative with adults	☐	☐	☐
Picked on or bullied by other children	☐	☐	☐
Often volunteers to help others (parents, teachers, other children)	☐	☐	☐
Can stop and think things out before acting	☐	☐	☐
Can be spiteful to others	☐	☐	☐
Gets on better with adults than with other children	☐	☐	☐
Many fears, easily scared	☐	☐	☐
Sees tasks through to the end, good attention span	☐	☐	☐

Signature ....   Date ....

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An Evaluation of:

Families Feeling Safe
A Protective Behaviours Programme

Jo

Contents

Summary

Sure Start children's' centres in Hertfordshire provide the parents of young children with the support they require in order to improve outcomes for the children and their families (Department for Education, 2013). In 2014 Heath Lane Children's Centre received funding from Dacorum Borough Council to run the Families Feeling Safe Course in order to help parents improve their parenting skills. This version of the programme was developed by Fiona Benjamin and Dave Austin in 2012 from Families Feeling Safe Ltd and based on the Protective Behaviour Process (Flandreau-West, 1989).

The aim of this course was to empower parents by improving parental self-efficacy and increasing parental satisfaction so that the family were able to feel safe. The expected outcomes of the course were:

- Improved parental self-efficacy
- Improved parental satisfaction
- A reduction in emotional issues
- A reduction in behavioural issues
- Improved social relationships in the children.

This report is an evaluation of two cohorts of parents with pre-school children who attended the Families Feeling Safe course at Heath Lane Children's Centre at the beginning of 2015. This course was an eight week programme and the success of the course was measured using the Parental Sense of Competency questionnaire (Gibaud-Wallston and Wandersman, 1978) and the Strengths and Difficulties questionnaire (Goodman, 1997). The questionnaires looked at parental self-efficacy, parental satisfaction and their children's behavioural, emotional and social relationship issues.

Although there was a small increase in parental self-efficacy and satisfaction by the end of the course the increase was not significant. However there was a significant improvement reported by the parents in their children's emotional issues. For half of the parents the scores at the beginning of the course for parental self-efficacy and satisfaction were better than the end so it is possible that the parents overestimated their parental self-efficacy and satisfaction at the beginning.

It is recommended that if this course was run again in the future, a follow up session three months after the last session should be included as planned for in the original version of

the course. In order to improve the accuracy of the data, it would also be advisable to give the parents some examples, using fictitious families, in which everyone felt safe before filling in the baseline questionnaires.

Introduction

The responsibilities of the Sure Start children's' centres in Hertfordshire are to provide the parents of young children with the support they require in order to improve the outcomes for the children and their families (Department for Education, 2013). Any parent or carer of a child under five is encouraged to register with their local children's centre. Once registered parents and carers are notified of any courses that maybe suitable to them.

In 2014, Heath Lane Children's Centre were funded by Dacorum Borough Council to run the Families Feeling Safe course in order to improve the emotion and physical wellbeing of young children and their parents. This funding was part of the district offer run by Public Health in Hertfordshire County Council.

Adverse parenting and poor quality parent-child relationships have been shown to have a negative effect on both a child's physical and emotional health. Patterns of relating to other people are hard wired in early life and it can be very difficult to change these ways of relating later on in life (Stewart-Brown, 2008). Poor parent-child relationships can set a child up for poor health in both childhood and adulthood (Steward-Brown, Fletcher and Wadsworth, 2005). For example poor parent-child relationships can increase the risk of alcohol and drug misuse in adolescence as the adolescents may try to compensate for their lack of social and emotional development with intoxicating substances (Repetti, Taylor and Seeman, 2002). A poor family environment can also set a child up for poor mental health in adolescence and adulthood (Repetti et al, 2002). On the other hand, a good parent-child relationship can lead to healthier eating habits which in turn reduces childhood obesity and long term health problems in adulthood. (Golan and Crow, 2004).

Parental self-efficacy is the parent's belief that they are competent and effective parents who are able to influence their child(ren)'s behaviour and development (Teti, O'Connell and Reiner, 1996). Improving parental self-efficacy has been shown to improve a child's socio-emotional functioning (Jones and Pinz, 2005). Parenting programmes that aim to improve parental self-efficacy have shown that parental stress can be reduced (Bloomfield and Kendall, 2012). As a result a stronger sense of parental self-efficacy can have a positive effect on a child's behaviour and a better parent-child relationship (Coleman and Karraker, 2003).

Background to the course programme

The Families Feeling Safe Programme is based on the Protective Behaviours Process which originated from the work of Peg Flandreau-West (1989), a social worker from the US. It was introduced in the UK in the 1990s and was developed further by the national charity Protective Behaviours UK (McMurray, Roberts and Lamb, 2013). This version of the course (Families Feeling Safe: A Protective Behaviours Programme for Mums, Dads and Carers) was developed by Fiona Benjamin and Dave Austin in 2012 from Families Feeling Safe Ltd[1] based in Stevenage. Their parenting programme was originally evaluated by McMurray, Roberts and Lamb (2013) at The University of Bedfordshire.

The programme aims to build self-esteem and personal confidence by teaching people to recognise when they feel safe or unsafe. The programme takes a problem solving approach (Mazzucchelli, 2001) and provides the skills and tools to enable people to know how to take action and when to ask for help (Safety Net, 2010). It aims to teach the protective behaviours to parents so that they can change their behaviour in order to help the whole family feel safe. This in turn will be able to help them support their children's emotional development. The course uses a family systems theory approach as it considers the communication processes and family dynamics and how this affects the child(ren). (Cox & Paley, 2003; Rothbaum, Rosen, Ujiie and Uchida, 2002)

It is based on the two themes:

Theme 1 -"We all have the right to feel safe all of the time"
Theme 2- "We can talk with someone about anything even if it is awful or small"

Seven strategies are used to put these two themes into action.

The course is designed to empower parents by building on existing strengths and not to give them instructions on how to parent (Benjamin and Austin, 2012). The course consisted of eight 2 hour sessions which is outlined below:

Week	Session Title	Content
1	Welcome and Introduction to the Programme	Overview of the programme, going over the workbook and looking at participants hopes and wishes about the course.

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[1] http://familiesfeelingsafe.co.uk/

2	Recognising Feelings	Understanding the link between feelings, thoughts and behaviours. Be able to express feelings in a responsible way.
3	Finding Help and Support	Helping you and your child to build and use support networks.
4	Communication	Communication – both verbal and non-verbal. The use of language.
5	Unwritten Rules	Awareness of social norms (called unwritten rules) in every day talk (both media and personal interactions).
6	Problem Solving	Problem solving in relation to our feelings, thoughts, behaviours and social norms.
7	The Feelings Thermometer	How to recognise unsafe feelings and when we are stressed (feeling out of control).
8	The Three Styles of Behaviour	How language effects styles of behaviour (how it comes out as a parenting style.

Target audience

The course was advertised to mothers, fathers and carers of children under 5 years old by Health Lane Children's Centre through the children's centre's mailing list and it was advertised on their website. Priority was given to parents and carers within the catchment area of Heath Lane, Galley Hill and Windmill Children's Centres in Hemel Hempstead, Hertfordshire. Within this catchment area in 2014 there were 1949 families with children under the age of five (HertsLIS, 2015).

A crèche was made available for pre-school children if parents or carers were unable to get childcare for the Thursday morning session. This was not available for the Wednesday evening session.

Aims and objectives of the course/intervention

The course leaflet provided by Heath Lane Children's Centres contained the following description

> "The Families Feeling Safe course will build on parents' existing strengths, whilst offering practical and inventive ways to help their children deal with life's challenges or worries, no matter how big or small."

The aim of this course was to help parents build on their own personal strengths in order to help parents feel capable in their parenting role and reduce frustrations and anxieties around parenting. As a result both parents and their children would feel safer and any behaviour and emotional issues in the children would be reduced.

The objectives of this course were to:

1. Increase the parental efficacy
2. Increase parental satisfaction
3. Reduce behavioural problems in the children
4. Reduce emotional issues in the children
5. Improve social relationships in the children

It was expected to have achieved these objectives by the end of this course and that the improvements would be statistically significant.

Method

Before starting the course all the participants were provided with an information sheet about the evaluation and were made aware that they did not have to take part in the evaluation if they did not want to. Those who were happy to take part signed a consent form and were made aware that they could withdraw at any time before, during or after the data was collected.

Two questionnaires were used to evaluate the Families Feeling Safe programme. Both questionnaires were given to the parents at the beginning of the programme to obtain the baseline data. The same questionnaires were given to the parents and carers at the end of the course to measure the changes in each of the objectives stated above. If the change was statistically significant, the objective was regarded as met.

The first questionnaire was the Parenting Sense of Competence Scale (PSOC) (Gibaud-Wallston and Wandersman, 1978 as cited in Johnston & Mash, 1989). The purpose of this questionnaire was to measure parental satisfaction and efficacy. The satisfaction dimension included the parent's frustration, anxiety and motivation while the parenting efficacy dimension accounted for competence, problem solving ability and capability of parenting. The higher the score the better sense of parenting competency. This questionnaire was chosen because Jones and Pinz (2005) identified the PSOC as the most commonly used measurement tool for parental self-efficacy. In addition it has been used before to evaluate the families feeling safe programme carried out by the University of Bedfordshire (McMurray et al, 2013).

The second questionnaire was the Strengths and Difficulties Questionnaire (SDQ) (Goodman, 1997) for parents. This brief behavioural questionnaire measures the following behaviour dimensions in children:

- Emotional Symptoms
- Conduct Problems
- Hyperactivity/Inattention

- Peer Relationship Problems
- Prosocial Behaviour

Each dimension contains five items and are independent of one another. This enables a dimension to be measured if any answers are missing from another dimension. This questionnaire was chosen as McMurray et al (2013) recommended that future evaluations of Families Feeling Safe should also measure the effect of the course on the parent's children.

A total of 21 parents and carers started the programme. However only 12 of the parents and carers completed the final questionnaire. All the completed questionnaires were collected for an independent analysis. Each questionnaire was scored as per the instructions (Gibaud-Wallston & Wandersman, 1978; Goodman, 1997) and were given an anonymous code. The data was analysed in the statistical package SPSS to test for significant changes in the scores.

For both the completed questionnaires, the participants who did not complete the final questionnaire were removed from the dataset. A paired samples t-test was run to compare the week 1 questionnaires to the week 8 questionnaires.

Results

Parental Sense of Competency Scale

Overall the results showed that there was not a significant difference $t(11) = -0.550$, $p > 0.05$ between the beginning (M = 64.25, SE = 4.31) and the end of the course (M = 66.75, SE = 3.12) for the PSOC scale. Fifty percent of the participants who completed the course had poorer scores at the end of the course compared to when they started the course.

Looking at the two subscales, there was no significant difference for parental efficacy $t(11) = -1.07$, $p > 0.05$ or parental satisfaction $t(11) = 0.29$, $p = > 0.05$.

Strengths and Difficulties Questionnaire

Within the Strengths & Difficulties Questionnaire, the five different domains were compared at the beginning and the end of the course. Only the emotional domain was significantly

different t(11) = 3.32, p = 0.007, r = 0.71 at the beginning of the course (M = 2.33, SE = 0.48) and the end of the course (M= 0.83, SE = 0.32).

Discussion

The aim of this course was to help parents build on their own personal strengths in order to help them feel capable in their parenting role and reduce frustrations and anxieties around parenting. As a result both parents and their children would feel safer and any behaviour and emotional issues in the children would be reduced.

The objectives of this course were to:

1. Increase the parental efficacy
2. Increase parental satisfaction
3. Reduce behavioural problems in the children
4. Reduce emotional issues in the children
5. Improve social relationships in the children

The results from the parenting sense of competency scale (PSOC) showed that overall the course did not have the impact it was hoped to have as the first two objectives were not met.

One of the main issues was that half the participants had better total scores on the PSOC scale questionnaire at the beginning of the course than the end of the course. This suggests that they may have overestimated their parenting abilities and down played any family issues at the beginning of the course. This psychological phenomenon is known as the Dunning-Kruger effect where people overestimate their abilities as they are unaware of what they do not know (Kruger and Dunning, 1999). Another possibility is that the course may not have targeted the correct audience. This is because the high scores at the beginning could be interpreted as the parents already feeling competent in their parenting ability with little room for improvement.

The results from the strengths and difficulties questionnaire did show an improvement in the children's emotional wellbeing. The questions in this domain measured if the child had

many worries, was often unhappy, nervous or clingy in new situations, had many fears and often complained of headaches and stomach-aches. This suggests that the children did feel safer as a result of this course. Therefore the fourth objective was achieved. However the third and fifth objectives were not achieved.

In comparison to the evaluation by McMurray et al (2013) this evaluation did not have significant results for either of the dimensions in the PSOC scale. This may be due to the small sample size in this evaluation and/or the target audience. McMurray et al (2013) used the 17 item PSOC scale which contained an addition dimension (interest) whereas this evaluation used the 16 item PSOC scale. This could also have affected the difference in results. Another potential reason for the differences in outcomes is that some of the parents in McMurray et al (2013) had teenage children whereas this programme of the Families Feeling Safe course was aimed at pre-schoolers.

Feedback from the parents who attended the first course was generally positive and three parents from the first course booked onto further parenting training as a result of this course. Unfortunately the report from the second course was not available due to the change in management at the children's centre.

There were several limitations to this evaluation of this course. Only twelve final evaluation forms were returned so the sample size is very small. In the original scoping of the intervention, a reunion was planned for three months after the course completed. Due to the change in management of the children's centre halfway through the intervention the re-union was cancelled. If it had gone ahead then another set of evaluations would have been collected. This would have enabled us to determine if the parents/carers had been able to build their new skills into their family lives and improve on their skills since the end of the course.

Conclusion and recommendations

The Families Feeling Safe course run at Health Lane Children's Centre in 2015 only managed to partially achieve the aims and objectives as there was no significant improvement in either parental efficacy or parental satisfaction. If this course was repeated at one of the children's centres, care would need to be taken in targeting the parents who needed the course the most. It would be advisable to have some screening questions to assess the suitability of the participants. To help prevent participants

overestimating their abilities at the start of the course, it may be helpful to give some examples of fictional families where everyone feels safe.

In the original plan, a follow up session was planned for three months after the eight week course had finished. It is recommended that any future presentation of this course should have this included as this provides an opportunity to demonstrate that the parents and carers had a chance to implement their knowledge gained from the course. It is also recommended that a reminder is sent out for the follow up session after the eight week course as previous programmes of this course have had a low turnout in the follow up session.

This version of the course was run on a Thursday morning and a Wednesday evening. Finding time to attend courses can be difficult for working parents so it would be advisable to find out from parents the preferred times to attend courses. For example some parents may find a Saturday morning easier. Some parents maybe anxious about joining new groups on their own so this needs to be considered when recruiting parents and carers for the course in the future.

Finally, for evaluations of this course in the future, it would be helpful to get feedback from those who led the course to find out how they felt the training went and how this maybe improved in the future.

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Teaching and Training

Contents

Case study

Introduction

The aim of this case study is to demonstrate how I applied the teaching and training competencies to a training workshop on evaluating health behaviour change interventions. The training was part of a large project which was carried out between Hertfordshire County Council (HCC) and the ten district councils in Hertfordshire in 2016/17. Nine people from the district councils who were overseeing the evaluation of several health behaviour change interventions attended the workshop. I chose this example for my case study because the training is part of larger training project and I felt it would show how I could develop and modify a training course over time.

Planning and designing the training (5.1a, 5.1b)

I began planning and designing the workshop on evaluating health interventions, by considering the trainee profile. This enabled me to tailor the training material to the knowledge level of the group. I could not assume that the trainees had the same background knowledge as me in health psychology, research or evaluation concepts (Winefield, 2004). From speaking to the project manager in HCC, I discovered that between the trainees there was a wide variety of knowledge and experience in evaluating health interventions. Therefore I determined that it was important to provide the trainees with an opportunity to share their experiences. I was advised there would be up to fifteen people attending. The group size would affect how I designed exercises and how I carried out formative assessment which is a powerful enhancement to learning (Biggs & Tang, 2007).

I read the project plans submitted by the districts and I identified that the key areas of training required were writing SMART objectives and measuring these objectives. In particular the trainees struggled with measuring wellbeing and psychological health. For simplicity, I based the training on an evaluation guide by Public Health England (PHE) (Cavill, Roberts & Ells, 2015). I used their project development cycle to structure the workshop and expanded the material on writing and measuring objectives. I added in material from Ovretveit (1998) that defined evaluation and its purpose to set the context and explain the importance of evaluation. In addition I read through Harris (2010) to increase my knowledge of health intervention evaluation.

I wrote a list of learning objectives in order to define what I wanted to teach the group (D'Andrea, 2003). I used PowerPoint to present the material because I find it a useful

planning tool as well as a presentation tool. The slides can then be used to create handouts for the trainees (Appendix A). During the planning process I re-ordered the slides several times as I considered the flow of information to the audience. I added notes for myself to help me when carrying out the training. As I created the slides, I was aware to keep the information on each slide to a minimum to make it easier to get the key points across to the audience (Race, 2007).

Selecting training methods (5.1c)

Throughout the design process, I considered different learning styles. I considered visual, auditory and tactile learning styles, however as these have been disputed (Pashler et al, 2008), I felt that it would be better to focus on the more established theories by Honey and Mumford (1992), Biggs and Tang (2007) and Ramsden (2003) as discussed below.

I identified that writing SMART goals was a challenge for the trainees. Just reading through slides on SMART objectives is considered surface learning. The trainees would cover enough to know about SMART objectives but not enough to actually write them properly (Biggs & Tang, 2007). I therefore felt a deep learning approach was required because well written objectives are essential to evaluating well. In addition, Ramsden (2003) takes this approach further and suggests it is better to take a deep-holistic rather than a surface-atomistic approach. Often SMART objectives are taken apart and each letter of SMART is explained separately (atomistic) and left at that. In order to bring SMART back to a deep-holistic approach. I presented SMART objectives as MAR/ST to demonstrate that the measureable component is the most important. I then created a problem-based task based on sorting SMART and unSMART objectives so the trainees could understand how the components fitted together.

When developing the practical exercises, I applied Honey and Mumford's (1992) four learning styles (activist, pragmatist, theorist and reflector). The problem-based learning task described above was tailored to activist and pragmatist learning styles (Honey & Mumford, 1992). In contrast, the handouts accompanying the discussion on the logic-model framework theory of developing evaluation suited the theorist and reflector learning styles. For trainees who preferred a reflector style, there were further links to follow up at the end of the slide handouts. Research by Coffield, Moseley, Hall and Ecclestone (2004) has shown that people tend to have a preference for two (sometimes more) learning styles so I covered all four to give the trainees a choice of ways to learn.

I wrote a training plan (Appendix B) that included the materials I required and my timings for each area of the workshop to help me to pace the training. I also sent an agenda to the trainees so they knew what to expect in the workshop.

In reflection, I feel that I could have made my slides more exciting with more pictorial material as they contained a high percentage of text.

Facilitating learning (5.2a)

Experiential learning was incorporated throughout the workshop to enable the trainees to share their previous experiences of organising health behaviour change interventions and to facilitate learning. According to Kolb's (1984) Learning Cycle, understanding is formed and continuously re-formed in a cyclical process. Over time, people reflect on their concrete experience and take on board feedback from others. This enables them to think of new ideas which they will try out in the future (Fry, Ketteridge & Marshall, 2003). During the reflection stage, people also draw on the experiences of others (Rogers, 2010). I implemented experiential learning by allowing for plenty of discussion opportunities. The workshop started with group discussions to get the trainees to think about what evaluation was and reflect on their experiences of evaluation with the other trainees. I then asked them to share their knowledge and experience of the topic and recorded the key points on a flipchart.

For the problem-based exercise I took an active learning approach (Felder & Brent, 2009). I asked the trainees to get into groups of three and I gave them a pack containing 22 SMART and non-SMART objectives written onto cards. The groups had to sort out the SMART from the non-SMART objectives. Once they had completed this, I gave them the answers and then as a whole group we discussed those objectives which they had found difficult to categorise. I found this useful as it helped me see what parts of SMART they found most difficult.

The problem-based exercise gave me the opportunity to provide formative assessment for the trainees by giving feedback on the decisions made about which objectives were SMART. Formative assessment tells the trainees how well they are doing in the learning subject and informs them on the areas they need to work on. As well as the trainer providing feedback, other trainees and the individuals themselves can provide feedback (Biggs & Tang, 2007). I found that the trainees enjoyed giving feedback to their peers

during and after the exercise and I also found it useful to hear their feedback as it helped me reflect on how well I had designed the exercise.

In the second half of the workshop, I discussed how to plan an evaluation and provided the trainees with a simple logic-model framework diagram to work with. This prompted some good discussion and feedback from one of the more experienced trainees about the practicalities of relating theory to real life. As well as sharing useful experiences with the group, it also helped me think about how it could be useful to create a practical example and/or exercise in this area in future training sessions when I can split the training into two workshops. The ethics and consent slides also provided lots of discussion as this was something they had not considered before. I emphasised the importance of following their organisations' guidelines on collecting and storing data otherwise there could be serious consequences.

After the workshop I received an e-mail from one of the trainees thanking me for the training and asking me a query about evaluation. I responded promptly with the information she required.

Evaluating and reviewing the programme (5.4a, 5.3b & 5.4b)
At the start, I felt nervous but this went early on in the workshop. Throughout the workshop I regularly referred to my training plan to make sure I kept to my timings. I found this helpful as previously I have rushed through my presentation slides. The first exercise on understanding and feelings about evaluating interventions helped me to gauge what areas people found hard or did not understand about evaluation. Measuring the success of interventions, especially for wellbeing, was well received as most trainees struggled to measure wellbeing outcomes. Later in the workshop it became clear that the trainees needed a guide on how to report the results of their evaluation. As a result I planned a meeting with one of the project managers in HCC to discuss and produce a report template and guide for them.

At the end of the workshop, I handed out evaluation forms to determine if the trainees had benefited from the training and to get feedback on my design of the workshop. In developing my evaluation form (Appendix C), I made sure it was quick and easy to fill in as I was aware that the trainees would be tired from the workshop (Day, 1995; Hounsell, 2003). I picked the key areas I required feedback on and used a Likert scale for ease of answering. I offered the trainees an opportunity to give written feedback if they so wished.

Overall the feedback was positive and all the trainees said they felt confident or very confident about writing SMART objectives after the workshop. They found the measurement tools and hearing about other trainee's experiences of evaluating interventions the most useful. I found hearing about other people's experiences helpful too as this helped me relate the theory to the practicalities of carrying out evaluation with limited resources. The district councils are smaller organisations than the county council and I need to be aware of this. For example, when we discussed data confidentiality and participant consent I suggested speaking to the information and governance team in their organisations about their procedures. I was informed that this is covered by one person who also had other responsibilities and there is not a dedicated team as in HCC.

To assess the long term impact of the training I will be meeting with each district council in a few months' time to go over their project plans. This will enable me to assess how much they remember about evaluation planning.

Identify improvements for the future (5.4b & 5.4c)

This was the first time I had run this workshop so in effect it was a pilot. Therefore this workshop was a learning experience for me as well as the trainees. It gave me awareness of the type and size of interventions people were carrying out, the resources they had to work with and the problems they were running into. For example many trainees lack analytical skills, so in the future they need some basic skills in collating questionnaire data, basic analysis and how to locate people with specialist analytical skills.

I have since run this training workshop again and I have developed and run a follow up workshop. I used the incidental and formal feedback collected from the pilot to inform my revision of the first workshop. When introducing SMART objectives the trainees now discuss and tell me what the acronym means and we discuss the variations of words used to make up the acronym. This is because I heard one of the trainees tell another trainee that they interpreted SMART in a different way and this could have caused confusion. I now ask the trainees what measurements they have used for measuring success of their health interventions. I also show how evaluation is linked to the project management and the intervention mapping process (Kok, Schaalma, Ruiter & Van Empelen, 2004) so that it is seen as an integrated and not a separate process. The formal feedback from the first session informed the content of the follow up workshop. The pilot workshop feedback asked for more information on available measures for objectives. The follow up workshop

goes into greater detail with measures, collating the data and considers ways of analysing the data using a worked example. The trainees also wanted practice with evaluation planning tools so the follow up workshop now has an exercise using the Logic Model Framework.

This experience has shown me that developing and running workshops is a continuous and iterative process. Going forward, each time I run a workshop I will collect trainee feedback and use it to modify and improve the materials for the next time I run the workshop.

Teaching evaluation

Introduction

The aim of this teaching evaluation is to evaluate how I planned, designed and delivered a teaching session on epidemiology and biostatistics to MSc Health Psychology students at London Metropolitan University in 2015. Evaluation is essential for improving teaching competence and increasing the students' understanding (Ramsden, 2003). I felt this teaching session would enable me to draw on my work as a public health analyst and give me the opportunity to demonstrate how health psychology skills could be implemented in a public health environment. The students would also benefit from learning about practical examples in the work place and how it related to the theory. This would help them plan for their second summative assessment for the module "Context and applications of health psychology".

Assessing the students' needs (5.1a)

To prepare for the session and to assess learning needs, I obtained a copy of the previous year's module handbook so that I was aware of the module aims and learning outcomes. I contacted the course leader to find out more about the group. I discovered there were six students in the class who were mainly interested in the clinical application of health psychology. With this knowledge I determined that the students would have limited experiential learning (Kolb, 1984) in epidemiology. According to Gosling (2003), a learning need for students must be inspiring and motivational. Therefore I needed to promote the application of health psychology in public health and provide practical examples of the use epidemiology in the workplace.

I reflected on my experience of teaching MSc Health Psychology sessions in the previous academic year and the learning needs of those students. I identified that I would need to be clear about how my content related to the end of module summative assessment. This is essential to quality teaching (Race, 2007). At the beginning of the session I would also ask the group to reflect on their current understanding and feelings towards epidemiology to determine their current level of understanding.

In reflection, I am aware that I drew on my own experience as a student in this module three years ago. Although this helped me envisage the learning experience for the students, I think that I fell into a trap in thinking they would have a similar experience to me. In the future I need to be more aware that everyone's learning experience and

background is different. I could have also asked the course leader if she was aware of any preferred learning styles within that student group so I could concentrate on these styles.

Planning the session and developing the teaching material (5.1b, 5.1c)

Before developing the material, I reviewed presentations of this teaching session from previous years. I noted what I wanted to include and exclude in relation to the module learning outcomes. Then I decided what to add to the session that was in line with the learning outcomes for the module. I wrote a paragraph about the lecture contents and identified relevant recommended reading. I submitted this to the course leader for publication in the latest module handbook. I also provided an essay question for the first end of module summative assessment in line with the module learning outcomes.

I identified five learning objectives on epidemiology approaches for this teaching session. These can be found on slide two in appendix D. The last learning objective aimed to help the students carry out their second end of module summative assessment. I felt it was also important to show the students some practical examples of epidemiology to help them understand the link between theory and practice.

After developing and planning the core material, I created the exercises and discussions (Appendix F) to provide the students with opportunities for formative assessment (Biggs & Tang, 2007), learning opportunities in different styles (Honey & Mumford, 1992) and to encourage a deep learning approach (Ramsden, 2003). The first practical exercise used a pragmatist and theorist learning style. It looked at a practice example of a formula I had encountered in the workplace. I asked the students to consider the assumptions about the formula and what perspectives a health psychologist would have on this. The second exercise also used a pragmatist and theorist learning style, however for those who preferred a reflector learning style, this exercise could be taken away to do in their own time.

In reflection, I need to consider the activist learning style as this is lacking in this teaching session. In the future I could give the students a scenario and some data and get them to try and solve the problem in groups. However I would need to consider what to take out to make room for this.

I gave myself plenty of time to prepare for the training session to make sure I could fit it around work and personal commitments. I enjoyed the challenge of making the topic more practical by adding work related content.

Facilitating learning in health psychology and selecting assessment methods (5.2a, 5.3a)

I arrived in good time to set up for the session. This enabled me to make sure the necessary resources and materials were ready before starting. It also helped me stay calm and collected. Before starting, I explained, for ethical reasons, that this teaching session was being recorded for my assessment purposes only and that the camera would only film me and none of the students.

Formative evaluation (or assessment) is a way of finding gaps in students' knowledge (Biggs & Tang, 2007). I started the teaching with some formative evaluation to determine what the students already knew about the topic and how they felt about it. This enabled me to identify any incorrect knowledge and if anybody was not keen on this topic. This also helped break the ice as I had not taught this group before. Nobody reported any negative feelings towards the topic even though I let them know it was okay to express this. Throughout the teaching session I regularly asked if there were any questions about the material and responded appropriately. The students tended to asked more questions in the later part of the session as they became comfortable with the environment.

Informal or incidental feedback is about observing the behaviour and attentiveness of the students within the classroom. This information can be used to inform the teaching process (Rogers & Horrocks, 2010). I demonstrated this by picking up on the lack of questions and instigated more conversation during the break about the course in general. This encouraged the students to talk and ask more questions. I was then able to get better feedback from them on the exercise and provide them with suitable feedback. We then moved on to discuss the summative assessment at the end of the module and how the knowledge from this topic could be applied to the assessment.

Due to the students' interest and extra questions on the topic, we ran out of time to do the second exercise, however I gave the students the exercise to carry out in their own time if they wished. The original source was referenced on the exercise so the students were able to lookup the answers. This take away approach enabled students with a reflector learning style (Honey & Mumford, 1992) to carry out the exercise with no time constraints.

In reflection, I felt confident about this teaching session, as it was a topic that I used at work, however it still took me a while to settle into the session. When nervous I can talk too fast which is not good for the students. I enjoyed teaching the subject as I felt that I was able to make a potentially dry subject interesting. Incidental feedback showed that the students appreciated learning how epidemiology evidence could be used in their second assessment (creating a health promotion leaflet) and how it is used in the workplace. I felt I could have asked more questions earlier on the teaching session and that would have enabled me to provide more formative assessment. However I did recognise they were quiet and was able to get them talking half way through the session.

Evaluating the teaching session (5.4a, 5.4b)

For my evaluation, I drew on several methods of feedback to provide a robust feedback strategy (Hounsell, 2003). As well as informal feedback discussed above, I collected questionnaire feedback from the students, created self-generated feedback and was observed by my supervisor. In addition I filmed the teaching session so I could observe my own teaching. Student feedback alone isn't always reliable as students are not trained in teaching skills and can often rate a teacher higher than average (Armstrong, 1998). Therefore it was important to collect this alternative feedback.

Immediately after the teaching session, I completed a self-reflective feedback form (Appendix I) (Day, 1995). I felt that I got the session underway well and on time, however I felt I brought the session to a close poorly. This was because we ran out of time and students had to leave due to personal commitments. I did ask questions and prompt the students however this wasn't consistent throughout the session. Due to the small group size I was able to respond to the students as individuals well and involve all members in the group.

Questionnaires are a popular way of collecting feedback from students (Hounsell, 2003). I designed a questionnaire which aimed to capture the students' perspectives about the session, if the exercises helped them and what they had learnt (Appendix H). This final point was compared to the learning objectives of the teaching session. I kept the questionnaire brief and simple to avoid boring the students (Race, 2007) and added an open question to record what the students had learnt in the session (Winefield, 2004).

Five of six questionnaires were completed. Overall the students gave positive feedback and one student would have liked a longer session. They all said the session covered

what they expected demonstrating the brief in the module booklet was clear. In the open question, all the students wrote something that related to the learning objectives. This showed me they had manage to link the teaching material to the learning objectives and could see how epidemiology can be used by a health psychologist.

The process of teaching observation enables the teacher analyse and develop their teaching practice (Fullerton, 2003). This can be carried out by another observer and/or the teacher through recording the teaching. I found watching myself a useful experience, however I did not really enjoy the process. I could see that I was moving through the material rather fast and I need to be comfortable with pauses and periods of silence. I was also very aware that I used a lot of filler words like "so" and "okay" which indicated some nervousness.

The observational feedback from my supervisor (Appendix G) was useful and encouraging. It supported my observation that I can move through the material too fast so I will work on following timings in my lesson plan (Appendix E) more closely. I need to find better ways for checking learning points. In future I could ask the students how they might apply the knowledge. This would also facilitate active learning (Felder & Brent, 2009). My supervisor suggested providing a worked example of the calculation method. This is a good idea for the future but I need to consider how this would impact on the timings of the teaching session especially as I ran out of time. I found the positive feedback encouraging.

Acting on Feedback (5.4c)

Taking into account all the evaluation approaches above, I need to carefully plan the timings of my teaching material and incorporate the times into the plan. I will then follow this closely as I go through the teaching session. As well as slowing me down and identifying if I have too much material, it will enable me to bring the session to a close better and allow for any final questions. I have already tried implementing this in subsequent teaching and training and found it to work well. However it is still something I have to be consciously aware of. In addition I need to create a clear summary slide at the end of the presentation to re-enforce what the session had covered. This is something I will add to my future teaching and training sessions.

I have learnt that practical exercises at the end of teaching or training sessions do not work well. As well as running out of time, students may be inclined to rush it or find an excuse to go early to avoid working on it. In future I will plan exercises earlier in the session.

Finally, I need to consider the training environment more. In this session the tables were already in blocks suitable for group working. I found this helpful so will aim to have this classroom layout in the future. It would also be helpful to have access to a white board or flip chart to write down key point from discussions. This will highlight key points both to the students and myself.

Teaching and Training Reflective Commentary

The aim of this reflective commentary is to identify the strengths and weaknesses of my teaching skills and demonstrate my ability to facilitate learning in health psychology. This commentary is on a ten minute section (2:00 to 12:00 minutes of the attached DVD, appendix J) of an epidemiology and biostatistics teaching session taught to a small group of MSc Health Psychology students at London Metropolitan University in December 2015. This supports the training evaluation assessment. Before starting, the students were informed that the camera was only filming me for evaluation purposes and no students would be filmed.

The recording starts with me asking the group what they already knew about epidemiology and their feelings towards it. I felt I watched the group too intently during their discussion until I turned my focused to my teaching notes. I feel this could put pressure on the students so in the future I will move my focus away from the group sooner and bring it back again only when we are ready to discuss the answers. I think it was good to let the students volunteer their answers when they were ready so they did not feel pressured at the beginning. Giving positive feedback helped them feel at ease. To encourage participation further, in future I will ask those who had not spoken if they agreed with the comments and if they wanted to add anything further.

Most of the time my voice sounded clear, however occasionally my voice went quiet when changing slides. I feel that I need to slow down and feel more comfortable with pauses, especially when changing slides or locating examples to show the group. This would benefit the students by giving them time to digest the information and make notes. When showing the practical examples of ways to present epidemiological data, I came across as enthusiastic about the topic which I feel helped to engage the audience. I could have asked them what the maps showed and if anyone had any further questions to help them engage further. In addition, I could have linked the next slide on the origins of epidemiology back to the example maps to demonstrate how we are still using similar techniques.

I observed that I used my hands a lot and said the words "ok" and "so" a lot while teaching. This was my nervousness coming through however I felt I became more confident as the teaching session progressed. I know I need to keep on teaching to become more confident. I need to avoid talking to the screen especially when explaining things. This cuts off eye contact with the audience and can make it harder for them to hear. In future I

need to slow down, point out to the discussion point, turn around and then discuss to the audience. I could use an electronic pointer and or make use of the presenter view in later versions of PowerPoint. I also need to be aware of smart boards moving onto the next slide before I am ready.

In summary, although I didn't enjoy it, I found watching myself teach a useful exercise as it made me aware of how I came across to the students. In the future I will consider the points identified above and incorporate my suggested changes.

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Appendices

Contents

Appendix A – Evaluation training slides

Evaluating Health Interventions

Jo Mackenzie
Public Health Analyst

Learning Objectives

- To be able to:
  - Demonstrate why evaluation is important
  - Define aims and objectives
  - Write SMART objectives
  - Recognise the different types of evaluation
  - Describe the steps of evaluating within the project development cycle

What we will cover today

- What evaluation is and why we do it
- Evaluation in relation to the project development cycle
- Writing SMART objectives
- Using the Logic Model Framework
- Evaluation measures
- Data confidentiality and participant consent

How would you describe evaluation?

and

How do you currently feel about evaluation your projects?

What is evaluation?

- Basic part of project management
- Evidence of success of an intervention
- "Did I achieve what I set out to do?"
- "Did the intervention make the changes it set out to make?"
- Did it meet the objectives?

Evaluation myths

- Requires expensive consultants
- Not just counting everything
- A report on the costs of the project
- Something that can be done at the end of a project

Why evaluate?

- Essential for improving public health programmes:
  - Should we run this intervention again?
  - To find ways to improve a campaign or intervention.
  - Justify the cost.
  - Is the programme effective?
  - Did anything not work?

Purpose of evaluation

- Should be able to complete the follow sentence

  - "The evaluation is for .... To answer the question....... In order that the user make better decisions about ...."

Project Development Cycle
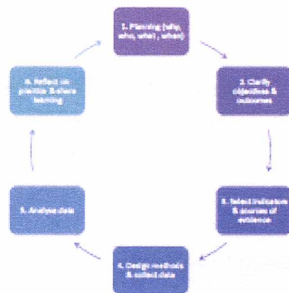
1. Planning

- Short document or project brief outlining:
  - The health issue to be addressed
  - The prevalence of the health issue
  - Evidence for the approach to be taken
  - Resources available
  - Stakeholders involved
  - The aims and objectives
  - What will happen
  - What will you measure
  - When will you measure

Theory of Change

- Explains the rationale for the intervention
- What the project hopes to achieve
- The project's
  - Goals
  - Activities
  - Objectives
- Used to create the Logic-Model Framework

2. Setting the objectives

We cannot evaluate without well written aims and objectives!

These need to be agreed with everyone involved before the project starts.

To run a workshop on healthy eating

Objectives versus activities

- Objectives and activities are often confused

  – Objectives state what we want to achieve

  – Activities state what we will do to meet out objective(s)

By the end of the workshop, participants will be able to identify key components of a healthy meal

Aims versus objectives

- Aims
  – Describes what the project/intervention hopes to achieve
  – The planned affects
  – Very general
  – Need to be testable
  – Normally one aim

- Objectives
  – Very specific
  – Must be measureable
  – State the outcome to be achieved
  – Give the criteria for deciding the outcome has been achieved
  – The target population
  – 3 – 5 objectives are recommended

Writing Objectives

- Objectives help us answer our evaluation questions
- What is a SMART objective?
- When writing SMART objectives it is easier to use the following order:
  – M - measureable
  – A/R – achievable/realistic
  – S – specific
  – T - timely

Measureable

- How will you measure this objective?
- Some objectives are easier than others
- What tools could you use?
  – What have other interventions in this area used?
- Where can you find suitable measures?
- Some measures are licenced and have an attached cost.
- How will you collect the data?

Achievable/Realistic

- Achievable and realistic work together
- Is your target achievable?
  - It is highly unlikely you will achieve a 100% success rate
  - How much change do you expect from your target group?
- What is a realistic expectation? Consider:
  - Budget
  - Time
  - Resources?

Specific

- Be clear and do not use jargon
- Does the objective mean the same to everyone involved?
  - There should be no confusion here
- Should state
  - What
  - Why
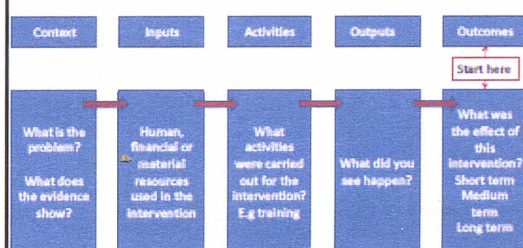 - Where
  - When
  - Who

Time

- This is about setting deadlines
- Use dates or specify a set time period.
- Need a clear start and end date
  - Extending the time period makes the objective non-specific!

SMART Objectives Exercise

Inputs, Outputs and Outcomes

- Inputs – these are your resources
- Activities – What did you do for the intervention?
- Outputs – monitoring data e.g. how many people participated?
- Outcomes – Short, medium and long term effects of your intervention.

Logic-Model Framework

Context	Inputs	Activities	Outputs	Outcomes
				Start here
What is the problem? What does the evidence show?	Human, financial or material resources used in the intervention	What activities were carried out for the intervention? E.g training	What did you see happen?	What was the effect of this intervention? Short term Medium term Long term

Evaluation Questions

- Has the health of the target group improved?
- Has the expected percentage of the target group adopted the health behaviour changes?
- Has the uptake of a health service increased by the desired amount?

3. Selecting indicators

- Key measures are indicators
  - They indicate if the project/intervention has made the change/impact it was supposed to make.
- Referring back to the logic model we can have:
  - Process indicators
  - Outcome indicators
    - Short term
    - Medium term
    - Long term

Types of Indicators

- Process indicators
  - Monitor the progress of the project/intervention
- Outcome indicators
  - Short term – Immediately at the end of the project. E.g. attitudes and knowledge
  - Medium term – follow ups at 6 months/1 year. E.g. behaviour changes
  - Long term - measurable outcome e.g. PHOF indicator

4. Design and data collection

- The design of your evaluation will depend on
  - Your evaluation questions
  - Your selected indicators
- How will you collect your data?
- How do you want to use the collected data?
  - Who will be the audience of that data?

Types of evaluation

- Outcome
  - Assesses if the project met its intended outcomes
  - What people think of when discussing evaluation
- Process
  - Describes what happens when a project takes place
  - Overlaps with monitoring
- Formative
  - Carried out in the planning stage
  - Used to develop an intervention

Demographics

- These help you to analyse and compare groups within your data
  - Age
  - Sex
  - Ethnic group
  - Socioeconomic status
  - Area of residence

Data to collect – Process Evaluation

- Number of enquiries about an intervention
- Participants signed up to an intervention
- Attendance rates
- How many from deprived backgrounds
- Number of people completing an evaluation form.
- How satisfied trainees were with a course

Data to collect - outcome evaluation

- This will relate to your question, aims and objectives
- Questionnaire data
  - Improvements in wellbeing
  - Weight loss
  - Increased physical activity
  - Reduction in alcohol consumption
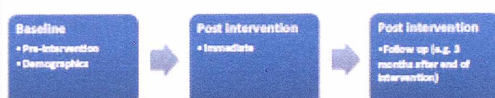 - Increased use of an existing health service

Evaluation measures

- Dependant on the type of intervention
  - Weight Management
    - Weight (KG)
    - BMI
    - Change in consumption of food types
    - Attitudes towards food consumption
  - Physical Activity
    - Total time per week
    - Incidents of exercise per week
    - Type of exercise
    - Benefits of physical activity

Evaluation measures cont..

  - Mental health/wellbeing
    - WEMWBS - Wellbeing
    - GAD7 - Anxiety
    - PHQ9 – Depression
    - SF36 – Quality of Life
    - SF12 – Quality of Life (shortest version)
  - Dependant on the target group
    - Children
    - Working age adults
    - The Elderly
    - Adolescents
- Beware that some measures have costs!

When to collect data

Baseline	Post Intervention	Post Intervention
• Pre-Intervention • Demographics	• Immediate	• Follow up (e.g. 3 months after end of intervention)

This is a basic example, you can have more data collection points and it is recommended if you are carrying out a large intervention

Data Confidentiality

- Need to carry out a Privacy Impact Assessment
  - Participants personal data is sensitive data.
  - Make this anonymous as soon as practically possible.
  - Always store in a secure location
- Check your organisation's data protection rules.

Participant Consent

- When collecting data from participants you must get their consent.
  - You need to let them know that
    - The information they give will be keep anonymous
    - The data will be stored securely
    - What you plan to use the data for
    - That they withdraw consent at any point before, during or after the intervention
      - Let them know how to do this.
  - Participants have the right to say no!

Data collection methods

- Methods
  - Interviews
    - Face to face
    - Telephone
  - Online surveys
  - Postal survey
  - End of course surveys
  - Focus groups
- Consider how you are going to get the best response rate
  - Make easy for them!

5. Analysis

- Level of analysis
- Who is your target audience?
- What are you going to compare?
- Do you require statistical tests?
- How will you present the data
- What are the limitations of the data

6. Reflection

- What we the findings
- Conclusions
- Final report
- Sharing the information
- What have you learnt

Resources and Support

- Evaluation guides by PHE
  - http://www.noo.org.uk/core/Frameworks
- Mental health and wellbeing measures
  - http://www2.warwick.ac.uk/fac/med/research/platform/wemwbs
  - http://www.euroqol.org/
  - http://www.phqscreeners.com/
- Guide for measuring diet and physical activity interventions
  - http://www.noo.org.uk/core/frameworks/SEF_PA

Appendix B – Evaluation training lesson plan

Evaluation training (2.75 hours) - Training Plan & Guide for Trainer

Expected number of participants = 15

Rough guide TIME	SLIDE	TOPICS	ACTIVITY	EQUIPMENT
10.00	1	Introduction	About me	Slides
10.05	2, 3	Learning objectives and workshop outline	What participants will learn in this workshop	Slides
10.10	4	Describing evaluation and feedback from participants	Participants to consider what evaluation is and to reflect on how they feel about it.	Flip chart and pens
10.25	5, 6, 7, 8	What, why & purpose of evaluation	The importance of evaluation	Slides
10.35	9, 10,11	Project Development Cycle & Planning	Where evaluation sits when planning a project	Slides
10.40	12-15	Setting objectives v. activities	Differences between objectives and activities. Prompt participants with slide 13 to see if it is an objective or activity	Slides
10.45	16	Aims v Objectives	Differences between the two	Slides
	17-21	Writing SMART objectives	Get some feedback from the participants first as they will have heard about SMART before and probably tried to write them How to write them taking each part into account	Slides Flip chart and pen
10.55	22	SMART objectives exercise	Start session 2 – Exercise on identifying SMART and unSMART objectives. Divide into 3 groups	Laminated SMART and unSMART objective cards

11.10				**Break (20 minutes)**	
11.30	22	Review		Scoring and discuss the results from the exercise	Team results on the flip chart Marking sheets
11.45	23, 24, 25	Logic-model framework		Helping participants think about their components of their projects and how to identify outcomes to measure. How objectives are related to your outputs (process) and outcomes (outcome) – work backwards!	Hand out of the model (16)
11.50	26, 27	Selecting indicators		Relation of key measures and indicators	Slides
11.55	28, 29, 30, 31, 32	Design & data collection		How the types of evaluation relate to the outcomes and outputs, may need to flick back to slide 27 and logic model	Slides
12.05	33, 34, 35	Evaluation Measures		Allow for questions and other suggestions – write down on flip chart any good suggestions	Flip chart & pen
12.15	36, 37	Data confidentiality & consent		How this is essential if you want to do anything useful with your data.	Slides
12.20	38	Data collection methods		How this will depend on the data you want to collect	Slides
12.25	39	Data analysis		What do you need to do and how will you go about it? What happens if you get stuck? Is there anybody that can help you?	Slides
12.30	40	Reflection		How to report the findings and learning from the intervention	Slides
12.35	41	Resources & support		Clickable links	Internet access
12.45pm				End	

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Appendix C – Evaluation training evaluation form and feedback

Evaluating Health Interventions Feedback

Before today's workshop, how much did you know about evaluation?
- ☐ Not much knowledge
- ☐ A little knowledge
- ☐ Some knowledge
- ☐ A lot of knowledge

Before today's workshop, how confident did you feel about writing SMART objectives?
- ☐ Very unconfident
- ☐ Unconfident
- ☐ Confident
- ☐ Very confident

How confident do you feel now about writing SMART objectives?
- ☐ Very unconfident
- ☐ Unconfident
- ☐ Confident
- ☐ Very confident

Did you find the workshop informative?
- ☐ Yes
- ☐ No

How did you find the pace of the workshop?
- ☐ Too fast
- ☐ About right
- ☐ Too slow

Did you have enough opportunity to ask questions?
- ☐ Yes
- ☐ No

Did you find the exercise useful?
- ☐ Yes
- ☐ No

If not, why?

Did the workshop cover what you expected?
- ☐ Yes
- ☐ No

If not, what did you expect it to cover?

What new things did you learn about evaluation?

What did you find most useful?

What do you feel would have improved the workshop?

Overall the workshop was

☐ Very Useful and Informative
☐ Gave me some new information
☐ Gave me little new information
☐ Gave me no new information

Any other comments

Thank you

Feedback from trainees.

Feedback forms were positive in general and most people felt more confident in writing SMART goals and evaluating afterwards. Everyone found the exercise useful as it created some interesting discussion among the teams and the group. The measuring part and collecting data was very popular too so this could be expanded on. Add in Likert Scales and the use of qualitative data. As with slide 33 add some more measures in and how people might find more measures. One person was already quite experienced with evaluation so found the pace a bit slow. Is there a way to manage this? Another comment was about their personal resources in the workplace. For districts it is important to consider the size of the organisation compared to HCC. In HCC we may have a team whereas in the district council they may have one person who also covers other roles.

Appendix D – MSc Health Psychology Epidemiology & Biostatistics slides

Epidemiology & Biostatistics

Jo Mackenzie
Public Health Analyst
&
Trainee Health Psychologist
December 2015

What we will cover today

- What is epidemiology
- The origins of epidemiology
- How epidemiology is used
- Main approaches to epidemiology
- Key components and measuring frequencies
- Issues with data
- Key study designs
- The link between epidemiology and health psychology

Learning Objectives

- Recognise the main approaches to epidemiology
- Understand the key components in epidemiology statistics
- Understand the principle study designs used in epidemiology
- Identify the four common frequency measures
- Recognise how epidemiology can be used in health psychology

Initial thoughts......

- What do you think epidemiology is?
- What was your reaction to having a session on epidemiology?

What is Epidemiology?

- Greek derivation:
  - Epi = upon, among
  - Demos = people
  - Logos = doctrine / study of

The study of the occurrence and distribution of health-related states or events in specified populations, including the study of determinants influencing such states, and the application of this study to control the health problems.   Dictionary of Epidemiology (5th edition)

Origin of Epidemiology

- John Snow (1854) considered the founder of epidemiology
- Rejected the theory that breathing bad air caused the disease (miasma)
- Observed that cholera transmitted more readily in poor households
- Collected data on cases of cholera and which water company they were supplied by
- Plotted all the cases of cholera on a map
- Identified the Broad Street pump and campaigned to get the handle removed
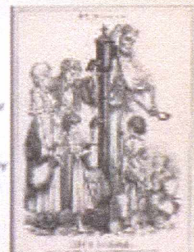
The purpose of epidemiology

- To determine where health problems are in the community
- Are there any particular groups who may be affected?
- Is there an increasing or decreasing trend?
- How do these levels and patterns relation to existing health services?

More uses for epidemiology

- What are the current and future health problems in our area?
- How do we compare with other areas?
- Within our area where are the health problems worst?
- What services are currently available and what is their uptake?
- Where is there unmet need?
- What's the quality of local services?
- What's the likely impact of a proposed initiative?

Main approaches to epidemiology

- Descriptive
  - Information on health outcomes
    - Age
    - Geography
    - Population type
    - Over time
- Analytical
  - Aims to identify factors involved in increased or decreasing the risk of an outcome.

Geographies & Populations

- **Populations**
  - Geography
  - Ethnicity
  - Socio-economic status
  - Employment type
  - Language
- Sources of population data
  - ONS population estimates
  - Census 2011

- **Geographies**
  - Residents
  - GP registered
- Types of geographies
  - Country
  - Counties
  - Districts
  - CCGs
  - Super Output Areas
  - GP practice

Key components in epidemiology

Numerators	The number of people affected
Denominators	The total number of people in the defined population
Confidence Intervals	The range of values from a sample in which the population value is most likely to be found.
Rate	Derived from the numerator and denominator - %, per 1,000, per 100,000
DSR	Directly Standardised Rate – enables you to compare different populations when age skews the results.

Age standardisation (DSR)

Source: www.erpho.org.uk

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Measuring outcome frequencies

Prevalence	$= \dfrac{\textit{Number of cases at specific point in time}}{\textit{Total population at same point in time}}$
Incidence rate	$= \dfrac{\textit{Number of new cases}}{\textit{Total number of people at risk per year}}$
Risks	$= \dfrac{\textit{Number of new cases in a specified time period}}{\textit{Total number of people at risk in the population at the start of the time period}}$
Odds Ratio	$= \dfrac{\textit{Number of new cases in a specified time period}}{\textit{Number of people who did not become a case in the specified time period}}$

Example of measuring disease frequency

- Example using the analogy of "musical chairs"
  - **Prevalence** – counts number of children sitting out of all the children a specific time point
  - **Risk** – counts how many are sitting after a specific time point after the start of the game compared to the number of children at the beginning of the game
  - **Odds** – counts those sitting compared to those standing at a specific time point after the start of the game
  - **Incidence rate** – counts those sitting at any point during the game and the total time each individual participates.

Issues with data

- You always need to think critically about the data
- How reliable is the data?
  - what is the sample size? - confidence intervals can help here
  - Does the data jump about wildly when you look at trends
    - Particularly small area data
- Data confidentiality
  - Data suppression

Exercise 1 – Application of Epidemiology

- The Office of National Statistics (ONS) define Excess Winter Deaths (EWD) as the difference between the number of deaths during the four winter months (December to March) and the average number of deaths during the preceding autumn (August to November) and the following summer (April to July).
- The excess winter death index is calculated as excess winter deaths divided by the average non-winter deaths, expressed as a percentage.

Example plot of respiratory deaths

Source: BLR Data, MetaAnalytics: Temperature rates, MITT office data records
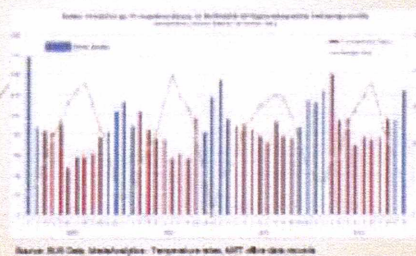
Cause and correlation

- Links between exposure and outcome cannot be used to infer causality unless all alternative explanations have been excluded.
  - Requires a lot of evidence collecting
- Indirect – e.g. hot weather and food poisoning. It isn't the hot weather that causes food poisoning. However people tend to have more bar-b-ques when it is hot and they don't always cook their food properly!
- Association is not causality!

Per capita cheese consumption

Number of people who died by becoming tangled in their bedsheets
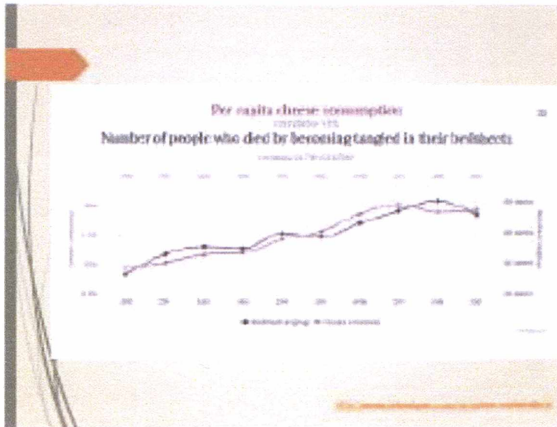
Correlations with socio-economic status

- Deprivation is correlated with poorer health and shorter life expectancy.
  - Deprivation is not the cause of these, but we need to consider the difference in health behaviours between the most deprived and least deprived.
  - Priorities are different between those of a higher socio-economic status and those of a lower socio-economic status.
    - Health psychologists need to be aware of this and see the bigger picture.

Epidemiological study designs

- Cross-sectional studies
- Ecological studies
- Cohort studies
- Case-control studies
- Intervention studies
  - Randomised Controlled Trials
  - Non-randomised Studies

Exposure – risk factor or causative agent
Outcome – inferring causality

Cross-sectional studies

- Collection of outcome data at one point in time
- Measures frequency of chronic outcomes
  - Better for prevalence rather than incidence
- Provide a snapshot of a population's current health status
- Used for planning health services and interventions
- Used in both descriptive and analytical epidemiology
  - Analytical collects information on outcome and exposure
  - Descriptive collects information on outcome only

Advantages & disadvantages of cross sectional studies

- Advantages
  - Quick and easy
  - No problem of attrition
  - Repeated studies can show trends in the data

- Disadvantages
  - Cannot infer causality
  - Cannot be used for rare diseases and health conditions

Ecological studies

- Normally uses previously collected data.
  - This often routinely collected data
- Looks for associations at population level
  - Relationship between outcome and exposure
- Outcome and exposure data is not available at individual level, only group level
- The group is the unit of analysis
- May need to standardise the data
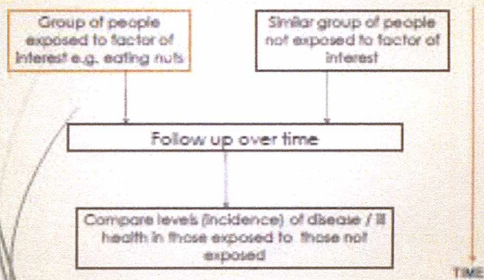 - E.g. the demographics of the populations are very different.

Advantages & disadvantages of ecological studies

- Advantages
  - Convenient and inexpensive
  - Useful if data is difficult to collect at individual level

- Disadvantages
  - Subject to many biases
  - Cannot infer causality

Cohort Studies

- Observational study which follows a group of individuals who share a common characteristic
- Natural experiment
- Exposure of interest recorded at beginning of study and then updated on a regular basis throughout the study.
- Used to measure incidence of an outcome

Cohort Study example

Group of people exposed to factor of interest e.g. eating nuts	Similar group of people not exposed to factor of interest

Follow up over time

Compare levels (incidence) of disease / ill health in those exposed to those not exposed
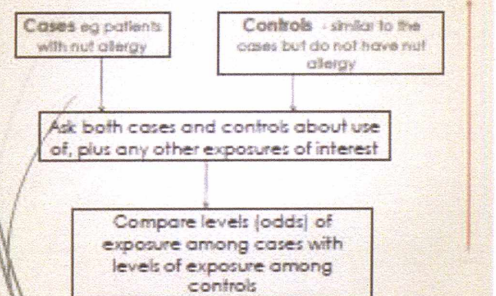
TIME

Advantages & Disadvantages of cohort studies

- Advantages
  - Can study a wide range of outcomes associated with a single exposure
  - Defines exposure at the beginning which can reduce bias in participant selection

- Disadvantages
  - Requires a large number of participants
  - Costly – requires active follow ups such as health evaluations
  - Attrition rates can be high
  - Time consuming as can take decades to complete

Case control studies

- Opposite to cohort studies
- Developed to avoid some of the disadvantages with cohort studies.
- Study groups are defined by the outcome not exposure.
- Groups are selected depending on whether the participants have the condition (cases) or not (controls)
- Often used to identify the source of an outbreak of disease

Case control example

TIME

Cases eg patients with nut allergy	Controls - similar to the cases but do not have nut allergy

Ask both cases and controls about use of, plus any other exposures of interest

Compare levels (odds) of exposure among cases with levels of exposure among controls

Case control advantages & disadvantages

- Advantages
  - Useful for rare outcomes
  - Good when rapid results are required as more efficient than cohort studies

- Disadvantages
  - Impossible to estimate frequencies such as prevalence
  - Open to selection and information bias

Intervention studies

- Measures the association between the outcome and the exposure to the intervention
  - E.g. smoking cessation intervention
- Are experimental as investigators intervene
- Focus on:
  - prevention (behaviour change)
  - treatment
- RCTs are considered to the ideal here
- Sometimes RCTs are not possible due to ethical issues so all participants receive the intervention.
  - If the intervention has already been shown to be safe and effective

## Advantages & disadvantages of intervention studies

- Advantages
  - reduce bias
  - Reduce confounding variables
  - Ideal for inferring causality

- Disadvantages
  - Tend to be expensive
  - Take a long time

How is health psychology and epidemiology linked?

- What skills do health psychologists have that can be applied to epidemiology?

- What are the advantages of the epidemiological approach for health psychologists?

- Public Health Psychology

Dahlgren & Whitehead – Wider determinants of health

Health Psychologists need to remember this when looking at the numbers!
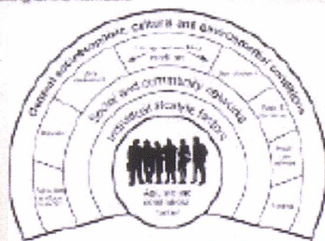
Exercise 2

Data Sources

- Office of National Statistics (ONS)
- Public Health England (PHE) tools
- Health and Social Care Information Centre (HSCIC)
- National Surveys
  - Health Survey for England
  - Census 2011 (NOMIS)
- Joint Strategic Needs Assessment (JSNA)
  - All Local Authorities store their data here
  - Available to the public
  - http://jsna.hertlis.org/ - Hertfordshire

References and Links

- Bailey, L., Vardulaki, K., Langham, J., & Chandramohan, D. (2005). *Introduction to Epidemiology*. Maidenhead: Open University Press.
- Wardle, J., & Steptoe, A. (2005). Public Health Psychology. *The Psychologist*, 18(11), 672-675.
- http://www.ucl.ac.uk/epidemiology
- http://fingertips.phe.org.uk/
- http://www.erpho.org.uk/ - Eastern Region Public Health Observatory
- http://www.lho.org.uk/ - London Public Health Observatory

Appendix E – Epidemiology and Biostatics lesson plan

TIME	SLIDE	TOPICS	ACTIVITY	EQUIPMENT
2 pm	1	Introduction	Who I am and what I do	Slides
	2, 3	session outline & learning objectives	What we will cover today and what the students will learn	slides
2.05pm	4	Initial thoughts	Exercise – get the students to discuss and feedback their answers to the questions on the slide. Show examples of the atlas maps we use at work – gives a visual example of how we can see health issues by geographical area. Be aware that they will not know what LSOAs and MSOAs are so explain.	Slides Internet connection and browser
2.20pm	5, 6	What is Epidemiology and its origins		slides
2.25pm	7, 8	Purpose of epidemiology		Internet browser and connection.
2.30 pm	9	Main approaches to epidemiology		slides
	10	Geographies and Populations		slides
2.35 pm	11 - 15	Key data components		slides
2.40 pm	16, 17	Exercise 1	Application of epidemiology – can they identify issues with the Excess Winter Deaths measure? – next slide shows the deaths and weather patterns.	Slides Handout

2.55 pm	18 - 20	Cause and correlation	Show that cause and correlation are separate things. The cheese consumption and dying from being tangled in your bedsheets is a fun example of demonstrating this!	slides
3.05pm			**Break**	
3.25pm	21	Epidemiological study designs	Ways of designing epidemiological studies	slides
	22, 23	Cross sectional studies		slides
3.35pm	24, 25	Ecological studies		slides
3.40 pm	26 - 28	Cohort studies		slides
3.45 pm	29 – 31	Case control studies		slides
	32, 33	Intervention studies		slides
3.55	34, 35	Links between health psychology and epidemiology		slides
4.00	36	Exercise 2	Carry out the exercise and discuss answers. This exercise is taken from: Bailey, L., Vardulaki, K., Langham, J., & Chandramohan, D. (2005). *Introduction to Epidemiology*. Maidenhead: Open University Press.	Handout
4.25 pm	37, 38	Data sources, references and links	Useful information for the students to follow up	slides
4.30 pm			End	

Appendix F – Exercises

Exercise 1 – Looking at Excess Winter Deaths

Questions 1

Can you see any problems with the calculation below?

The Office of National Statistics (ONS) define Excess Winter Deaths (EWD) as the difference between the number of deaths during the four winter months (December to March) and the average number of deaths during the preceding autumn (August to November) and the following summer (April to July).

EWD = winter deaths – average non winter deaths

The excess winter death index is calculated as excess winter deaths divided by the average non-winter deaths, expressed as a percentage.

EWD Index = (EWD / average non-winter deaths) x 100

Question 2

If cold weather is blamed for causing an increase in deaths in the elderly, what are your assumptions about the reasons for this and what do you think the solution is?

Question 3

What insights would a health psychologist have for the increase in deaths over winter?

Exercise 2 – Activity 1.3 and 1.4 taken from:

Bailey, L., Vardulaki, K., Langham, J., & Chandramohan, D. (2005). *Introduction to Epidemiology*. Maidenhead: Open University Press.

Appendix – G – Observers Report

Observer: Dr Esther Murray

Good introduction and explanation of who you are and your job.

Very nice overview slides, and clear learning objectives.

Overall the set up was very good and the pace seemed fine to me.
I'm glad you elicited their feelings about doing epidemiology and also that they seemed so positive about it. Well done for relating it so clearly to the rest of the module.

The reference points you drew on kept the topic very firmly in the applied 'zone' which I thought was so good for the students. You drew on many real life examples which I found very engaging and I hope they did too. I thought it was interesting to focus on the comparisons across boroughs etc. Using online tools such as the graphs and maps you use was great, in order to draw the students in more could you have asked them about their boroughs and maybe shown them some stats? Or could you have carried out a worked example of using the DSR calculator?

I was fascinated by all the quirks, and 'geographies'! I think the depth of your knowledge and experience really helped this lecture go well. It's also clear that you're passionate about public health data.

How could you check engagement rather than just asking if there are 'Any questions?' it might have been hard for them to have questions about such a new and complex topic.

I think that you're right that you do move quite quickly through the material and there is a lot to take in. How could you slow yourself down without feeling awkward or breaking the flow of your teaching?

You tried hard to facilitate their understanding e.g. with the musical chairs analogy and the exercise you gave out about winter deaths.

Overall a great lecture, I thought.

Appendix H – Evaluation Form and summary

Course PYP7013
Session Title ....Epidemiology and Biostatistics

Before today's session, how much did you know about this topic?

☐ Not much knowledge
☐ A little knowledge
☐ Some knowledge
☐ A lot of knowledge

Did you find the session interesting?

☐ Yes
☐ No

How did you find the pace of the session?

☐ Too fast
☐ About right
☐ Too slow

Did you have enough opportunity to ask questions?

☐ Yes
☐ No

Did you find the exercises useful?

☐ Yes
☐ No

If not, why?

Did the session cover what you expected?

☐ Yes
☐ No

If not, what did you expect it to cover?

What new things did you learn about epidemiology and biostatistics?

What do you feel would have improved the session?

Overall the session was

☐ Very Useful and Informative
☐ Gave me some new information
☐ Gave me little new information
☐ Gave me no new information

Feedback summary

Before today's session, how much did you know about this topic?

- 3 - not much
- 2 – a little

Did you find the session interesting?

- 5 - yes

How did you find the pace of the session?

- 5 – about right

Did you have enough opportunity to ask questions?

- 5 - yes

Did you find the exercises useful?

- 5 - yes

Did the session cover what you expected?

- 5 - yes

Overall the session was

- 3 – very useful and informative
- 1 – Gave me some new information
- 1 – wrote "good" under the question

Student suggestions were to have more time and to include more video or example websites as in the beginning.

Appendix I – Self-generated feedback

Self-generated feedback form (Day 1995)

Record by means of a tick in the appropriate column the comments which come closest to your opinion.

How well did I ...?

	Well	Satisfactory	Not very well
get the tutorial underway (establish links, aims, etc.)	✓		
sequence and progress the tutorial task(s)		✓	
ask questions and prompt students	✓		
involve all members of the tutorial group	✓		
handle students' questions and comments		✓	
respond to students as individuals	✓		
keep the focus on the main topic(s)		✓	
help sustain students' interest		✓	
ensure that key points were drawn out		✓	
bring things to a close			✓

10th December 2015 – MSc Health Psychology – Epidemiology and Biostatistics

Appendix J - DVD for reflective commentary