

Ali, Henna (2010). Overcoming Barriers Faced by Smokers in Quitting Cigarettes & A Portfolio of Professional Practice. (Unpublished Doctoral thesis, City University London)



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**Overcoming Barriers Faced by Smokers  
in Quitting Cigarettes  
&  
A Portfolio of Professional Practice**

**Henna Ali**

**Portfolio submitted in fulfillment of the requirements for the degree of Doctor of**

**Health Psychology**

**Department of Psychology, City University, London**

**November, 2010**

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*This thesis is dedicated to Papa Jee, Maa, Nagina and Selina.*

*This would not have been possible without your love.*

*This thesis is also dedicated to my husband Zia.*

*Thank you for being my shadow. I will always love you.*

## **Declaration**

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## **Section A: Preface**

## **Section A: Preface**

This Doctorate in Health Psychology portfolio was completed whilst working as a Trainee Health Psychologist within the NHS. The portfolio documents evidence and the process of reaching competence in research, teaching and training, consultancy, directing behaviour change interventions and in contributing to the evolution of legal, ethical and professional standards in health and applied psychology. The majority of the work has been carried out within the field of smoking cessation. As a Trainee Health Psychologist I had the opportunity to work as a commissioner of smoking cessation services and also as a provider of the service.

In the UK there are an estimated 120,000 deaths which are caused by smoking. From these an estimated 42,800 deaths are from smoking-related cancers, 30,600 from cardiovascular disease and 29,100 from emphysema and other chronic lung diseases (Action on smoking and health, 2005). Over 50% of the people who continue smoking for the rest of their lives die of their dangerous habit; 25% die before the age of 69 (Smoking Kills, A White Paper, 1998) and this too at the time when the average life expectancy is 75 for men and 81 for women in the UK (National Statistics- Life Expectancy, 2004). Due to smoking being the single cause for most preventable illnesses and premature death in the UK, the National Health Service (NHS) has prioritised reducing smoking amongst the population (Smoking Kills, A White Paper on Tobacco, 1998).

The health and financial burden of smoking in conjunction with social inequalities in smoking behaviour (e.g. people from a deprived background smoke for a longer duration) suggest that smoking can increase social class differences in the standard of living and health. Thus, facilitating and encouraging people from deprived backgrounds to give up smoking will not only be beneficial to the public health policy of the UK but also to the social policy which will see a decrease in the inequality gap.

The following sections reflect my development as a researcher and as an applied Health Psychologist.

## **Section B: Research**

The research report included one large study. The aims of the study were to (a) explore the role barriers play in continuing smoking and (b) examine how to overcome the barriers that smokers face in quitting cigarettes. A qualitative methodology was adopted in this research. Six focus groups were conducted with 32 smokers divided by age and gender (11 men, 12 non-pregnant women and 9 pregnant women) from a deprived area of Essex. The focus groups were analysed via abbreviated grounded theory.

Two core themes of barriers in quitting and overcoming barriers were found. The barriers were found to be positive perception of smoking, associating smoking with factors such as weight, stress and alcohol consumption, low threat perception, low motivation levels, lack of relationship with healthcare professionals and lack of awareness and experience of the national stop smoking service. Whereas themes for overcoming the barriers were

found to be; negative perceptions of smoking, in which smokers felt guilty and chastised due to their smoking. The participants expressed a need for new models of treatment, stating they require a holistic treatment model that is tailored, and personalised, delivered by non judgmental staff. Finally there was a need for effectively marketing the stop smoking services based upon segmentation techniques and branding.

The findings of this study have implications on clinical practice. A lifestyle modification service (LMS) model as a solution for integrated holistic smoking cessation advice and also as a means to target co-occurring risky behaviours in individuals is presented. The LMS could become a one stop shop for smokers who wish to access a single holistic 'well-being' service which could address issues such as stress, nutrition, alcohol consumption and weight gain alongside smoking. This would ensure that interventions are tailored according to the needs of the individual and enables practitioners to look at the health of their client more holistically.

The conclusions from the research resulted in recommendations for overcoming barriers, these were split between two categories; service and marketing. *Service*: If we want to increase the number of people accessing stop smoking services then we have to offer them a service that they want and need. Hence a LMS model of treatment should be developed, there needs to be an increase in service choice and providing additional and appropriate training to GPs and Midwives. *Marketing*: It is vital that we market services to our target population effectively. Hence it is recommended to have one umbrella brand for health improvement services and for the LMS model so that the service becomes

appealing, builds a connection and increases loyalty amongst the local population. Secondly the marketing campaigns need to be targeted according to segmentation of the local smoking population.

## **Section C: Professional Practice**

### **Consultancy**

The consultancy case study was also within the field of smoking cessation. The aims of the consultancy were; (a) to investigate the barriers that pregnant smokers face in quitting cigarettes through primary research and (b) To disseminate findings to senior public health team. The consultancy was carried out by conducting two focus groups with pregnant smokers and analysing transcripts via abbreviated grounded theory. The findings revealed that pregnant women considered factors such as weight gain, stress and alcohol consumption as barriers in quitting. They also had a low threat perception of smoking as well as low motivation levels for quitting and lack of relationship with healthcare professionals. They lacked awareness and experience of the national stop smoking service. The findings from the consultancy were presented to the PCT board and the senior management team of the PCT. The consultancy was well received and led to a lot of interest in the findings.

The impact of the consultancy was wide ranging. A number of steps were taken to increase the number of pregnant women accessing the local NHS Stop Smoking Service:

- A targeted marketing campaign was launched for pregnant women that took into account the barriers that they faced.

- All midwives were asked to carry out a CO reading of all pregnant women on their first visit; and if the reading showed that the pregnant woman was a smoker then an automatic referral would be made into the local stop smoking service.
- The head of midwifery for the local area was contacted and informed about the findings of this study. They were specifically informed about a number of midwives advising women not to quit smoking whilst pregnant. This led to a revised training package for midwives which incorporated more role plays and the training was revisited by approximately 50% of the midwives.

### **Teaching and Training**

The first case study was the delivery of a social marketing workshop to a Cardiac and Stroke Network. The main objective of this workshop was to teach managers from the network about the use of social marketing and behavior change within public health. Evaluation of this workshop indicated that the managers had gained a much clearer understanding of social marketing and its uses within public health. They also stated that including the case study within the presentation was helpful and will allow them to replicate the method within their work.

The second case study was to deliver a full day social marketing workshop to Doctorate in Health Psychology students at a University. It was felt that due to the heavy emphasis on social marketing in the National Health Service (NHS) it would be informative to see how Health Psychology could use this strategy to strengthen its health promotion arm.

The feedback obtained was positive. The students stated that they now have a much clearer understanding of social marketing and how they could apply it in their work. They also stated that including several case studies within the workshop was helpful and would allow them to replicate the methodology within their work. The students found information on how social marketing could complement health psychology very useful.

### **Optional Units**

The first case study describes the direction of the implementation of a Cardio-vascular disease(CVD) risk assessment intervention to be carried out by Trainee Health Psychologists. The aims of this project were to:

- Assess public awareness of CVD and prevention
- Gain understanding on ways to enhance CVD awareness and encourage people to attend CVD risk assessment
- Identify barriers that deter community members from gaining CVD risk assessments
- Aid in strategic and marketing guidance for further developing communications efforts to increase levels of awareness for CVD prevention and treatment.

Overall this piece of work highlighted that CVD risk assessments are attractive to most of the research sample. It was found that knowledge on heart conditions was relatively high; however knowledge about stroke was very low. People viewed CVD to mean heart

attacks/angina but did not think that word is a collective term for both heart conditions and stroke. Therefore it is important not to use the term CVD or the word cardio vascular disease in any promotion as a stand alone because the local population will not fully understand its meaning. As well as having a big launching campaign for CVD risk assessments it should be ensured that G.P's and other healthcare professionals such as pharmacists are prepared to talk to people about CVD and provide information to patients when asked. They should play a big part in launching this initiative as people are more likely to take the assessment seriously if the GP was to discuss it with them. Lastly, we should also be in a position to offer people choice in services if people are told that they have a high risk of CVD. Most of the current services are not tailored for the older generation, thus it would be important to develop new services which are (a) tailored to their physical capabilities and (b) which are liked. The CVD risk assessment report produced was used to develop a marketing campaign as well as using the findings to design the delivery of the service.

The second case study describes the development of a smoking policy for a PCT. It was concluded that by 2006 all government departments and the NHS will become smoke-free and must provide comprehensive support for smokers who want to give up. It was also proposed that consultation on detailed proposals will take place for regulation and if necessary legislation to turn all enclosed workplaces and public places smoke-free. The balance was significantly shifted towards smoke-free environments. With the smoking ban coming into place on the 1<sup>st</sup> July 2007 all workplaces became 'Smokefree'. Due to



this change I was asked to design, develop and implement a workplace Smokefree policy PCT wide.

### **Section D: Systematic Review**

A systematic review was carried out to investigate smoking cessation interventions for smokers with children suffering from asthma. The aims of this review were: (1) to evaluate the amount of quality trials that target smoking cessation in smokers who have a child suffering from asthma (2) to evaluate the methodological quality of the interventions, (3) to determine whether the smoking cessation interventions were effective in promoting abstinence.

This review highlights the need for more studies that focus on smoking cessation in parents of asthmatic children rather than focusing on reducing household second-hand smoke. The integration of smoking cessation into well-accepted interventions like asthma education can facilitate proactive reach to smokers who might not spontaneously or willingly seek help to stop smoking or who do not have access to primary care or preventive health services. Reactive interventions, by contrast, may not reach those most at risk.

## **Section B: Research**

## **Abstract**

### **Background**

It is estimated that 70% of smokers would like to quit cigarettes. Yet intention alone does not always lead to actual behaviour change (Sheeran and Silverman, 2003). Factors that are hindering behaviour change should be examined. One of the main factors could be perceived barriers to quitting smoking. Research suggests that there a large number of barriers that make it difficult for smokers to quit. Only when we understand the barriers that smokers face in quitting cigarettes can we begin on overcoming them. It is only after understanding how to overcome barriers in smokers can the field of smoking cessation be taken forward.

### **Aims**

The aims of the study are to (a) explore the role barriers play in continuing smoking and (b) examine how to overcome the barriers that smokers face in quitting cigarettes

### **Method**

A qualitative methodology was adopted. Six focus groups were conducted with 32 smokers (11 men, 12 non-pregnant women and 9 pregnant women) from a deprived area of Essex. The focus groups were divided by age and gender. The focus groups were analysed via abbreviated grounded theory.

## **Results**

Two core themes of barriers in quitting and overcoming barriers were found. The barriers were found to be positive perception of smoking, associating smoking with factors such as weight, stress and alcohol consumption, low threat perception, low motivation levels, lack of relationship with healthcare professionals and lack of awareness and experience of the national stop smoking service. Whereas themes for overcoming the barriers were found to be; negative perceptions of smoking, in which smokers felt guilty and chastised due to their smoking. The participants expressed a need for new models of treatment, stating they require a holistic treatment model that is tailored and personalised delivered by non judgmental staff. Finally there was a need for effectively marketing the stop smoking services based upon segmentation techniques and branding.

## **Practice Implications**

A lifestyle modification service (LMS) model as a solution for integrated holistic smoking cessation advice and also as a means to target co-occurring risky behaviours in individuals is presented. The LMS could become a one stop shop for smokers who wish to access a single holistic 'well-being' service which could address issues such as stress, nutrition, alcohol consumption and weight gain alongside smoking. This would ensure that interventions are tailored according to the needs of the individual and looking at their health holistically

## **Recommendations**

The recommendations for overcoming barriers are split between two categories; service and marketing. *Service:* If we want to increase the number of people accessing stop smoking services then we have to offer them a service that they want and need. Hence a LMS model of treatment should be developed, there needs to be an increase in service choice and providing additional and appropriate training to GP's and Midwives. *Marketing:* It is vital that we market services to our target population effectively. Hence it is recommended to have one umbrella brand for health improvement services and for the LMS model so that the service becomes appealing, builds a connection and increases loyalty amongst the local population. Secondly the marketing campaigns need to be targeted according to segmentation of the local smoking population.

# Chapter One: Introduction

## 1. Introduction

Smoking is a risk factor for many illnesses and diseases and can ultimately cause death. There are over 4000 different chemical compounds found within inhaled smoke, from which hundreds are known carcinogenic (Lofroth, 1989). In the UK there are an estimated 120,000 deaths which are caused by smoking. From these an estimated 42,800 deaths are from smoking-related cancers, 30,600 from cardiovascular disease and 29,100 from emphysema and other chronic lung diseases (Action on smoking and health, 2005). Over 50% of the people who continue smoking for the rest of their lives die of their dangerous habit; 25% die before the age of 69 (Smoking Kills, A White Paper, 1998) and this too at the time when the average life expectancy is 75 for men and 81 for women in the UK (National Statistics- Life Expectancy, 2004). Due to smoking being the single cause for most preventable illnesses and premature death in the UK, the National Health Service (NHS) has prioritised reducing smoking amongst the population (Smoking Kills, A White Paper on Tobacco, 1998).

In light of this, this thesis will seek to explore which barriers play a role in continued smoking and secondly how we can overcome the barriers that they face in quitting. The focus of this research will be on smokers from a low socioeconomic background. Research, legislation and treatment into smoking have experienced a renewed effort over the past 15 years. There has been rapid progression within the field of smoking; however more work is needed on understanding how to increase the number of smokers quitting cigarettes. This can only be done by meeting the needs of smokers and by having effective stop smoking treatments. This thesis is split in to three chapters:

## **Chapter 1**

This introduction chapter will introduce the topic of smoking, discussing the links between health inequalities and smoking, the reasons as to why people smoke and the current treatment models within the NHS. The chapter will be used to set the scene and will identify gaps within the current stop smoking treatment model.

## **Chapter 2**

Chapter 2 is a qualitative research study that explores the role barriers play in continued smoking and then examines how to overcome the barriers that smokers face in quitting cigarettes. The chapter begins with critically analysing the barriers which are listed within current literature and discussing whether the current NHS stop smoking treatment model is efficient in addressing the barriers that smokers face in quitting cigarettes. After which the method, results and discussion sections will be presented.

## **Chapter 3**

The final chapter of the thesis will discuss the recommendations made as a result of the qualitative research study. The first part of this section provides the implications of these research findings for clinical practice, where a new smoking cessation treatment model will be presented. Recommendations for service and marketing, limitations, future directions and conclusions will then be addressed.

## **1.1 Why Study Smoking in Deprived Communities?**

Health inequality is a term used to describe health experiences and outcomes depending on an individuals' socio-economic status, geographical area, age disability, gender or ethnic group (Link & Phelan, 2009). Health is not equally distributed in our society. The place you live, what you earn, how much education you have, have all been shown to have an impact on health (Graham, 2004). There has been much debate on whether the causes of poor health in socio-economically disadvantaged communities are related to the characteristics of the people who live there or the place they live in but there is clear evidence that people living in disadvantaged environments and communities have poorer health than people in more advantaged communities. Within the UK socioeconomic inequalities in ill health take the form of a social gradient where people who are from a higher socioeconomic status (SES) have better health and limited disabling illnesses, whereas people from low SES display poorer health (Graham, 2004). Social gradients become visible from the very start of life as birth weight is seen to be affected. This could have a domino effect as low birth weight can have an undesirable effect on an individual's physical and mental development in adult life. These social gradients carry on through life and during childhood are seen in height, cognition, weight, emotional and social adjustment (Chen, Martin & Matthews, 2006).

There are two causes of health inequality associated with SES. Firstly, SES has an indirect affect on health by influencing a set of mediating factors that have a direct impact on health. These factors are behavioural risk factors and environmental exposures. Secondly these mediating factors are unequally distributed amongst the population which



means that some people will be more exposed to health damaging factors and more likely to participate in health damaging behaviours, such as smoking (Graham, 2004; Wildman, 2003).

Behavioural risk factors such as smoking cause significant health inequality amongst social classes (Adler et al., 1994). Smoking behaviour is highly linked with individual socioeconomic factors, such as income, occupation and level of education and it has been researched that people from a low socioeconomic background are more likely to initiate smoking and least likely to stop smoking (Reijneveld, 1998). In the UK it is occupation that defines one's socioeconomic status (SES) and this trend is evident as 33% of manual and routine workers smoke compared to 27% of the intermediate workers and 19% of the managerial and professional workers (National Statistics Socio-economic classification, 2001).

Not only do a higher percentage of people from a low SES smoke but in a study by Siahpush, Heller & Singh (2005) it was found that smokers who are from a low SES indulge in smoking for a much longer duration. Furthermore the burden of smoking for a longer duration can have an adverse affect on the children who live in smoking households from lower SES as they are more likely to grow up in impoverished conditions and so the cycle of health inequality begins once again. As the children from these households are more likely to be exposed to second hand smoke for longer durations, this is likely to have an effect on the health of these children.

Smoking can exert a financial burden on an individual and their family. It has been found that experiencing financial stress is 1.5 times higher and severe financial stress is twice as higher in smoking households than non-smoking households (Siahpush et al., 2005). Therefore smokers from a lower SES who experience severe financial stress are more likely to live in compromised conditions.

The health and financial burden of smoking in conjunction with social inequalities in smoking behaviour (e.g. people from low SES smoking for a longer duration) suggest that smoking can increase social class differences in the standard of living and health. Thus, facilitating and encouraging people from low SES to give up smoking will not only be beneficial to the public health policy of the UK but also to the social policy which could see a decrease in the inequality gap.

## **1.2 Why People Smoke?**

To be able to assist smokers to quit smoking cigarettes it is important to understand why people continue to smoke. The question of why people smoke is both challenging and an issue of practical concern to health authorities, however within literature there are three main perspectives to explain this:

1. *Psychological*- views smoking as having a psychological purpose, should it be for self medicating or for other rewarding purposes, such as reducing stress.
2. *Biological*- views smoking as an addiction and a physiological dependence.

3. *Social-* views smoking as an unhealthy choice that is dependent on personal situations, individual factors and the social context

All three schools of thought will now be discussed with the aim of better understanding why people smoke cigarettes.

### **1.2.1 Psychological**

The psychological perspective of smoking focuses on how the physical and social environment affects the smoking behaviour. The definition of addiction within the psychological context differs slightly. It views addiction as an 'impaired control over a reward-seeking behaviour from which harm ensues' (West, 2006). Addiction is seen as a disorder of motivation.

There are many models within the psychological domain that try to explain why people smoke. Two models will be explored within this section.

#### ***Self-Medication Model***

There are strong associations between cigarette use and psychological problems, and addicts may be smoking to cope with or ameliorate adverse life experiences.

The self medication model proposes that individuals intentionally use drugs to treat psychological symptoms from which they suffer (Gelkopf, Levitt & Bleich, 2002). The model derives from clinical observations and surveys of addicted individuals that show that people are predisposed to addiction if they suffer from negative affective states

(Khantzian, 1997). For example a major motivating factor for smokers to smoke is to relieve stress and yet it is found that smokers have higher levels of stress compared to non smokers and ex smokers. Cigarettes can have an acute effect on stress, maybe due to their withdrawal symptoms relieving properties that may arise when the smoker cannot smoke (Cohen and Lichtenstein, 1990). However the theory is unable to explain addiction when there is no underlying pathology or where the drug is taken in situations where there are no psychological problems to overcome.

### ***PRIME Theory***

The PRIME Theory (West, 2006) of motivation attempts to explain human behaviour in terms of a multi-level motivational system in which ‘higher’ levels evolved later and can only influence behaviour through ‘lower’ levels. The lowest level involves generating *responses*. The next level involves generating potentially competing *impulses and inhibitions*. The third level involves generating *motives* (feelings of want or need attached to a mental image of something). The fourth level involves generating *evaluations* (beliefs about what is right or wrong, beneficial or harmful, pleasing or displeasing); and the fifth level involves generating *plans* (self-conscious intentions relating to future actions).

Our behaviour patterns (ways in which we repeatedly interact with the world) are largely determined by things that influence our wants and needs. If these change, then so does our behaviour: changes in opportunities, cues and reminders, and how our behaviour is rewarded or punished. Our behaviour can also change because of changes in the way we

react to our environment: habituation and sensitisation, strengthening and weakening of associations, and re-evaluation. These changes do not necessarily involve a deliberate decision; however, very often, in order to change our behaviour we have to decide that that is what we will do.

In the context of smoking, research has found that nicotine can act as a 'pleasure amplifier'. It can make mildly pleasurable stimuli more rewarding (Caggiula et al., 2009). Thus the smell of the tobacco and other activities associated with smoking become more pleasant with nicotine present in the brain. This in turn can make smoking more rewarding and lead smokers to want to smoke.

Smokers often form beliefs about the benefits of smoking. In particular, they believe that it helps to control stress. They also believe that it is enjoyable, helps with weight control and aids concentration (McEwan, West & McRobbie, 2008). These beliefs will lead the smoker to want or need to smoke at times when circumstances make them relevant (e.g. at times of stress). Thus, a smoker who feels miserable and wants to be 'cheered up', or who is stressed and needs to feel better will on those occasions experience a want or need to smoke (Yong & Borland, 2008). This may occur many months and sometimes years after having stopped smoking. If, at the same time, that individual has low reserves of mental energy or a weakened motivation for self-protection, the self-imposed rule of not smoking may not be sufficient to prevent the behaviour. When this occurs, the individual often does not intend to resume smoking permanently but only long enough to address the particular need at that time. However, once the cigarette is smoked, it rekindles the

other sources of motivation, including the stimulus-impulse associations and the 'nicotine hunger'; this leads over a period of time to full resumption of smoking.

The psychological explanation of smoking describes the behavioural rituals and sensory aspects of smoking. Yet the explanation cannot fully explain why smokers experience withdrawal symptoms and cravings. It describes strong cravings being evoked due to smoking related cues, however research has shown that nicotine replacement therapy (NRT) reduces cravings (Tiffany, Cox & Elash, 2000), hence showing a biological link.

### **1.2.2 Biological**

Cigarette smoke is composed of volatile and particulate phases. Some 500 gaseous compounds including nitrogen, carbon monoxide (CO), carbon dioxide, ammonia, hydrogen cyanide and benzene have been identified in the volatile phase, which accounts for about 95% of the weight of cigarette smoke; the other 3500 compounds represent the 5% particulates (Ashton & Stepney, 1982). The most important particulate is nicotine. When cigarette smoke is inhaled, nicotine is rapidly absorbed from the lungs into the bloodstream, once there it is quickly distributed to the rest of the body and reaches the brain within 15 seconds (Russell & Feyerabend, 1978).

It is the nicotine in tobacco that is accepted to be the major psychotropic substance, and is essentially responsible for the behavioural effects and addictive nature of smoking. The diverse biological effects of nicotine are partially mediated by neuronally expressed nicotinic receptors (Role & Berg, 1996).

The association of nicotine receptors with dopamine pathways is perhaps most relevant to the psychomotor stimulant properties of nicotine. Nicotine affects the brain reward system by increasing dopamine concentrations through its interaction with the nicotinic acetylcholine receptors. Nicotine increases dopamine levels in the reward pathway by mimicking acetylcholine at presynaptic nicotinic receptor sites, and exciting dopaminergic neurons (Lu, Marks & Collins, 1999). The drug exerts a dose-dependent stimulant/depressant action on these receptors at cholinergic synapses. When puffs of cigarette smoke are intermittently inhaled, the time/dose relationship of nicotine reaching the brain can be such as to produce either stimulant or depressant effects (Rowell & Duggan, 1998).

The initial combination of nicotine with the receptor stimulates a response, but persistent occupation of the receptors and prolonged effects on the neuronal membrane may block further responses (Rowell & Duggan, 1998). The degree of stimulation versus block depends on the amount of nicotine present relative to the number of receptors available. In general, small doses of nicotine produce principally stimulant effects at synapses and larger doses produce mainly depressant effects. At a high enough dose, nicotine can block synaptic transmission completely. This is fatal. Thus, by manipulating nicotine dosage by factors such as the size of puff and depth of inhalation, a smoker can obtain predominantly inhibitory or predominantly excitatory effects, or a mixture of both, from one cigarette. Smokers themselves report that the subjective effects of smoking can be either stimulation or relaxation, thus the ease with which nicotine can produce rapid,

reversible effects over a small dose range is probably a major factor in making it a compulsive addiction, despite the well-publicised health risks (Ashton & Stepney, 1982).

Nicotine receptors are based at different locations within the brain and exert a variety of different effects of stimulation and functions. Nicotine has an effect on memory, learning, psychomotor performance, attention, mood and arousal (Pomerleau & Pomerleau, 1989). For example it has been shown that nicotine activates receptors within the frontal cortex of the brain. This part of the brain is important for attention and the working memory; hence activation increases the level of attention in smokers (Pomerleau et al., 1989).

It has also been well documented that the numbers of nicotine binding sites are increased in the brains of smokers examined post mortem (Benwell, Balfour & Anderson, 1988; Breese et al., 1997), and in the brains of rodents given doses of nicotine daily for a few days (Wonnacott, 1990). The increased number of receptors have a negative effect on individuals who attempt to quit cigarettes as there is a correlation between the numbers of receptors and urge to smoke. However this affect on the brain is reversible and it has been found that ex-smokers have the same numbers of nicotine receptors as a non-smoker. Nicotine can also lead to a permanent change by altering gene expression. A study by Golding, Pembry and Jones (2001) found that the age at which a man starts smoking affects the birth-weight and early growth of his sons, an effect not correlated to maternal smoking. The earlier the father starts smoking, the larger the body mass index of his future sons, however, there was no significant effect found for daughters.



The biological perspectives concept of addiction can be viewed as a reductionist explanation. The explanation of addiction is focused on individual level and pharmacological processes which is evidenced by the usage of words such as 'treatment', 'craving' and 'withdrawal' to describe smoking. The explanations are often too medicalised where the focus is mainly on nicotine. This exclusive focal point on the addictive properties of substances ignores contexts and motives for smoking. For example some people say that they enjoy smoking (Oksuz, Mutlu & Malhan, 2007). Also, the medicalisation does not explain why 80% of those that quit smoking do so without any formal assistance (cold turkey) (Zhu, Melcer, Sun, Rosbrook & Pierce, 2002).

A further problem with the addiction explanation is highlighted by controlled smokers or tobacco chippers as they are frequently described. Tobacco chippers (or non-addicted smokers) show no signs of withdrawal symptoms following overnight abstinence from smoking, and report being able to easily, and regularly abstain from tobacco for periods of a few days or longer (Shiffman, 1989). Even though it has been shown that chippers' nicotine absorption per cigarette and nicotine elimination rates were similar to those of heavy smokers (Shiffman, Fischer, Zettler-Segal & Benowitz, 1990; Brauer, Hatsukami, Hanson & Shiffman, 1996). Chippers are less likely to smoke in order to relieve stress and to report an aversive response to their first ever cigarette, and also report having fewer smoking relatives (Shiffman, 1989; Kassel, Shiffman, Gnys, Paty & Zettler-Segal, 1994).

The biological explanation of why people smoke provides important and useful answers of the role of nicotine receptors with dopamine pathways. However it cannot explain why tobacco “chippers” show no signs of withdrawal symptoms following abstinence, and why they report being able to easily, and regularly abstain from tobacco for periods of a few days or longer. The biological perspective also fails to address the role of the social environment, motivation and individual factors on smoking behaviour.

### **1.2.3 Social**

The social perspective views smoking as an unhealthy choice that is dependent on personal situations, individual factors and the social context. There is an emphasis on that people smoke and quit for reasons. This is backed by research that stipulates that people smoke due to its perceived relaxation properties stress and that they quit due to family, children and/or health reasons (Pomerleau, Adkins & Pertschuk, 1978). It continues to expand by describing smoking as an appealing social identity. Identity causes us to act in particular ways that we think will affect how others will regard us (West, 2006). The Social Identity theory (Tajfel, 1972) states that people seek to derive positive self esteem from their group membership (in the smoking context it might be their social circle). Social identity turns ‘I’ into ‘we’; it extends the self out beyond the skin to include other members of the group.

The social perspective is the only perspective that can explain gender and social class differences in smoking, however it views the biological explanation with a lot of scepticism, as it is perceived as being too medicalised. The social perspective solely

views the maintenance of smoking on personal situations and social context, yet there is widespread evidence to suggest the addictive nature of nicotine (Lu, Marks & Collins, 1999; Role & Berg, 1996).

#### **1.2.4 Summary**

Overall no one explanation or perspective is sufficient in explaining why people smoke. The primary reinforcing properties of nicotine ultimately maintain smoking behaviour: in experimental models, if nicotine is removed from cigarette smoke, or nicotine's effects on the central nervous system are blocked pharmacologically, smoking is discontinued, therefore displaying a strong biological link. However, under normal conditions, the coupling of behavioural rituals and sensory aspects of smoking with nicotine uptake gives rise to secondary conditioning. For example, for a 20 a day smoker, the delivery of nicotine to the brain is associated with the sight of the packet and the smell of the smoke approximately 70, 000 times each year. Therefore, if the smoker stopped smoking they would not know what to do with their hands, and smoking related cues will be able to evoke strong cravings. Social influences also operate to modulate nicotine's effects. Social norms, peers/family smoking habits, partner smoking can all influence smoking behaviour.

Thus any treatment model for smoking cessation should consider all three perspectives (biological, psychological and social) when being used to assist smokers to quit cigarettes, as all three have shown to play a role in the maintenance of smoking behaviour.

## **1.3 Current Treatment Models of Smoking Cessation**

Bearing in mind what we know regarding the links between deprivation and smoking and the reasons behind why people smoke, the next logical step is to explore what treatments are currently available to assist smokers to quit smoking. This section will begin with describing the birth of the national Stop Smoking Service, followed by outlining the treatment model of smoking cessation (pharmacological and non-pharmacological) used in the National Health Service (NHS) within the UK.

### **1.3.1 Stop Smoking Service**

In 1998, the UK government outlined new policies to combat tobacco addiction in the White Paper *Smoking kills* (Department of Health, 1998). The white paper had three main objectives to be reached by 2010:

1. To reduce smoking among children and young people; from 13% to 9%
2. To help adults-especially the most disadvantaged - to quit smoking and reduce rates from 28% to 21%
3. To offer practical help to pregnant women who smoke and reduce the rates from 23% to 15%

Other measures described in the white paper included banning of tobacco advertising, increasing taxation, promoting smoke-free working and public areas and a key component of the strategy included the creation of the first national network of smoking cessation services as part of the NHS. The establishment of NHS smoking

cessation services was to assist smokers who want to quit cigarettes and was responsible for the delivery of three levels of interventions:

- **Level 1:** Involved brief opportunistic smoking cessation advice from health professionals, specifically General Practitioners (GPs), designed to stimulate quit attempts and to direct motivated smokers towards the local stop smoking service
- **Level 2:** A large number of part-time community advisors, typically nurses working in primary care and community pharmacists were trained in providing one-to-one support to smokers. Level 2 support was proposed to mainly increase access to stop smoking services and it was not until later that it was stipulated that all health care professionals must be trained to carry out this role and that treatment must conform to minimum standards (Department of Health, 2001).
- **Level 3:** Smoking cessation guidelines that accompanied the white paper emphasised that local services should be based on existing evidence and be organised around a core team of full-time specialist staff providing group smoking cessation treatment (Raw, McNeill, & West, 1998).

Guidelines on the provision of smoking cessation treatment recommended combining pharmacotherapy with group or one-to-one support to maximise smoker's chances of quitting cigarettes (West, McNeill, & Raw, 2000). NRT and bupropion are effective and cost-effective treatments for smoking cessation (National Institute for Clinical Excellence (NICE), 2002; Silagy, Lancaster, Stead, Mant, & Fowler, 2004). Research evidence is

also consistent in showing that structured behavioural support, whether provided to groups of smokers or one-to-one, from specifically trained health professionals is effective in helping people.

In England, funding was made available to health authorities to establish services from 1999 in some of the most disadvantaged parts of the country with high smoking prevalence rates. However from April 2000, services were funded across the country.

There has been substantial progress since the launch of the original Smoking Kills (1998) white paper. It had led to a fall in adult smoking in England from 28% to 21% between 1998 and 2008, decreasing the number of smokers by a fifth within a decade. Furthermore, the ambition to reduce smoking among 11-15 year olds from 13% to 9% in 2010 has also been achieved (Department of Health, 2010).

There are a number of treatments to help smokers to stop smoking. They usually fall in to two main categories; pharmacological and non-pharmacological. Within the two categories are treatments/interventions that are approved by NICE and others which are not. Smokers have been known to access non validated treatments such as hypnosis and acupuncture. These treatments are commonly paid for by smokers to help them to stop smoking. However research within the area has concluded that treatment efficacy is lacking, but individuals might be helped by placebo effects (Abbot, Stead, White, Bames & Ernst, 1999 & White and Ramps, 1999). However, for the purpose of this section it is

more suitable to discuss treatments that are approved by NICE and are currently being used within the NHS.

### **1.3.2 Pharmacological Therapies**

NRT, bupropion (Zyban) and varenicline (Champix) are the only medications currently approved by NICE to treat tobacco dependence. These have been recommended for their cost-effectiveness and efficacy in improving smoking cessation rates. Current statistics from the NHS Stop Smoking Services indicate that varenicline was the most successful smoking cessation aid between the years 2008/2009. The quit success rate for varenicline was 61%, compared with 51% for smokers receiving bupropion only, and 48% who received NRT (NHS Information Centre, 2009).

#### ***Nicotine Replacement Therapy***

Nicotine replacement therapy (NRT) is used regularly to assist smokers to quit smoking. It does this by replacing the nicotine from the cigarettes to reduce the motivation to smoke and by reducing the physiological and psychomotor withdrawal symptoms which are often experienced during smoking cessation, this in turn increases the probability of long term abstinence. NRT is available in many forms; patches, gum, lozenges, nasal spray and microtab and is available in varying dosage according to the level of dependency (Piasecki, 2006).

In a Cochrane review, Silagy, Lancaster, Stead, Mant & Fowler (2004) reviewed 127 studies investigating the effectiveness of the different forms of NRT, effectiveness compared to other pharmacotherapies, and whether the clinical setting impacts on the efficacy. They concluded that all of the commercially available forms of NRT are effective in assisting smokers to quit smoking by an odd ratio of 1.5- 2 for NRT vs. placebo, regardless of setting. However there is little evidence of NRT being effective for smokers smoking less than 10-15 cigarettes a day. Additionally the effectiveness of NRT appears to be largely independent of the intensity of additional support provided to the smoker.

### ***Bupropion (Zyban®)***

Sustained released bupropion is a non-nicotine first line therapy. Bupropion was originally developed as an antidepressant which blocked the reuptake of norepinephrine and dopamine in the mesolimbic dopaminergic system. This area of the brain is believed to mediate reward for nicotine use and for other drugs of dependence. The primary mechanism of bupropion's effect on smoking cessation is not clear, but it appears to be via reduction of withdrawal symptoms by mimicking nicotine effects on dopamine and noradrenaline thus working as a nicotine antagonist (Hayes and Ebbert, 2003). The drug is equally effective in assisting cessation in smokers with or without a past history of depression, suggesting that its efficacy is not due to its antidepressant effect (Hughes et al.1999a).



Bupropion SR has been consistently demonstrated to increase smoking cessation rates (Hughes, Stead & Lancaster, 2002) and decrease occurrence of withdrawal symptoms (Coleman, 2001). Its efficacy has also been reported in combination with both behavioural interventions (Hurt et al. 1997) and nicotine patches (Jorenby et al. 1999). A bupropion trial reported 1-year continuous abstinence rates of 24% for 300 mg/d, 18% for 150 mg/d, 14% for 100 mg/d, and 10% for placebo. The difference from placebo was significant in the 150- and 300-mg/d groups (Hall et al, 2002) and a trial comparing Bupropion and nicotine patch reported 1-year continuous abstinence rates of 36% for Bupropion and nicotine patch, 33% for Bupropion alone, 16% for nicotine patch alone, and 15% for placebo. Bupropion alone or with nicotine patch resulted in significantly higher abstinence rates than did patch alone or placebo (Jorenby et al, 1999).

Bupropion SR is currently prescribed to smokers who smoke more than 10-15 cigarettes per day and who are highly motivated to stop; the treatment has proven effective with this group, nearly doubling the success of smoking cessation (Coleman, 2001 & Henningfield, Fant, Gitchell & Shiffman, 2000). Additionally bupropion therapy for one year also delays relapse and is well-tolerated by its users (Hays et al., 2001).

The drug is considered a useful method for smokers attempting to stop smoking for the first time, and in those who cannot tolerate NRT, prefer non-nicotine treatment or when NRT has failed (Hughes et al. 1999b).

### ***Varenicline (Champix®)***

Varenicline is a partial agonist of the nicotinic  $\alpha 4\beta 2$  acetylcholine receptor and is the latest addition to the approved smoking cessation drugs available in the UK. The drug inhibits dopaminergic activation by binding to nicotine receptors and by mimicking the effects of nicotine thus reducing cravings and withdrawal symptoms, however, at the same time, due to it partially blocking the receptors it prevents nicotine from attaching to the receptors, this blocks or blunts the effect of nicotine in people who give in to temptation and have a cigarette (Coe et al., 2005).

In a recent review, Kaur, Kaushal & Chopra (2009) found varenicline to be more efficacious than bupropion SR through 24 weeks and placebo through 52 weeks. It was found that continued use of varenicline increases the likelihood of long term abstinence two-to three fold and it reduces the likelihood of relapse (Cahill, Stead & Lancaster, 2007). In addition to being efficacious varenicline is well tolerated by its users. Through this unique profile of agonist and antagonist properties, it has demonstrated a robust ability to increase cessation rates (short-term and long-term) compared with both placebo and a first-line smoking cessation medication (bupropion SR), representing an advance in the treatment of tobacco dependence (Jorenby et al., 2005).

### **1.3.3 Non-pharmacological Therapies**

Brief opportunistic advice and behavioural support are regularly used as methods to assist smokers to quit cigarettes. In the former the main aim is proactively to trigger a quit

attempt while, in the latter case, the emphasis is on responding to smokers' requests for help with a quit attempt.

### ***Brief opportunistic advice***

Brief advice (up to 5 minutes) from a GP given to all smokers to encourage them to make an attempt to quit is effective in promoting smoking cessation. This takes the form of the three A's (Department of Health, 2009a):

- Ask- ask and record smoking status
- Advise- advise patients of health benefits of stopping smoking
- Act- act on patients response, build confidence, give information, refer, prescribe.

This advice leads to 1–3 out of 100 smokers receiving it to stop smoking for at least six months (Silagy, 2000). It is estimated that approximately 40% of smokers make some form of attempt to quit in response to advice from a GP (Russell & Feyerabend, 1978).

### ***Behavioural Support***

The validated formats for behavioural support are group, individual and telephone support (West, McNeill & Raw, 2000). The main aims of behavioural support are:

- Helping clients to cope with their cravings and withdrawal symptoms
- To boost motivation levels to increase the abstinence rates and to achieve permanent cessation
- Raising self confidence and self belief
- Maximising self control

Both individual and group behavioural support can be successful in helping smokers quit cigarettes; however effectiveness is positively related to the amount of contact between the smoker and the therapist. For example receiving advice from the GP to quit produces only a small increase in cessation (Stead, Bergson & Lancaster, 2008). Programmes that include more sessions are seen to be more effective than programmes with fewer sessions. The increased cost of intensive interventions is offset by their improved effectiveness.

### ***One to one support***

This method of support is usually delivered face to face by one trained advisor to one smoker at a specified time and place. The self reported quit rate in England for one to one support is 49%, contributing 77.2% of the total number of successful self reported quitters in 2008/2009 (NHS Information Centre, 2009).

### ***Closed group support***

This is an intervention between one or more trained advisors, with a number of smokers who would like to quit smoking. This again is a face to face intervention which lasts on average six to seven weeks. The self reported quit rate in England for closed group support is 64%, contributing 3.4% of the total number of successful self reported quitters in 2008/2009 (NHS Information Centre, 2009).

### ***Telephone support***

There are a number of telephone support methods, including support that is proactive, reactive (as part of a relapse prevention strategy) and text based. However the evidence for proactive telephone support is the highest. Proactive telephone support is delivered by stop smoking advisors and follows the specification of the one to one support. It should begin and end with face to face contact for CO validation purposes. A minimum of 10 sessions in a 12 week period is recommended (Zhu et al., 2002). The average self report quit rate in England for telephone support is 63%, contributing 1.3% of the total number of successful self reported quitters in 2008/2009 (NHS Information Centre, 2009).

### **1.3.4 Combination of Pharmacological and Behavioural Support**

The most effective stop smoking programmes include both a behavioural and pharmacological component. Each of these elements is effective and the combination of the both improves outcomes (Carpenter, Hughes & Solomon, 2005). The Stop Smoking Services within the UK offer a combination of behavioural support with pharmacotherapy as this combination has been found to increase a smoker's chances of successfully stopping by up to four times (West, McNeill & Raw, 2000). It is recognised that the discomfort of withdrawal acts as a barrier in quitting smoking; hence the aim of the treatment is to maintain abstinence during this difficult time for the smoker. Withdrawal relief is offered by providing behavioural support and withdrawal relief medication (NRT, zyban).

## **1.4 Issues with the Current Treatment Model**

There are many issues with the current treatment model used across the stop smoking services in the UK. The first concern is that the treatment model does not take into account the social aspects of smoking. None of the treatment models address the social issues of smoking, such as looking at the smokers social norms nor do they allow the inclusion of family members and peers within the treatment. The interventions are very individualistic and focused primarily on the smoker, not taking in to account the effect of the environment on the smoking behaviour. If these effects are not challenged within the treatment models then it would increase the likelihood of relapse.

The second issue is that treatment model is not empowering for smokers as they are unable to set their own goals. The model advocates that once a quit date is set the smoker must not smoke for a minimum of 4 weeks, and if this happens then their attempt would be unsuccessful. In order for empowerment to take place the smokers need to feel that they are involved in setting their own goals and have control over the process.

Lastly, the third issue with the treatment model is that its focus does not lie in long term abstinence. In order to fulfil national targets the Stop Smoking Services have to show that they have assisted smokers to have been quit for a minimum of 4 weeks, after which the smoking status will then be checked after 52 weeks (1 year). The model does not assist smokers to prevent relapse as it is only concerned with evaluating short term abstinence. In order to increase effectiveness the stop smoking treatment model should ensure that the methods adopted lead to a long term behaviour change. To measure which methods and treatments are the most effective in smoking cessation, it is important to understand which barriers prohibit smokers from quitting cigarettes, as the same barriers will be the

ones that are causing relapse. Only then can the treatments/interventions match the need of smokers.

## **1.5 Summary**

In the ideal world there would be an individual intervention for each and every smoker, however treatment can still be tailored. A blanket approach for smoking cessation is not an effective way to help smokers to quit cigarettes. Stop smoking support should be delivered in a variety of ways and it is imperative that smokers are offered a range of support options so they can choose the type of intervention that is suitable for their required need. The current treatment model adopted by the NHS is proving to be useful, however it raises key concerns. The model does not take into account all three perspectives of why people continue to smoke, thus it is important to find out which factors make it difficult for smokers to quit smoking and then how to overcome the barriers, only then will we be able to effectively achieve long term behaviour change and help smokers to stop smoking.

# Chapter Two: Qualitative Research Study

## 2. Barriers in Quitting

It is estimated that 70% of smokers would like to quit cigarettes. Yet intention alone does not always lead to actual behaviour change (Sheeran and Silverman, 2003). Factors that are hindering behaviour change should be examined. One of the main factors could be perceived barriers to quitting smoking. Research suggests that there a large number of barriers that make it difficult for smokers to quit. Only when we understand the barriers that smokers face in quitting cigarettes can we begin on overcoming them and it is only then can the field of smoking cessation be taken forward. Below is a review of the barriers that are already heavily mentioned within smoking research literature; however each barrier will be critically analysed in the context of the current national stop smoking service provision in the UK.

### 2.1 Social Influences

Social environment is an important determinant of the onset of smoking (Mayhem, Flay & Mott, 2000). Research on smoking prevention programmes showed that interventions that concentrated on social norms or social resistance skills were relatively more successful than other smoking prevention programs (MacKinnon, Taborga & Morgan-Lopez, 2002).

Smoking behaviour can be influenced by many different models that people are exposed to in their everyday lives, such as, visual media (films, television), at home (parents,



siblings), peer groups (friends, romantic partners), at school (peers) or at work. It is well known that we imitate behaviours of people that we like (e.g. parents and friends) and of celebrities that function as role models, however we may even imitate behaviours of strangers (Chartrand & Bargh, 1999). Imitation plays a major role in the initiation and maintenance of addictive behaviours such as smoking (Bandura, 1986). People can often imitate behaviours of others without being aware of the imitation, however in other cases individuals can intentionally imitate others, especially when it can lead to immediate positive rewards or may offer an advantage in initiating and continuing social relationships (Harakeh, Engles, Van Baaren & Scholte, 2007).

Different types of smokers react differently to social environments. Miller et al. (1979) found that heavy smokers were not affected by the social condition they were smoking in, but light smokers were affected by the social condition. Oksuz, Mutlu & Malhan (2007) also found that occasional smokers had a tendency to smoke more often in social situations where they feel conscious and unconscious pressure to smoke. Occasional smokers also reported that they smoke more often with friends than alone or with a family member. According to the social cognitive theory (Bandura, 1986), smoking friends may provide social cues and reinforcement for the smoking behaviour. It is also difficult for smokers who live with their partners that smoke to quit as they are constantly exposed to smoking. It has been shown that women who smoke are twice as likely to have a partner who smokes than non smokers (Grange et al., 2006).

The ban on smoking in public places will intercept the relationship between smoking and social conditions by reducing the exposure to smoking models (Harakeh, Engles, Van Baaren & Scholte, 2007). Smoking as a social behaviour could function as a barrier to deciding to quit and staying abstinent, thus, smoking cessation treatments must address the role social influence variables have on smoking. The current national Stop Smoking Services do little to address issues such as imitation as the majority of work is centred on treatment rather than prevention. Factors such as the effects of social environments and smoking partners on smokers are also not adequately addressed within the smoking cessation service. The current smoking cessation service is very focused on the smoking habit however it does little to take in to account the affect of personal social environments of the smoker on their smoking behaviour. The treatment options are limited to level 2 or level 3 services, both which do not build a comprehensive picture of the impact of social environments on the smoker, thus no facilitators are in place when the smoker is faced with this barrier in their quit attempt.

There is a need to understand how this barrier can be overcome for smokers, so that issues such as, partners smoking or being surrounded by other smokers does not impact on quit attempts and results in a reduction in relapse rates.

## **2.2 Cravings**

Research suggests that cravings may be one of the most consistent predictors of smoking behaviour and smoking relapse. Craving is sometimes considered part of the smoking withdrawal symptoms; however theorists most often consider it separate.

The definition of craving has little consensus. The World Health Organisation (WHO) and The United Nations International Drug Control Programme (UNDCP) jointly presented a definition of craving as the “the desire to experience the effect(s) of a previously experienced psychoactive substance”. Cravings are widely accepted to significantly contribute to the development and maintenance of drug dependence. The DSM-IV states that cravings are "likely to be experienced by most if not all individuals with substance dependence".

Theories of craving differ but most models tend to regard craving to be directly linked to appetitive motivational systems than other withdrawal effects are (Shiffman, 2000). Craving is episodic and very responsive to pharmacological and environmental manipulations. Under conditions of deprivation, smokers report cravings for tobacco that generally translate into smoking, and increased levels of deprivation typically lead to stronger cravings (Payne et al. 1996). Even though levels of craving fall after quitting, quitters experience intermittent strong temptation events associated with elevated craving that are superimposed on the self (Shiffman, Enberg, et al., 1997). Craving frequency has been shown to decrease after a lengthy period of abstinence; however it may never fully disappear. In one study, 52% of smokers that had been abstinent for 4-5 years, reported craving cigarettes at least occasionally (Daughton et al., 1999). It is also shown that smokers with higher perceived risks of quitting (such as fear of cravings) have poorer smoking cessation outcomes as beliefs associated with the risks of smoking cessation affect smokers motivation to quit and time to relapse (Weinberger, et al., 2008). Thus craving is an important factor to target in smoking cessation treatments, however existing

treatments may not control for cravings adequately. For example NRT is capable of reducing craving levels but it does not affect the increased spikes of craving provoked by smoking cues (Tiffany et al., 2000). Nevertheless craving is at least partly associated with associative control (Lazev, Herzog & Brandon, 1999) thus cue exposure therapies that focus on diminishing craving responses to provocative cues could be an important part of a smoking cessation plan. However, this is not addressed within the current smoking cessation treatments. The current model relies heavily on NRT or stop smoking medication (Bupropion and Varenicline) to diminish cigarette cravings. Research suggests that even after quitting cravings never really disappear in nearly half of all ex smokers (Daughton et al., 1999) and it is also known that even the most potent pharmacotherapy yield long term abstinence rates of 30% or less (Piasecki, 2006), thus further insights are needed to ensure that barriers such as cravings are not contributing to the reduction in the long term abstinence rates.

In order to effectively overcome the barrier of experiencing cravings it is important to be able to measure cravings. Since craving is accepted as a subjective state, self-report measures dominate assessment and measuring of craving. Although other measurements have been proposed, these measures often lack specificity as they are under control of numerous other influences. Shiffman (2000) states that although objective measures of craving might be developed in the future, subjective self-report appears to be the only viable current option. This presents its own problems, such as interpretation of the questions and/or terms used, social demand and self-deception, but these are partially

overcome by use of repeated measures designs since these issues will often control for themselves.

### **2.3 Stress/Negative Affect**

Links between stress and health are corroborated by a body of health psychology research indicating that stress may affect health via psychobiological, psychoneuroimmunological, and behavioral pathways (Lovallo, 2005).

The definitions of stress usually focus around a “process in which environmental demands tax or exceed the adaptive capacity of an organism, resulting in psychological and biological changes that may place persons at risk for disease” (Cohen, Kessler & Underwood, 1995) Thus, stress is a condition in which environmental, psychological, and biological factors interact.

In the psychological domain, the perception of stress is commonly highlighted in relation to negative health outcomes (Lazarus & Folkman, 1984). A complication to the foregoing definition of stress is that stress and emotions are closely related. The link between stress and emotion, in particular the emotion “anxiety” can be conceptually confusing because stress and (state) anxiety often occur together (Kiecolt-Glaser & Yehuda, 2005). Thus, anxiety, as in moment of worry, may add to the sense of stress (Endler & Kocovski, 2001; Kiecolt-Glaser & Yehuda, 2005). Despite links between stress and anxiety, stress may also be present without anxiety, and chronic stress may be a prognostic factor predicting a risk for future psychological distress.

Stress has been linked to health problems such as hypertension, cardiovascular diseases and stroke (Lundberg, 2005). Since stress goes hand in hand with illness there is a need to understand the theoretical constructs behind it. There are numerous models of stress; General Adaptation Syndrome (GAS) model (Selye, 1956), biopsychosocial model and the transactional model (Lazarus, 1984).

The GAS model is predominantly a biological model which consists of three stages: (1) alarm, (2) resistance, and (c) exhaustion. The alarm stage is equivalent to the fight and flight response when the body releases adrenaline and exhibits other psychological responses when confronted with a stressor. If the cause of the stress is removed then the body becomes normal again but if the stress continues GAS goes into the resistance stage. The resistance stage is a continued state of arousal where the body secretes high level of hormones that can increase blood sugar levels. This may upset the body's homeostasis and harm internal organs. Sufferers become irritable, prone to fatigue and their concentration levels go down. The exhaustion stage takes place after prolonged resistance. At this stage the body has run out of its resources and breakdown occurs. However, GAS assumes that all stressors produce the same physiological reactions, which is not the case and it does not take into account environmental factors as potential help or hindrance to stress levels (Tansey et al., 2004).

The transactional model was devised by Lazarus (1984) and included psychological variables. Lazarus claimed that stress involved a transaction between an individual and their environment, and that a stress response was evoked if one perceived an event to be

stressful. The model suggested two forms of appraisal: (1) primary appraisal, which is the perception of an event as being negative, neutral or positive, (2) secondary appraisal, which is when one evaluates their coping strategies. According to the theory one will only become stressed if they have appraised an event to be stressful and feel that they are not equipped to cope with the demands of the situation.

It is important to understand the relationship between stress and illness as it has been proposed that stress is an aetiological factor for smoking (Wills et al., 2002). Not only is it shown that stress may trigger smoking behaviour, but also that stress is associated with smoking a greater number of cigarettes and increases urges to smoke (Metcalf, Smith, Wadsworth, 2003; Zinser, Baker, Sherman & Cannon, 1992). Crittenden et al (2006) found that greater perceived stress is associated with poorer smoking outcomes. The findings suggested that smoking is used to deal with stress and that a higher baseline level of smoking in negative emotions situations had the strongest association with higher perceived stress over time.

Smokers often report they smoke to relax or reduce tension, particularly as a response to stress (Pomerleau, Adkins & Pertschuk, 1978), uncontrollable social and economical problems (Jarvis and Wardle, 1999) and in response to anxiety, anger and sadness (Gilbert & Wesler, 1989). Smoking could increase smokers perceived control over stressors and they may think that smoking is an effective way to cope with anxiety and stress (Shadel & Mermelstein, 1993). However several naturalistic studies have shown that when smokers have carried palmtop computers to record states and behaviours in near-real time have revealed that, in contrast to smokers stated beliefs, there is little or no

systematic correlation between affect and smoking behaviour (Shapiro, Jamner, Davydov, & Porsha, 2002; Shiffman, Paty, Gwaltney, & Dang, 2004).

Stress is considered to be an especially important barrier to quitting in individuals from a low-SES background. Smoking might be the by-product of economical difficulties. It has been reported by Rahkonen et al., (2004) that men and women who experienced economical difficulties were twice as more likely to smoke than people who were not experiencing any difficulties, even when differences in SES were taken into account. Compared with more advantaged individuals, people from a low SES background seem to experience more severe daily stressors, have less social power and fewer material resources to actively control the sources of stress (Gottlieb & Green, 1987; Romano, Bloom, & Syme, 1991; Turner & Avison, 2003). Young people with lower social status are at an increased risk of smoking, whether status is defined objectively (parent education) or subjectively (school social status) (Finkelstein, Kubzansky & Goodman, 2006). Thus, individuals with lower SES may more often resort to the alternative coping mechanism of controlling the negative emotions triggered by the stressful events. The real or perceived utility that smoking has in controlling negative affects is likely to act as a barrier to quitting smoking, by decreasing motivation, increasing temptations to smoke, and decreasing confidence in the ability to quit.

Most studies investigate smoking as being a precursor to stress, however evidence also suggests to experiencing stress as a result of smoking. According to Siahpush et al. (2005) smoking can exert a financial burden on an individual and their family. It has been found that experiencing financial stress is 1.5 times higher and severe financial stress is



twice as higher in smoking households than non-smoking households. Therefore smokers from a lower SES who experience severe financial stress are more likely to live in compromised conditions and experience stress.

It has also been suggested social stigma associated with smoking might act as a stressor and thus smoking cessation might lead to a decrease in stress levels and negative effect (Parrott, 1995). As a consequence quitting cigarettes will lead to a decrease in stress levels.

The current smoking cessation service does little to address the relationship between stress and smoking, should stress act as a cause or as a precursor to smoking. Ways of overcoming stress are usually based on instruments such as a “Smokefree Tangler” that is promoted as a tool to keep “hands and mind busy” and the “stress busting mp3’s also used for stress relief (Smokefree UK website). The stop smoking service needs to enhance its stress relief interventions and needs to distance itself from gimmicks such as the Tangler and mp3’s. It is important to find out for each smoker whether or not stress acts as a barrier in quitting and if it does have an effect then to have interventions that not only assist the smoker to quit smoking but helps individuals cope with the stress or stressors. Much of our knowledge about the role of social stressors in smoking behaviour has come from self-report measures, thus further research is needed to examine the behavioural and physiological reactions to stressors.

Ways in which to help people to cope with stressors should come from smokers themselves as they are more equipped with knowing what will be the most effective

method for them. The literature presented paints an extensive picture of how stress and smoking are inter-linked however no model has been presented as to how this barrier can be overcome for smokers, specifically for individuals from a low SES. Thus the qualitative methodology of this research study will assist in further understanding whether stress acts as a precursor or is a cause of continuous smoking and how to intervene as healthcare professionals to reduce the affect of stress on smoking cessation.

## **2.4 Fear of Weight Gain**

Men and women believe that smoking controls weight (Pomerleau & Saules, 2007), and these beliefs have been linked to the initiation and continued maintenance of smoking. Efforts to quit smoking may be diminished by concerns about weight and shape; women in particular, most often continue smoking following modest weight gain (Perkins, 2001). Although weight concerns are far more prevalent among women than men, a growing number of male smokers endorse elevated weight concerns and smoke to control their weight (Clark et al., 2006). There is evidence to suggest that nicotine can reduce food consumption and can increase human metabolic rate (Perkins, 1992a,b) and it has been proposed that rebound effects may account for changes in body-weight upon withdrawal from nicotine (Hatsumaki, et al., 1994). Most quitters will gain on average 4-5kg but as many 13% of quitters may gain up to 11kg (Swan and Carmelli, 1995). Animal research has shown that weight suppression effect of nicotine may be moderated by diet, when nicotine was administered, rats on a high fat diet reduced intake significantly more than rats on a normal chow diet. However following nicotine withdrawal the groups did not gain weight at different rates (Wellman, et al., 2005). Although nicotine effectively

suppresses weight and is associated with post cessation weight gain, the effectiveness of nicotine as a means of weight control is marginal (White, McKee & O'Malley, 2007).

Women with strong concerns about weight have been shown to be overrepresented among smokers compared with women who have never smoked (Clark et al., 2006). It could be that women who are concerned about their weight smoke for the perceived benefits of nicotine on weight control rather than the sensory effects of smoking (Jenks and Higgs, 2007). Ogden and Fox (1994) found that compared with unrestrained eaters, young women who were restricting their food consumption reported significantly greater agreement with a statement about the weight controlling properties of tobacco use. It was also found that currently dieting young women smokers are more motivated to smoke for weight control than non-dieters. This was further supported by evidence that dieters smoked less of a cigarette and gave less positive ratings of the sensory/hedonic aspects of smoking. In addition, the presence of food resulted in an increased desire to smoke for dieters only (Jenks and Higgs, 2006). On the contrary, Pisinger and Jorgensen (2007) found that smokers in their study were less concerned about their weight and consumed more food than non-smokers, although daily smokers did have a lower BMI than the never smokers. This is interesting given that smokers perceive themselves as heavier and report a greater discrepancy between their actual and ideal figure (King et al., 2000). This has a negative impact as women who negatively evaluate the size or shape of their body have been found to be more likely to initiate smoking to lose weight or to maintain their smoking habit to prevent weight gain (Ben-Tovim & Walker, 1991a).

Most women are unrealistic about the impact of post smoking cessation weight gain and believe that its occurrence might result in relapse (Pormelau, Zucher, & Stewart, 2001). However, in contrast to their beliefs, several studies show that long term weight gain is positively associated with success in quitting and decreased long term relapse (Kllen et al., 1996, Norregaard, Tonnesen, & Petersen, 1993).

Regardless of whether or not more weight conscious individuals are smokers or whether nicotine reduces food consumption, further insights are needed on not only understanding the relationship between weight gain and smoking but also on exploring how to reduce the fear of post cessation weight gain in both females and males. The current smoking cessation treatments address weight gain, however it is very limited to the advice it provides and is often focused on things such as, “not to snack”. The level 3 group treatment discuss weight gain in one of the 6-7 sessions, however again the time spent on this barrier is very short and smokers are not well equipped to deal with this issue. There is a gap within the current smoking cessation provision to assist smokers to overcome the barrier of weight gain and further insights are required to help fill this gap, to ensure that the treatment matches the needs of the smokers.

## **2.5 Low Self Efficacy**

Much of modern psychology has emphasised the importance of self confidence as an important factor of success. This has been expressed most by Bandura (1977) who has argued that confidence or self efficacy has a crucial part to play to achieve one’s objectives and can be make all the difference between failure and success. Self efficacy is

defined as the belief in one's ability to perform the behaviours necessary for a desired outcome (Bandura, 1997). Individuals who believe that they can succeed are more likely to succeed than individuals who do not. There are several reasons behind this. Firstly, people who believe in themselves are more likely to make the effort. Secondly, the confident person is more likely to continue despite facing problems or obstacles, which results in the persistence helping the individual to overcome the obstacles.

Numerous studies have established that high self efficacy is a strong predictor of smoking cessation (Baer, Holt, and Lichtenstein, 1986; Stuart, Borland, & McMurray, 1994). Baer, Holt, and Lichtenstein (1986) found that self-efficacy was not correlated with abstinence, but was correlated to a decrease in smoking rates. Additionally, they found low self-efficacy to be a good predictor of relapse. Martinez et al., (2010) reported that participants in their study who described higher levels of perceived control over symptoms that arise following abstinence (i.e., withdrawal, irritability, depressed mood) reported higher internal and external self efficacies.

Promoting and improving self-efficacy in smokers could increase the likelihood of a successful quit attempt and a reduced possibility of relapse. This would be even more beneficial in individuals who have tried to stop smoking in the past, as smokers who have had an unsuccessful quit attempt are found to have significantly declined levels of self efficacy (Boardman et al., 2005; Shiffman et al., 2000). Guidelines to promote self-efficacy to quit smoking suggest discussing past successful quit attempts and producing a quit plan (Fiore et al., 2008).

Alternatively, some researchers have pointed out that high self-efficacy scores are not associated with successful smoking cessation (Haaga and Stewart, 1992). However the weight of this evidence does not outweigh the research showing a positive correlation between smoking cessation and self-efficacy.

A major problem with studies that assess self efficacy in smokers is that self efficacy is mostly always assessed via a scale. More generic self efficacy scales such as the General Self-Efficacy (GSE) scale (Schwarzer & Jerusalem,1995) consists of ten questions whereas the more specific smoking cessation self efficacy scale (Dijkstra & De Vries, 2000) consists of 5 questions. Are these scales really sufficient to gain an in depth understanding of self efficacy in smokers? Are we confident that if we use these scales within treatment models that we will be closer in understanding whether or not the intervention has led to an increase in self efficacy? Self efficacy needs to be further researched within an exploratory context, where the focus is on what kind of interventions can be used to increase smoker's confidence in their own ability to quit smoking.

The current smoking cessation service places a large emphasis on boosting self confidence which is believed to increase the likelihood of quitting. It does this by providing behavioural support which consists of advice, discussion and exercises provided face to face (individually or in groups) or via the telephone. The service also tries to increase motivation levels by methods such as producing quit plans. However more emphasis needs to be placed in increasing self efficacy. Gillies (1999) found that smokers from a low SES often locate smoking within the disease model, perceiving it as a physical problem in need of treatment. This dominant construct of cigarette smoking as

a physiological addiction is disempowering. Hence smoking cessation treatment should make it explicit from the start that smoking is as much a psychological addiction as a physical addiction. Smokers should be made to feel that they are in control and can choose to quit smoking; this will lead to increased confidence and empowerment (Sykes and Marks, 2001).

## **2.6 Lack of Awareness of Smoking Cessation Treatments**

Lack of awareness of smoking cessation treatments is thought to be a major external barrier in trying to quit cigarettes (Kaper, Wagena, Severns & Van Schayck, 2005). The lack of awareness can be about the availability of smoking cessation treatments and/ or the effectiveness of the treatments.

Firstly, it has been suggested that smokers show little awareness of their local smoking cessation treatments and know very little about them (Roddy et al., 2006). However, smokers often do not utilise smoking cessation support services, even when they are made convenient, attractive and free (Lichtenstein & Hollis, 1992; Ussher, Etter and West, 2006). Typically 20%-40% of individuals trying to quit have used one or more NRTs and less than 10% have accessed a psychosocial treatment which include telephone support, individual and group counselling/support (Hughes, Marcy & Naud, 2009). According to Ussher, Etter and West (2006) the majority of pregnant smokers perceive many benefits of attending a stop smoking course. However only 5% of their participants indicated that they had ever attended such a course and many women reported not having access to these courses or not believing that these courses would be of any use. A large

number of women in the study also stated that they had not received advice to quit from their GP or midwife. Thus it should be explored why smokers show little awareness of their local smoking cessation treatments and why when some smokers do know about them they do not access them. A qualitative methodology of investigation for this question is far more superior than a quantitative methodology as it will provide richer narratives. It should be ensured that frontline healthcare professionals are trained in smoking brief intervention and that they are also confident in giving advice to smokers to quit.

Secondly, many smokers have false or incorrect ideas about the content or effectiveness of smoking cessation treatments. For examples some smokers believe that NRT is as deadly as cigarettes (Cummings et al., 2004), that NRT and Bupropion have adverse side effects (Roddy et al, 2006) or that telephone counsellors will be judgemental and coercive who will use guilt-laden statements to try to get them to quit smoking (Bayer & Stuber, 2006). Though being older, being a woman, and being a heavier smoker predicted past use or plans to use treatment (Hughes, Marcy & Naud, 2009). However within research literature there are gaps in why smokers hold these false or incorrect ideas about the content or effectiveness of smoking cessation treatments. Only when we know the reasons why can we begin to overcome this barrier.

NRT is often perceived as being expensive and ineffective (Roddy et al, 2006). Younger smokers have especially been found to be extremely sensitive to the cost of smoking cessation treatments, where even a \$15 cost of treatment reduces the probability of using



it by 20% (Hines, 1996). Therefore it should be ensured that the cost of NRT is well promoted so that misconceptions of the cost do not deter potential users to use NRT for their quit attempt. The NHS have spent millions of pounds on promoting local stop smoking services, however why is it that the smokers still hold the view that treatment will cost money? Stop smoking services may gain by publicising their services and other NICE endorsed stop smoking treatments. They should promote the benefits of their support and the advice about safe medications. In the study by Roddy et al. (2006) the participants felt that cessation service should be more appropriately publicised in a personalised manner.

It is important to understand why smokers from a low SES are not accessing stop smoking treatments. The reasons presented in earlier research suggest lack of awareness, however there is a need to explore where responsibility for raising awareness lies. Previous research (Bayer & Stuber, 2006; Cummings et al., 2004; Roddy et al, 2006) is often found to blame the smoker for their lack of awareness, nevertheless interactions between healthcare professionals and smokers need to be explored as there is a responsibility on the part of HCP's to provide accurate information/awareness and to give appropriate advice to their patients, especially smokers from deprived backgrounds.

## **2.7 Withdrawal Symptoms**

Abrupt smoking cessation results in withdrawal symptoms that predominately consist of negative affects, such as irritability, sadness, anxiety, frustration and also include changes in appetite, heart rate and quality of sleep (Hughes, Higgins & Hatsukami, 1990). Some

symptoms may persist for many months. However, the severity is variable and some smokers can give up without difficulty.

There are two main theories of withdrawal. The first suggests that withdrawal symptoms are partially pharmacologically mediated and linked to nicotine depletion. For example the symptoms start within 24 hours of smoking cessation and are reversed by the nicotine administration (Hughes et al., 1984). Upon smoking nicotine binds to acetylcholine receptors and leads to a burst of receptor activity. This stimulation can lead to:

- **Increased release of acetylcholine** from the neurons, leading to heightened activity throughout your brain. This activity calls your body and brain to action, and this is the wake-up call that many smokers use to re-energize themselves throughout the day. Nicotine improves reaction time and the ability to pay attention.
- **Stimulation of cholinergic neurons** promotes the release of the neurotransmitter dopamine in the reward pathways of your brain. Stimulating neurons in these areas of the brain brings on pleasant, happy feelings. When nicotine activates the reward pathways, it reinforces desire to use it again due to the feeling of peace and happy afterwards.
- **Release of glutamate**, a neurotransmitter involved in learning and memory - Glutamate enhances the connections between sets of neurons and this is what forms memory. Upon using nicotine, glutamate may create a memory loop of the good feelings you get and further drive the desire to use nicotine.

All of the above activity affects the way an individual's brain works after smoking a cigarette, thus upon cessation the nicotine can no longer work as a stimulant to promote an increase in activity, which leads to withdrawal symptoms (West, McNeil, and Raw, 2000). This theory is heavily influenced by the physiological model of smoking and does not take in to account the psychological nature of withdrawal. The second theory of withdrawal alternatively completely views withdrawal as a reaction to provocative cues.

The second theory of withdrawal proposes that withdrawal symptoms may become entrained to interoceptive and exteroceptive cues through associative learning (Baker, Piper et al., 2004). The theory predicts that smokers should display unique withdrawal time courses if their environment differs in the density of provocative cues. Using associative learning, the smoker begins to attribute the positive qualities of an event or act with smoking and over time, the smoker assigns these qualities to the cigarette. These associations provide rationalisations to the smoker. For example, some smokers might associate drinking alcohol with having a cigarette, thus upon cessation if they consume alcohol this will act as a provocative cue and trigger an urge to have a cigarette which will then trigger a withdrawal response if a cigarette is not smoked (McKee, Krishnan-Sarin, Shi, Mase & O'Malley, 2006).

Based on the two theories it is important that the withdrawal is not labelled a 'nicotine withdrawal syndrome' since it is difficult to show that it cannot occur through the loss of other aspects of smoking. Alternatively, it has not been demonstrated to occur with acute cessation of use of nicotine replacement products (e. g. nicotine gum). Instead the withdrawal should be viewed as a definite abstinence syndrome (Hatsukami et al., 1984).

The time course of withdrawal symptoms is varied. Withdrawal symptoms increase sharply upon cessation, and then decrease gradually back to baseline within 3-4 weeks. However there are considerable intra-individual and inter-individual variability. A large number of smokers report symptoms that are chaotic, prolonged, or even increasing over an 8 week period (Piasecki, Jorenby, Smith, Fiore, & Baker, 2003b). When this is taken into account, withdrawal experience is shown to be a reliable predictor of relapse. Relapse is predicted by a number of semi-independent parameters of withdrawal experience, including the mean elevation of symptoms, day-to-day symptom volatility and the slope of symptoms across time (Piasecki, et al., 2003a). Surprisingly it has been found that for many smokers, withdrawal symptoms increase systematically even before the quit date, perhaps in the anticipation of the reinforcement loss and the magnitude of such increases predicts short-term smoking relapse (McCarthy, Piasecki, Fiore & Baker, 2004). Due to withdrawal changing significantly even before quitting highlights the overlap between negative affect and withdrawal and demonstrates how withdrawal symptoms can become a barrier in trying to quit cigarettes pre and post cessation.

During a quit attempt the current smoking cessation treatments use NRT and stop smoking medication to reduce the mean level of withdrawal, but they have no effect on other relapse-related symptom components, such as the slope or variability of symptoms over time (Piasecki, et al, 2003a). The favoured treatment model to overcome withdrawal symptoms (the use of pharmacotherapies) may only ameliorate one component of a multifaceted affect/withdrawal response system and might reduce the elevation of background negative affect but it does dampen the acute increases in affect provoked by

smoking cue exposure (Tiffany, Cox & Elash, 2000). There is a need to explore qualitatively whether or not withdrawal symptoms play a major role in acting as a barrier in quitting smoking, and if it does then how? Do smokers view withdrawal in a physiological, psychological or even both ways? Only then can we become closer to enhancing smoking cessation treatments so that they help smokers overcome the barrier of withdrawal symptoms.

## **2.8 Purpose of the Study**

There has been limited research conducted on how barriers that smokers face in quitting could be overcome. The majority of the research to date has heavily focused on exploring what barriers smokers are faced with when attempting to quit. The purpose of this study is not only to understand the barriers that smokers face in quitting cigarettes but to also explore how those barriers could be overcome, focusing on individuals from a low socioeconomic background and building recommendations based upon the solutions presented by the participants themselves. This will help provide insights into how access to and uptake of stop smoking services could be improved, this too at a time when the smoking ban has been introduced in the UK.

The method of investigation chosen for this study is qualitative. As this is a new area of research, qualitative work will have to be carried out for exploratory and descriptive purposes. It was anticipated that by conducting semi-structured and open ended questions in focus groups, the underlying issues concerning the barriers in quitting would be better understood. The reasons for using focus groups will be discussed in the method section.

A quantitative methodology was not adopted due to not wanting to restrict the responses. The results obtained would have been much narrower as they most often provide numerical descriptions rather than detailed narrative and generally provide less elaborate accounts of human perception and experience. In quantitative methodology the development of standard questions by researchers can lead to 'structural' bias and false representation, where the data actually reflects the views of the researchers instead of the participating subject.

It is believed by the researcher that smokers should be provided with an opportunity to discuss openly why they find it difficult to quit and to propose solutions to address their barriers. This format of collecting rich usable data is empowering for individuals especially from a low socioeconomic background as they often do not get the opportunity to be involved in the development of services, and focus groups are found to be a valuable tool in significant involvement of the communities such as minority and other vulnerable populations we serve and hope to understand (Merton, 2003).

### **2.8.1 Aim**

The aims of the study are to (a) explore the role barriers play in continuing smoking and (b) examine how to overcome the barriers that smokers face in quitting cigarettes.

## 3. Method

### 3.1 Design

Qualitative methodology was used for this study due to its nature of determining how a particular phenomenon operates. Qualitative research differs from experimental research. While experimental psychology is concerned with testing hypothesis, qualitative research is inductive, generates hypothesis and has a focus on *how* things happen rather than *that* they happen. By using this method the data generated is rich because it describes and makes sense of the participant's experiences (Silverman, 2004).

Focus groups were used through the course of the study as they present a significant amount of advantages as a methodology; they stimulate self-disclosure amongst participants. This tends to take place when the participants feel that they are similar to each other in a particular way and they perceive the environment to be non-judgemental (Sharts-Hapko, 2001). Thus the groups were closely matched by age and gender to find common threads. Focus groups provide more information than questionnaires and allow the investigator to develop deeper insights to understand the issues in hand more extensively. The results of the focus group are quickly obtainable and conducting them is inexpensive when compared to methods such as surveys and experiments (Davis & Reeves, 2006). Another reason for choosing to carry out focus groups was that the research was going to be carried out in July 2007, this was at the same time as the smoking ban was introduced in the UK. As a consequence of the Health Act 2006, on the 1<sup>st</sup> of July it became illegal to smoke in all enclosed public places and enclosed

workplaces in England. The political and social environment leading up to the ban was very difficult for smokers, as they felt victimised and felt that their human rights were being violated. Within such a backdrop and the ban being a recent event, it had to be ensured that the participants did not feel threatened or patronised. Hence, carrying out focus groups rather than one to one interviews would give the participants confidence to speak their mind, being surrounded by other smokers, rather than feeling isolated if interviews were chosen as the preferred method.

By far one of the biggest advantage of carrying out focus groups is that it is competent in being used as a preliminary method for topics and subjects where there is no prior research, which can later on provide an input into developing questionnaires and other measurement instruments. Therefore focus groups were deemed the most appropriate method to use in a study where there is a lack of good research on how to overcome the barriers that smokers face in quitting cigarettes.

### **3.2 Participants and Setting**

The sample for this study consisted of 32 (11 men, 12 non-pregnant women and 9 pregnant women) participants who met the inclusion criteria for each of the six focus groups (Participant summary will be found in Appendix 1). The inclusion criteria for the focus groups were as follows:

Focus Group 1- Smoking pregnant women

Focus Group 2- Smoking pregnant women

Focus Group 3- Smoking females 30 and under



Focus Group 4- Smoking males 31 and over

Focus Group 5- Smoking females 31 and over

Focus Group 6- Smoking males 30 and under

The participants were divided in to the above homogenous segments based upon two segmentation variables: geographic and demographic.

**Geographic:** the focus was on areas of low socio-economic status within South West Essex, as these are the areas that tend to have the highest smoking rates. Geography is thus a significant factor in identifying communities with significant health and support needs.

**Demographic:** the research phase aimed to understand gender-related differences, by conducting focus groups with men under 30 years and over 31 years; and women under 30 years and over 31 years. A pregnant women segment was also identified as being important.

The age and total household income breakdown for the focus groups is presented below in Table 1 & 2:

<b>Focus Group</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
<b>N</b>	5	6	6	6	7	5
<b>Mean Age</b>	30.6	32.6	22.2	45.3	52.7	25.4
<b>Std.Deviation</b>	2.30	3.13	4.49	14.02	12.23	5.90

**Table 1:** Participants age, mean age and standard deviation per focus group

<b>Total Household Income</b>	<b>Under £20k</b>	<b>£20k-£30k</b>	<b>£30k-£40k</b>	<b>£40k+</b>	<b>No Response</b>
<b>Frequency (N)</b>	20	9	4	0	2
<b>Percentage</b>	61	27	12	0	6

**Table 2:** Participants total household income frequencies and percentages

Participants were recruited through a market research company. A brief was provided to the company which outlined the inclusion criteria for each focus group to ensure that they were recruiting the correct participants. Additionally an information letter (Appendix 2) was produced outlining the purpose of the focus groups, what participants will have to do, the risks to them, details of remuneration and contact details of the researcher. The letter was then handed to potential participants by the research company to provide further information. Participants were given £25 to remunerate them for their time and travel. All the focus groups took place in a conference room. This location was chosen due to the ease with which the participants can travel to the building because of its central location. The public transport links to the area were very good as were the parking facilities.

### **3.3 Data Collection & Ethical Consideration**

The study was conducted in an ethically appropriate manner according to formal guidelines from the British Psychological Society (Code of Conduct and Ethical Principles and Guidelines, 2000). Focus groups were the selected method of data collection within the study. They were conducted by the author of the dissertation and were carried out during July of 2007. Informed consent of each participant was obtained

via a consent form (Appendix 3). The participants were given full explanation of the purpose of the study and were informed that the focus groups will be audio. Participants were reminded in the consent form that they could withdraw from the focus group whenever they wished and that their responses would not affect the healthcare they receive or would receive from their doctors and midwives.

Demographic information including age, ethnicity, occupation, education, marital status and who the participant lives with was obtained before the focus group via a question sheet. Participants within the study were identified via their participant number given to them at the time of their focus group. No names had been included to ensure participant confidentiality and privacy.

The focus groups lasted between 45 and 60 minutes, and open ended questions were posed to the participants. After the focus groups the participants were given debriefing forms (Appendix 4). Verbatim transcripts of the recorded focus groups were produced. The tapes were destroyed after transcription.

### **3.4 Focus Group Questions**

The focus groups were split according to four key areas of prompt: (1) smoking behaviour, (2) quitting smoking; (3) marketing and (4) incentives. Smoking behaviour was explored by asking participants about why they smoke, if anyone else in their home smokes, whether or not healthcare professionals speak to them about their habit. The second theme of quitting smoking was explored by discussing whether or not they have

tried quitting in the past, what barriers they face in quitting, how those barriers could be overcome and what kind of support would they like to quit smoking. The third theme was split into two sections. The first involved discussing recent local smoking campaigns to see whether the participants had any recollection of them and to explore what their thoughts on the adverts were. The second section was on discussing how we could effectively market in the future- therefore asking what kind of adverts are they attracted to, which media channels should be used, what the tone of the adverts should be. Finally in order to ascertain how to increase the number of people accessing the stop smoking service the issue of incentives was explored. Would incentives (and of what kind) would make it more likely for people to attend the service.

### **3.5 Analysis and Coding**

A grounded theory approach (Strauss and Corbin, 1998) was used to analyse the focus group data. Grounded theory was used for many reasons. Firstly the underpinnings of grounded theory are appropriate to the study. The aim of this method is to identify contextualised social processes and is designed to assist with the discovery of theory that is grounded within the data. The aim of the study was to understand what the perceived barriers are for smokers and how they feel that the barriers can be overcome and grounded theory allows the researcher to get close to the participants world. Secondly, grounded theory offers thorough and systematic procedures for data collection, analysis and theorising (Willig, 2001). Thirdly, grounded theory has both interpretive and positivistic components. The importance given to using systematic methods to study an external world is consistent with positivism. Its emphasis on how people construct

meanings, actions and intentions is linked with the interpretive traditions. The stress on the process enables researchers to analyse individual and interpersonal processes and look at how they are developed, maintained or transformed (Charmaz, 2000).

In Strauss and Corbin's (1998) method of grounded theory the analysis of data and data collection are carried out simultaneously and theoretical sampling is applied. However for this study an abbreviated version (Willig, 2001) of grounded theory was used for the analysis of this study. The data was coded and constant comparative analysis was carried out to develop the themes, but further data was not collected to reach saturation point. Initial open coding of the data was carried out using line-by-line coding (Charmaz, 2006) to identify descriptive low-level categories and codes grounded in the data (Willig, 2008). During this process comparisons were made between what was being said and what had been said elsewhere by other participants and groups. Themes began to emerge and codes that were found to be similar were grouped into categories. The connection between the categories were further explored which led to higher-order categories with sub-categories within them. Abbreviated grounded theory was chosen over the full version of grounded theory due to several reasons. Firstly, the grounded theory principle of constructing theory was very important for this piece of research, however time and budget constraints made it difficult to fully encompass the process of theoretical saturation that is seen in the full version of grounded theory. Therefore it was decided that theoretical saturation and theoretical sensitivity will only be implemented within the texts that are to be analysed and no further focus groups would be carried out (beyond the 6 groups that were already decided upon). Secondly, it was important in this research to explore the social processes

of smoking rather than trying to gain insights into the individual participants psychological world, therefore grounded theory was most suited to meet this aim. Yet budget and time constraints did not allow for the fuller version to be implemented, nevertheless the abbreviated version still permits the use of constant comparison and allows themes to be emerged from the data. One way of avoiding not reaching data saturation was by dividing the focus groups by homogenous groups.

### **3.6 Reflexivity**

There are no pre-explored steps to follow whilst trying to determine the validity or the reliability of a qualitative account but a set of steps were taken to enhance the credibility of the findings. Firstly internal validity was verified through checking the participant's verbatim extracts against the emerging themes (Tsartsara & Johnson, 2002). Secondly when analysing the data the researcher was aware that their own experiences i.e. a young non smoking female might have an impact on how the experiences of the smoking participants were interpreted. This process of personal reflexivity is required in qualitative research thus it was assured by looking through the themes a few times to make sure that they are grounded in the data. Thirdly whilst the data was being gathered the researcher was clear and about what she wanted to explore through this particular research yet at the same time was open to new findings and understandings as disclosed by the participants. Using different groups of people provided varied routes of trying to understand their experiences.

## 4. Findings

<b>Barriers in Quitting</b>				
	<b>Positive Perception of smoking</b>			
		Enjoy Smoking		
		Relaxing		
		Reward		
		Avoidance of boredom		
		Social norms		
	<b>Association/ Triggers</b>			
		Stress		
		Weight		
		Alcohol		
		Cravings		
		Partner smoking		
	<b>Competition</b>			
		<b>External</b>	<b>Internal</b>	
		Branding	Blame minimisation	
		Alternative therapy	Low threat perception	
	<b>Motivation</b>			
		Self efficacy/ confidence		
		willpower		
		Social support		
	<b>HCP</b>			
		Relationship with HCP		
			GPs	
			Other HCP	
		Incorrect advice		
	<b>Stop Smoking Service</b>			
		Awareness		

			Availability and price	
			Incorrect views of treatments/meds	
		Experience of stop smoking programmes		
<b>Overcoming Barriers</b>				
	<b>Negative Perceptions of Smoking</b>			
		Addiction		
		Health		
		Financial		
		Chastised		
		Children		
	<b>Models of Treatment</b>			
		Holistic model		
		Tailored service and access		
		Location and staff		
		Socialising		
	<b>Marketing the Service</b>			
		Targeted adverts		
		Mediums and location of advertisement		

**Table 3:** Identified themes across focus groups

Two core themes were found in the data; (1) barriers in quitting and (2) overcoming barriers. Barriers in quitting has a further six main themes, (1) positive perception of smoking, (2) association/triggers, (3) competition, (4) motivation, (5) healthcare



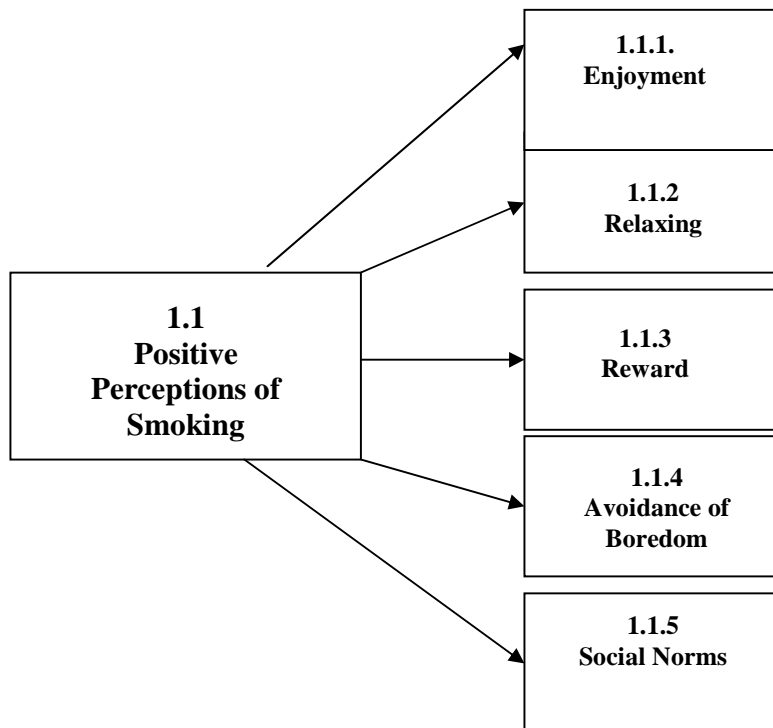
professionals and (6) stop smoking service. Overcoming barriers has a further three main themes; (1) negative perceptions of smoking, (2) models of treatment and (3) marketing services. Each of the themes will be explored. (Please note: after each quote the 'P' signifies the participant number and the 'FG' signifies the focus group number, where there is a question mark after the P signifies that it was difficult to attribute the voice to a specific participant- For details of the participants and focus groups, please see Appendix 1).

#### **4.1 Barriers in Quitting**

The issue of barriers in quitting was a dominant theme during the focus groups. When participants spoke about the barriers that they faced whilst trying to quit smoking they labelled many factors as the either the main or one of the causes of their failure to stop smoking. Below those factors will be discussed in the form of main themes.

##### **Positive Perception of Smoking – 1.1**

When participants spoke about their perceptions of smoking a large number of them talked about the positive nature of smoking. Smoking was used as a relaxation tool, it acted as a reward, it was used as a mean of avoiding boredom and lastly many people found smoking an enjoyable exercise (Figure 1).



**Figure 1:** Positive perceptions of smoking and its sub-categories

***Enjoyment – 1.1.1***

It is often considered that smoking is an addiction, and that people only smoke because they are addicted to cigarettes, however many people within this study mentioned that they enjoyed smoking. They liked the routine it gives them, they liked the taste and they liked holding the cigarette in a particular way.

*“I love smoking, I’ve always loved it. After a meal, after sex, I’ve always liked it”*

*(P1 FG4)*

Often people are fully aware of the dangers associated with smoking, though because smoking is enjoyed it very difficult to quit. It was often discussed that it is harder quitting something that you enjoy than quitting something that you don't. Therefore smoking, for many of them, became a legitimate excuse for interrupting work and snatching a moment of pleasure.

*“I’ve had a good innings so if they’re bad for me, I like a cigarette so ‘so what”*

*(P1 FG4)*

Cigarettes smoked at different times of the day gave different sense of pleasure. Most people spoke about the first cigarette being the most pleasurable of them all, it is the one that they enjoyed the most. It prepared them for the day ahead and made them think more clearly.

There were some participants that remarked that they did not enjoy smoking and they only smoked because it was an addiction. Although, the same people talked about the pleasure of having their first cigarette of the day

### ***Relaxation – 1.1.2***

Smoking was seen as a way to relax. It was mostly felt that if one was feeling low or experiencing stress then smoking a cigarette will achieve a sense of equilibrium. Most of the participants emphasised the calming nature of a cigarette. It was most often used as

crutch to deal with hard times or stress. It is the first thing that most of the participants would use to relax, unwind and feel calmer.

*“when I’m at home then I start thinking like I don’t feel well or I start stressing, then I light up a fag” (P5 FG1)*

*“You have a fag to chill out. You have a fag and calm down” (P2 FG4)*

Relaxation was sought during or after many different types of situations; financial problems, family hassles or after a hard days work.

*“When the kids are doing me head in, I want a cup of coffee and a fag...I think if you had a bad day with the kids, if you had a row with the other half It does relax you” (P? FG1)*

Smoking acted like a crutch for many people to go through daily hassles. There was a heavy reliance upon it to make everything feel calm and normal. It was used as a method to recharge their batteries after which they can carry on with their usual lives.

*“Just sit down, relax, you have a cigarette; I think it does relax you. I think it calms you down. If you take 5 minutes out to sit down and have a fag. Then you can come back and start again rather than shouting and screaming” (P? FG1)*

Smoking gave a legitimate excuse to linger a little longer after meals, to stop work for a few minutes, to sit at home without doing anything that requires effort. Hence for some because of these reasons quitting cigarettes becomes difficult.

### ***Reward – 1.1.3***

Individuals from low socioeconomic backgrounds can have a restricted range of opportunities available for reward. Smoking was seen as a reliable source of reward, especially amongst women participants.

*“I treat myself to a cigarette when I’ve done a few things” (P? FG5)*

The reason why smoking was considered a treat was because a cigarette is a reward that they can give themselves as often as they wish and because other forms of reward are missing in their lives.

*“I look forward to it, I get jobs done and then have one” (P1 FG5)*

The sample for the study were from deprived areas and it is often said that people from deprived areas have fewer opportunities of reward therefore it is not surprising that these women perceived smoking as the biggest reward of them all. In addition to this, individuals lacked confidence in their ability to stop smoking and to replace it with an alternative rewarding activity. If smoking was not part of their lives they would be

substituting the cigarette with other rewards such as food consumption, and this would not be acceptable to them, as they fear weight gain.

#### ***Avoidance of boredom – 1.1.4***

Frequently, the participants remarked that smoking cigarettes helped them to avoid boredom or that if they stopped smoking they would be bored due to not knowing how to fill the time gap. A large number of the female participants were housewives therefore they had a lot of time during the day to fill, and smoking was seen as a task which could occupy their time.

*“I just do it through sheer boredom most of the time. If I had something to occupy my time with then I wouldn’t. Because I’ve got too much time on my hands it seems a good way to fill it” (P5 FG3)*

Smoking a cigarette was like being with a friend, it is having a companion when one is alone or bored, therefore unless the smoking was replaced with something else to spend time on, quitting would not be so easy.

#### ***Social Norms – 1.1.5***

Smoking is perceived as a social thing to do. On the other hand if smoking is prevalent within one’s family or social circle it becomes part of the social norm. Most people within the focus groups either had friends, partners or family members that smoked.

*“I think I’m a smoker because it’s in my blood; my mum and dad smoke” (P5 FG6)*

*“There are plenty of people who smoke where I am” (P2 FG4)*

Smoking was seen as the normal thing to do; people felt part of a group without whose membership they would be alienated and become a social outcast.

*“There are 90 people where I work and only 5 don’t smoke” (P5 FG4)*

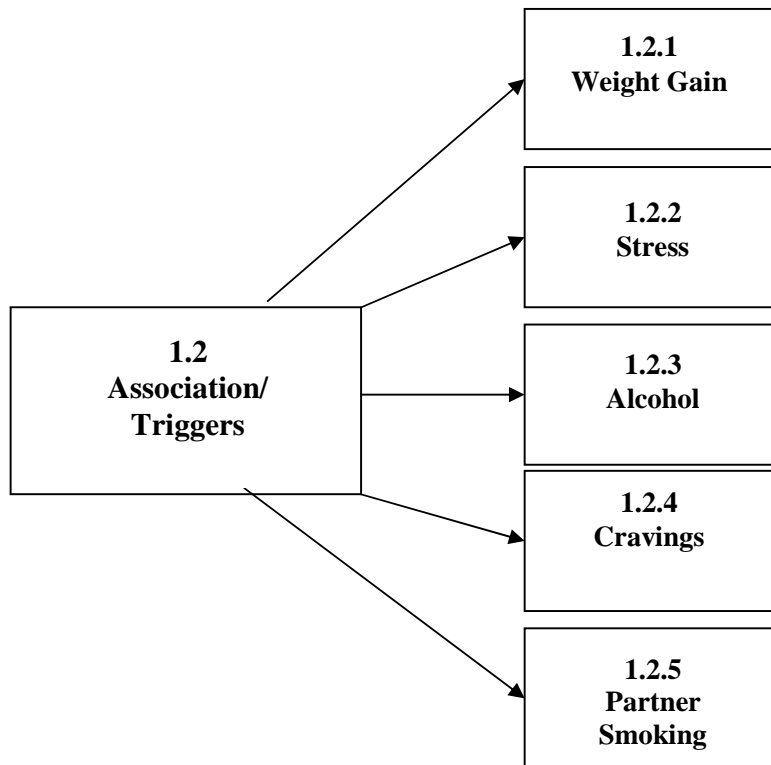
People close to them smoking became an excuse for their own smoking behaviour as it was perceived to be harder to quit when everyone around them would still be a smoker. The smokers had a difficult time overcoming this temptation unless they avoided friends or family members that smoke by associating more with non-smokers or developing a new group of non-smoking friends.

*“Until this anti-smoking started a few years back it was a social thing. You’d bring a pack of cigarettes out and offer them around. It was a social thing, like my turn I’ll get the beers” (P3 FG4)*

#### **Association/Triggers – 1.4**

The participants were associating smoking with factors such as weight gain, stress, alcohol, cravings and their partners smoking (Figure 2). There was a common view that by quitting cigarettes weight will be gained, stress will increase and that drinking alcohol

would become less satisfying. The participants regardless of age and gender all described these associations as being one of their biggest barriers in quitting cigarettes.



**Figure 2:** Association and triggers with smoking and its sub-categories.

### ***Weight Gain – 1.2.1***

*“I’d rather smoke than be fat” (P? FG5)*

Weight gain was one of the biggest barriers in quitting smoking. It is usually assumed that women are more concerned about weight gain however men in the focus groups also saw weight gain as a problem and associated it with quitting.

*“I blew up like a balloon when I stopped smoking... It does put on weight”*

*(P3 FG4)*



*“I put on weight when I stopped...I was eating instead of smoking” (P2 FG4)*

The participants generally fit into two categories. The first were smoking to keep the weight down and the second continued to smoke fearing post-cessation weight gain. Most often the participants spoke about their quit attempts and the quick relapse due to weight gain.

*“I gave up smoking on 5<sup>th</sup> January, got the patches, my husband and I did it together. Put the patches on and we did fantastic, didn’t even fancy one. We did it for three and a half months. I put on 2 stone, I looked in the mirror and I was distraught. I tried to put my skirts on I last year. I’d booked a holiday. I went out and bought a packet of fags”*

*(P? FG5)*

The reason why participants associated weight gain with smoking was because (a) they thought after quitting their appetite would return and (b) that weight gain was as a result of over eating when trying to substitute food for a cigarette.

*“Then you try and quit and you worry about putting on weight. And they tell you that you’ve got to stop smoking and you’ve got to lose weight”*

*“And when you stop smoking your appetite comes back and you just want to eat everything”*

*“And then you nibble because you want something to do with your hands” (P? FG1)*

Due to a cigarette acting as a stress buffer, when the cigarette is not there the participants described eating comfort foods, which are generally high fat and high sugar. Comfort eating would be used to make them feel calmer, less stressed and happier, things that a cigarette previously did for them.

*“When I tried to give up before I had my fridge full of healthy stuff, I had the carrot sticks that they tell you to do...but I’m sorry, if you’ve got a biscuit in the cupboard or a carrot, and you’re highly stressed because you want a cigarette, I think I know what I’m gonna go for....the weight gain is a definite factor for me” (P? FG1)*

Thus weight gain due to the reasons above is a big barrier in quitting cigarettes, and increases the likelihood of relapse.

### ***Stress – 1.2.2***

*“Any sign of stress and I’m straight for the cigarettes” (P? FG1)*

Smoking is considered to relieve problems; however what the participants failed to understand was that the problem still remained. The short term effect of smoking on mood is not understood because each time feelings of stress are aroused another cigarette is smoked. This constant pattern of smoking when stressed makes people believe that a cigarette is a source of relief in hard times, without which they would be lost.

*“If I’ve had a stressful day, I have to reach for one. Stress is the main thing for me, so that would come top probably, above cravings” (P2 FG6)*

Attempting a quit will not be thought about when going through a difficult period. The participants mostly said that when experiencing a difficult time they need their cigarettes. Alternatively relapse was seen to be very common after a traumatic event, should it be a close death or relationships break up.

*“2 weeks I gave up for, and then I lost my dad. Everyone was going to me ‘oh you’ve let yourself down’ - thanks” (P4 FG1)*

Pregnant women and women who had recently given birth were more susceptible to stress. Especially if they lacked family support and spent a lot of time alone. They felt that they needed a cigarette to de-stress.

*“but when the baby was born you have the stress of the baby crying all the time and my husband was going out, I lit up a cigarette again. I tell you what, that first cigarette made me feel so dizzy and sick but it didn’t stop me” (P3 FG1)*

Stress was accepted as part of a normal day to day living. The participants had acknowledged that they will experience stress, however psychologically they completely depended on smoking to help them through their stress and anxieties.

*“Everyone gets stressed in life, everybody has problems, everyone has grieving, and that’s the time you go for a fag” (P5 FG1)*

### ***Alcohol – 1.2.3***

Alcohol was seen to boost the pleasurable effects of smoking a cigarette. Some of the participants through conditioning associated having a cigarette every time they were consuming alcohol.

*“a party come up and I thought how can I drink without a fag because that’s when I smoke. I didn’t know what to do with myself, I had a drink in one hand and nothing in the other. It was a joke really” (P? FG5)*

The smoking ban had led to a slight weakening of this conditioning however a lot of drinking still takes place within homes, therefore if a quit attempt is to be made having a glass of alcohol could provide visual and olfactory cues to light up making it easier to relapse.

Since the smoking ban people drinking at clubs and pubs have to smoke outside. A number of smokers mentioned that if they were to quit smoking and their friends continued to smoke, they will be the only one sitting indoors whilst all of their friends will be outside smoking. Group membership was very important and thus hindering quit attempts.

'Social smokers' are more likely to associate alcohol with smoking as it forms part of their custom. They view smoking as a social exercise which is mostly done on weekends with their friends whilst drinking. It is perceived as having a good time.

Participants also described the potential to turn to alcohol if they could not have a cigarette.

*"I don't drink but I could turn to it. If I couldn't have a cigarette I'd probably drink"* (P?

*FG5)*

Alcohol acts as a barrier to quitting cigarettes. It is a constant reminder to light up a cigarette. It has become part of a learned routine that needs to be overcome for a successful quit attempt.

#### ***Cravings – 1.2.4***

One of the biggest barriers in quitting is cravings. When the participants made a quit attempt they described the cravings as being very strong and 'luring' them back to smoking. The urge to smoke was overwhelming and time did not make it better.

*"...the cravings are still there, you just don't realise it and I think that's the hardest thing*

*to overcome if you want to pack up smoking"* (P4 FG6)

Other participants who had never attempted to quit smoking spoke about constantly craving their cigarette during day and night. They felt that if the craving was so strong before they have even made a quit attempt, how difficult would it be to manage the post-cessation cravings.

*“If I wake up in the middle of the night, being heavily pregnant, sometimes I go and have a cigarette. I can’t wake up and not have one. I’d go down the shop in my pyjamas, I would, not bother to get dressed. I’ve done that plenty of times.” (P4 FG2)*

It is not helpful when ex smokers speak to the smokers and tell them that their cravings have never gone away. Most participants regarded this as a life sentence. They will forever be in the clutches of temptation and this reduced their confidence to make a quit attempt.

*“You’d have to find something else to calm that craving, food or whatever, to get rid of the cravings – patches, I think you have got to try and get your mind off the fact that you want a cigarette, and do something else I think that’s the only way round it, not thinking about it, cos the more you think about it the more cravings you’re gonna get” (P4 FG6)*

### **Partner Smoking – 1.2.5**

A large number of participants had a partner that smokes. Having a partner that smokes could be the biggest stumbling block for a new quitter. It is a constant reminder of the sight, smell and taste of a cigarette.

*“ I tried patches, they worked but my wife smokes and its in your face” (P5 FG4)*

*“How long did you stop for?” (HA)*

*“ three or four months. Because the wife and everyone around me (smoked) I started again” (P5 FG4)*

A few participants based upon their current experiences envisaged the difficulty of quitting alone. This participant who is a smoker before even making a quit attempt finds it difficult not to smoke when her husband is smoking. Thus for her quitting whilst her husband is still a smoker would be very demanding.

*“the minute he (husband) gets up and sparks up a fag I wanna sit down and have a fag with him, whereas I might have gone another hour without having another cigarette before he got up” (P4 FG1)*

Many women spoke about their husbands not being helpful or considerate. Therefore they could not trust them to be considerate if they quit smoking. This again deterred them from making a quit attempt.

*“I think having a partner smoking (will be a barrier), if I try and give up and he carries on smoking, I think that would be a big barrier...sometimes they're not helpful anyway are they men...they're not helpful” (P? FG1)*

Other participants pondered over how their behaviour might be if they quit and their wife/partner was still smoking.

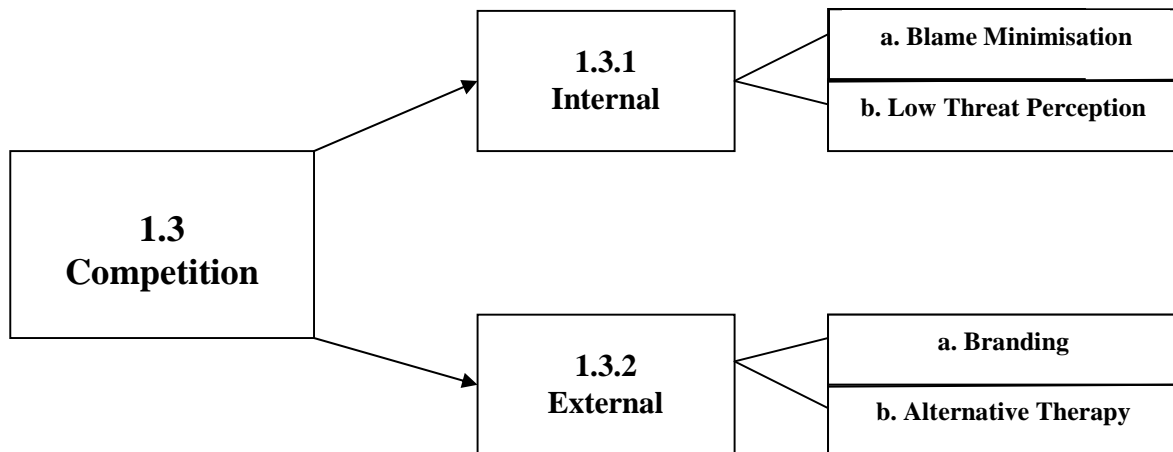
*“I suppose I’d be unbearable if I quit and she (wife) was still smoking so that would be quite a big barrier in my household” (P? FG6)*

Smoking partners make it more difficult for their partners to quit by providing constant temptation to smoke. By smoking in front of the quitter, they provided visual and olfactory cues to light up.

### **Competition – 1.3**

It is important to understand what competes for the participants time, attention, and inclination to change, and to work with or learn from the competition. Competition can be both internal and external. In the context of this study internal competition are the personal factors that are competing with making a quit attempt; such as blame minimisation and low threat perception. External competition on the other hand are outer factors such as the stop smoking service branding and non-NHS stop smoking services that are competing for the attention of a smoker. These factors will be further explored below (See Figure 3).





**Figure 3:** Competition and its sub-categories

### **Internal - 1.3.1**

#### ***Blame minimization – 1.3.1.a***

Blame minimisation was a reoccurring theme within the focus groups. Some participants blamed their smoking on other things, such as family stress or their social circle. This could act as a barrier in quitting smoking because the smoker is not taking responsibility for their smoking habit. The blame was laid upon partners, friends, hectic lifestyle and stress.

The participants would often talk about the guilt they experience when smoking but they felt helpless because it was believed that if they pointed the finger of blame on to another object they could not be held responsible for their smoking behaviour.

They felt that they also could not be held responsible for initiating smoking either as that was blamed on peer groups at school.

***Low threat perception – 1.3.1.b***

Many participants were well versed in the dangers of smoking. They understood the health risks but there was a common attitude of ‘it will not happen to me’. Many women defended their decision to smoke during pregnancy by saying it caused no harmful effect on their child.

*“Out of all of them my son, who I smoked the most with, was my biggest baby, the quickest birth – I mean, all my babies have been quick and nice sizes, but he was the most perfect one out of all of them, and I smoked my head off with him, and so I think that doesn’t help you because you have all these in your mind –you know, people go ‘your baby will be too small’ and things like that. All my babies have been perfect babies, brilliant sleepers, brilliant feeders” (P? FG1)*

*“I know what you mean. My son, I don’t know where he gets his brains from, and they say if you smoke they do really bad at school” (P3 FG1)*

*“But they say that when you’re smoking and you’re pregnant you can stunt the growth of your baby. Well, all I have to say is, good job I did smoke with him, because he was 9 lb. 6oz. If I didn’t smoke he would’ve been 25 pounds!” (P1 FG2)*

Other women regretted not smoking during pregnancy and gave examples where even after not smoking their child was either smaller in weight or had health issues after birth.

*“I didn’t smoke at all and she’s asthmatic and everything, and she’s wheezy all the time and I smoked all the way through with all the others and they’ve got nothing. And they were big babies” (P? FG2)*

This in turn seemed to have reinforced the idea that smoking during pregnancy was not harmful and the more the women discussed this within the group and their social circles the more the ideas were reinforced. No woman with a child spoke about the harmful effects of smoking on their children.

The men were split into two distinctive groups. The first group felt healthy and did not feel disadvantaged by their smoking however the other group could feel the effects of their smoking. They cited being out of breath when walking up the stairs or not being able to run. The first group felt that going to the gym or leading an active lifestyle compensated for their smoking and cancelled out the harmful effects. Therefore having a low threat perception of smoking reduces the reasons for quitting. If participants do not feel threatened by the effects of a cigarette on health for example they are less likely to consider stop smoking, especially during pregnancy.

## **External – 1.3.2**

### ***Branding – 1.3.2.a***

The research identified that the most significant source of competition for the NHS stop smoking programme was the issue of brand recognition. Participants were confusing the local NHS stop smoking service promotions with other stop smoking promotions that were running at the same time. When participants were asked about stop smoking treatment promotions, they remembered and recalled promotions from well known brands such as Tesco's and Boots, however not one could recall the local primary care trust promotions.

The participants were also failing to connect all of the different advertisements that the PCT had placed to promote its services. As there was no unifying brand within those promotions, it seemed that the participant's attention was not being captured.

### ***Alternative Therapy – 1.3.2.b***

When discussing stop smoking treatments the female participants were more likely to mention non NHS stop smoking treatments such as hypnosis and acupuncture.

*What about being hypnotised? That worked for my friend?*

*Yes £25 down the drain, I came out and had a fag*

*Nothing happened*

*I've had acupuncture. (P5 FG5)*

Alternative treatments were seen as a hit and miss; for some they would work but for others they would not.

*“Some woman at work smoked 50 a day and went to a hypnotist and came out and never smoked again. My husband went to the same woman and messed around and still smoked” (P3 FG5)*

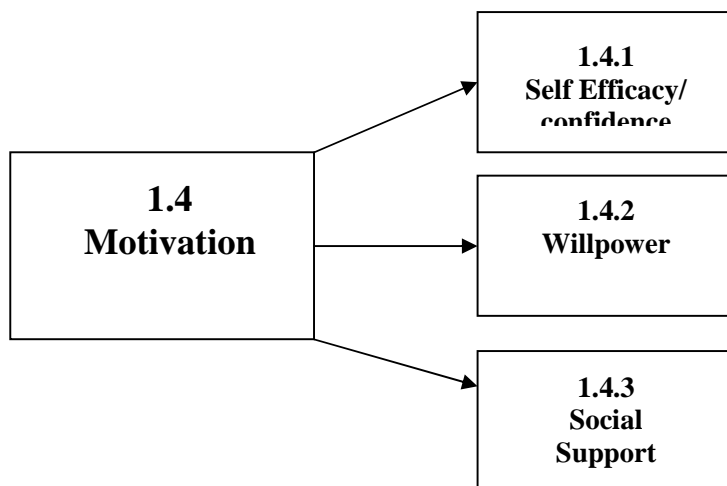
However the participants were still keen to try the treatments regardless of stories of the lack of effectiveness.

*“There’s only one thing I’d try and that’s hypnosis, cos hypnosis would, if I was the kind of person who wanted to give up, I wouldn’t want to do any of these other things” (P4 FG2)*

Alternative treatments were favoured because they offer a quick fix and claims to treat instantly whereas a NHS service requires more time commitment and provides a probable claim to quit success. Thus women were keener to try a quick, non time committal treatment. This could be a barrier in people quitting because if the attempt of quitting using alternative treatments is unsuccessful it would make participants less likely to make another quit attempt using a NHS service.

## **Motivation – 1.4**

Having motivation is an important tool to assist people in trying to quit cigarettes or not to relapse. Motivation can be affected by many factors. The three that were discussed within the focus groups were self efficacy/confidence, willpower and social support (See Figure 4). If motivation is weak this can become a barrier in quitting.



**Figure 4:** Motivation and its sub-categories

### ***Self Efficacy/Confidence – 1.4.1***

Self efficacy is the confidence in one's ability to carry out a task. Having the confidence to do something increases the chances of successfully completing the intended task. Therefore in the context of smoking if one believes that they can quit smoking then they have a high probability to quit compared to an individual who has no confidence in their ability.

The participants, men and women both alike regarded lack of confidence as a barrier to quitting cigarettes.

*“Do you think you have the confidence to quit...?” ( HA)*

*“Probably not at the moment, no. I’ve been going through some big changes in my life at the moment, probably not at the moment...I may be able to get my confidence back and quit” (P5 FG6)*

The participants felt that they had to build themselves up in order to make a quit attempt and believing that a cigarette is addictive in nature decreased the confidence levels. It made smokers feel that they did not have the ability to quit because a cigarette which they perceived to be a drug ‘is such a powerful thing’.

(FG1)

*“I think a cigarette is such a powerful thing, it tells you that you can’t give up” (P4)*

*“because it’s a drug” (P2)*

*“...and that makes you lose your confidence” (P4)*

However they saw smoking as increasing their confidence in social environments. A cigarette allowed them to socialise with people and for the younger participants it made them ‘look cool’.

### ***Willpower – 1.4.2***

Willpower was very frequently used within all focus groups. It was given the status of a magic wand, that if present it would cure them of their smoking habit. Willpower was often described as something internal, its either something one has or doesn't have. Though a clear description of the word was never given. Instead references were made to NRT adverts on television that claim willpower is imperative.

*“Yes, because it's your willpower. Somebody can't turn around to you and say your're gonna stop smoking” (P? FG1)*

Participants often addressed the relationship between confidence and willpower. They were believed to be distinctively different. Willpower was seen as a more important facilitator in quitting than confidence.

*“people can have confidence in you, but if you havnt got the willpower to the have the confidence in you...it's not going to work, you could be the most confident person going, but it's just that one word. You need to make sure you've got the willpower to; you know to be able to do it. So no, confidence wouldn't replace (willpower) it.”*

*(P2 FG1)*

Other participants were sceptical about willpower being the only factor required for a successful quit. One pregnant woman said:

*“If I could give up with just willpower, then I think I would, obviously” (P5 FG1)*



### *Social Support – 1.4.3*

Social support had a big impact on quit attempts and long term quit success. Participants considered a lack of social support as being a barrier in quitting cigarettes. Lack of social support came in different forms. The first could be a partner that smokes or alternatively a partner that smokes who is inconsiderate and continues smoking in front of the partner that has quit. Secondly it could be family members or groups of friends who are not supportive of the quit attempt and continue to tempt the individual to resume smoking in social environments.

*(FG1)*

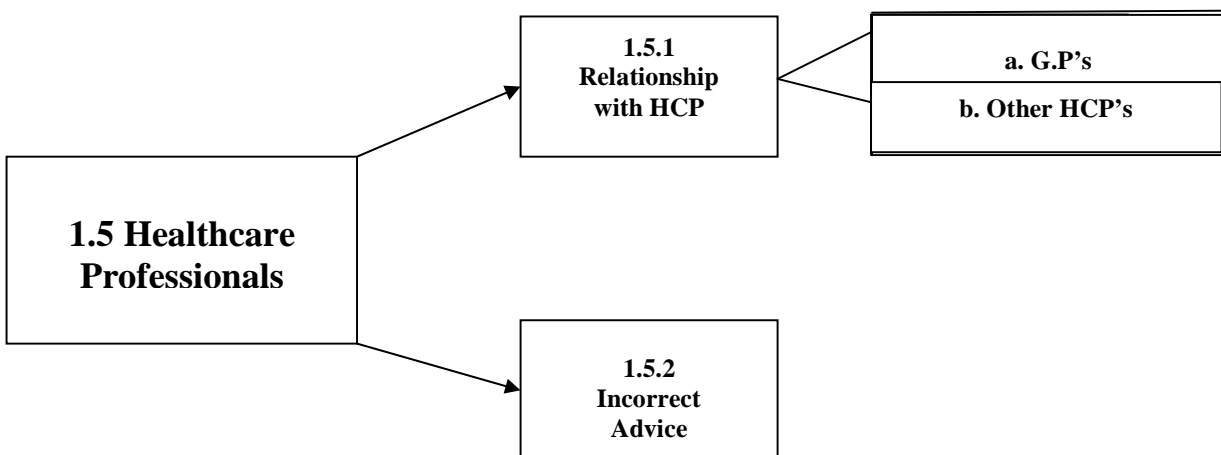
*“Yeh cos sometimes they’re not that helpful anyway are they, men, I mean they’re not are they? They’re not helpful” (P?)*

*“My other half thinks, I’ve tried in the past, I’ve said I’m not smoking today, I’m gonna give up, and he says ‘aren’t you ashamed’ pufffff and I’m like that. Why do that to me? Do you know what I mean” (P3)*

Women frequently mentioned their partners smoking either when they were pregnant or in front of the children. The partner was perceived to have an important role in the womans decision to stop smoking during pregnancy, however the lack of support and the partners continued smoking led the pregnant women to carry on smoking during pregnancy and beyond.

## Healthcare Professionals (HCP) – 1.5

Having a positive relationship with healthcare professionals is critical for our health and well-being. GPs were seen as the ‘experts’, the healthcare professionals who they sought advice from. Midwives were seen as support mechanisms during pregnancy. However the same healthcare professionals undermined their positions by showing a lack of empathy, by providing incorrect information and by displaying negative body language. These themes will now be explored further (See Figure 5).



**Figure 5:** Healthcare Professionals and its sub-categories.

### Relationship with HCP – 1.5.1

#### *GPs – 1.5.1.a*

Most participants spoke about their GP in a positive way when it came to non smoking issues. The GP was great when treating disease or ill health however the participants did

not want a 'lecture' on the harmful effects of smoking. If the GP enquired about smoking most often the participants lied.

*"I've had, the doctor says everything is hunky dory, they always ask how many cigarettes you're smoking now. I invariably lie and say 15-20 but I don't – I smoke more than that.*

*I've never ever wanted to give up" (P1 FG4)*

Other participants disclosed that their GP had never spoken to them about smoking and had never raised the issue. They normally thought this was due to time pressures on the GP. They also viewed the GPs time as being 'precious' and thus talking about a subject like smoking would eat into the appointment especially when they thought the GP was not interested.

*"His time is precious and I don't think he's got the time of the day. If you specifically see him for that, then he's got more time. It isn't my immediate problem; I don't feel I need to talk to him about my smoking. If I did, then I suppose. .He never really mentions it"*

*(P5 FG6)*

Some participants discussed how GPs would simply just state that they had to quit smoking but did not take the conversation any further nor offered any further support.

*"Well not really they don't offer you any help to stop, they just say you need to give up and that's it" (P5 FG3)*

Participants occasionally found the GPs behaviour very patronising. One described the GP making her feel like a 'scum' by the way he/she behaved. Another participant describes feeling on her own and again patronised by her GP.

*“If I went to mine, basically she'd say what have you come to me for, there's nothing I can do, and you're on your own. And it makes you feel worse when you come out because she's looked down on me, doesn't wanna help me” (P3 FG1)*

Due to the exhibition of non interested behaviour by the GP's a number of participants thought that it was not part of a GPs role to discuss smoking with their patients.

*“Well, they're not really interested...It isn't really their job to tell you about that is it, I mean their time could be spent elsewhere, so I fully understand that and I just take a leaflet” (P2 FG6)*

Men in particular found it difficult to maintain a relationship with their GP due to the increased time lapse since they last visited the surgery. For some men they visited the hospital more than they visited their GP.

*“I broke one of my fingers a couple of years ago and went to the hospital and they asked me to fill in a form with the doctors name, he was my doctor but the last time I see him was 20 years ago” (P2 FG4)*

Lastly, many participants observed the body language of their GPs and found it to be negative. GPs body language was thought to be patronising and participants often got the impression that they had overstayed their welcome, making it less likely for the participant to raise the subject of smoking.

#### ***Other HCP – 1.5.1.b***

Midwives spoke to women about smoking, however most women felt that once they answered the topic was left alone. They did not find them to be encouraging.

When asked if pharmacists spoke about smoking mostly all participants said no. This was quite surprising as a large number of pharmacies now deliver a stop smoking service. Yet pharmacists were viewed in a very positive manner. They were described as always having time to discuss issues in more detail and being able to see the pharmacist without appointment was liked.

Overall the lack of a constructive relationship with healthcare professionals means that participants are not comfortable speaking to them about smoking. This in turn becomes a barrier in trying to quit because GPs are the first point of call for healthcare advice.

#### ***Incorrect advice – 1.5.2***

Healthcare professionals were seen as the people who have the answers to all health related questions. Many women described the advice they received from their midwives whilst being pregnant. However when discussing the advice that they had received, some

rather worrying incorrect advice had been given. A large number of them explained that they were told not to stop smoking because it would be ‘stressful for the baby’.

*“My midwife told me that it’s actually more stressful for the baby trying to give up smoking in pregnancy – it’s better if you can cut down” (P3 FG1)*

*“When I was pregnant with my first son I was under a lot of pressure so I was smoking more, and I was paranoid about smoking all the way through, but I couldn’t stop, and she (midwife) told me it would be the worst thing to do would be to give up” (P? FG1)*

*“would you be interested in getting help to stop smoking?” (HA FG1)*

*“Well, we’re not allowed. Well the midwives told us” (P2 FG1)*

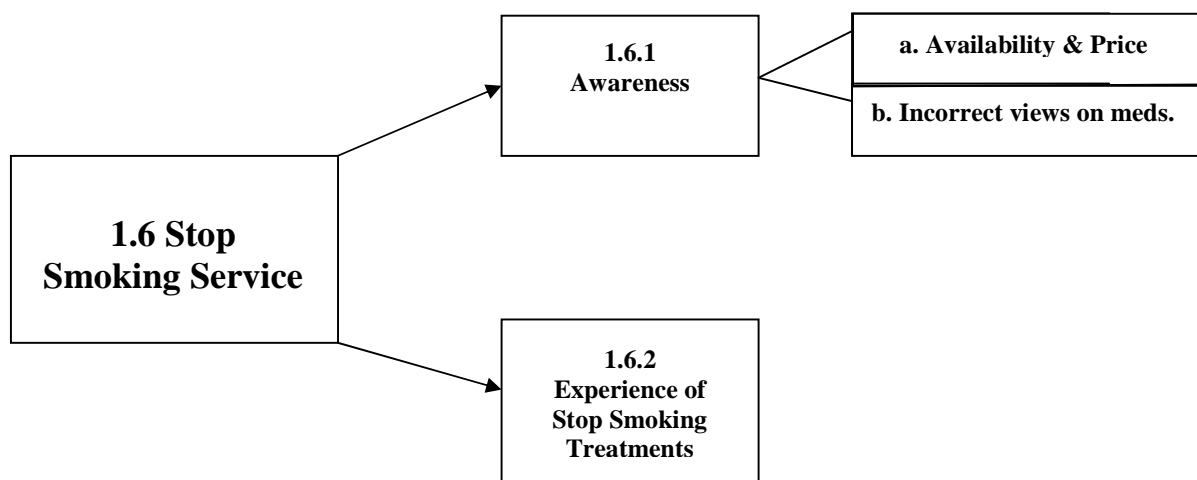
*“they said its best for the baby, because it would stress the baby out more” (P1 FG1)*

*“Well when I was pregnant with my last one they told me that I couldn’t give up smoking” (P2 FG2)*

Women were actively told not to quit smoking and due to the heavy reliance on healthcare professionals for health related advice the women did not challenge this view and believed it to be correct.

## Stop Smoking Service – 1.6

The lack of awareness of the local stop smoking service, incorrect views on treatment and medication, as well as bad negative experience of the stop smoking programmes acted as barriers in quitting cigarettes (Figure 6).



**Figure 6:** Stop Smoking service and its sub-categories.

### Awareness – 1.6.1

Awareness of stop smoking services such as free group sessions, NRT on prescription and stop smoking support at GPs was generally quite poor. It was generally thought that the availability was scarce and the price would be high. Participants also held incorrect views on treatment and stop smoking medication. These will now be explored further.

### *Availability and Price – 1.6.1.a*

Many participants had never heard of the local NHS stop smoking service and could not pinpoint the kind of services it offered. However the majority were aware of the national stop smoking campaign and often thought that if they required help then they will call the national helpline. This in turn made the service feel inaccessible as for the participants it was not a local service.

The impression mostly was that one has to pay for smoking cessation treatments. This acts as a barrier to quitting in two ways. Firstly, if people are unaware of the stop smoking support available locally they are less likely to access it and secondly if they fear high prices for things such as NRT then again they are less likely to use NRT for support.

*“So what about the cost of smoking cessation?” (HA FG5)*

*“Yes, it’s very expensive” (FG5)*

*“What about cost of smoking cessation treatments?” (HA)*

*“They are pricey” (P2 FG1)*

Some participants spoke about actively purchasing NRT to stop smoking. The participants were likely to pay large sums of money for a few weeks course. This made it less likely for them to go and purchase another course of treatment as it would be deemed too expensive.



*“I bought some patches, and like we were saying they were quite expensive – about £16.99 or something” (P2 FG2)*

There were other participants who held the view that even if NRT was expensive, “if you can pay to buy cigarettes you can buy NRT instead” (p1FG6). However participants that held this view were more committed in making a quit attempt. Yet there were a few female participants that were aware about the local NRT scheme, but very few and far between.

*“I got my patches on prescription for £6.50 I got 3 months” (P? FG5)*

Lastly, some participants due to the lack of awareness of the NHS NRT promotion complained about not wanting to spend the money they save by not smoking on smoking cessation treatments.

*“I don’t really know that much, but another barrier, well not a barrier but another reason I’d quit would be due to money, and I wouldn’t want to spend that money on any other sort of treatments like patches and that stuff, so I don’t really think much of that”*  
*(P5 FG6)*

### ***Incorrect Views of Treatment/Meds – 1.6.1.b***

As well as not being aware of the services on offer participants held a number of incorrect views on treatment and medication. Their main sources of incorrect information were family and friends. The most popular view held was that NRT was as damaging as a cigarette and it would be like replacing one addiction with another.

*“If you’re trying to quit or give up nicotine, what’s the point of putting nicotine back into your body...you’re just gonna get addicted to the patches. That’s why I don’t believe they work. You’re defeating the object” (P3 FG1)*

*“That’s why I don’t agree with anything like that. I think it’s all a load of rubbish. If you’re gonna give, give up.” (P4 FG1)*

*“If you’re taking the patches the nicotine is still going in, so you’ve got to stop taking the patches, so it’s just like another craving. It means you have got to wean yourself off something else” (P5 FG1)*

Another common view held was that one cannot use NRT whilst being pregnant. This was reinforced by midwives telling pregnant women not to quit smoking and many women not being aware of the changes that have resulted in pregnant women being allowed to use NRT under the supervision of their GP or pharmacist.

*“And you can’t give up cos you can’t use nicotine patches when you’re pregnant can you” (P4 FG1)*

*“the baby’s used to you smoking so all of a sudden, which sounds really awful, you’re gonna give up so the baby’s gonna go through withdrawal the same as me, so I imagined giving birth to a stressed out baby” (P? FG1)*

*“We can’t use any while you’re pregnant anyway; you can’t use the patches, can’t use gum. You’re not allowed to use it.” (P3 FG1)*

Men held incorrect ideas about stop smoking groups. For them the only reason to attend a group would be if one lacked moral support. It was purely a support mechanism for 'weak' people. Many male participants mentioned that they did not need moral support and that they would not feel comfortable to attend a stop smoking group, as there was no other reason to attend.

*“What would make you more likely to attend the stop smoking group?”*

*“if you felt you needed moral support, then go along.” (P5 FG6)*

*“...if they're not strong enough to go and do it on their own. So as a moral support yes they're fine” (P4 FG6)*

### ***Experience of Stop Smoking Treatments – 1.6.2***

A large percentage of the participants had experience of accessing at least one stop smoking treatment. However you would often find that if a treatment was ineffective the chances of relapse were much higher and it would make them less likely to try another stop smoking treatment. Nevertheless there were other participants that had tried a number of treatments but were still unsuccessful at quitting.

*“Nothing works. I started on with zyban, gave me hallucinations, couldn't sleep, from there we went onto the tablets, chewing gum – that's vile. Then I went onto the 24 hour patches and came up in scabs. When I went on the 16 hour day that was worse. Now I'm going on sleeping tablets” (P? FG5)*

Occasionally the participants mentioned learning from other people's experiences, so for example if they heard on the grapevine that NRT would lead to adverse side effects they were less likely to use NRT as a potential treatment option.

*"I've heard of people hallucinating on the patches" (P3 FG1)*

*"Yes I know. As I say, I've known people who've become addicted to the chewing gum for a long time. I know its may not as serious, but it's still a dependency"*

*"Yeh, my friend had the chewing gum. She's been on it God knows how long but she still chews it and she's had a lot of diarrhoea having that." (P? FG2)*

For some the increased marketing of NRT products on TV resulted in high recognition, therefore it would be their first choice of treatment.

*"Yes, definitely the patches would be my first choice" (P4 FG5)*

A number of participants quit 'cold turkey' which means by no assistance. The main reason for doing that was because it was seen that if one was serious about quitting then one does not need to rely on any other substances or treatments.

*"I didn't use any method, I was quite ill when I stopped smoking, I just stopped cos I physically couldn't. That was the reason I stopped. It wasn't through any other"*

*(P3 FG3)*

One participant mentioned calling the national helpline and her experience was not good.

She explained:

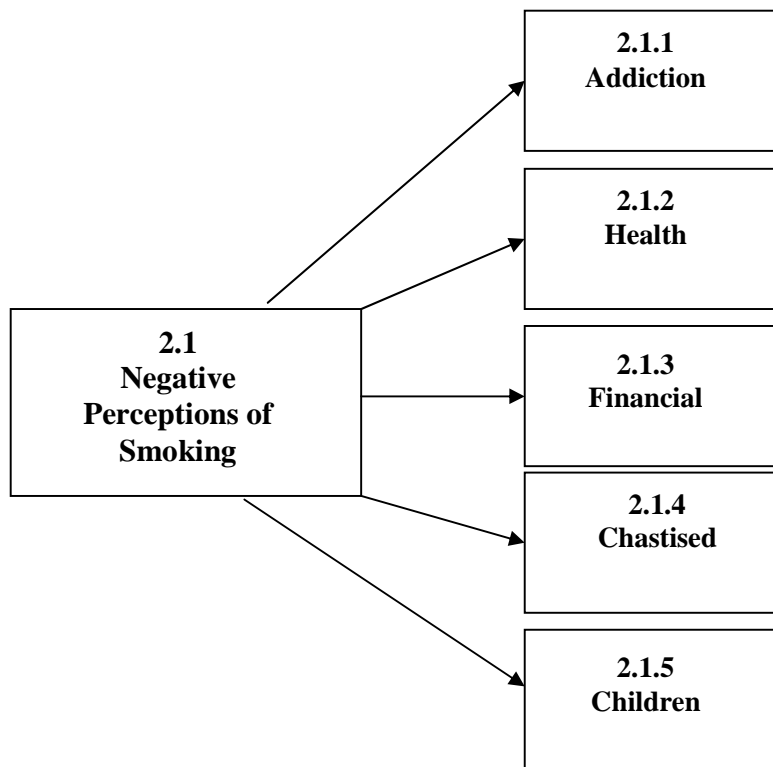
*“I’ve rung the 0800 quit smoking line before. It was a young boy talking rubbish. Probably smoking while he was talking to me. I felt really embarrassed. He said try not to smoke then” (P? FG5)*

## **4.2 Overcoming Barriers**

The second super-ordinate theme is overcoming barriers. One of the aims of the study was to explore how barriers in quitting could be overcome which in turn can assist in a successful quit attempt. This section is divided up in three main themes; (1) negative perceptions of smoking; (2) models of treatment and (3) marketing.

### **Negative Perceptions of Smoking – 2.1**

As well as talking about smoking in a positive way the participants also discussed the negative aspects of smoking (Figure 7). It is important to understand what is viewed negatively by the smokers in order to get their attention and present stop smoking messages in a way that will connect with them. Five sub-themes will now be discussed.



**Figure 7:** Healthcare Professionals and its sub-categories.

### ***Addiction – 2.1.1***

Frequently participants spoke about smoking in a purely physiological way. They saw smoking as an addiction, as something that the body needs and must be given.

*“It’s an addiction, it’s not easy” (P3 FG5)*

*“It’s a drug isn’t it? An addiction. Your body’s used to the nicotine” (P? FG2)*

Some even complained that they did not enjoy smoking however due to the addiction they were unable to quit.

*“It’s totally the addiction, I don’t enjoy smoking” (P2 FG4)*

Giving the title of addiction to their smoking at times took away their responsibility to stop smoking. It was used to justify the difficulties in quitting and made the problem to be external. They would talk about the guilt associated with smoking however they were not to be blamed because it is an ‘addiction’. The word was also used to get sympathy from other people for their smoking; it made the smokers look like victims of the ‘drug’.

### **Health – 2.1.2**

*“Well, anyone with an amount of common sense knows that you won’t be 100% if you do smoke, that if you do smoke you know for a fact that you won’t be as fit as you could be if you don’t smoke.” (P5 FG6)*

It is well known that smoking has an adverse affect on health. Participants fell predominately into two categories. The first who thought that smoking had not impacted on their health and the second who claimed that smoking had had an effect.

Participants who claimed that they did not feel unhealthy often then compared themselves to non smokers. Upon comparison they would then reveal that they did feel more unhealthy than a non smoker.

*“No, I don’t feel unhealthy. Just when you look around and see other people who don’t smoke and don’t do this, then you feel unhealthy” (P1 FG1)*

Then there were the participants who discussed how smoking had affected their health. Smoking would impact on people's daily lives such as experiencing asthma, chesty coughs, difficulty in walking, running and climbing stairs.

*"I'm not quite sure. I'd like to be able to run which I can't. I've got asthma and shouldn't smoke but I do. Under stress" (P? FG5)*

*"You notice it in the mornings sometimes, you get a sort of chesty cough sort of thing. You definitely notice that sort of thing, through smoking, but physically I think I am physically fit, yeh" (P2 FG6)*

Bad health made participants consider the effect the cigarette was having on them, especially the effects that they cannot see. However it should not be noted that some of the older participants had a no care attitude towards bad health as they felt that they had a 'good inning' and that it was too late to quit now because of bad health.

### ***Financial – 2.1.3***

One of the biggest factors that will lead people to quit smoking is the financial gain. Recurrently the participants would mention that finance would be a bigger reason to quit compared to health. Having extra money would improve their lives and possibly the lives of their family.

*"So what do you think might be the benefits of quitting" (HA)*



*“The money, that’s the main one...I would put the financial one above the health one. I know my health would improve, but my wallet would improve more” (P5 FG6)*

*“Honestly, and this sounds really really awful of me but I don’t think of the health issue. I like smoking. I enjoy a fag. If I’m gonna give up I’m gonna think about that money in my purse; I don’t think oo, healthier person” (P? FG1)*

The price increases did not deter people from buying cigarettes. They would spend less money elsewhere so that they could pay for a packet of cigarette. However some participants mentioned buying cheap cigarettes from elsewhere.

*“I smoke the cheapest. I bought some on the ferry over to France and paid £2.79 for a packet of Benschons which is half price. You are allowed 2 cartons, in the duty free shop they’re £31. The financial benefit would be instantaneous” (P3 FG4)*

Price increases in cigarettes do hurt the pockets and households of smokers however money is always found for cigarettes. Nevertheless there is no question that saving money is one of the biggest incentives to quitting cigarettes, especially for people from deprived communities.

#### ***Chastised – 2.1.4***

The 2007 smoking ban in public places within the UK had a big effect on the lives of smokers. The participants mentioned that the way they were now viewed was very negative within society at large. The language used to describe how they felt was very

emotional. They described that they felt ‘embarrassed’, they were treated like ‘lepers’ and ‘scum’.

*“We go out for a meal with other people and my husband and I are the only smokers and we go out to have a fag. We feel embarrassed.” (P4 FG5)*

The majority of the anger was targeted towards the government. They were blamed for implementing an unfair legislation which would impact on a smoker’s lifestyle.

*“we’re now outcasts, the lepers. The non smoking brigade got their say but the government never left a littler home for us” (P3 FG4)*

*“They’ve made us smokers out to be the scum of the earth” (P? FG1)*

Pregnant smokers felt chastised at all times. They did not feel comfortable smoking in front of people they do not know and felt that they had to lie to others about their smoking status. The women felt victimised for what they believed is a personal decision.

*“When people know you’re pregnant as well...Yeh you do get the dirty looks but people do look at you, you feel a burning in the back of your neck” (P4 FG1)*

Overall the changes in society at large are making smokers feel that the social norms are changing. Smoking is no longer an accepted choice by the public. This change in the tied and feelings of shame would make it more likely for smokers to make a quit attempt.

### ***Children – 2.1.5***

A large proportion of participants either had children or grandchildren. This usually led to feeling of guilt. The guilt was present for different reasons. Firstly, the participants were worried that that as their children get older they will see smoking as a normal behaviour and would start smoking themselves. This in turn would mean that the parent will not be able to stop the child as they are a smoker themselves.

*“I feel guilty around little kiddies, how can you tell them not to smoke when you do” (P2  
FG5)*

At other times the participants were concerned about the effect their smoking was having on the health and appearance of their child. They did not want their children to smell of cigarettes or inhale second hand smoke.

*“Like last night when I got out the bath and put my dressing gown on, and it stunk of  
smoke, and I thought yugh. I was thinking ‘do my kids smell like that’ (P? FG1)*

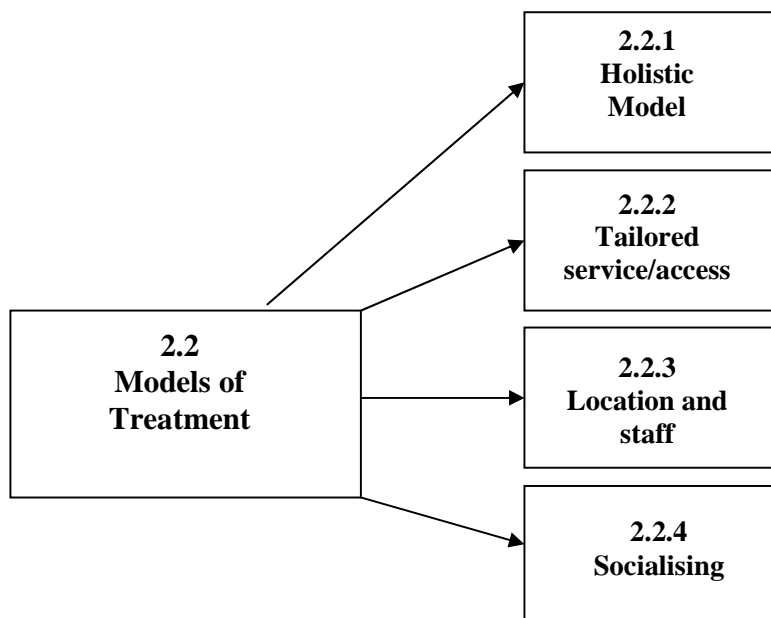
Lastly, due to the high cost of the cigarette many women talked about the financial difficulties of making ends meet. At times there would be a tug between buying a packet of cigarettes and buying something for the children. This usually resulted in high levels of guilt and negative feeling.

*“If the kids need something and I’ve bought a pack of fags I feel guilty” (P? FG1)*

There is no doubt that each and every parent within the groups wanted the best for their children and immense feelings of guilt were present. The concern for their children could be used to encourage smokers to quit smoking.

### **Models of Treatment – 2.2**

In the previous section participants talked about their experience of stop smoking services, however within the focus groups they were also asked about what kind of services they require to assist them to quit smoking. This theme will explore the responses given in main four sub-categories (Figure 8). It would be assumed that if participants got the service that they need and want it will lead to a higher access rate into stop smoking services and more successful quit attempts.



**Figure 8:** Models of treatment and its sub-categories

### ***Holistic Model – 2.2.1***

Throughout the focus groups participants of all ages and both genders did not speak about their smoking in an isolated individual way. They always associated their smoking with factors such as weight gain, stress and alcohol. However when getting treatment for smoking they could not understand why only the smoking was being addressed and the reasons as to why they smoke is never targeted. When the participants themselves did not perceive their smoking to be one dimensional they could not understand why then the treatment they were receiving or was on offer is so one dimensional.

*“They don’t tell you what to eat or anything (during quit attempt)” (P4 FG5)*

The participants spoke about wanting support for things such as weight gain whilst making a quit attempt or alternatively getting support with helping them to distract themselves whilst quitting so that they do not think about smoking. They became slightly worried at the thought of not knowing what to replace the cigarette with to deal with things such as stress and often they would talk about replacing the cigarette with another vice such as alcohol.

*“What about alternative means of handling the stress – how can that be overcome?”*

*(HA)*

*“I don’t know really. Drinking (laughter) Or something along those sort of lines. I wouldn’t be too sure until I quit. Stress would play a big part” (P? FG6)*

It was believed that by having a treatment model that holistic and addresses their complete problem will lead to fewer relapses and will enable them to have a better lifestyle.

### ***Tailored service and access – 2.2.2***

Having one service for all was not an attractive offer for the participants. They wanted choice and services tailored according to their needs. Having tailored services and access would encourage more participants to attend the stop smoking service.

*“...everyone’s different. I work nights, so I would want one in the morning, whereas you’d want one in the evening, so obviously different time periods might help, where you might see people in the long-term groups. If you say it’s from 5-6, oh I aint gonna turn up” (P5 FG6)*

The present opening and service timings for the stop smoking service were not appreciated. Due to family responsibilities or work shift patterns many participants complained that it made it difficult for them to attend. They wanted a service that fitted around their need and not the other way round. They also wanted a service which is easily reached and local.

*“I suppose if it’s local and easily accessible for everyone after work then yeah I’d fine it easier to go, I don’t have to take days off work to go. It would have to be at a weekend or something, to cater for everyone’s lifestyle.” (P5 FG6)*

Having children was one of biggest barriers for women to attend stop smoking courses. It was almost always thought that having children meant that they could not attend. Though, women mentioned that if they were offered childcare or crèche facilities then they were more likely to attend, as they could leave their children there.

*“you can go to these support groups ...but if you’ve got other kids and you’ve got no one to look after those kids, you can’t get to those meetings anyway” (P4 FG1)*

Whereas women were keener on attending stop smoking groups’ men were more in favour of 1:1 support. They viewed 1:1 support as less embarrassing, more intense and less time consuming. So if they were offered more 1:1 they would be more likely to attend.

*“One-to-one in any form of tuition or meetings is more intense, you’d get through a lot more one-to-one in 6 or 7 weeks, and what you’d talk about as you cut down, you’re probably 2 or 3 weeks, rather than in a group discussion everyone putting their points across. If you’re one-to-one you just.... What you’ve got to get through, and maybe you get a better understanding of the person who’s helping you. Rather than getting the history of the group, you’re getting the history of the individual. .and then you might see your needs quicker rather than a group” (P4 FG6)*

*“It’s easier to focus, isn’t it, as one single person rather than with 6 or 7 people around you. If it’s just yourself, you can concentrate on talking to that person, and they can concentrate on talking to you, and, as you say, you get a lot more done and the less distractions you have, the more you’ll take in anyway, so one-to-one it’s gonna help you, with no distractions there. If there’s big group of people, if it’s 15, 20 minutes since you last spoke, your mind’s gonna think shall I just leave now, especially with a 7 week course. If I was not getting involved, I would probably stop going.” (P5 FG6)*

### ***Location and Staff – 2.2.3***

The location of the stop smoking services and the staff delivering those services were deemed to be important. It could make the difference between attending and not attending. Participants viewed the service as a community service not a clinical one hence why they did not want a hospital or clinical setting for the stop smoking service.

*“What kind of setting would you prefer – like a home setting, in the community, within a hospital?” (HA)*

*“(hospital setting)..That would make it seem like a problem” (P3 FG6)*

*“More clinical. If you put it somewhere like that, like at the doctors you’re gonna be on guard, and you might not be that honest and put forward your points a little bit so .... A real clinical setting” (P? FG6)*

A clinical setting made participants feel uncomfortable as it insinuated a problem and medicalised the issue, and yet many smokers do not view smoking as a problem.



Medicalisation of smoking would deter smokers in coming forward to access support, if they are made to feel that it is a community service in a community non-threatening setting then more smokers will access it.

In general there was no consensus about the kind of person that should deliver a stop smoking service. Some said they preferred an ex smoker, others said they preferred a non-smoker, some preferred younger staff others favoured older. However, what all the participants did agree on was that the staff need to be non-judgemental, non patronising and supportive.

#### ***Socialising – 2.2.4***

*“If it made it sound good, said you can come and chat and socialise, a bit fun rather than you can come and stop smoking if you want, boring like that. If it’s something to make it sound good” (P4 FG3)*

The participants found social environments to be non-threatening and welcoming. They wanted stop smoking support that was centred on being social. Many ideas sprung up during the focus groups. The women mentioned rotational groups held at each attendees house, or having family or friends accompany the smoker to the groups.

*“I don’t think I’d go to a support group because I do get shy and I do get embarrassed walking in somewhere, so unless I had my sister in law with me I wouldn’t be here now, so, I think you need somewhere to go where you know other people” (P1 FG1)*

*“if they did something like, say we went round (name) house one weekend and the next weekend we went round mine, and did it like that, go round people’s houses that you know, then I’d do it I think...because it feels like then you’ve got a group”P3*

*“they can bring their kids as well because you’re gonna have your kids there...you have not got to worry about the kids as well.” (P4 FG1)*

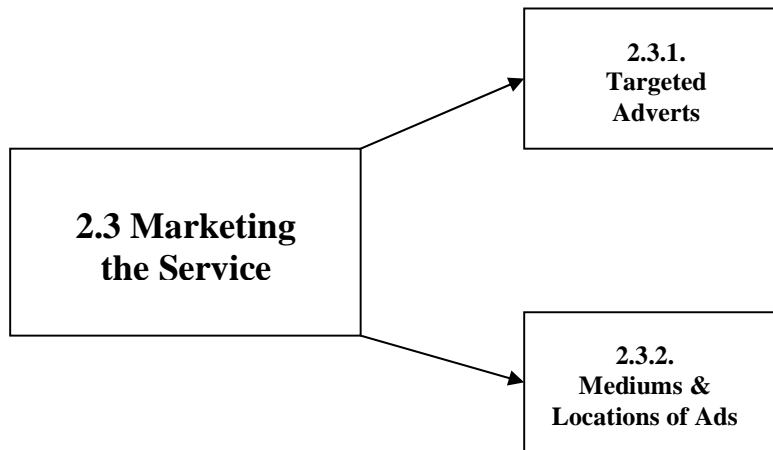
The participants did not want to take time out to attend a group or session that was boring. They instead wanted an incentive to keep coming week after week. The incentive was not money but to enjoy themselves and make new friends.

Some women mentioned having couple only or friends only stop smoking sessions. This would mean that they would not have to open up in front of strangers and be comfortable disclosing personal information.

Again choice and variation is very important, yet the social element must be present to attract pregnant and non pregnant women to the stop smoking service.

### **Marketing – 2.3**

As well as speaking to the participants about their smoking behaviour and stop smoking treatments, marketing was also explored. The participants were asked about previous promotional efforts and future marketing. The responses obtained have been split into two sub-themes (Figure 9), which will be explored below.



**Figure 9:** Marketing the service and its sub-categories

### **Targeted Adverts – 2.3.1**

When participants were asked what kind of stop smoking adverts would catch their attention all the groups responded differently.

The older women wanted adverts that were emotional and had children in them. Their perfect advert was a national campaign that had children with smoke coming out of their mouths. The women felt that because the majority of them either had children or grandchildren they could relate to the children and would feel emotionally touched by the advert. They also wanted a helpline number to be part of all the adverts.

*“That one on the TV with the smoke coming out of the children was horrible”*

*“Yes that was frightening”*

*“Because you wonder if you are doing that to children” (FG5)*

The younger women wanted adverts that were bold and graphical. They wanted the adverts to feature the financial benefits of quitting and the effect it was having on their skin, teeth and nails. The women spoke about smoking being a love hate relationship and they wanted that to be explored within adverts.

*“I like this part where it tells you how much money we’re wasting” (P6 FG3)*

*“£2 a day doesn’t seem much, but when you add it up by the week, month and year that’s a lot of money” (P6 FG3)*

The older men wanted adverts that highlighted issues that were important to them, such as impotence. They did not want to be bombarded with graphical or fear instilling messages.

*“...it may affect your impotence, If that isn’t a reason to give up I don’t know what is”*

*(P4 FG4)*

The younger men wanted adverts that were straight to the point and would call people to immediate action. They emphasised the need for adverts that had a softly-softly approach and were gentle in their message.

Lastly, pregnant women again like the older women group wanted emotive adverts. They wanted children to be at the centre of the campaign and they preferred factual adverts based on true stories.

*“I tell you one thing that did upset me, when I saw that little girl on telly that time with her dad; did you see it. He had throat cancer. She was crying. That really did get to me”*

*(P? FG2)*

Many participants could not recall any past local marketing campaigns. That is not surprising as in the past one advert would be used to target all segments of the local population. However what this exploration shows is that different groups should be targeted in different ways based upon what their requirement is.

### **Mediums and Location of Advertisement – 2.3.2**

Once more the groups differed in the type of places they would prefer the stop smoking message to be displayed. However nearly all participants claimed to read the local newspapers.

The women over 31 wanted adverts to be placed in town centres, on big centrally located billboards, in and around supermarkets, post offices and at the hairdressers. The women under 30 wanted adverts to be placed in bus shelters as they would use buses often, in and around supermarkets, at local shops and in the local newspaper. Men over 31 wanted adverts to be placed at local football clubs, pubs, train stations and local newspapers.

Men under 30 wanted adverts near pubs, in bus shelters, at train stations, in shopping centres and again in the local newspaper.

Pregnant women want adverts to be placed on route to schools on billboards, in magazines, in local newspapers, especially the women's section in the local newspaper. The women also said they read all material that their children bring back from school; therefore it would be worthwhile to disseminate information through schools.

There are a few similarities in the kind of places the participants would like the promotional material to be placed. If the location and place of the adverts fits the requirements then the participants will be more likely to see the adverts which in turn will engage them and make them more aware of the local stop smoking service.

## **5. Discussion**

The aims of the study were twofold: (1) explore the role barriers play in continuing smoking and (2) examine how to overcome the barriers that smokers face in quitting cigarettes. Findings from this study provide evidence to support the argument that smokers face a large number of barriers in quitting smoking, however the findings of the current study also highlight the need to make changes to the national stop smoking service. This will be discussed further in chapter 3.

The first part of this section examines the findings of the current study in relation to core themes and nine subthemes using abbreviated grounded theory. Methodological limitations will then be discussed, followed by recommendations for future research.

Implications for clinical practice, core recommendations, future directions and conclusions will be addressed in chapter 3.

Two core themes and nine sub themes emerged when exploring the above aims using abbreviated grounded theory. All the themes will now be discussed.

## **5.1 Barriers in Quitting**

Many barriers have been identified as hindering quit attempts. Sometimes one or sometimes many barriers are in play in the life of a smoker that makes it difficult for them to quit smoking. The ones which were prevalent within the study were; positive perceptions of smoking, associations/triggers, competition, motivation, healthcare professionals and the stop smoking service.

### **Positive Perception of Smoking**

The findings of the study indicate that for many participants the perception of smoking is positive. They view smoking as a means to relax, to avoid boredom and as a way of rewarding themselves. Some also claim to enjoy smoking particularly if it fulfils a social element. The stimulation of nicotine receptors at different locations are exerted on many brain systems including those involved with arousal, reward, learning, memory and attention (Pomerleau & Pomerleau, 1989), which might explain the positive effect.

Participant's positive perception of smoking stemmed from two areas. Either the cigarette was used as a stimulant to increase arousal during boredom or fatigue or smoking was

used as means of reducing arousal when stressed. Research suggests that smokers can manipulate their nicotine dosage to obtain the desired effect in particular circumstances (Ashton & Watson, 1970; Ashton et al. 1974, 1980; Armitage et al. 1968). Smokers have reported that the subjective effects of smoking can be either stimulation or relaxation, and there is considerable evidence (e. g. Ashton & Stepney, 1982) that smokers self-regulate their nicotine intake when smoking cigarettes of different strength. This is supported by the arousal modulation theory of smoking (Mangan & Golding, 1978). The theory proposed that smoking is an activity that has the function of controlling arousal, i.e. the smoker smokes to increase arousal when bored or fatigued, and to reduce arousal when tense or stressed. The theory is an attempt to integrate these paradoxical biphasic psychological effects; that smoking can lead to either increased cortical arousal or to reduced stress and emotional calming (Ashton & Golding, 1989).

The arousal modulation theory suggests that these psychological changes (increased alertness, decreased negative affect) are interdependent, with cigarettes sometimes being used to acquire one effect or the other. Thus, stimulant smokers tend to report smoking in order to increase arousal, while sedative smokers generally smoke to reduce feelings of stress or anxiety. "Sedative smokers, who smoke under conditions of high arousal in order to decrease arousal; and stimulant smokers, who prefer to smoke under conditions of low arousal in order to increase arousal" (Suraway & Cox, 1987).

Participants within the focus groups were not exclusively either sedative or stimulant smokers. Depending on their situation the reasons for smoking differed. However the participants were not conscious of whether they were sedative or stimulant smokers, for



them smoking fulfilled a purpose, all they understood was that smoking helped when they needed to relax and it also helped to avoid boredom and fatigue.

Smoking, especially for the female participants held a function of reward. They viewed smoking as a treat to be taken after a hard days work. The majority of the women in the study were from a low socioeconomic background and it is not surprising that women from that background have a restricted range of opportunities available for reward. However smoking was seen as a reliable source of reward that they could control. A reward is only a reward if a pleasurable effect is anticipated. Many participants discussed the enjoyment of smoking and cited it as a barrier to quitting. When asked why they enjoyed smoking they mentioned the stimulant and sedative effects as reasons (though not using those exact terms).

Lastly the majority of the participants viewed smoking as a social norm because a large number of their family and friends were smokers. A social norm is a generally accepted way of thinking, feeling, or behaving that most people in a group agree on and endorse as right and proper (Thibaut & Kalley, 1959). When people interact in a group, their thoughts, emotions and actions tend to converge, becoming more and more alike. Social interaction with other smokers could influence people to recognise smoking as a desirable behaviour (Doise, Ugnny and Perret Clermont, 1975).

Within the participants social circle smoking was not frowned upon and was completely accepted. This made it difficult for the participants to make a quit attempt as smoking is considered a social behaviour and they would no longer feel part of the group.

Disagreeing with a group you value, identify with, and feel connected to feels bad. People report feeling uncomfortable and upset when they find out that they disagree with other group members, especially if they expect to interact with the group (Matz & Wood, 2005). Not only does disturbing the group membership hinder the quit attempt but according to the social cognitive theory (Bandura, 1986) smoking friends may provide strong social cues and reinforcement for smoking behaviour. While nicotine is the key chemical that elicits substance dependency (Kumar et al., 1977) social cues are important in reinforcing and enhancing the smoking desire in smokers (O'Loughlin, et al., 2003). This might explain the continued smoking behaviour of many of the participants.

As this study indicates smoking is seen as a socially desirable behaviour which acts as a reward mechanism and used to avoid fatigue and boredom. All these factors act as a barrier to deciding to quit and staying abstinent. Smoking cessation interventions must target these factors by adding components to shift these cognitions. It is important to identify other rewarding activities or sources of enjoyment and to provide some assertiveness training so that the smokers are more confident despite reinforcing smoking cues.

### **Association/Triggers**

According to the social learning theory (Rotter, 1954), we learn to smoke by associating smoking with attractive characteristics such as "it helps me to de-stress", "it helps me to socialise", "it makes me lose weight", etc, etc. These associations make it more difficult for smokers to quit smoking.

The participants within the study were associating smoking with a number of factors such as weight gain, stress, alcohol, cravings and their partner smoking. Each of these factors functioned as a barrier to deciding to quit and staying abstinent. These views will have to be challenged and smoking cessation interventions need to address these factors if there is to be an increase in people making successful quit attempts.

### *Stress*

A large proportion of the participants reported smoking due to stress. They viewed smoking as a miracle treatment for stress reduction. At the onset of a stressful period participants reported smoking to relieve the tension and to de-stress. This is unsurprising as approximately 80% of smokers report using cigarettes when they feel stressed or anxious (Russell et al. 1974; Warburton, 1988). The men and women cited different reasons for stress. Women's cause of stress was often children, family life or a close death whereas men cited work and/or financial reasons for the onset of stress.

Evidence suggests that smoking can reduce subjective feelings of stress. Reviewing the effects of smoking on emotion, Gilbert & Wesler (1989) concluded that "nicotine reduces anxiety and negative effect in chronic smokers". When viewing a stressful film, smokers' ratings of anxiety were significantly lower when they were allowed to smoke than when they were not (Heimstra, 1973). This shows that the perception of stress is much lower once a cigarette is smoked.

The majority of the participants in the study were from deprived areas of South West Essex and research suggests that this sample is more likely to experience stress.

Compared with more advantaged individuals, people from a low SES background seem to experience more severe daily stressors, have less social power and fewer material resources to actively control the sources of stress (Gottlieb & Green, 1987; Romano, Bloom, & Syme, 1991; Turner & Avison, 2003). Smoking could increase perceived control over stressors and they may think that smoking is an effective way to cope with anxiety and stress (Shadel & Mermelstein, 1993). The findings of this study exhibit that smokers continue smoking due to experiencing stressors in their daily lives, and stress is not the cause of smoking rather it is a precursor. This finding can assist in developing appropriate interventions that help equip smokers to cope with their stress.

The participants exhibited low perceived control over their stressors, whereby they thought only smoking could help them cope. Low perceived external control has been associated with leading to anxiety and depression. Hence it should be ensured that smoking cessation treatments add a component of mastering coping strategies so that smokers can deal with the stressors in an effective way that increases their perceived control.

### ***Partner smoking***

The majority of participants had partners that also smoked. Hence quitting alone was not an attractive option as it would mean that their partner would continue to smoke resulting in constant temptation. The male participants were more likely to quit smoking despite their partner smoking however they relapsed fairly quickly. Whereas the female participants talked about the difficulties in quitting if their partner continued to smoke.

They were not confident in their ability to stay abstinent hence they were more reluctant to make a quit attempt.

Smoking status, like other health behaviours, differs between married and unmarried individuals. In the UK 52% of smokers are married to individuals that also smoke (Jarvis, 1997). Studies have revealed that a partners smoking status is a significant predictor of relapse. Smoking cessation is less likely among smokers who live with other smokers or a smoking partner (Chandola, Head, & Bartley, 2004; Senore et al., 1998; Walsh et al., 2007). Whereas, marriage to a non-smoker or to a former smoker is associated with an increase in smoking cessation (Jarvis, 1997).

The participants discussed the difficulties of living with a smoker when they have made a quit attempt. Living with a smoking partner may act as a barrier for quitting as the intention to change smoking behaviour might be compromised when the partner does not consider change. The temptation to smoke is high in all smoking households for a variety of reasons, such as the constant availability of cigarettes. Also, there may be fear of conflicts in the partnership when the smoking status changes to non-smoking and may therefore tend to remain in the pre-contemplation stage (Ruge et al., 2008). Partner facilitation predicts initial success in smoking cessation (Mermelstein et al., 1986; Study 1) and short-term abstinence (Coppotelli & Orleans, 1985), even when controlling for other correlates of smoking cessation. Longer-term abstinence is associated with the smoking behaviour of others in the household (Mermelstein et al., 1986).

Successful smoking cessation by the marital partner gets rid of many of the habitual cues to smoking behaviour in the immediate environment. Support functioning as a coping assistance indicates that supporters with empathy and understanding of the situation will provide the most effective support for managing the demands of the stressor (Thoits, 1986). Similarly, research on social support reveals that effective support is that that best matches the needs arising from the situation (Cohen&McKay, 1984). Thus, those having experienced the barriers to smoking cessation themselves should be better suited to facilitate smoking cessation by their partner than those who have not. Hence the most effective support for smoking cessation provided by marital partners is by partners who themselves have quit smoking (Coppotelli & Orleans, 1985; Mermelstein et al., 1986). Therefore both partners quitting together can support one another as they will know what the other is experiencing. Behaviour change research should consider interventions beyond the individual and include the support of family and others in achieving and maintaining behaviour change such as smoking abstinence (Clark, Kviz, Prohaska, Crittenden, & Warnecke, 1995; Wing, 2000).

### ***Weight***

The findings suggested that the fear of weight gain acted as a barrier for smokers to quit and weight gain post cessation resulted in relapse. The majority of the women fell into the latter category. They spoke about previous quit attempts and quick relapses due to weight gain. They viewed weight gain as a byproduct of cessation and it was something they were not happy with. They understood the reasons behind the weight gain. Some cited additional eating as means of distraction or due to stress and others cited the return

of appetite after quitting. This is an interesting finding as it shows that smoking, weight and stress are all inter-linked and have an effect on one another.

High levels of post-cessation weight concern have been associated with being female (Pomerleau, Zucker & Stewart, 2001), fewer previous quit attempts (Klesges et al., 1989), smoking more cigarettes per day (Klesges et al., 1989), more favourable views of smoking (Charlton, 1984), lower confidence to quit (Borrelli & Mermelstein, 1998) and greater symptoms of depression (Frederick, Hall, Humfleet & Munoz, 1996). This is quite true of the study sample. The majority of participants with post-cessation weight concerns were female, they enjoyed smoking, they often spoke about confidence and willpower to quit and discussed experiencing stress when making a quit attempt. Pomerleau and Saules (2007) found that smokers, regardless of weight category had lower levels of body dissatisfaction than never-smokers. It is likely that this body dissatisfaction contributes to the concerns about post cessation weight gain rather than actual weight gain.

A number of men in the study also discussed weight gain concerns. They also spoke about post-cessation weight and how that was a concern for them. Although weight concerns are more prevalent among women than in men, previous research also suggests that a substantial portion of male smokers endorse elevated weight concerns and smoke to control their weight (Clark et al., 2004; Clark et al., 2006; White, McKee & O'Malley, 2007). These findings suggest that male smokers should also benefit from weight targeted smoking interventions and/or campaigns, as often it is assumed that men do not

associate smoking with weight gain. However this research has identified that men are also in need of specialist interventions that targets weight gain in smokers.

There is some argument that weight-concerned smokers may hold particular cognitive distortions surrounding smoking as a means of weight management. In a study by White et al., (2007) they found that the belief in the effectiveness of smoking for weight control was unrelated to actual weight gain. The weight concerned participants reported that they gained weight during previous quit attempts, however prospectively they did not actually gain more weight than those individuals reporting less weight preoccupation. Weight gain at previous attempts was retrospective, self-reported and therefore subject to recall bias. The paper suggested targeted cognitive restructuring in treatment for smoking cessation, which has proved to be effective in improving abstinence rates for weight concerned smokers (Perkins et al., 2001). However there are some studies that have not found weight concerns to be predictive of abstinence at 1-year (Pisinger & Jorgensen, 2006).

Nevertheless the participants are associating weight gain and smoking. If beliefs about weight gain are not targeted in an effective way within smoking cessation treatments then it is likely that the barrier of weight gain will continue to make it less likely for smokers to quit smoking. However it would be important to differentiate whether the smoker is exaggerating the utility of smoking for weight management due to cognitive distortions, whether through the stress of quitting or due the return of their appetite. This finding also confirms that the current stop smoking treatment is not appropriate to target weight gain



concerns in smoking and that it needs to go much further in order to overcome the barrier of fear of weight gain.

### *Alcohol and Cravings*

Alcohol was another association the participants of the study were making with smoking cigarettes. This was quite a surprising finding as smoking literature does not cite alcohol consumption as a major barrier in quitting smoking. However this was found to more prevalent in male smokers than females. Alcohol was seen to boost the pleasurable effects of smoking a cigarette. Some of the participants through conditioning associated having a cigarette every time they were consuming alcohol. It is well established that alcohol consumption and tobacco use are highly correlated in both clinical and non-clinical samples.

Smoking is highly correlated with drinking in non-alcoholic individuals (Carmody et al., 1985; Istvan & Matarazza, 1984), particularly among those who are heavy drinkers. Both laboratory studies and naturalistic observations have demonstrated that alcohol consumption is strongly associated with increased rates of smoking (Glautier et al., 1996; Mitchell et al., 1995; Shiffman et al., 1994). Kawada (2004) found that smokers drank more alcohol than ex smokers and in human laboratory models, alcohol consumption is associated with greater difficulty in resisting cigarettes (McKee et al., 2006). Given the high co-occurrence of alcohol and tobacco use, it is not surprising that alcohol has been identified as a risk factor for poor smoking cessation outcomes (Baer & Lichenstein, 1988; Shiffman 1986; Zimmerman et al., 1990). Several clinical trials suggest that

drinking alcohol during smoking cessation attempt increases the likelihood of relapse to cigarettes (Humfleet et al., 1999). For example, Shiffman (1986) found that 20% of all relapse episodes in smokers involved alcohol consumption. In a real-time examination of first lapse episodes, 25% of drinkers identified alcohol as the primary trigger for smoking (Shiffman et al., 1997).

McKee et al. (2006) found that severity of nicotine dependence was significantly associated with delay period behaviour. Those who had greater nicotine dependence scores were less able to resist smoking after consuming alcohol. It is known that the severity of alcohol and tobacco dependence is positively correlated (Ellingstad et al., 1999; Gulliver et al., 1995). It is possible that those with greater nicotine dependence were more reactive to tobacco following alcohol consumption. However, studies of light, social drinkers have demonstrated either small (Henningfield et al., 1984) or modest increases in smoking behaviour following alcohol consumption (Mello et al., 1987), suggesting that the influence of drinking on smoking behaviour may be more pronounced in heavier drinkers. The current smoking cessation treatments do not address the relationship between alcohol consumption and smoking. Therefore it might be beneficial to test the alcohol dependence of would be quitters and to discuss the association the patient/client makes between smoking and drinking alcohol. This will enable practitioners to get a clearer picture of the impact of the alcohol on smoking, and if there is a correlation the treatment should consist of cue exposure therapy.

Alcohol consumption is associated with persistent elevations in alcohol craving and cravings to smoke for positive reinforcement even after smoking was initiated (McKee et al., 2006). One of the biggest barriers in quitting cigarettes for the participants was cravings. When the participants made a quit attempt they described the cravings as being very strong and ‘luring’ them back to smoking. The urge to smoke was overwhelming and did not diminish through time. Female participants often discussed the difficulty of quitting due to pre-cessation cravings. During the day when a cigarette is not smoked the participants spoke about the intense cravings they would experience for a cigarette, therefore becoming abstinent in their minds would make the craving worse, making it less likely for them to make a quit attempt. This fear is not unfounded as Daughton et al., (1999) found that smokers who maintained abstinence for 4-5 years, 52% reported craving cigarettes at least occasionally, making craving a permanent fact of life for many. Even some of the men associated smoking with cravings and cited that as a reason not to quit.

Research suggests that cravings may be one of the most sensitive and consistent predictors of smoking behaviour and smoking relapse (Piasecki, 2006). Cravings are episodic and very responsive to environmental and pharmacologic manipulations. Even though the level of craving dampens after quitting, quitters experience intermittent, strong temptation events associated with increased craving that are superimposed over the lower, background craving levels (Shiffman, Enberg, et al., 1997).

Nicotine patches have been used to reduce the background craving, however it does not affect the magnitude of acute spikes in craving provoked by smoking cues (Tiffany, et al.,

2000) and the current stop smoking services do not address smoking cues as means of reinforcing cravings. Cravings are partly under associative control (Lazev et al., 1999). This suggests that to assist people overcome the fear of cravings impacting on their quit attempt cue exposure therapy could be useful. Cue exposure therapy focuses on extinguishing craving responses to provocative cues. Though implementing this could be a little difficult as there are an overwhelming number of candidate cues. In a controlled trial cue exposure therapy was trialled on smokers; however it revealed no unique benefits. Nevertheless further research is needed to test the impact of the therapy amongst different population groups.

### **Competition**

The findings suggested that competition could either be external or internal. Smoking cessation was competing with internal factors such as blame minimisation and low threat perception and external factors such as branding and alternative therapies which are not recommended by NICE. Research literature of barriers in smoking cessation has not found the barrier of external and internal competition. It is likely that by addressing the effect of competing factors, smoking cessation rates would be positively affected resulting in higher quit rates.

### ***Internal***

The concept of denial and blame minimisation was rife amongst the participants. Very little responsibility was taken when talking about smoking initiation and maintenance.

The blame minimisation was exhibited by participants blaming peer groups for initiating smoking, and then they blamed factors such as stress for continued smoking.

Pregnant women often were found to blame the stress of pregnancy on the continuation of smoking.

There was also a low threat perception. All the participants knew about the harmful effects of smoking however they felt that they were not at risk. They downplayed the risk of smoking on an individual level by referring to personal experiences or someone else's experiences and using these as counter-evidence to the medical view of the health risks of smoking. They told stories that defied scientific literature and mocked the research. For examples women spoke about smoking heavily during pregnancy but then gave birth to a heavy child. This then reinforced the idea that smoking is not as harmful as the media or research claims it to be. These accounts resembled the I-know-many-old-people-who-smoke arguments reported by DeSantis (2002). It has been said that these so-called survivors of risky lifestyles are a very important part of the assessment of health-related information, because they can outweigh any medical statistics or official campaigning (Davison, 1989).

However there were occasions when many smokers agreed that smoking is harmful in general, but they endorsed a number of self-exempting beliefs that helped them to dissipate the cognitive dissonance existing between such general agreement and their smoking habit (Festinger, 1957).

According to Peretti- Watel and Moatti (2006), when people face a contradiction between their current lifestyle and their moral commitment to be 'healthy', they need to either change their lifestyles or change their perceptions and beliefs and deny the risk in order to make themselves conform to the dominant norms. Individuals who engage in acts that are considered harmful to health, such as smoking, are committed to conventional norms but neutralise these norms temporarily, by defining them as inapplicable, irrelevant or unimportant to their specific situation and by using different rationalisations, justifications and "techniques of neutralisation". It has been said that these techniques protect the individual from self-blame and the blame of others and enable them to engage in risky behaviour without feelings of guilt (Sykes & Matza, 1957).

In mass media campaigns the emphasis has always been to inform the public about the negative consequences of smoking to try to motivate smokers to quit. However based upon the findings of this study future anti-smoking campaigns and interventions should take into account and target lay health accounts. Rather than trying to persuade smokers to quit with accounts from epidemiological and medical research, the anti-smoking advocates and health promotion specialists should consider answering questions arising from smokers' own perceptions: For example, why there are individuals who have smoked for decades but who don't get lung cancer? Why are some babies born to mothers who smoke heavier than babies from non-smoking mothers? The future campaigns and interventions regarding smoking should provide answers to these questions, since these are the ones that smokers themselves ponder and answer.

### *External*

The findings suggested that participants were more likely to recall stop smoking promotions by more well known brand names, such as Boots and Tesco. This was taking place at a time when the local NHS stop smoking service was campaigning extensively to promote free NRT. The participants instead were paying for their treatment because they had either not seen or heard about the PCT promotion. Alternatively the female participants either had experience of or wanted to use treatments such as hypnosis or acupuncture to help them stop smoking. The women were also more likely to make their partners attend such treatments courses. They were deemed attractive because they offered a quick fix and the participants generally knew what was involved however with the NHS services participants were less aware of the treatment options and it was assumed that the treatment course was far longer in duration, hence not offering a quick fix.

This finding was quite surprising as the cost of these alternative treatments was mentioned as ranging anywhere from £20 an hour to £40 an hour and bearing in mind that the sample used for this study were predominately from deprived areas for whom the cost would be very high. Even with the high cost some still would choose this option, without first trying the free NHS services.

Many studies have tested the effectiveness of using hypnosis and acupuncture as a method of smoking cessation treatment, though the results have always been disappointing, showing no consistent evidence that treatments such as acupuncture,

acupressure, laser therapy, electro-stimulation or hypnosis are effective for smoking cessation (Abbot, Stead, White & Barnes, 1998; White, Rampes & Campbell, 2006).

Smokers need to be made aware that not all smoking cessation treatments are effective and that the most popular hypnosis and acupuncture have shown no overall effectiveness in systematic reviews. Local NHS stop smoking services also need to be more prominently advertised with a view to branding the service as such that it would grab the attention of smokers, as currently the local NHS logo is not effective.

A brand is a distinctive label, sign, or symbol that differentiates the goods and services of one seller from another. By creating a brand, a company defines how it wants consumers to think and feel when they see a brand's logo, name, or message, or when they experience the brand. Public health can learn from commercial marketers about designing an effective campaign. Consumers make purchase decisions about a product on the basis of their overall affinity to a particular brand (Aaker, 1996). Brand affinity leads to product loyalty and repeated sales. Branding has a long history in commercial marketing and has recently been used by nonprofit organizations and government agencies in the development of public health campaigns (Ashbury, Wong, Price & Nolin, 2008; Kirby, Taylor, Friemuth & Fishman, 2001). Unlike in the commercial world, public health marketing often lacks a tangible product to sell to consumers. Instead, the product being sold by public health organizations is typically a health-related behaviour such as stop smoking.



If local NHS stop smoking services are to be effective in attracting smokers to the service then thought needs to be given to public health branding, as evidence suggests that it can increase healthy behaviours (Ashbury, Wong, Price & Nolin, 2008; Kirby, Taylor, Friemuth & Fishman, 2001) and access rates.

### **Motivation**

Motivation is commonly conceptualised as readiness to change (DiClemnte & Prochaska, 1985). As operationalised within the transtheoretical model, varying levels of motivation correspond to different stages of change. The model proposes that smokers can be at any five different levels (Table 4):

<b>Precontemplating</b>	Early stage of readiness to change where smokers either have no or very little motivation to quit
<b>Contemplating</b>	Smoker is thinking about quitting
<b>Preparation</b>	Smoker is preparing to make a quit attempt
<b>Action</b>	Smoker has made a quit attempt
<b>Maintenance</b>	The quit attempt is sustained over a period of time

**Table 4:** The Transtheoretical Model stages with definitions

Differences in the stages have been shown to predict quit attempts and abstinence, with smokers in the preparation stage making significantly more quit attempts and more likely to remain abstinent than those either in the contemplating or precontemplating stages (DiClemente et al., 1991).

Factors such as self efficacy and social support impact on motivation levels and are important facilitators of smoking cessation (Baer, Holt, and Lichtenstein, 1986; Murray et al., 1995). The participants in the current study discussed low confidence levels, lack of willpower and lack of social support and how that impacted on their smoking. Low self-esteem and self-belief were identified as common barriers to quitting, especially if a previous failed attempt had been made. The participants claimed to lack “willpower” in order to quit smoking and feared failure.

A large number of studies have established that high self efficacy is a strong predictor of smoking cessation (Baer, Holt, and Lichtenstein, 1986; Stuart, Borland, & McMurray, 1994). A study from Canada found that, among especially marginalised populations, self mastery and social support were significantly lower among smokers compared to non-smokers (Daniel, 2004).

Confidence levels were shown to be dampened in the current study because some participants viewed smoking as an addiction. It made smokers feel that they did not have the ability to quit because they thought of a cigarette as a powerful drug that had a hold over them. They viewed smoking as being located within the disease model, perceiving it

as a physical problem over which they have no control over. This can lead to disempowerment and needs to be addressed within smoking cessation treatments. Other participants had failed quit attempts which led them to believe that they will fail again.

Promoting and improving self-efficacy in smokers could increase the likelihood of a successful quit attempt and a reduced possibility of relapse. This would be even more beneficial in individuals who have tried to stop smoking in the past, as smokers who have had an unsuccessful quit attempt are found to have significantly declined levels of self efficacy (Boardman et al., 2005; Shiffman et al., 2000). Guidelines to promote self-efficacy to quit smoking suggest discussing past successful quit attempts and producing a quit plan (Fiore et al., 2008).

Another way of increasing self efficacy is by promoting social support. According to Symister & Friend (2003) receiving social support is related to an increase in self esteem which leads to increased optimism about the future and was followed by a decrease in depression. Social support can also increase self care behaviours such as quitting smoking (Garay-Sevilla et al., 1995).

The relationship between health and social support has been widely researched within health psychology. Social support is divided up in five categories; emotional, social companionship, esteem, informational and practical. Emotional support is when someone lends one a sympathetic ear, is empathetic, reassuring the person that he/she is valuable to them and expressing commitment. Informational support is when one might give advice

and information to raise awareness; this can have a possible effect of reducing fear of the unknown. Practical support is when one might help financially, or help with services and goods such as childcare for when the patient has a stop smoking group session. Social companionship support is when one shares your values, beliefs and attitudes and makes you feel that you are not alone. Lastly, esteem support is when one holds you in high regard and recognises your talents and achievements (Taylor, 1999 as cited in van Dam et al., 2004). Murray et al (1995) found that there was a significant relationship between presence of a support person at the beginning of the smoking cessation treatment and smoking status for male participants at 4 months however this was not shown for female participants. Additionally at the 12-months follow up the initial presence of a support person was still related to smoking status for men but not for women. Furthermore, it was found that married participants were more successful at quitting than single participants. For women, marital status was the strongest social support indicator at baseline, and the attendance of a significant other at three or more group sessions was the strongest indicator at 1 year.

It is therefore important to incorporate social support within the treatment package of a smoker, something that the current stop smoking service does not do. However before including family into the interventions it is important to assess whether family orientated approach is well suited to the patient or would patient orientated support have a greater effect. It has been shown that social support can have a negative consequence on the patients too. It is found that a large social support group can be considered as harassment and a feeling of loss of control and it may start having a negative effect on the patient (van Dam et al., 2005). Hence the type of approach to be used should be dependent on

contextual factors such as the personality, culture, gender, perceived family support and the health status of the family member(s) (Martire, 2005) and stop smoking treatments need to acknowledge the positive effects of social support on self efficacy.

### **Healthcare Professionals and Stop Smoking Service**

The participants generally respected healthcare professionals and spoke about them in a respectful way. However there were gender differences in the relationships that they had with their GP. Women saw GP's as the expert, somebody they go to if they had a health concern whereas a large number of men had not been to their GP for over 5 years. Regardless of the relationship with the GP's some participants did not see the role of a GP to be in the smoking cessation/advice capacity. The males tended to lie when asked about their smoking status or the number of cigarettes smoked and the women felt patronised by the lack of empathy and support shown. In both occasions the participants were not comfortable discussing smoking with their GP. One of the barriers discussed in the introduction section was that of lack of awareness of stop smoking services amongst participants and it was found that most research studies have blames smokers for this lack of knowledge; however what this research has found that HCPs are not readily providing advice and information on stop smoking options and treatments. However research shows that GPs promoting cessation of smoking through integrated evidence-based practice increases the chances of smokers quitting successfully, lending support for an increase in promoting services to their patients. Studies show that even minimal intervention in doctor's practice, e.g. one consultation of less than 20 minutes plus up to one follow up visit, has a small but significant impact on cessation rates (Silagy & Stead, 2002).

Cessation rates can be further increased by intensifying the consultations, and by using pharmacological support such as NRT (Silagy & Stead, 2002).

Regardless of the significance of smoking cessation support by GPs, the participants in the study discussed negative behaviour from the GP such as continuously looking at their watch, reminding them how much time is left for the appointment or not providing additional support after asking for the patients smoking status. In a meta-analysis it was found that when GPs were asked about the barriers of promoting smoking cessation, they most commonly reported lack of time (weighted proportion: 42%, perceived ineffectiveness (38%) and lack of confidence in ability to discuss smoking with patients (22%) (Vogt, Hall & Marteau, 2005). It has also been found that GPs that are smokers compared to their non-smoking counterparts were less likely to believe that smoking posed a significant threat to patient health and to identify smoking cessation as high priority for intervention. They were also less likely to discuss smoking with their patients during consultation and reported few activities to directly assist smokers to quit (Pipe, Sorensen & Reid, 2009).

The participants within the current study also highlighted the negative non-verbal behaviour of their GP's which acted as a barrier for them to discuss smoking related issues or smoking cessation. They mentioned behaviour such as looking at the clock, looking at the computer when the patient was speaking, making irritated faces and giving patronising looks. Nonverbal behaviour is defined as behaviour without linguistic content (Knapp & Hall, 2002). We can distinguish between speech-unrelated nonverbal

behaviour like gazing and nodding and speech-related nonverbal behaviour such as tone of voice or speaking time. Non-verbal behaviour can affect the GP as well as their patient. Studies have found that GP's with better nonverbals suffer less medical malpractice litigations and surgeons with a more dominant tone of voice were more likely to have been sued for medical malpractice than surgeons with a less dominant tone of voice (Ambady et al., 2002). Additionally specific GP nonverbal behaviour can improve the quality of the diagnosis. Bensing, et al. (2005) found that GP gazing was related to more successfully recognising psychological distress in patients.

Predominately the relationship between GP nonverbal behaviour and patient satisfaction has been studied. Research conducted by Hall, et al. (1995) showed that patient satisfaction was related to GP expressiveness. Expressiveness was described by the following nonverbal behaviours: less time reading medical chart, more forward lean, more nodding, more gestures, closer interpersonal distance, and more gazing.

GP's require on-going training in smoking cessation. It needs to be ensured that they understand the importance of and are confident in delivering smoking cessation advice and intervention. Patient's view the GP as the expert however negative non-verbal behaviour and an unempathetic attitude becomes a barrier for the smokers that would like to quit.

Awareness of stop smoking service amongst participants was generally very low. The availability of NHS stop smoking services was not known or participants held incorrect ideas and views about treatment and medication. It was a common view that treatment

was expensive, the services were not accessible neither were they effective. This is supported by research that concludes that lack of awareness and costs are major barriers to use of smoking cessation treatments (Kaper, Wagena, Severens & Van Schayck, 2005). Other participants in the study were afraid of becoming dependent on their stop smoking drugs such as NRT and Zyban. This has also been demonstrated by Bansal et al. (2004) that found that a common reason for not using medication was the fear of adverse effects including dependency. Again this is linked to their relationship with their HCP's, the participants do not feel comfortable in discussing smoking or smoking cessation with their GP's and since they are their primary advisor on health, this leaves a large gap in knowledge.

Many participants believed that they will be able to stop smoking without any support, thus not requiring any support from the stop smoking service. There was a fear that they will be judged and patronised by the staff at the stop smoking service and be forced to make a quit attempt.

The main criticism regarding smoking cessation advice centred on the insufficient amount of information provided. For example, pregnant participants in the current study were not aware of the specialised services available for them. Other studies also confirm that smoking is not covered sufficiently during a woman's antenatal care (Haslam & Draper, 2001).



Attributes such as lack of knowledge, skill and self-efficacy in providing stop smoking advice to pregnant women has been identified as a potential barrier in promoting smoking cessation for healthcare professionals working with pregnant women (Pullon et. al, 2003). This could explain why some women in the current study discussed midwives providing incorrect advice whilst they were pregnant. Midwives told pregnant women not to stop smoking as it would put stress on the unborn child as a result of withdrawal symptoms they would experience in the womb.

If midwives are sufficiently trained and have increased self- efficacy then they will be more likely to promote smoking cessation as well as provide accurate advice. In a study by Lowry et al., (2004) midwives were trained extensively by the use of role plays to increase their confidence in approaching and speaking to pregnant women about smoking. This led to a 10 fold increase in the number of women recruited into the smoking cessation service. Thus targeted role play based training can be very effective.

## **5.2 Overcoming Barriers**

The participants spoke extensively about the barriers they faced in quitting cigarettes; however they also discussed ways in which those barriers could be overcome. From these discussions themes such as models of treatment and marketing the services emerged. Additionally the theme negative perceptions of smoking emerged due to the thought that the negative perceptions can be targeted to increase quit attempts.

Within research literature there is a lot of discussion surrounding the barriers that smokers face, yet many researchers shy away from exploring what can be done to overcome the barriers. This study aims to fill this gap. All three of the themes will now be discussed.

### **Negative Perceptions of Smoking**

Perceptions of smoking could either facilitate or hinder quitting cigarettes. Positive perceptions such as enjoyment of smoking act as a barrier whereas negative perceptions such as impact on health, effects on finances can motivate smokers to stop smoking and these should be used to develop interventions. The common negative perceptions of smoking found within the study were impact on health, impact on finances, the effect on children, being chastised by others and the addiction element of cigarettes. These will now be discussed.

### ***Health and Finance***

Health was an important factor for the smokers in the current study and many gave this as a potential reason for stopping smoking. Some middle aged participants discussed experiencing asthma, chesty coughs, difficulty in walking, running and climbing stairs. These symptoms can potentially lead to an increased desire to stop smoking.

Haslam and Draper (2001) found that although the majority of pregnant smokers are aware of the health risks associated with smoking during pregnancy, the knowledge is not enough to trigger a quit attempt due to their own and other smokers previous

uncomplicated pregnancies and healthy babies. The present study supports these findings as pregnant smokers frequently discussed how their own experiences contradicted smoking cessation messages. Two participants discussed smoking throughout their pregnancy but still giving birth to healthy big babies.

Yet, slightly older participants were not concerned with the adverse health effects. They felt it was too late to change a lifetimes worth of habit at this stage of their lives. One participant justified this by saying that he has had a 'good inning' thus stopping smoking now will not benefit him. However the problem could be that older smokers are not aware of the link between smoking and conditions such as coronary heart disease (CHD), stroke and diabetes (US Surgeon General's report, 2004). Therefore older smokers can be targeted in two ways. One way could be through the NHS Healthcheck scheme which tests all people aged between 40-74 for cardiovascular disease (CVD) risk, this includes screening for smoking and providing advice and information to quit smoking to decrease the CVD risk score. This can provide the breakthrough link between smoking and CVD for older people. Secondly it should be ensured that whilst promoting cessation healthcare professionals talk about these relationships such as between smoking and diabetes due to most smokers only knowing the most promoted and campaigned risks such as lung cancer.

Financial gain was one of the biggest factors in facilitating quit attempts. Most participants placed financial benefits ahead of health benefits in quitting. This is supported by Franz (2008) who found that that cigarette prices have a significant effect

on the smoking behaviour and the decision to quit smoking for younger and older age groups. The UK tax on tobacco products including cigarettes, cigars and hand rolled tobacco is the highest in the European Union.

Some participants though concerned about price increases in cigarettes spoke about continuing to smoke, even if it resulted in increased financial burden. According to Siahpush et al. (2005) smoking can exert a financial burden on an individual and their family. It has been found that experiencing financial stress is 1.5 times higher and severe financial stress is twice as higher in smoking households than non-smoking households. Therefore the message of financial gain should be promoted further to increase the number of smokers making a quit attempt. This should be more effective for individuals and families from a low SES background.

However it has been shown that cheap and illicit tobacco undermines the impact of taxation and price increases. It is has been estimated that nationally, one in six cigarettes smoked is illicit (HM Revenue and Customs, 2006). Market activity is purposefully targeted to young people and those on low incomes in areas of deprivation who already experience significant health inequalities as a result of smoking (Department of Health, 2007). This both maintains smokers in their habit and also encourages children and young people to initiate smoking as a premium brand cigarette pack of 20 is sold for as less as £2.50.

To tackle smoking cessation measures beyond stop smoking services need to be targeted. Partnership work between local stop smoking services, local trading standards and HMRC is vital to decrease the illicit tobacco trade that undermines the effort of stop smoking services. If people can buy cheap tobacco there is a reduction in the motivation to quit as financial burden is drastically reduced.

### ***Addiction***

Another negative perception of smoking was the addictive properties of a cigarette. Due to smoking being seen as an addiction they felt compelled to smoke because their bodies 'needed' the cigarette. Some complained that they did not enjoy smoking but only smoked due to the addiction. This could act as a facilitator in quitting as the smoker is not associating anything pleasant with the smoking, instead they view it as something that is controlling them. However before it can act as a facilitator the smokers need to feel that they can have control over the addiction.

Smoking to obtain nicotine meets standard diagnostic criteria for addiction. Criteria for substance dependence in ICD-10 (International Statistical Classification of Diseases and Related Health Problems, Tenth Revision; World Health Organisation, 1998) readily characterise tobacco dependence. The ICD-10 features: Strong desire to use the drug (potentially "craving"), difficulty in controlling use (difficulty cutting down or quitting), spending time obtaining, using or recovering from effects (although readily available, smokers often have to spend time somewhere specifically for smoking). It is suggested by Hughes, Gust & Pechacek (1987) that the majority of smokers meet diagnostic criteria for tobacco dependence.

Based upon what is known about tobacco, it is unsurprising that a majority of individuals who smoke are dependent on nicotine and have considerable difficulty reducing or curtailing use (Hughes et al. 1987). However, 5% to 10% of the smoking population, referred to as tobacco "chippers", smoke fewer than five cigarettes a day, and these smokers do not exhibit characteristic features of nicotine dependence (Shiffman,1989). This challenges traditional notions of drug dependence as an inevitable consequence of repeated exposures to an inherently addictive drug (Shiffman, 1991; Shiffman et al. 1994). There are also reported gender differences in the perception of addiction. Women perceive the addictiveness of smoking as lesser than males, even though most evidence suggests that addictiveness is greater among females (Lundborg & Andersson, 2008).

The participants used language that made them seem like victims. The title of addiction to their smoking took away their responsibility to stop smoking. The way to combat this would be to provide smokers with information on treatments such as NRT and explain the function it has to help them cope with the withdrawal symptoms once the quit has been made. Smokers fear their body's reaction after cessation because a large proportion of them stop smoking unassisted. Hughes et al., (2009) found that only half of smokers making a quit attempt used medication and only one fifth have ever used formal psychosocial treatment. Hence stop smoking services need to be promoted more extensively to inform smokers of the services available and the effectiveness of the treatments.

### *Chastised and Children*

Negative perceptions of smoking are exacerbated by the negative response of others towards smokers and the feelings of guilt due to having children. Participants within the study described the negative behaviour they had experienced as a result of their smoking. They explained that due to the smoking ban they are made to feel like 'lepers' and are 'embarrassed' of smoking in public. The negative response from non-smokers and healthcare professionals was supported by Roddy et al. (2006). They found that smokers from deprived communities expressed feelings of victimisation by non-smokers and doctors, with a perception that these attitudes were also prevalent in smoking cessation services.

Nevertheless other than reducing passive smoking the smoking ban has another benefit. People continue smoking because they imitate the smoking behaviour of complete strangers and therefore exposure to smoking models should be as infrequent as possible. Individuals who are trying to quit will be more at risk in these public settings (Harakeh, Engels, van Baaren & Scholte, 2007). Hence if smoking is not allowed in these public places exposure and imitation will be minimal thus reducing the craving to smoke.

The participants often spoke about feelings of guilt and embarrassment regarding smoking in front of their children. However, surprisingly these feelings were not exhibited by the pregnant women of the group. These negative emotions could act as an incentive for stopping smoking and could contribute to making a quit attempt.

## **Models of Treatment**

The most important factors for getting support from a local stop smoking service were: to have a holistic treatment package, tailored service, accessible, local, cheap and with supportive non-judgemental staff.

The participants felt that the causal reasons behind why they smoke are not tackled by healthcare professionals and the current smoking cessation treatment model. When discussing their smoking habit the smokers were associating smoking with factors such as weight gain, stress and alcohol. However when attending smoking cessation support the causal reasons of their smoking were not being discussed. Therefore the relapse rate is high, due to the stop smoking services not addressing the reasons behind their smoking. When participants do not view their smoking behaviour in isolation then why is the treatment they are receiving incredibly focused on tobacco alone. The rationale of a holistic lifestyle treatment model will be presented in chapter three.

Research also confirms that smokers want services that are cheap, accessible and have supportive staff (Gariti et al., 2008; Roddy et al., 2006). Other variables such as transportation, appointment times, location of facility and childcare are also deemed as important (Hammond, McDonald, Fong, & Borland, 2004; Meyer et al., 2003; Pierce & Gilpin, 2002; Zhu, Melcer, Sun, Rosbrook, & Pierce, 2000). Participants did not want a clinical setting such as a hospital for stop smoking treatments; instead they wanted the service to be located in a community setting which would be less threatening.



The female participants wanted a service that was sociable where they could interact with others. As discussed earlier some smokers cite avoidance of boredom as a reason for smoking, hence a more social environment can allow women to make new friends, to get additional support and avoid boredom. Many different ideas were shared to increase the social element of treatment. From rotational groups in individuals houses to having members of family or friends attend stop smoking groups.

It should be ensured that the stop smoking services incorporate this feedback into their service model to increase access rates for smokers.

### **Marketing**

Participants were shown old marketing materials from the local stop smoking service and ideas were sought for future marketing activities. The findings from the focus groups were very interesting. When participants spoke about future marketing activities it differed according to age and gender. So for example older women wanted adverts with children in them and quite hard hitting whereas older men wanted adverts that were subtle covering things such as impotence. In the past the local stop smoking service would design one advert and expect it to target all segments of the population, however in order for adverts to be effective they have to be targeted (Hatings, 2007).

Effective communications of health messages are increasingly playing a critical role in public health. They aid with informing, educating and empowering people about their health issues. Continuing and widening the knowledge needs among smokers requires

audience specific delivery in multiple formats over time. Specifically, social marketing research principles have recently shown effectiveness in raising awareness in smokers. Social marketing is the systematic application of marketing, along with other concepts and techniques, to achieve specific behavioral goals for a social good (French & Blair-Stevens, 2006). Social marketing principles should be adopted to strengthen public health campaigns such as smoking. Lowry et al (2004) used social marketing to increase the recruitment of pregnant smokers to a smoking cessation service. After carrying out focus groups the researchers designed interventions such as a targeted media campaign, role plays to engage health professionals and consumer friendly cessation support. Once the interventions had taken place there was a 10 fold increase in the number of women recruited into the smoking cessation service. Hence local marketing campaigns should be based upon the requirements and views of the local population. In the ideal world one would have a targeted advert for each individual; however that is not practical, hence why population need to be segmented to allow for targeted marketing for similar groups.

## **6. Conclusion**

The barriers in quitting discussed within the study were not surprising and not too far apart from other research studies in this area, however interesting ideas were given from the participants in how those barriers could be overcome.

This study shows that to increase the number of quitters not only do you need to make the stop smoking services more effective but you need to promote the services just as extensively. One size does not fit all. We have to evolve the services that we offer to the public and evolve the way in which we market our services. Most public health departments currently are working in silo with separate tobacco, obesity and alcohol departments, they need to start working more holistically and offer more holistic services to their clients/patients. The biggest challenge to any stop smoking service will be to offer choice to their clients, as in today's world patients are consumers that want services according to their need at a time that suits them.

The recommendations from this piece of research and final conclusion will be presented in chapter three.

# **Chapter Three: One Size Does Not Fit All**

## **7. Discussion**

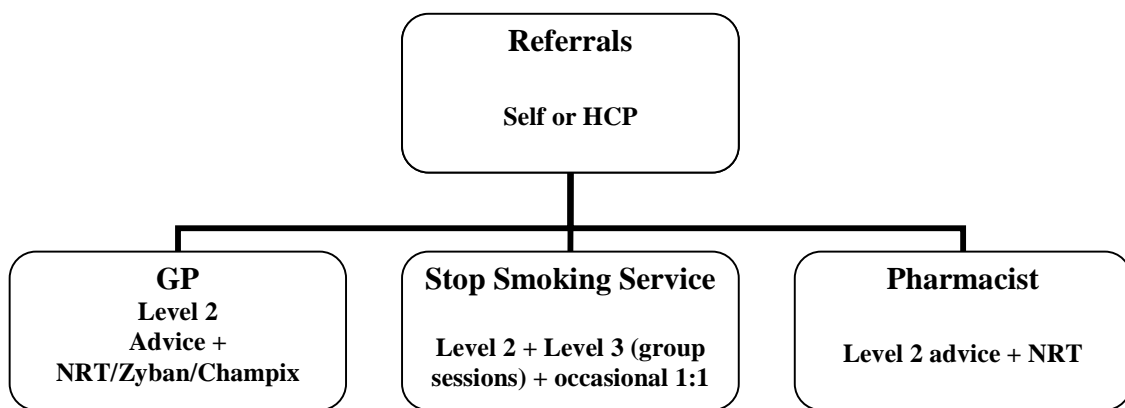
The aim of the study was to explore the barriers faced by smokers in quitting cigarettes and ways to overcome the barriers. The findings of the current study provide evidence to support the argument that a “one size fits all” intervention in smoking cessation is not an effective approach to assist smokers in quitting. Also, should health psychologists solely focus on behaviour change interventions, or should they use their skills to ensure that the interventions/services are promoted just as effectively? It is therefore important to understand the value of tailored interventions and effective marketing techniques to facilitate quit attempts.

The first part of this section provides the implications of these findings for clinical practice, where a new treatment model will be presented. Recommendations for service and marketing, limitations, future directions and conclusions will then be addressed.

## 7.1 Implications for Clinical Practice

### 7.1.1 The Current Service

The current stop smoking service provision nationally looks like the following:



**Figure 10:** Current Stop Smoking service

Upon either self or a healthcare professional referral in to a stop smoking provision, smokers have a choice of accessing support from their GP, Pharmacist or the local stop smoking service. All the outlets provide level 2 advice (full details of treatment in chapter 1), whereas the stop smoking service also provides level 3 group sessions which last between 6-7 weeks.

The level 3 service traditionally has a component of discussing barriers to quitting and there is a short session to discuss weight gain issues. However due to the group environment and the very short time spent on discussing the barriers many people are

either uncomfortable or feel under skilled to deal with the barriers. This qualitative research indicates that smokers attribute their smoking to factors such as weight gain, stress and alcohol consumption. Accordingly it is important to people accessing stop smoking services then we have a wide range of choices of treatments targeted to their specific needs.

Additionally, participants within the focus groups who had attended the level three service had explained that the main focus within the group is solely on quitting and very little time is spent discussing barriers in quitting. This exhibits a need for factors like weight management, stress and alcohol consumption to be targeted as part of smoking cessation intervention. A proposition would be for a service to offer a lifestyle modification programme integrating interventions for healthy eating, smoking cessation, exercise, stress management and alcohol advice (rationale for this model will be proposed in the next section).

Lastly, the majority of the participants felt that the stop smoking service was not tailored according to the client needs, and instead smokers were being offered a blanket service. Instead there was a need for a tailored service that placed the smoker at the heart of all decision making and which discussed personal reasons for continued smoking and making an a quit attempt. It is therefore important that smokers accessing a service are offered a tailored, personalised service to help them to feel empowered to take decisions about their smoking status and this might have an effect on their physical and psychological wellbeing and henceforth their ability to stay abstinent on the longer term.

The model being proposed below addresses the issue of personalisation and of multi-component interventions.

## **7.2 What Is Being Proposed?**

### **7.2.1 Multiple Behaviour Change**

Participants in the study wanted a holistic service that would address the cause(s) of their smoking behaviour. It was also identified that the smokers had more than one risky behaviour, such as high alcohol consumption, physical inactivity and poor diet. This is supported by research that suggests that multiple unhealthy behaviours co-occur. In the USA, the majority of adults meet the criteria for two or more risky behaviours (Fine, Philogene, Gramling, Coupes & Sinha, 2004; Pronk et al., 2004). Multiple risk factors are most common among men, younger adults, singles, those of lower social class, the unemployed, the less educated and the chronically ill (Poortinga, 2007; Pronk et al., 2004). Smokers in particular, tend to have poor behavioural profile, with 92% of smokers exhibiting at least one additional risk behaviour (Fine et al, 2004; Pronk et al., 2004).

When risky behaviours co-occur, the negative impact on health is even greater. Having a combination of three or more risk factors doubles the risk of myocardial infarction (American Heart Association., 1997). Not only is the risk increased but the medical costs also are increased. Edington (2001) found that effectively treating two behaviours reduces healthcare costs by about \$2000 per year. Therefore targeting multiple risk factors can result in effective reductions in morbidity and mortality, additionally

changing multiple health behaviours should result in more positive outcomes such as better quality of life outcomes, reduced healthcare costs and especially for smokers a reduction in relapse rates.

Targeting multiple behaviours has been explored by a growing number of researchers in the past few years. The Mediterranean Lifestyle Programme targeted eating, physical activity, stress management, smoking cessation and social support in menopausal women with type 2 diabetes (Toobert et al., 2007). At months 12 and 24 the participants in the intervention group showed improvement in all targeted lifestyle behaviours. Additionally significant treatment effects were seen in psychosocial measures of use of supportive resources, self efficacy, problem solving and quality of life.

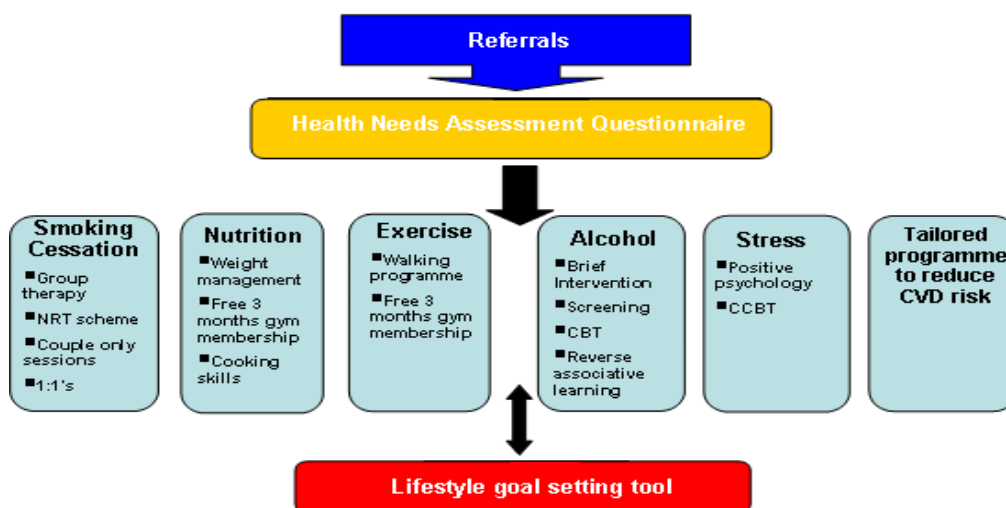
A prominent area of multiple health behaviour change has been in treatment of CVD risk. Nationally in the UK the NHS Healthcheck programme aims to reduce the risk factors of those vulnerable to developing CVD and to detect those already suffering in order to reduce the mortality and morbidity of the disease. To identify the risk of vascular disease, a standard assessment to record basic information such as height, weight, current medication, age, family history, smoking and blood pressure, and include a simple blood test for cholesterol and (in some cases) glucose levels is used. This is followed up by an individually tailored assessment setting out the person's level of vascular risk and what steps they could take to reduce it. For those at low risk, this might be no more than general advice on how to stay healthy. Others at moderate risk may be recommended a weight management programme, stop smoking service, or a brief intervention to increase levels of physical activity. The programme was nationally launched in 2009 and yet has not reported back its findings. However, Ornish et al., (1998) carried out a Lifestyle Heart



Trial for patients with moderate to severe CVD. The intervention promoted a better diet, smoking cessation, stress management, physical activity and group psychosocial support. In a small efficacy trial (N=48) the intervention group showed reductions in weight and cholesterol levels as well as a reduction in cardiac events at years 1 and 5. These studies support the idea of targeting multiple health behaviours.

### 7.2.2 Lifestyle Modification Service

Despite the emerging research into multiple health behaviour change interventions the literature has failed to offer a specific model which would address key areas which are important to participants in the current study; smoking, weight, stress and alcohol. A way forward could be a lifestyle modification service (LMS) model as a solution for integrated holistic smoking cessation advice and also as a means to target co-occurring risky behaviours in individuals (Figure 11).



**Figure 11:** The proposed multiple health behaviour change model.

The LMS could become a one stop shop for smokers who wish to access a single holistic 'well-being' service which could address issues such as stress, nutrition, alcohol consumption and weight gain alongside smoking. This would ensure that interventions are tailored according to the needs of the individual and looking at their health holistically.

Currently Public Health departments located within PCTs have a tendency to separate the health improvement functions. Smoking cessation, obesity and alcohol intervention delivery functions are commissioned separately, with individual service specifications. However the proposed model encourages the integration of these functions as risky behaviours co-occur and are inter-related.

A health needs assessment questionnaire (HNQ) would be at the forefront of this proposed model. It is proposed when a referral is made in to the service a practitioner will assist the client to complete a health needs assessment questionnaire through a one to one. The questionnaire will be used to assess the client's health behaviours and will determine how particular health behaviours relate to one another, for example, is a smoker smoking due to fear of weight gain? Is an obese individual eating due to stress?. The questionnaire will also be used to evaluate the effectiveness of the interventions targeting multiple behaviours as methods are needed to quantify and report changes across several behaviours.

The health needs assessment questionnaire should encompass questions on the following behaviours at the very least:

- Smoking
- Alcohol consumption
- Eating
- Physical activity
- Stress

Not only should behaviour be measured but also treatment options should be explored. The clients should be empowered by letting them choose their preferred treatment.

### **7.2.3 Methods of Quantifying Change**

In a multi-behavioural intervention it is important to be able to quantify and report changes. However there is a lack of consensus in the field on how to examine change in multiple risk behaviours. Before the design of the HNQ, researchers and practitioners should be clear as to which method of quantifying change they want to use as that will impact on the questionnaire design. There are a number of methods that have been proposed. Due to the limitations of this study the different methods of quantifying change have not been tested for their effectiveness within the LMS model, however they are all discussed below:

### ***Report change in each behaviour individually***

Changes in multi-behavioural interventions could be analysed in each behaviour separately. The advantage of this method is that it allows for comparison per individual behaviour which will be easily understood by decision makers and has a long history in the field (Prochaska, Velicer, Nigg & Prochaska, 2008). The disadvantages of this approach are that it increases type 1 error due to multiple significance testing and it may also lead to difficulty in interpretation when comparing the different conditions if changes are significant for some behaviours and not others (Prochaska, Velicer, Nigg & Prochaska, 2008). Lastly this method of analysing does not indicate the overall effect of the intervention on behaviour change.

### ***Combined change scores***

A combined index of overall behaviour change can be beneficial for quantifying the overall effect of a multi-behavioural intervention. If the measures to be combined are on different scales then a statistical transformation will have to be done. The benefit of combined change scores is the use of a continuous outcome variable, which will provide greater statistical power. The disadvantage is that it may be difficult to interpret the results for the policy-makers as it may lack meaning in terms of health benefits.

### ***Create index of change***

A multiple behaviour change index reflecting the number of behaviours for which an individual has reached criterion and is no longer at risk could be used. Indices however require consensus of the “success” criteria for each of the targeted behaviours (e.g. 5

portions of fruit and vegetables, 4 week abstinence of cigarette use, 30 minutes of exercise at least 5 times a week). The advantage of this approach is that the results are fairly easy to interpret and allows for comparisons between single behaviour interventions using consensus definitions. The limitations of this approach are that it can be difficult to decide on the criteria for success for some behaviours and the method removes the scale of continuous measurement as only by reaching the criterion is the credit gained. The approach does not acknowledge progress along the behaviour change continuum.

### ***Overarching measure of change***

Measures such as quality of life, biometrics or cost outcomes (health care savings) may be used to quantify overall changes in multiple risks due to an intervention. The benefits of this approach are that the outcomes are correlated with the interest of policy makers and are easy to interpret. The disadvantage of this method is that it is less sensitive to change and/or it can take a longer time to achieve an effect.

### ***Goal setting tool***

The goal setting tool can be used to measure self set goals pre and post intervention to assess whether or not the goals have been achieved. The goals could either be fully achieved or partly achieved. An advantage of this method is that it is good at identifying individual level change and the success criterion is set by the patient/client themselves with the support of their consultant. The limitations of this model are that the data will be harder to quantify for the population and as the goals and success criteria are set by the

patient it will be difficult to collate the results across the population to conclude or examine an overall effect.

#### **7.2.4 Questionnaire Design**

Once a method for quantifying change has been selected the HNQ should be designed accordingly. After the initial design validity and reliability would need to be looked at.

##### ***Validity***

Validity concerns the degree to which a question measures what it was intended to measure (and not something else) (Field, 2009). Generally, there are three main types of validity related to the use of questionnaires: content, empirical, and concurrent validity.

***Content:*** Or sometimes known as face validity refers to whether a group of experts on the topic agree that the questionnaire items relate to what they are supposed to measure. If agreement is reached then the questionnaire has content or face validity. So in the case of the HNQ it might be beneficial to share the HNQ with experts in the Society of Behavioural Medicine specialist interest group of the development of multiple health behaviour change (MHBC). The group of researchers and practitioners in the group are at the forefront of MHBC research and development.

***Empirical:*** Or sometimes known as predictive validity is tested using a correlation coefficient that measures the relationship between the questionnaire

responses and other related behavioural characteristics or outcomes. So in this case the researcher can test the validity of the HNQ by comparing scores of lifestyle checks carried out by GP's.

**Concurrent:** This form of validity measures the degree to which a variable correlates with another measure, already validated, of the same variable. So for example the HNQ responses can be compared with the biometrics obtained by the practitioner to biologically test carbon monoxide levels for smokers and/or BMI etc. This will show whether or not the HNQ responses match to the biometrics test.

### ***Reliability***

Reliability concerns the consistency of a measure. That is, the tendency to obtain the same results if the measure was to be repeated by using the same subjects under the same conditions (Field, 2009).

There are two general approaches to establishing the reliability of a questionnaire. The first is to ask the question again in a different part of the questionnaire in the same or slightly altered way, but in such a way as to yield the same information. This is a consistency check, but does not take into account variations in day-to-day variations. A second and better approach, called Test-Retest, is to re-administer a questionnaire to the same group of people several days later and to compare the results that were obtained. A correlation coefficient that describes the strength of the relationship between responses at

two times of administration should be calculated. Kappa is always less than or equal to 1. A value of 1 implies perfect agreement and values less than 1 imply less than perfect agreement.

The analysis of trial data should also focus on producing frequency distributions of responses for each variable. Frequencies can be used to eliminate or modify questions that produce unusual response distributions. Questionnaire items in which the rate of non-response or of 'don't know' responses exceeds 5 percent of the sample should be examined. High rates are usually indicative of ambiguities that are still inherent in items or inadequacies in the response categories. If the problematic item is central to the study, then further developmental work might be needed. As changes are made, it is usually beneficial to trial test the questionnaire once again.

### ***Pretesting***

Upon the design of the questionnaire it is important that pre-testing takes place. There are many advantages of pre-testing. Pre-testing helps determine if the levels of measurement are appropriate for the selected variables. It helps determine the length of the questionnaire and provides additional training for interviewers and questionnaire administrators (Campanelli, 1997). The process of pre-testing has a number of goals. It helps with the reformulation or elimination of ambiguous or superfluous questions. It determines whether the questionnaire is balanced in its structure, and to discover whether instructions were correctly followed. However it should be ensured that the questionnaire has been validated and tested for reliability.

Once the HNQ is validated, been tested for reliability and pre-tested the next process would be to assist the client with completing the questionnaire. The questionnaire should



be completed by the patient/client however it is recommended that the practitioner/consultant is nearby so that if the patient/client is unsure or has any questions then they can be answered. After completion of the HNQ the next step is to analyse the questionnaire and discuss the findings with the client. Upon discussion of the results a goal setting exercise should be the next step.

### **7.2.5 Goal Setting**

The basis of the Goal Setting Tool comes from the Goal Setting Theory (Locke & Latham 1990), which looks at how goals can influence performance. The main premise of this theory is that people are influenced by setting goals. Goal setting can help to motivate or stimulate an individual into action. It is argued that setting a goal helps individuals to focus their activities onto particular targets. This focus on the exact goal means that individuals can adapt performance as needed to achieve their goals – for example, by trying harder at certain points because they know how far they need to travel to satisfy their objective.

However, the relationship is not as simple as “goal setting = performance”. There are many different ways in which goals can be framed and this can impact on the resultant level of performance. Locke’s research found that specific, clear goals which are realistically achievable are more effective than ambiguous and easy ones. An element of challenge is important in motivating an individual to try to achieve their goal. Without it, the activity can feel boring or tedious. While a degree of challenge is important, it is vital to ensure that goals are actually achievable – expectations that are too high are likely to de-motivate individuals from undertaking an activity.

Studies into goal setting theory also found that empowerment was important when setting goals. An individual is more likely to be motivated to work hard if they have set their own goals or been involved in their development (Locke & Latham 1990).

### ***Implementation Intentions***

Gollwitzer (1993) identified that behaviour has two components; the motivational phase (goal intention) and the volitional phase (implemental phase). The motivational phase is deciding the behaviour and the volitional is deciding how to enact the behaviour in a situational context (Sheeran, Webb & Gollwitzer, 2005). Thus the goal setting tool should not only deal with the motivational phase but it also needs to address the volitional stage. As Armitage and Conner (2001) concluded that the relationship between intention and behaviour taking place is a strong one standing at  $r=0.47$  but it does not explain the process by which an intention is turned into an action, as intention alone does not always lead to actual behaviour change (Sheeran and Silverman, 2003). For health goals, there seem to be two main categories of difficulty blocking the success of goal intentions: (1) failing to get started and (2) getting derailed once one has got started. Gollwitzer and Sheeran (2008) describe three common examples of each of these categories:

<b>Failing to get started</b>	<b>Getting derailed once started</b>
Forgetting to act	Giving in to temptations.
Not choosing a good opportunity	Slipping back into bad habits
Having second thoughts at a critical moment	Giving up when distressed or in a “bad mood”

Implementation intentions work by predicting which of these (or other) kinds of difficulties are likely to be important in any given case. This is the “*If situation Y is encountered ...*” first half of setting an effective implementation intention. The second half is constructing a “*... then I will initiate behaviour Z in order to reach goal X.*”

Implementation intentions forge a strong link between a pre-identified situation and a pre-prepared response. This encourages the response to be quick, effective and largely automatic. This “instant habit” aspect of implementation intentions both preserves energy and increases success. It contrasts with the mechanisms involved in the effortful remembering and repeated determination required for acts demanded by simpler goal intentions (Gallo, Keil, McCulloch, Rockstroh & Gollwitzer, 2009). Gollwitzer (1993) proposed that in order to move onto stage two, one must form implementation intentions, which is the planning of when and where the behaviour will take place. The effectiveness of the theory lies in the control being handed from the self to the environment, where one comes across the situational cue (such as time and place) that triggers the intended behaviour (Gollwitzer, 1993). Past studies have shown that people who use implementation intentions are more likely to attend breast cancer screenings (Prestwich et al., 2005) and watch and participate in exercise videos (Walsh, Soares da Fonseca & Banta, 2005) compared to the control groups. Moreover, implementation intention on its own cannot influence behaviour.

Implementation intention has to be preceded by goal intention (Gollwitzer, 1993). Therefore stage one of the goal setting tool should target goal intentions which is ***what the client wants to do within a certain time period*** followed by setting implementation

intention in order for behaviour change to take place. The implementation intention will act as an action plan referring in more detail as to when, where and how the action or intention would take place. To achieve complex goals, the client may need to perform various behaviours and so be faced with numerous self-regulatory problems. Thus in such a case it may be beneficial to form multiple implementation intentions or more than one 'if-then' plan (Gollwitzer, & Sheeran, 2008). However it needs to be ensured that the plans are precise, viable, instrumental and non-overlapping, only then the formation of multiple implementation intentions should prove helpful in promoting goal attainment (see Murgraff, White, & Phillips, 1997, for empirical example).

Before goals are set the consultant should discuss the results of the HNQ with the client. The questionnaire might have identified more than one risky behaviour, however the client might only want to target one behaviour and not the others or they might want to target all the behaviours.

### ***Co-Variation***

Not targeting all the risky behaviours at the same time might not be a negative, as research suggests that action on one behaviour increases the odds and the motivation to take effective action on a second behaviour (King, Marcus, Pinto, Emmons & Abrams, 1996). This phenomenon is called co-variation. Co-variation can take many forms. The first is when effective action on one treated behaviour increases the odds of effective action on a second treated behaviour. The second form is when treatment of target behaviour is accompanied by significant change in an untreated behaviour. The third

form is when full effective treatment on a single behaviour is accompanied by significant changes in other behaviours that received minimal treatment (Prochaska, 2008). So for example if the HNQ has found that client X has an unhealthy diet, is overweight and smokes, however the client does not want to stop smoking, then goals could be set on how to lose weight. Once client X has managed to lose weight he/she might become more confident and motivated to tackle their smoking behaviour. Success in one area can increase their self efficacy to tackle another risky behaviour such as quitting smoking.

### **Sequential or simultaneous treatments**

If client X wants to target their smoking, eating and stress which behaviour(s) should the individual try and change first or should the interventions be delivered together? Major questions remain unanswered about how best to accomplish multiple behaviour change; including whether to intervene simultaneously or sequentially. Opinions and hypotheses differ widely; evidence is limited and inconsistent and more research is needed to shed light on the method which is most effective.

Hyman, Pavlik, Taylor, Goodrick & Moye, (2007) found that simultaneous interventions were more effective for physical activity and diet, whereas Spring et al. (2004) demonstrated that sequentially targeting weight after smoking cessation may provide more benefit. There is evidence that mediators of behaviour change for different health behaviours may cluster more strongly than the behaviours themselves, indicating that a simultaneous approach may be advisable (Kremers, De Bruijn, Schaalma & Bruijn, 2004). A small number of studies have found support for the use of simultaneous interventions (Wilcox, Parra-Medina, Thompson-Robinson & Will, 2001; Calfas et al., 2002; Appel et

al., 2003; Kypri and McAnally, 2005). Alternatively there is the view that simultaneous interventions may be overwhelming for the client, too time demanding, may fail to address any single behaviour in sufficient depth and reduce intervention adherence (Prochaska and Sallis, 2004; Taylor et al., 2004; Persky et al., 2005). It is also argued that people differ in their 'readiness to change' for different behaviours and that health behaviours are 'domain specific' (Persky, Spring, Vander Wal, Pagoto & Hadeker, 2005); therefore sequential rather than simultaneous interventions appear to be more appropriate (Taylor et al., 2004). A small number of studies have found support for the use of sequential interventions (Wilcox et al., 2000; Spring et al., 2004; Prochaska and Sallis, 2004). However a disadvantage might be that if individuals are associating risky behaviours, such as smoking to lose weight then not targeting them simultaneously will defeat the purpose. To illustrate the point imagine if client X is asked to stop smoking first which will be followed by a weight loss programme this would increase the chance of relapse as the post-cessation weight gain will lead to client X smoking again. However, if they received both stop smoking and weight management treatments simultaneously then they would have the skills and knowledge to remain abstinent without fear of post-cessation weight gain.

It is suggested that the use of simultaneous or sequential interventions should be based on a case by case basis. Individuals in the LMS would want to target different risky behaviours and no one person will be the same. Hence the decision should be based upon the findings of the HNQ, the relationship between the risky behaviours and the goals set.

### **7.2.6 Summary**

The LMS not only targets smokers in a holistic way but it also recruits clients with other risky behaviours. The model can be tailored for any risky behaviour, of any combination and it also has the potential to recruit smokers to the service even if they do not want to quit smoking. As co-variation suggests, a smoker making a positive change in another area of their health will increase their motivation to quit smoking. The model also tackles another finding of the study, which was low self efficacy and low motivation levels.

## **7.3 Recommendations**

Let us assume that there is an intervention for smokers which has shown to be effective, however if the intervention is relatively unknown the target audience will not access it. Hence regardless of the effectiveness of the intervention, the service will not be used and most importantly will not help smokers who would like to quit. However if the service was marketed in a targeted way to raise awareness then more smokers would be more likely to use the service.

If we look at the opposite scenario so that the promotion was done effectively but the service itself was not targeted or tailored for smokers then yet again this would lead to reduced access and take up of stop smoking services, as the marketing will grab the smokers attention but the product would not appropriate Therefore both service development and marketing are as important as each other (Figure 12) and as practitioners, not just researchers, our focus should not solely be on developing

interventions. Indeed we also need to attract and call upon our target market to use the service that leads to the desired behaviour change.

<b>Intervention</b>	Good quality intervention + No/Non targeted marketing	Good quality Intervention + Targeted marketing
	Low quality intervention + No/non targeted marketing	Low quality intervention + Targeted marketing
	<b>Marketing</b>	

**Figure 12:** The Marketing and intervention mix of effective behaviour change

Based upon the need for addressing both intervention and marketing the recommendations are broken down into two categories; service and marketing.

### 7.3.1 Service

If we want to increase the number of people accessing stop smoking services then we have to offer them a service that they want and need. The following changes are recommended:

1. A **lifestyle modification programme** which integrates factors such as healthy eating, smoking cessation, exercise, stress management and alcohol advice should be developed. If people are reporting that they “rather be a smoker than be fat”



then they should be provided with advice and support on healthy eating and exercise alongside smoking cessation advice. This integrated programme will work best if it is tailored to all individuals according to their needs (discussed above in the clinical implications section).

2. There needs to be an **increase in service choice**. Smokers should be offered services such as; more one to ones, couple only sessions (as people want to quit with their partners and not in a group), trial sessions and social groups. The choice should also be extended to service opening times and the location of the services.
3. **Training** G.P's and midwives is important. As G.P's are the first point of advice for many people it should be ensured that the doctors are giving out the correct information in the correct manner. Their body language and their tone should be positive. It is recommended that midwives are trained in giving smoking cessation advice and provided with core skills so that they are confident in delivering the advice.

Each will now be discussed in more detail.

### **Service Choice**

Having one service for all was not an attractive offer for the participants. They wanted choice and services tailored according to their needs. Having tailored services and access would encourage more participants to attend the stop smoking service.

*“...everyone’s different. I work nights, so I would want one in the morning, whereas you’d want one in the evening, so obviously different time periods might help, where you might see people in the long-term groups. If you say it’s from 5-6, oh I aint gonna turn up” (P5 FG6)*

The first recommendation would be to have one freephone number for all health improvement services. This will ensure that firstly the people most in need of the services, especially from a low SES, are not worried about high telephone bills. This will remove a barrier in contacting the service. Secondly, having one number for all health improvement services will ensure that the local population do not have to memorise or seek 5-6 different numbers for the different services. Lastly, if there is only one number then this could become an opportunity to speak to people about other services on offer. So for example if person X calls to enquire about weight management services then the call handler can speak to the client and ascertain if there are a smoker, and if they are then they can be given information on the smoking cessation service. Furthermore, if the LMS is up and running then the number will show that the services are not running in silos but are truly integrated.

The present opening and service timings for the stop smoking service were not appreciated. Due to family responsibilities or work shift patterns many participants complained that it made it difficult for them to attend. They wanted a service that fitted around their need and not the other way round. They also wanted a service which is easily reached and local.

*“I suppose if it’s local and easily accessible for everyone after work then yeah I’d fine it easier to go, I don’t have to take days off work to go. It would have to be at a weekend or something, to cater for everyone’s lifestyle.” (P5 FG6)*

Based upon the above the second recommendation will be the extension of opening hours. The service at the time of the study was operating Monday to Friday, 9am to 5pm. However, most people within the study complained about the difficulty in accessing the services at these allocated times. A large number of the participants worked during these hours, hence if services and the telephone helpline operated outside of these hours then more people will have the opportunity to call and access them. It is recommended that the services remain open between 9am to 8pm Monday to Friday and to trial opening on Saturdays.

Participants were interested in different services, whereas some were more in favour of one to one sessions others were keener on social groups quitting together.

*“One-to-one in any form of tuition or meetings is more intense, you’d get through a lot more one-to-one in 6 or 7 weeks, and what you’d talk about as you cut down, you’re probably 2 or 3 weeks, rather than in a group discussion everyone putting their points across” (P4 FG6)*

*“If they did something like, say we went round (name) house one weekend and the next weekend we went round mine, and did it like that, go round peoples houses that you know, then I’d do it I think...because it feels like then you’ve got a group” (P3 FG1)*

*“They can bring their kids as well because you’re gonna have your kids there...you have not got to worry about the kids as well.” (P4 FGI)*

Therefore, the third recommendation is to offer a number of different treatment options and settings in each of the health strands. The participants discussed their interest in 1:1 sessions with practitioners or to have a social group session. Others spoke about couple only and trial sessions. Different services and formats appeal to different people. Hence it should be ensured that a variety of formats are being offered. This will lead to tailoring the service for a large proportion of the local community and will increase the likelihood of smokers accessing the service.

The fourth recommendation is that the silo health improvement teams should become one. If the LMS model it to succeed then all members of staff should feel responsibility for different areas of health and well-being as currently each team (for e.g. tobacco, obesity etc) is based in different locations and do not communicate with one another. Being part of the same holistic team will allow the staff to refer clients to other services within their department as they will have joint targets.

### **Training GPs and Midwives**

Participants spoke about the lack of support they received from their HCP’s. Participant 5 in focus group 3 stated *“they (GP) don’t offer you any help to stop, they just say you need to give up and that’s it”* whereas a pregnant smoker (Participant 2- focus group 1) stated that *“My midwife told me that it’s actually more stressful for the baby trying to give up*

*smoking in pregnancy – it's better if you can cut down*". Therefore, midwives providing incorrect information and GPs obvious discomfort to discuss smoking are key areas that will benefit from further training.

Smoking cessation training for practitioners is updated every year. Hence the HCP see their trainer at least once a year to update their previous learning. This is a great opportunity for the Stop Smoking Service to provide on-going targeted support. Research has suggested that changing the style of training can increase the success rates. For example training midwives by using extensive role plays increases rather than textual based learning in one study increased the referral rate by tenfold (Lowry et al., 2003). Hence it is paramount that the current training for midwives provides them with real practical skills in how to provide advice to pregnant smokers. Yet another barrier for midwives in providing advice is the lack of time (Hammond, McDonald, Fong & Borland, 2004). If this becomes a large problem then it might be worthwhile to consider an automatic referral. This process will consist of every midwife carrying out a carbon monoxide reading on the first appointment when seeing a pregnant woman, and if the reading score reveals that the lady is a smoker then she should automatically be referred to the stop smoking service. This will ensure that the midwife is not providing the brief intervention hence saving time and it also means that all pregnant smokers have the opportunity to speak to specialist staff. Alternatively GPs should be provided training on non verbal behaviour, as this an area of great concern for many participants of the study. The training should be tailored to different healthcare professionals and the training

should emphasise that GP's and midwives at the very least should act as good salespeople for the stop smoking service.

### **7.3.2 Marketing**

It is vital that we market services to our target population effectively. The following changes are recommended:

1. **Brand** the health improvement services so that they become appealing, build a connection and increase loyalty amongst the local population.
2. Marketing **campaigns** need to be **targeted** according to segmentation of the local smoking population. It is important that the marketing strikes a chord and that the population themselves are involved in the design of the campaign.

Both will now be discussed further.

#### **Branding**

At the time of the study the Stop Smoking Services were marketing themselves as South West Essex Primary Care Trust Stop Smoking Service. Participants thought the name was very long, forgettable and not very appealing. Additionally, the PCT logo was being used as a form of branding; however no two adverts looked the same or had any consistency between them. Therefore, even though a large amount of money was being spent on advertisement the participants were unable to recall any marketing activity. Yet,

they were very quick to recall NRT promotions for Tesco's and Boots. The participants also were not keen on NHS styled adverts. Due to negative associations between stop smoking advice and NHS healthcare professionals the participants disliked the NHS brand for lifestyle services.

Due to the above reasons it is recommended that a new brand is developed for the integrated health improvement service. This will strengthen the LMS as all the services will become part of the same brand. Branding is the most advanced emotional tool. It combines and reinforces the functional and emotional benefits of the offering, and so it adds value, encourages access and loyalty. A brand can act as a guarantee of quality. Over time brands become a fast and powerful way of confirming the synergy between the service and customer. Evidence also suggests that branding may be effective in reaching people from deprived communities. Durgee (1986) found that people from a low SES are often poorly informed about the objective merits of different products and therefore they tend to rely more heavily than other groups on implicit meanings such as context, price and image to judge products. A more recent review carried out on behalf of NICE also suggests that brands can be an effective way of reaching information-deprived communities (Stead, McDermott, Angus & Hatsings, 2006). This further confirms the need for a more appealing healthy lifestyle brand within south west Essex.

Rather than having a single brand for smoking cessation the idea of an umbrella brand should be adopted. Umbrella branding, the practice of labelling more than one product with a single brand name, is common practice among multiproduct firms in a variety of markets. The most popular example is Virgin. As Richard Branson, founder of Virgin,

puts it, “consumers understand that all the values that apply to one product – good service, style, quality, value and fair dealing – apply to others” (Time Magazine, June 24, 1996, cited by Andersson, 2002). The main reason as to why umbrella branding works is due to the consumer making inferences from the characteristics observed in one product to the characteristics of others. Most importantly, consumers can draw inferences from experience about the quality of a product sold under the same umbrella brand. In the case of the integrated lifestyle services, if client X has a good experience of a stress management service that he/she has accessed they are then more likely to think positively of other services offered under the umbrella brand, hence increasing the chance of access in to other services.

The new umbrella brand should encompass smoking cessation, exercise, nutrition, alcohol, stress management services at the very least. It should be ensured that the brand is commercial looking, positive and sends a message of holistic health and well-being and that the NHS branding is not prominent within the brand or any future campaigns. Once branding has been developed it should be market tested with local staff and the population to see if it is effective, attractive and liked.

### **Targeted Campaign**

We are all unique; we all have different experiences and live in varied circumstances. We also have diverse needs, because marketing is about meeting these needs as well as possible, the ideal marketing scenario would be to have a bespoke service for each and every one of us. This clearly is impractical and this level of customisation is difficult.



Therefore dividing a population into reasonably homogenous segments and then choosing particular target groups to approach with a service or offering that better matches their needs is a better option than designing something for the population as a whole. There are a number of ways that segmentation can occur:

***Personal characteristics:*** demographics, psychographic and geographic

***Past behaviour:*** previous purchasing, proximity to the desired behaviour

***Benefits sought:*** why people do as they do at present, how the motives vary

Once the segmentation variable is chosen the next stage is to decide which segments will be targeted. Three key principles should help the decision. Firstly the target should be big enough to warrant attention. Secondly the group(s) should be accessible. Thirdly the target should be responsive, as there is no point in having a large and accessible target if there is nothing to offer them or if they are likely to be impervious to any initiatives (Hatings, 2007).

The segmentation for this study has been carried out. Targeting is based on two segmentation variables: geographic and demographic.

**Geographic:** the focus was on areas of low socio-economic status within South West Essex, as these are the areas that tend to have the highest smoking rates. Geography is thus a significant factor in identifying communities with significant health and support needs.

**Demographic:** the research phase aimed to understand gender-related and age-related differences, by conducting focus groups with men under 30 years and over 31 years; and

women under 30 years and over 31 years. A pregnant women segment was also identified.

Differences were identified in relation to the types of messaging that would appeal to these different audience segments (Table 5):

<b>Men 31+</b>	<b>Women 31+</b>	<b>Men Under 30</b>	<b>Women Under 30</b>	<b>Pregnant Women</b>
<b>Features wanted in adverts</b>				
Mention impotence	Emotive adverts	Straight to the point	Bold and graphical	Emotive adverts
Mention male issues	With children	Softly-softly approach	Love-hate relationship with cigarette	With children
Softer adverts	Include helpline	Gentle in message	Mention financial gain	Factual based information
Not graphical	e.g. smoke coming out of child's mouth	Call to immediate action	Affect on skin, teeth and nails	Case studies
<b>Mediums &amp; location of adverts</b>				
Local football clubs	Town centres	Bus shelters	Bus shelters	Billboards on route to school
Pubs	Centrally located large billboards	Pubs	Town centre	Town centres
Local newspapers	Local newspaper	Local newspapers	Local newspapers	Local newspaper-women section

Train stations	local shops	Train stations	Local shops	Material given to their children at school- as they will read it
	Supermarkets	Local shopping centres	Supermarkets	

**Table 5:** Focus group breakdown of the type of adverts required and the mediums/locations of the adverts

Even though it is recommended that there should be one positive umbrella identity for a range of health improvement services, several targeted off-shoots of this brand should be created based upon the above segments. Tailored campaign materials should be produced that reflect the behaviour and requirements for each segment.

## 7.4 Limitations of the Study and Future Research

The first limitation of the study was using abbreviated grounded theory as an analysis methodology rather than the full grounded theory. Due to time and budget constraints theoretical sampling was not practicable. Given the rich data obtained from the focus groups it would have been beneficial to explore certain themes further to reach saturation point. Nevertheless abbreviated grounded theory is now being used more often within psychology research studies (Madell & Muncer, 2007; Yurdakul, Holttum, and Bowden, 2009), this will only enhance the methodology and give it more credibility within the research world. Secondly the number of participants used in the study consisted of a lower number. It would have been interesting to see whether having more than one focus

group per inclusion criteria would have exposed any further themes or differences. The only group to have two focus groups were the pregnant women; this allowed analysis from one group of pregnant women to be compared to the other. Lastly, it would have been valuable to have incorporated a scale to assess nicotine dependency in the participants as this would have enabled the researcher to see whether there were any similarities or differences between low and heavy dependents.

The above recommendations based upon the limitations should be used to conduct similar research in the future. However to strengthen this work further it would be useful to explore the views of healthcare professionals in the stop smoking service. Much research has been carried out to explore the barriers that healthcare professionals such as GP's and midwives face in promoting smoking cessation however not much research if any at all has been carried out to explore the views of stop smoking service staff. Secondly, differences in behaviour and preferences were found amongst the different groups of participants within the study. It would have been interesting to have further divided the participants into 3-4 age categories (e.g. 18-25, 26-35, 36-50 and 50+) rather than having only two broad age categories (under 30, over 31). This would have enabled observations of differences or similarities occurring across the different age groups. Lastly, the LMS model of treatment should be tested according to the steps provided within this chapter to evaluate the effectiveness of the model to assist smokers in quitting cigarettes. The model can further be tested in different groups of people such as from the deprived communities, ethnic minorities, younger smokers, routine and manual smokers and pregnant smokers.

## 7.5 Conclusion

The NHS Stop Smoking Service in the last financial year alone has helped 757, 537 to set a quit date through its services. From which 373, 954 had quit for a minimum of 4 weeks (Statistics on NHS Stop Smoking Services, 2010). The success rate for the service comes in at 49%, hence nearly half of all smokers that set a quit date, had quit. However the number of smokers in the UK is over 8 million (Robinson & Bulger, 2010) thus the national stop smoking service needs to go further to attract more smokers in to the service, especially from the deprived communities. New treatment models such as the Lifestyle Modification Service model should be piloted across different population groups.

The qualitative study has identified the barriers that smokers from a low socioeconomic background face in trying to quit smoking and ways of overcoming the barriers. The findings expressed a need to for multiple health behaviour change in the smoking population and this should be explored further, as 92% of smokers exhibit at least one additional risky behaviour (Fine et al, 2004; Pronk et al., 2004). The current study found that smoking behaviour was most often inter-related with other risky behaviours, therefore targeting only the smoking element, which is what the current stop smoking services do, is non-beneficial. Instead it would be better to target all the elements of their risky behaviours. This would lead to a targeted service for the smoker, something they complain that they currently do not have. This also has the potential to decrease relapse in smokers, because you are not only targeting their smoking but are treating them as a whole complex being with inter-related behaviours.

A multiple health behaviour change model is not only shown promise for its effectiveness but it has also proven to be cost effective (Edington, 2001). Now with the growing evidence being presented for multiple health behaviour interventions the challenge for researchers is to make them less demanding on patients and the providers of the service and to keep testing different elements such as questionnaire design, quantifying change and sequential/simultaneous interventions to achieve the highest success rate. Due to the literature within the area of multiple health behaviour change being quite recent there is a lack of proposed and tested models that have shown effectiveness, however within this research a LMS model has been presented. The LMS not only targets smokers in a holistic way but it also recruits clients with other risky behaviours. The model can be tailored for any risky behaviour, of any combination and it also has the potential to recruit smokers to the service even if they do not want to quit smoking. As co-variation suggests, a smoker making a positive change in another area of their health will increase their motivation to quit smoking. The model also tackles another finding of the study, which was low self efficacy, low motivation levels and most importantly it is a tailored approach.

The model needs to be tested and questions such as which methods should be used for quantifying change and whether to use sequential or simultaneous treatments still need to be answered. Nevertheless the LMS provides a step forward in the research area of multiple health behaviour change and smoking cessation.

Health psychology also needs to embrace the use of branding, segmentation and targeted marketing if it wants to succeed in delivering interventions on a large scale. This will only further strengthen the work carried out by health psychologists especially within the public health sector.

## References

- Aaker, D. (1996). *Building Strong Brands*. New York: Simon & Schuster
- Abbot, N. C., Stead, L. F., White, A. R., Barnes, J. (1998). Hypnotherapy for smoking cessation. *Cochrane Database of Systematic Reviews*, Issue 2. Art. No.: CD001008. DOI: 10.1002/14651858.CD001008
- Actions on smoking and health (Nov, 2005). <http://www.ash.org.uk>. Accessed on 15/04/06
- Adler, N. E., Boyce, T., Chesney, M. A., Cohen, S., Folkman, S., Kahn, R. L. & Syme, S. L. (1994). Socioeconomic status and health: the challenges of the gradient. *American Psychologist*. 49:15-24.
- Ambady, N., LaPlante, D., Nguyen, T., Rosenthal, Chaumeton, N. & Levinson W. (2002). Surgeons' tone of voice: a clue to malpractice history. *Surgery*; 132:5–9
- Andersson, F. (2002). Pooling reputations. *International Journal of Industrial Organization*; 20 (5): 715–730
- Appel, L. J., Champagne, C. M., Harsha, D. W., Cooper, L. S., Obarzanek, E., Elmer, P. J., Stevens, V. J., Vollmer, W. M., Lin, P. H., Svetkey, L. P., Stedman, S. W., & Young, D. R. (2003). Effects of comprehensive lifestyle modification on blood pressure — control main results of the PREMIER clinical trial. *Journal of the American Medical Association*; 289: 2083–2093
- Armitage, C. J. & Conner, M. (2001). Efficacy of the Theory of Planned Behaviour: A meta-analytic review. *British journal of Social Psychology*; 40: 471-499
- Asbury, L. D., Wong, F. L., Price, S. M. & Nolin, M. J. (2008). The VERB campaign: Applying a branding strategy to public health. *American Journal of Preventive Medicine*; 36(6): 183-187
- Ashton, H. & Stepney, R. (1982). *Smoking: psychology and pharmacology*. Tavistock Publications: London.
- Baer, J. S. & Lichtenstein, E. (1988). Classification and prediction of smoking relapse episodes: An exploration of individual differences. *Journal of Consulting and Clinical Psychology*; 56:104–110.
- Baker, T. B., Piper, M. E., McCarthy, D. E., Majeskie, M. R., & Fiore, M. C. (2004). Addiction motivation reformulated: An affective processing model of negative reinforcement. *Psychological Review*; 111: 35– 51.
- Bandura A. (1986). *Social foundations of thought and action: a social cognitive theory*. Englewood Cliffs, NJ, USA: Prentice- Hall



Bansal, M. A., Cummings, K. M., Hyland, A., & Giovino, G. A. (2004). Stop-smoking medications: Who uses them, who misuses them, and who is misinformed about them? *Nicotine and Tobacco Research*; 6: S303–S310.

Bayer, R. & Stuber, J. (2006). Tobacco Control, Stigma, and Public Health: Rethinking the Relations. *American Journal of Public Health*; 96: 1, 47-5

Bensing, J. M., Kerssens, J. J. & van der Pasch, M. (2005). Patient-directed gaze as a tool for discovering and handling psychosocial problems in general practice. *Journal of Nonverbal Behaviour*; 19:223–42.

Ben-Tovim, D. I. & Walker, M. K. (1999A). Some body-related attitudes in women smokers and non smokers. *British Journal of Addictions*; 86: 1129-1131

Benwell, M., Balfour, D. & Anderson, J. (1988). Evidence that tobacco smoking increases the density of (-)[3H]nicotine binding sites in human brain. *Journal of Neurochemistry*; 50: 1243-1247

Borrelli, B., & Mermelstein, R. (1998). The role of weight concern and self-efficacy in smoking cessation and weight gain among smokers in a clinic-based cessation program. *Addictive Behaviours*; 23(5): 609–622.

Brauer, L. H., Hatsukami, D., Hanson, K., & Shiffman, S. (1996). Smoking topography in tobacco chippers and dependent smokers. *Addictive Behaviours*; 21(2): 233-8.

Breese, C. R., Marks M. J., Logel, J., Adams, C. E., Sullivan, B., Collins, A. C. & Leonard, S. (1997). Effect of smoking history on [3H]nicotine binding in human postmortem brain. *Journal of Pharmacology and Experimental Therapeutics*; 282: 7-13

Caggiula, A.R., Donny, E. C., Palmatier, M. I., Liu, X., Chaudhri, N. & Sved, A. F. (2009). The role of nicotine in smoking: a dual-reinforcement model. *Nebraska Symposium on Motivation*; 55: 91-109

Cahill, K., Stead, L. F. & Lancaster, T. (2007). Nicotine receptor partial agonists for smoking cessation. *Cochrane Database Systematic Reviews*; Issue 3. Art. No.: CD006103. DOI: 10.1002/14651858.CD006103.pub3

Calfas, K. J., Sallis, J. F., Zabinski, M. F., Wilfley, D. E., Rupp, J., Prochaska, J. J., Thompson, S., Pratt, M., & Patrick, K. (2002). Preliminary evaluation of a multi-component program for nutrition and physical activity change in primary care: PACE+ for adults. *Preventive Medicine*; 34: 153–161.

Campanelli, P. (1997). Testing survey questions: New directions in cognitive interviewing. *Bulletin de Methodologie Sociologique*; 55: 5-17.

- Carpenter, M. J., Hughes, J. R. & Solomon, U. (2005). Smoking reduction with nicotine replacement and motivational advice reduced smoking in people unmotivated to quit. *Evidence-Based Medicine*; 10: 18
- Carmody, T. P., Brishchetter, C. S. & Matarazzo, J. D. (1985). Co-occurrent use of cigarettes, alcohol and coffee in healthy community living men and women. *Health Psychology*; 4:323–335
- Chandola, T., Head, J., & Bartley, M. (2004). Socio-demographic predictors of quitting smoking: How important are household factors? *Addiction*; 99: 770–777.
- Charlton, A. (1984). Smoking and weight control in teenagers. *Public Health*; 98: 366–380
- Charmaz, M. Grounded Theory. In: Smith, J. (2003) *Qualitative Psychology: A Practical Guide to Research Methods* (pp. 81-109). London: Sage
- Chartrand, T.L. & Bargh, J.A. (1999). The chameleon effect: the perception behaviour link and social interaction. *Journal of Personality and Social Psychology*; 76: 893–910.
- Chen, E., Martin, A. D. & Matthews, K. A. (2006). Socioeconomic status and health: Do gradients differ within childhood and adolescence? *Social Science & Medicine*; 62 (9): 2161-2170
- Clark, M. M., Decker, P. A., Offord, K. P., Patten, C. A., Vickers, K. S., Croghan, I. T., et al. (2004). Weight concerns among male smokers. *Addictive Behaviours*; 29(8): 1637-1641
- Clark, M. M., Hurt, R. D., Croghan, I. T., Patten, C. A., Novotny, P., Sloan, J. A., et al. (2006). The prevalence of weight concerns in a smoking abstinence clinical trial. *Addictive Behaviors*; 31(7): 1144-1152.
- Clark, M. A., Kviz, F. J., Prohaska, T. R., Crittenden, K. S. &Warnecke, R. B. (1995). Readiness of older adults to stop smoking in a televised intervention. *Journal of Aging and Health*; 7: 119-138.
- Cohen, S., Kessler, R. C., & Underwood, G. L., (1995). *Measuring Stress: A Guide for Health and Social Scientists*. New York, NY: Oxford University Press
- Cohen, S. & McKay, G. (1984). Social support, stress, and the buffering hypothesis: A theoretical analysis. In A. Baum, S. E. Taylor, & J. E. Singer (Eds.), *Handbook of psychology and health: Vol. 4. Social psychological aspects of health* (pp. 253-267). Hillsdale, NJ: Lawrence Erlbaum.

Coe, J. W., Brooks, P. R., Vetelino, M. G., Wirtz, M. C., Arnold, E. P., Huang, J., Sands, S. B., Davis, T. I., Lebel, L. A., Fox, C. B., et al. (2005) Varenicline: an  $\alpha 4\beta 2$  nicotinic receptor partial agonist for smoking cessation. *Journal of Medical Chemistry*; 48: 3474–3477

Coppotelli, H. C., & Orleans, C. T. (1985). Partner support and other determinants of smoking cessation maintenance among women. *Journal of Consulting and Clinical Psychology*; 4: 455-460.

Cummings, K. M., Hyland, A., Giovino, G. A., Hastrup, J. L., Bauer, J. E., & Bansal, M. A. (2004). Are smokers adequately informed about the health risks of smoking and medicinal nicotine? *Nicotine and Tobacco Research*; 6: S333–S340.

Daughton, D. M., Fortmann, S. P., Glover, E. D., Hatsukami, D. K., Heatley, S. A., Lichtenstein, E., Repsher, L., Millatmal, T., Killen, J. D., Nowak, R. T., Ullrich, F., Patil, K. D. & Rennard, S. I. (1999). The smoking cessation efficacy of varying doses of nicotine patch delivery systems 4 to 5 years post-quit day. *Preventive Medicine*, 28, 113–118.

Davis, M. and Reeves, P. (2006). The radiographer's role in child protection: comparison of radiographers perceptions by use of focus groups. *Radiography*; 12:161-168

Davison, C. (1989). Eggs and the sceptical eater. *New Scientist*; (11 March): 45-49

Department of Health. (1998). *Smoking kills: A White Paper on tobacco*. London: The Stationary Office.

Department of Health. (2001). *NHS Smoking cessation services: Service and monitoring guidance. 2001/02*. Issued 11 April 2001. London: Department of Health.

Department of Health. (2007). *Presentation on tobacco smuggling*.  
<http://www.freshne.com/content/editor/File/Smuggling%20Summit/Anne%20Grosskurth%20final%20version.ppt>

Department of Health. (2009). *Ask, Advise, Act*. The Smokefree resource centre. London

Department of Health (2010), *A Smokefree future; A Comprehensive tobacco control strategy for England*. London: HMSO

DeSantis, A. (2002). Smoke screen: an ethnographic study on cigar shop's collective rationalization. *Health Communication*; 14(2): 167-198.

Dijkstra, A., & De Vries, H. (2000). Self-efficacy expectations with regard to different tasks in smoking cessation. *Psychology & Health*; 15(4): 501-511.

Durgee, J. F. (1986). How consumer sub-cultures code reality: a look at the same cose types. *Advances in Consumer Research*; 13: 332-337

- Edington, D.W. (2001). Emerging research: a view from one research center. *American Journal of Health Promotion*; 15: 341-349
- Ellingstad, T. P., Sobell, L. C., Sobell, M. B., Cleland, P. A. & Agrawal, S. (1999). Alcohol abusers who want to quit smoking: Implications for clinical treatment. *Drug and Alcohol Dependence*; 54:259–264
- Endler, N.S. & Kocovski, N. L. (2001). State and trait anxiety revisited. *Journal of Anxiety Disorder*;15:231–245.
- Festinger, L. (1957). *A Theory of Cognitive Dissonance*. Stanford, CA: Stanford University Press.
- Fine, L. J., Philogene, G. S., Gramling, R., Coups, E. J. & Sinha, S. (2004). Prevalence of multiple chronic disease risk factors. 2001 National Health Interview Survey. *American Journal of Preventative Medicine*; 27: 18–24.
- Finkelstein, D. M, Kubzansky, L. D. & Goodman, E. J. (2006). Social status, stress, and adolescent smoking. *Adolescent Health*; 39(5):678-85.
- Fiore, M. C., Jaén, C. R., Baker, T. B., Bailey, W. C., Benowitz, N. L., Curry, S. J., et al. (2008). Treating tobacco use and dependence: *Update. Public Health Service*.
- Franz, G. A. (2008). Price effects on the smoking behaviour of adult age groups. *Public Health*; 122: 1343-1348
- Frederick, S. L., Hall, S. M., Humfleet, G. L., & Munoz, R. F. (1996). Sex differences in the relation of mood to weight gain after quitting smoking. *Experimental and Clinical Psychopharmacology*; 4(2):178–185.
- Gallo, I. S., Keil, A., McCulloch, K. C., Rockstroh, B. & Gollwitzer, P. M. (2009). Strategic automation of emotion regulation. *Journal of Personality and Social Psychology*; 96(1): 11-31
- Gariti, P., Levin, S., Whittingham, T, Barou, D., Kampman, K.M., Lynch, K., Halbert, C.H., & Alterman, A. (2008). Why do those who request smoking treatment fail to attend the first appointment? *Journal of Substance Abuse Treatment*; 35(1):62-67.
- Gelkopf, M., Levitt, S., & Bleich, A. (2002). An integration of three approaches to addiction and Methadone maintenance treatment: The self-medication hypothesis, the disease model and social criticism: *Israel Journal of Psychiatry and Related Sciences*; 39(2): 140-151
- Gilbert, D. G. & Welser, R. (1989). *Emotion, anxiety and smoking*. In *Smoking and human behaviour* (eds. T. Ney & A. Gale), 171-96. John Wiley: Chichester.

- Gillies, V. (1999). An analysis of the discursive positions of women smokers. In Willig, C. (ed) *Applied Discourse Analysis*. Open University Press, Buckingham, pp. 66-86
- Glautier, S., Clements, K., White, J. A., Taylor, C. & Stolerman, I. P. (1996). Alcohol and the reward value of cigarette smoking. *Behavioural Pharmacology*; 7:144–154
- Golding, J., Pembrey, M. & Jones, R. (2001). ALSPAC--the Avon Longitudinal Study of Parents and Children. I. Study methodology. *Paediatric and Perinatal Epidemiology*; 15(1): 74087
- Gollwitzer, P. M. (1993). Goal achievement: The role of intentions. *European Review of Social Psychology*; 4: 141–185
- Gollwitzer, P. M. & Sheeran, P. (2006). Implementation intentions and goal achievement: A meta-analysis of effects and processes. *Advances in Experimental Social Psychology*; 38: 69-119.
- Gollwitzer, P. M. & Sheeran, P. (2008). *Implementation intentions. Health behavior constructs: Theory, measurement and research*. Cancer control and population sciences. National Institutes of Health: National Cancer Institute.
- Gottlieb, N. & Green, L. (1987). Ethnicity and lifestyle health risk: Some possible mechanisms. *American Journal of Health Promotion*; 2(1): 37–51.
- Graham, H. (2004). Socioeconomic inequalities in health in the UK: Evidence on patterns and determinants. A short report for the Disability Rights Commission. [www.drc-gb.org/newsroom/easyreaddownloads/socioeconomic\\_inequalities.doc](http://www.drc-gb.org/newsroom/easyreaddownloads/socioeconomic_inequalities.doc). Accessed on 20/4/10
- Grangé, G., Vayssière, C., Borgne, A., Ouazana, A., L'Huillier, J. P., Valensi, P., Peiffer, G., Aubin, H. J., Renon, D., Thomas, D. & Lebargy, F. (2006). Characteristics of tobacco withdrawal in pregnant women. *European Journal of Obstetrics, Gynecology and Reproductive Biology*; 125(1):38-43
- Gulliver, S.B., Rohsenow, D.J., Colby, S. M., Dey, A. N., Abrams, D. B., Miaura, R. S. & Monti, P. M. (1995). Interrelationship of smoking and alcohol dependence. *Journal of Studies on Alcohol*; 56:202–206
- Haaga, D. A. F. & Stewart, B.L. (1992). Self-efficacy for recovery from a lapse after smoking cessation. *Journal of Consulting and Clinical Psychology*; 60:24–28.
- Hall, J. A., Harrigan, J. A. & Rosenthal, R. (1995). Nonverbal behaviour in clinician patient interaction. *Applied and Preventative Psychology*; 4:21–37.
- Hall, S. M., Humfleet, G. L., Reus, V. I., Munoz, R. F., Hartz, D. T. & Maude-Griffin, R. (2002). Psychological intervention and antidepressant treatment in smoking cessation. *Archives of General Psychiatry*; 59: 930–936.

- Hammond, D., McDonald, P. W., Fong, G. T., & Borland, R. (2004). Do smokers know how to quit? Knowledge and perceived effectiveness of cessation assistance as predictors of cessation behaviour. *Addiction*; 99: 1042–1048
- Harakeh, Z., Engels, R. C. M. E., Van Baaren, R. B., & Scholte, R. H. J. (2007). Imitation of cigarette smoking: An experimental study on smoking in a naturalistic setting. *Drugs and Alcohol Dependence*; 86:199-206
- Haslam, C. & Draper, E. S. (2001). A qualitative study of smoking during pregnancy. *Psychology, Health and Medicine*; 6(1): 95-99
- Hatsukami, D. K., Hughes, J. R., Pickens, R. W., & Svikis, D. (1984). Tobacco withdrawal symptoms: an experimental analysis. *Psychopharmacology*; 84(2): 231-6.
- Hatsukami, D. K., LaBounty, L., Hughes, J. & Laine, D. (1993). Effects of tobacco abstinence on food intake among cigarette smokers. *Health Psychology*; 12: 499–502.
- Hays, J. T. & Ebbert, J. O. (2003). Bupropion for the treatment of tobacco dependence: guidelines for balancing risks and benefits. *CNS Drugs*; 17 (2): 71-83
- Hays, J. T., Hurt, R. D., Rigotti, N. A., Niaura, R., Gonzales, D., Durcan, M. J., Sachs, D. P., Wolter, T. D., Buist, A. S., Johnston, J. A. & White, J. D. (2001). Sustained-Release Bupropion for Pharmacologic Relapse Prevention after Smoking Cessation. A Randomized, Controlled Trial. *Annals Internal Medicine*; 135(6): 423-433
- Heimstra, N. W. (1973). *The effects of smoking on mood change. In Smoking behaviour. - motives and incentives* (ed. W. L. Dunn), 197-207. Winston: Washington.
- Henningfield, J. E., Chait, L. D., Griffiths, R. R. (1984). Effects of ethanol on cigarette smoking volunteers without histories of alcoholism. *Psychopharmacology*; 82:1–5
- Henningfield, J. E., Fant, R. V., Gitchell, J., & Shiffman, S. (2000). Tobacco dependence. Global public health potential for new medications development and indications. *Annals of the New York Academy of Sciences*; 909: 247-56
- Hines, D. (1996) Young smokers' attitudes about methods for quitting smoking: barriers and benefits to using assisted methods. *Addictive Behaviors*; 21(4):531-535
- HM Revenue and Customs/HM Treasury. (2006). *New responses to new challenges: Reinforcing the Tackling Tobacco Smuggling Strategy*. [www.hm-treasury.gov.uk/media/7/7/bud06\\_tobacco\\_273.pdf](http://www.hm-treasury.gov.uk/media/7/7/bud06_tobacco_273.pdf)
- Hughes, J. R., Gust, S. W. & Pechacek, T. F. (1987). Prevalence of tobacco dependence and withdrawal. *American Journal of Psychiatry*; 144(2): 205-8.

Hughes, J. R., Goldsteiri, M. G., Hurt, R. D. & Shiffman, S. (1999a). Recent advances in the pharmacotherapy of smoking. *The Journal of Medical Association*; 281(1): 72-76

Hughes, J. R., Hatsukami, D. K., Pickems, R. W., Krahn, D., Malin, S., & Liknic, A. (1984). Effect of nicotine on the tobacco withdrawal syndrome. *Psychopharmacology*; 83: 82– 87.

Hughes, J. R., Higgins, S. T., & Hatsukami, D. K. (1990). *Effects of abstinence from tobacco: A critical review*. In L. T. Kozlowski, H. Annis, H. D. Cappell, F. Glaser, M. Goodstasdt, Y. Israel, H. Kalant, E. M. Sellers, & J. Vingillis. *Research advances in alcohol and drug problems*, vol. 10. (pp. 317– 398). New York7 Plenum Press.

Hughes, J. R., Lesmes, G. R, Hatsukami, D. K, Richmond, R. L, Lichtenstein, E, Jormby, D. E, Broughton, J. O, Fortmann, S. P., Leischow, S. J., McKenna, J. P, Rennard., S . L, Wadland, W.C., & Heatley, S. A. (1999b). Are higher doses of nicotine replacement, more effective for smoking cessation? *Nicotine Tobacco Research*; 1(2), 169-74.

Hughes, J.R., Marcy, T.W. & Naud, S. (2009). Interest in treatments to stop smoking. *Journal of Substance Abuse Treatment*; 36:18–24

Hurt, R. D., Sachs, D. P. L. & Glover, E. D., Offord, K. P., Johnston, J. A., Dale, L. C., Khayralla, M. A., Schroeder, D. R., Glover, P. N., Sullivan, R., Croghan, I. T. & Sullivan, P. M. (1997). A comparison of sustained-release bupropion and placebo for smoking cessation. *New England Journal of Medicine*; 337:1195-1202

Hyman, D. J., Pavlik, V. N., Taylor, W. C., Goodrick, G. K. & Moye L. (2007). Simultaneous vs sequential counseling for multiple behavior change. *Archives of Internal Medicine*;167:1152–1158

Istvan, J., & Matarazzo, J. D. (1984). Tobacco, alcohol, and caffeine use: A review of their interrelationships. *Psychological Bulletin*; 95:301–326

Jarvis, M. J. (1997). *Patterns and predictors of smoking cessation in the general population*. In C. T. Bolliger & K. O. Fagerstrom (Eds.), *The tobacco epidemic* (Vol. 28, pp. 151–164). Basel, Switzerland: Karger.

Jarvis, M. & Wardle, J. (1999). Social patterning of individual health behaviours: the case of cigarette smoking. In: Marmot, M. & Wilkinson, R., editors. *Social determinants of health*. Oxford: Oxford University Press.

Jenks, R.A. and Higgs, S. (2007). Associations between dieting and smoking-related behaviours in young women. *Drug and Alcohol Dependence*; 88: 291-299.

Jorenby, D. E., Hays, J. T., Rigotti, N. A., Azoulay, S., Watsky, E. J., Williams, K. E., Billing, C. B., Gong, J. & Reeves, K. R. (2006). Efficacy of varenicline, an alpha4beta2 nicotinic acetylcholine receptor partial agonist, vs placebo or sustained-release bupropion for smoking cessation: a randomized controlled trial. *The Journal of the American Medical Association*; 296(1): 56–63

Jorenby, D. E., Leischow, S. J., Nides, M. A., Rennard, S. I., Johnston, J. A., Hughes, A. R., Smith, S. S., Muramoto, M. L., Daughton, D. M., Doan, K., Fiore, M. C. & Baker, T. B. (1999). A controlled trial of sustained-release bupropion, a nicotine patch, or both for smoking cessation. *New England Journal of Medicine*; 340:685-691.

Kaper, J., Wagena, E. J., Severns, J. L., Van Schayck, C.P. (2005). Healthcare financing systems for increasing the use of tobacco dependence treatment. *Cochrane Database of Systematic Reviews* (1):

Kassel, J. D., Shiffman, S., Gnys, M., Paty, J., & Zettler-Segal, M. (1994). Psychosocial and personality differences in chippers and regular smokers. *Addictive Behaviours*; 19(5): 565-75

Kaur, K., Kaushal, S. & Chopra, S.C. (2009). Varenicline for smoking cessation: A review of the literature. *Current Therapeutic Research Clinical and Experimental*: 70 (1); 35-54.

Kiecolt-Glaser, J. K., & Yehuda, R. (2005). Toward optimal health: Janice discuss chronic stress in women. Interview by Jodi R. Godfrey. *Journal of Womens Health*; 14:294–298.

King, T. K., Marcus, B. H., Pinto, B. M., Emmons, K. M. and Abrams, D. B. (1996). Cognitive-behavioral mediators of changing multiple behaviors: Smoking and a sedentary lifestyle. *Preventative Medicine*; 25: 684-691

King, T. K., Matacin, M., Marcus, B. H., Bock, B. C. & Tripolone, J. (2000). Body image evaluations in women smokers. *Addictive Behaviours*; 25: 613-618

Kirby, S. D., Taylor, M. K., Freimuth, V. S. & Fishman, C. (2001). Identity building and branding at CDC: a case study. *Social Marketing Quarterly*; 7: 16-35

Klesges, R. C., Meyers, A. W., Klesges, L. M., & La Vasque, M. E. (1989). Smoking, body weight, and their effects on smoking behaviour: A comprehensive review of the literature. *Psychological Bulletin*; 106(2): 204–230.

Knapp, M. L., Hall, J. A. In: *Nonverbal communication in human interaction*. 5th ed., Fort Worth: Harcourt Brace; 2002

Kremers, S. P. J., De Bruijn, G. J., Schaalma, H. & Brug, J. (2004). Clustering of energy balance-related behaviors and their intrapersonal determinants. *Psychology and Health*; 19: 595–606



Kumar, R., Cooke, E. C., Lader, M. H. & Russell, M.A. (1977). Is nicotine important to tobacco smoking? *Clinical Pharmacology & Therapeutics*; 21:520–9.

Kypri, K. & McAnally, H.M. (2005). Randomized controlled trial of a web-based primary care intervention for multiple health risk behaviors. *Preventative Medicine*; 41: 761–766.

Lazarus, R. S. & Folkman, S. (1984). *Stress, Appraisal, and Coping*. New York, NY: Springer

Lazev, A. B., Herzog, T. A., & Brandon, T. H. (1999). Classical conditioning of environmental cues to cigarette smoking. *Experimental and Clinical Psychopharmacology*; 7: 56– 63.

Locke, E. A., & Latham, G. P. (1990). *A theory of goal setting and task performance*. Englewood Cliffs, NJ: Prentice Hall

Lofroth, G. (1989). Environmental tobacco smoke: overview of chemical composition and genotoxic components. *Mutation Research*; 222:73–80.

Lovallo, W. R. (2005). *Stress and Health: Biological and Psychological Interactions* (2nd ed.), Sage, Thousand Oaks, CA.

Lu, Y., Marks, M. J., & Collins, A. C. (1999). Desensitization of nicotinic agonist-induced[3H]gamma-aminobutyric acid release from mouse brain synaptosomes is produced by subactivating concentrations of agonists. *Journal of Pharmacology and Experimental Therapeutics*; 291(3): 1127-34.

Lundborg, P. & Andersson, H. (2009). Gender, risk perceptions and smoking behaviour. *Journal of Health Economics*; 27: 1299-1311

MacKinnon DP, Taborga MP, Morgan-Lopez AA. Mediation designs for tobacco prevention research. *Drug Alcohol Depend* 2002;68:S69–83.

Madell, D. E. & Muncer, S. J. (2007). Control over social interactions: An important reason for young people's use of the internet and mobile phones for communication? *CyberPsychology & Behavior*; 10(1): 137-140

Martinez, E., Tatum, K.L., Glass, M., Bernath, A., Ferris, D., Reynolds, P. & Schnoll, R. A. (2010). Correlates of smoking cessation self-efficacy in a community sample of smokers. *Addictive Behaviours*; 35(2):175-8

Mayhem, K. P., Flay, B. R. & Mott, J. A. (2000). Stages in the development of adolescent smoking. *Drug and Alcohol Dependency*; 59:S61–81.

- McCarthy, D. E., Piasecki, T. M., Fiore, M. C., Baker, T. B. (2004). *Life before and after quitting smoking*. Unpublished manuscript. University of Wisconsin-Madison. Cited in, Piasecki, T. M. (2006). Relapse in Smoking. *Clinical Psychology Review*; 26: 196-215
- McGee, R. & Williams S. (2006). Predictors of persistent smoking and quitting among women smokers. *Addictive Behaviours*; 31 (9):1711–1715
- McKee, S. A., Krishnan-Sarin, S., Shi, J., Mase, T., & O'Malley, S. S. (2006). Modeling the effect of alcohol on smoking lapse behaviour. *Psychopharmacology*; 189: 201-210.
- Mello, N. K., Mendelson, J. H., & Palmieri, S. L. (1987). Cigarette smoking by women: Interactions with alcohol use. *Psychopharmacology*; 93:8–15
- Mermelstein, R., Cohen, S., Lichtenstein, E., Baer, J. S., & Kamarck, T. (1986). Social support and smoking cessation and maintenance. *Journal of Consulting and Clinical Psychology*; 54: 447-453.
- Merton, R. (2003). Focusing on focus groups. *Journal of Adolescent Health*; 32:329-330
- Metcalf, C., Smith, G. D., Wadsworth, E., Sterne, J. A., Heslop, P., Macleod, J. & Smith, A. (2003). A contemporary validation of the Reeder Stress Inventory. *British Journal of Health Psychology*; 8 (1):83-94
- Meyer, G. K., Baker, T. B., Smith, S. S., Fiore, M., Redmond, L., Bosworth, T. W., et al. (2003). *Insights: Smoking in Wisconsin. How smokers are quitting*. Retrieved May 4, 2007, from [http://www.ctri.wisc.edu/Advocates/advocates\\_WTS\\_Action%20Papers\\_2003.htm](http://www.ctri.wisc.edu/Advocates/advocates_WTS_Action%20Papers_2003.htm).
- Miller, P.M., Frederiksen, L.W. & Hosford, R.L. (1979). Social interaction and smoking topography in heavy and light smokers. *Addictive Behaviours*; 4: 147–153
- Mitchell, S. H., deWit, H. & Zacny, J. P. (1995). Effects of varying ethanol dose of cigarette consumption in healthy normal volunteers. *Behavioural Pharmacology*; 6:359–365
- Murgraff, V., White, D., & Phillips, K. (1996). Moderating binge drinking: It is possible to change behavior if you plan it in advance. *Alcohol and Alcoholism*; 6: 577-582.
- National Institute for Clinical Excellence. (2002). *Guidance on the use of nicotine replacement therapy (NRT) and bupropion for smoking cessation*. London: National Institute for Clinical Excellence.
- NHS Information Centre (2009). Statistics on NHS Stop Smoking Services: England, April 2008 to March 2009. NHS IC. <http://www.ic.nhs.uk/statistics-and-data-collections/health-and-lifestyles/nhs-stop-smoking-services/statistics-on-nhs-stop-smoking-services-england-april-2008-to-march-2009>

- National Statistics- Life Expectancy, (22<sup>nd</sup> July, 2004).  
<http://www.statistics.gov.uk/CCI/nugget.asp?ID=934&Pos=2&ColRank=2&Rank=1000>  
 . Accessed on 15/04/10.
- Oksuz, E., Mutlu E.T. & Malhan, S. (2007). Characteristics of daily and occasional smoking among youths. *Public Health*; 121(5): 349-356
- O'Loughlin, J., DiFranza, J., Tyndale, R. F., Meshefedjian, G., McMillan-Davey, E., Clarke, P. B., et al. (2003). Nicotine-dependence symptoms are associated with smoking frequency in adolescents. *American Journal of Preventive Medicine*; 25:219–25.
- Ornish, D., Scherwitz, L. W., Billings, J. H., Brown, S. E., Gould, K. L., Merritt, T. A., Sparler, S., Armstrong, W. T., Ports, T. A., Kirkeeide, R. L., Hogeboom, C. & Brand, R. J. (1998). Intensive lifestyle changes for reversal of coronary heart disease. *The Journal of the American Medical Association*; 280: 2001–2007
- Peretti-Watel, P., & Moatti, J. P. (2006). Understanding risk behaviours: how the sociology of deviance may contribute? The case of drug-taking. *Social Science & Medicine*; 63(3): 675-679
- Perkins, K.A. (1992a). Effects of tobacco smoking on caloric intake. *British Journal of Addiction*; 87: 193–205.
- Perkins, K. A. (1992b). Metabolic effects of tobacco smoking. *Journal of Applied Physiology*; 72: 401–409.
- Perkins, K. A. (2001). Smoking cessation in women. Special considerations. *CNS Drugs*; 15(5): 391-411.
- Persky, I., Spring, B., Vander Wal, J. S., Pagoto, S. & Hedeker, D. (2005). Adherence across behavioral domains in treatment promoting smoking cessation plus weight control. *Health Psychology*; 24: 153–160
- Piasecki, T. M., Jorenby, D. E., Smith, S. S., Fiore, M. C., & Baker, T. B. (2003a). Smoking withdrawal dynamics: II. Improved tests of withdrawal relapse relations. *Journal of Abnormal Psychology*; 112: 14– 27.
- Piasecki, T. M., Jorenby, D. E., Smith, S. S., Fiore, M. C., & Baker, T. B. (2003b). Smoking withdrawal dynamics: I. Abstinence distress in lapsers and abstainers. *Journal of Abnormal Psychology*; 112: 3– 13.
- Piasecki, T. M. (2006). Relapse to Smoking. *Clinical Psychology Review*; 26: 196– 215
- Pipe, A., Sorenson, M. & Reid, R. (2009). Physician smoking status, attitudes toward smoking, and cessation advice to patients: An international survey. *Patient Education and Counselling*; 74(1):118-123

- Pisinger, C. & Jorgensen, T. (2007). Weight concerns and smoking in a general population: the Inter99 study. *Preventative Medicine*; 44(4):283–9
- Poortinga, W. (2007). The prevalence and clustering of four major lifestyle risk factors in an English adult population. *Preventive Medicine*; 44: 124–128
- Pomerleau, O. F. & Pomerleau, C. S. (1989). Stress, smoking, and the cardiovascular system. *Journal of Substance Abuse*; 1(3): 331-43.
- Pomerleau, C. S. & Saules, K. K. (2007). Body image, body satisfaction, and eating patterns in normal and overweight/obese women smokers and never smokers. *Addictive Behaviors*; 32, 2329–2334.
- Pomerleau, C. S., Zucker, A. N., & Stewart, A. J. (2001). Characterizing concerns about post-cessation weight gain: Results from a national survey of women smokers. *Nicotine and Tobacco Research*; 3:51–60.
- Prestwich, A., Conner, M., Lawton, R., Bailey, W., Litman, J. & Molyneaux, V. (2005). Individual and collaborative implementation intentions and the promotion of breast self-examination. *Psychology and Health*; 20 (6): 743-760
- Prochaska, J. J. & Sallis, J. F. (2004). A randomized controlled trial of single versus multiple health behavior change: promoting physical activity and nutrition among adolescents. *Health Psychology*; 23: 314–318.
- Prochaska, J.J., Velicer, W.F., Nigg, C.R., & Prochaska, J.O. (2008). Methods of quantifying change in multiple risk factor interventions. *Preventive Medicine*; 46: 260-265
- Prochaska, J. O. (2008). Decision making in the transtheoretical model of behaviour change. *Medical Decision Making*; 28(6): 845-49
- Pronk, N. P., Anderson, L. H., Crain, A.L., Martinson, B. C., Sherwood, N. E. & Whitebird, R. R. (2004). Meeting recommendations for multiple healthy lifestyle factors. Prevalence, clustering, and predictors among adolescent, adult, and senior health plan members. *American Journal of Preventive Medicine*; 27: 25–33.
- Pullon, S., Mcleod, D., Benn, C., Viccars, A., White, S., Cookson, T. & Dowell, A. (2003). Smoking cessation in New Zealand: education and resources for use by midwives for women who smoke during pregnancy. *Health Promotion International*; 18(4): 315 – 325
- Raw, M., McNeill, A., & West, R. (1998). Smoking cessation guidelines for health professionals. A guide to effective smoking cessation interventions for the health care system. Health Education Authority. *Thorax*; 53(Suppl. 5 Pt 1): S1–S19.

- Reijneveld, S.A. (1998). The impact of individual and area characteristics on urban socioeconomic differences in health and smoking. *International Journal of Epidemiology*; 27: 33–40.
- Robinson, S. & Bugler, C. (2010). *General Household Survey 2008: Smoking and drinking among adults, 2008*. Office for National Statistics.
- Roddy, E., Antoniak, M., Britton, J., Molyneux, A. & Lewis, S. (2006). Barriers and motivators to gaining access to smoking cessation services amongst deprived smokers—a qualitative study. *BMC Health Services Research*; 6:147
- Role, L. W. & Berg, D. K. (1996). Nicotinic receptors in the development and modulation of CNS synapses. *Neuron*; 16: 1077–1085
- Romano, P. S., Bloom, J., & Syme, S. L. (1991). Smoking, social support, and hassles in an urban African–American community. *American Journal of Public Health*; 81(11): 1415–1422.
- Rowell, P. P., & Duggan, D. S. (1998). Long-lasting inactivation of nicotinic receptor function in vitro by treatment with high concentrations of nicotine. *Neuropharmacology*; 37(1): 103-11
- Rüge, J., Ulbricht, S., Schumann, A., Rumpf, H. J., John, U., & Meyer, C. (2008). Intention to quit smoking: is the partner's smoking status associated with the smoker's intention to quit? *International Journal of Behavioural Medicine*; 15(4): 328-335
- Russell, M. A., & Feyerabend, C. (1978). Cigarette smoking: a dependence on high nicotine boli. *Drug Metabolism Review*; 8(1): 29-57.
- Russell, M. A., Peto, J., & Patel, U. A. (1974). The classification of smoking by factorial structure of motives. *Journal of the Royal Statistical Society: Series A*; 137(3): 313-33.
- Russell, M. A., Wilson, C., Taylor C, Baker, C. D. (1979). Effect of general practitioners' advice against smoking. *British Medical Journal*; 2:231–235.
- Sallis, J.F. & Owen, N. (1999). *Physical Activity and Behavioral Medicine*. Sage, Thousand Oaks, CA
- Schwarzer, R., & Jerusalem, M. (1995). Generalized Self-Efficacy scale. In Weinman, J. Wright, S. & Johnston, M. (Eds.), *Measures in Health Psychology: A user's portfolio. Causal and control beliefs* (pp. 35-37). Windsor, UK: NFER-NELSON
- Senore, C., Battista, R. N., Shapiro, S. H., Segnan, N., Ponti, A., Rosso, S., et al. (1998). Predictors of smoking cessation following physicians' counselling. *Preventive Medicine*; 27(3): 412–421

- Seyle, H. (1956). *The Stress of life*. New York: McGraw-Hill
- Shadel, W. & Mermelstein, R. (1993). Cigarette smoking under stress: The role of coping expectancies. *Health Psychology*; 12: 443-450
- Shapiro, D., Jamner, L. D., Davydov, D. M., & Porsha, J. (2002). Situations and moods associated with smoking in everyday life. *Psychology of Addictive Behaviors*; 16: 342–345.
- Sharts-Hopko, N. C. (2001). Focus group methodology: when and why? *Journal of the Association of Nurses in AIDS Care*; 12(4): 89-91
- Sheeran, P. & Silverman, M. (2003). Evaluation of three interventions to promote workplace health and safety: evidence for the utility of implementation intentions. *Social Science & Medicine*; 56: 2153-2163
- Sheeran, P., Webb, T. L. & Gollwitzer, P. M. (2005). The Interplay Between Goal Intentions and Implementation Intentions. *Personality and Social Psychology Bulletin*; 37: 87-98
- Shiffman S. (1986). A cluster-analysis classification of smoking relapse episodes. *Addictive Behaviours*; 11:292–307
- Shiffman, S. (1989). Tobacco "chippers" - individual differences in tobacco dependence. *Psychopharmacology*; 97(4): 539-47.
- Shiffman, S. (1991). Refining models of dependence: variations across persons and situations. *British Journal of Addiction*; 86(5): 611-5.
- Shiffman, S. (2000). Comments on craving. *Addiction*; 95(Supplement 2), S171– S175
- Shiffman, S., Balabanis, M.H., Paty, J.A., Engberg, J., Gwaltney, C.J., Liu, K.S., Gnys, M., Hickcox, M., & Paton, S.M. (2000). Dynamic effects of self-efficacy on smoking lapse and relapse. *Health Psychology*; 19(4): 315-323.
- Shiffman, S., Enberg, J. B., Paty, J. A., Perz, W. G., Gnys, M., Kassel, J. D. & Hickcox, M. (1997). A day at a time: Predicting smoking lapse from daily urge. *Journal of Abnormal Psychology*; 106: 104– 116
- Shiffman, S., Fischer, L. A., Paty, J., Gnys, M., Hickcox, M. & Kassel, J. D. (1994). Drinking and smoking: A field study of their association. *Annals of Behavioural Medicine*; 16:203–209
- Shiffman, S., Fischer, L. B., Zettler-Segal, M., & Benowitz, N. L. (1990). Nicotine exposure among nondependent smokers. *Archives of General Psychiatry*; 47(4): 333-6

- Shiffman, S., Paty, J. A., Gwaltney, C. J., & Dang, Q. (2004). Immediate antecedents of cigarette smoking: An analysis of unrestricted smoking patterns. *Journal of Abnormal Psychology*; 113: 166–171.
- Siahpush, M., Heller, G. & Singh, G. (2005). Lower levels of occupation, income and education are strongly associated with a longer smoking duration: Multivariate results from the 2001 Australian National Drug Strategy Survey. *Journal of the Royal Institute of Public Health*; 119: 1105-1110
- Silagy, C. (2000). Physician advice for smoking cessation. *Cochrane Database Systematic Review*; 2:CD000165
- Silagy, C., Lancaster, T., Stead, L., Mant, D., & Fowler, G. (2004). Nicotine replacement therapy for smoking cessation. *Cochrane Database of Systematic Reviews*; 4: CD000146.
- Silverman, D. (2004) *Doing qualitative research: A practical handbook*. SAGE Publications Ltd, London, UK.
- Siqueira, L., Diab, M., Bodian, C. & Rolnitzky, L. (2000). Adolescents becoming smokers: the roles of stress and coping methods. *Journal of Adolescent Health*; 27(6): 399-408
- Spring, B., Pagoto, S., Pingitore, R., Doran, N., Schneider, K., & Hedeker, D. (2004). Randomized controlled trial for behavioral smoking and weight control treatment: effect of concurrent versus sequential intervention. *Journal of Consulting & Clinical Psychology*; 72: 785–796
- Stead, L. F., Bergson, G., Lancaster, T. (2008). Physician advice for smoking cessation. *Cochrane Database Systematic Reviews*; 16(2):CD000165
- Stead, M., McDermott, L., Angus, K. & Hastings, G. (2006). *Marketing Report (Behaviour Change: Marketing Review)*. Report prepared for the National Institute for Clinical and Health Excellence. Stirling: Institute for Social Marketing
- Strauss, A., & Corbin, J. (1998). *Basics of qualitative research: Grounded theory, procedures and techniques*. Newbury Park, CA: Sage.
- Sullivan, P. M. (1997). A comparison of sustained-release bupropion and placebo for smoking cessation. *New England Journal of Medicine*; 337:1195-1202.
- Surgeon General: The Health Consequences of Smoking: A Report of the Surgeon General. (2004): <http://www.surgeongeneral.gov/library/smokingconsequences/>
- Swan, G. E. & Carmelli, D. (1995). Characteristics associated with excessive weight gain after smoking cessation in men. *American Journal of Public Health*; 85 (1): 73–77
- Sykes, C. M. & Marks, D. F. (2001). Effectiveness of a cognitive behaviour therapy self-help programme for smokers. *Health Promotion International*; 16: 255-260

Sykes, G., & Matza, D. (1957). Techniques of neutralization: a theory of delinquency. *American Sociological Review*; 22(6): 664-670

Tajfel, H. (1972). Some developments in European social psychology. *European Journal of Social Psychology*; 2: 307-322

Taylor, W. C., Hepworth, J. T., Lees, E., Cassells, A., Gousse, Y., Sweeney, M. M., Vaughn, A., & Tobin, J. N. (2004). Readiness to change physical activity and dietary practices and willingness to consult healthcare providers. *Health Research Policy and Systems*; 2 (1): 2

The Information Centre. Statistics on NHS Stop Smoking Services: England, April 2009 – March 2010. <http://www.ic.nhs.uk/statistics-and-data-collections/health-and-lifestyles/nhs-stop-smoking-services/statistics-on-nhs-stop-smoking-services-england-april-2009--march-2010> accessed on 23/08/2010

Thoits, P. (1986). Social support as coping assistance. *Journal of Consulting and Clinical Psychology*; 54: 416-423.

Tiffany, S. T., Cox, L. S., & Elash, C. A. (2000). Effects of transdermal nicotine patches on abstinence-induced and cue-elicited craving in cigarette smokers. *Journal of Consulting and Clinical Psychology*; 68: 233–240.

Toobert, D.J., Glasgow, R.E., Strycker, L.A., Barrera Jr., M., Ritzwoller, D.P., Weidner, G., (2007). Long-term effects of the Mediterranean lifestyle program: a randomized clinical trial for postmenopausal women with type 2 diabetes. *International Journal of Behavioral Nutrition and Physical Activity*; 4: 1

Turner, R. J. & Avison, W. R. (2003). Status variations in stress exposure: Implications for the interpretation of research on race, socioeconomic status, and gender. *Journal of Health and Social Behaviour*; 44: 488–505.

Vogt, F., Hall, S. & Marteau, T. M. (2005). General practitioners' and family physicians' negative beliefs and attitudes towards discussing smoking cessation with patients: a systematic review. *Addiction*; 100: 1423-1431

Walsh, P. M., Carrillo, P., Flores, G., Masuet, C., Morchon, S., & Ramon, J. M. (2007). Effects of partner smoking status and gender on long term abstinence rates of patients receiving smoking cessation treatment. *Addictive Behaviours*; 32(1): 128–136

Walsh, J. L., Soares da Fonseca, R. & Banta, A. (2005). Watching and participating in exercise videos: A test of the theory of planned behaviour, conscientiousness, and the role of implementation intentions. *Psychology and Health*; 20 (6): 729-741



Weinberger, A. H; Krishnan-Sarin, S., Mazure, C. M & McKee, S. A. (2008). Relationship of perceived risks of smoking cessation to symptoms of withdrawal, craving, and depression during short-term smoking abstinence. *Addictive behaviors*; 33(7):960-963.

Wellman, P. J., Bellinger, L. L., Cepeda-Benito, A., Susabda, A., Ho, D. H., & Davis, K. W. (2005). Meal patterns and body weight after nicotine in male rats as a function of chow or high-fat diet. *Pharmacology Biochemistry & Behavior*; 82(4): 627-634

West, R. (2006). *Theory of Addiction*. Oxford: Blackwells

West, R., McNeill, A. & Raw, M. (2000). Smoking cessation guidelines for health professionals: an update. *Thorax*; 55(2): 987-99

White, M. A., McKee, S. A. & O'Malley, S. S. (2007). Smoke and mirrors: magnified beliefs that cigarette smoking suppresses weight. *Addictive Behaviors*; 32(10):2200-10.  
White, A. R., Rampes, H. & Campbell, J. (2006). Acupuncture and related interventions for smoking cessation. *Cochrane Database of Systematic Reviews*, Issue 1. Art. No.: CD000009. DOI: 10.1002/14651858.CD000009.pub2.

Wilcox, S., Parra-Medina, D., Thompson-Robinson, M. & Will, J. (2001). Nutrition and physical activity interventions to reduce cardiovascular disease risk in health care settings: a quantitative review with a focus on women. *Nutrition Reviews*; 59: 197–214.

Wildman, J. (2003). Income related inequalities in mental health in Great Britain: analysing the causes of health inequality over time. *Journal of Health Economics*; 22(2): 295-312

Wing, R. R. (2000). Cross-cutting themes in maintenance of behaviour change. *Health Psychology*; 19: 84-88.

Wonnacott, S. (1990). The paradox of nicotinic acetylcholine receptor upregulation by nicotine. *Trends in Pharmacological Sciences*; 11: 216-219

Yong, H. H. & Borland, R. (2008). Functional beliefs about smoking and quitting activity among adult smokers in four countries: findings from the International Tobacco Control Four-Country Survey. *Health Psychology*; 27(3): 216-23.

Yurdakul, L., Holttum, S. and Bowden, A. (2009). Perceived changes associated with autogenic training for anxiety: A grounded theory study. *Psychology and Psychotherapy: Theory, Research and Practice*; 82: 403–419

Zhu, S. H., Anderson, C. M., Tedeschi, G. J., Rosbrook, B., Johnson, C. E., Byrd, M. & Gutierrez-Terrell, E. (2002). Evidence of real-world effectiveness of a telephone quitline for smokers. *New England Journal of Medicine*; 347:1087-1093.

Zhu, S., Melcer, T., Sun, J., Rosbrook, B., & Pierce, J. P. (2000). Smoking cessation with and without assistance: A population-based analysis. *American Journal of Preventative Medicine*; 18: 305–311.

## Appendices

### APPENDIX 1: Participant Information Table

<b>Focus Group (Age group)</b>	<b>Participant Number</b>	<b>Age</b>	<b>Marital Status</b>	<b>Ethnicity</b>	<b>Lives with</b>	<b>Occupation</b>	<b>Highest Qualification</b>	<b>Total Household Income</b>	<b>No. of cigarettes smoked</b>	
1 Pregnant women	1	33	Single	White British	Partner & son	Cashier	No response	Under £20k	10	
	2	27	Single	White British	Child	Housewife	NVQ Level 3	No response	5	
	3	30	Lives with partner	White British	Partner and children	Housewife	No response	Under £20k	20	
	4	32	Married	White British	Husband and 4 children	Housewife	No response	Under £20k	10	
	5	31	Married	White British	Husband and 1 child	Housewife	No response	Under £20k	15	
2 Pregnant women	1	31	Lives with partner	White British	Partner and son	Homemaker	No response	£20k-£30k	15	
	2	38	Married/Separated	White British	Daughter	Homemaker	7 CSE's	Under £20k	10-15	
	3	32	Married	White British	Husband and 3 daughters	Housewife	No response	Under £20k	15	
	4	30	Married	White British	Husband and children	Housewife	No response	Under £20k	20	
	5	<b>Did not complete responses</b>								
	6	32	Lives with partner	White British	Partner and 2	Housewife	GCSE's	Under £20k	3-5	

					children				
3 Women (under 30)	1	29	Single	White British	3 children	Chef	No response	Under £20k	10+
	2	26	Married	White British	Husband and 2 children	Housewife	GNVQ Advanced	£30k-£40k	10-15
	3	18	Single	White British	Mother	In employment	No response	Under £20k	15-20
	4	18	Single	White British	Alone	Hairdresser	NVQ level 2 hairdressing	Under £20k	10-20
	5	22	Engaged	White British	Fiancé and daughter	Sales assistant	A levels	£20k-£30k	20-30
	6	20	No response	White British	Son	Unemployed	None	Under £20k	10
4 Men (31+)	1	38	Married	White British	Wife and 2 sons	Engineer	National certificate	£30k-£40k	5
	2	64	Married	White British	Wife	Retired	None	Under £20k	18-23
	3	37	Married	White British	Wife and children	On sick leave	No response	Under £20k	20
	4	40	Lives with partner	White British	Partner	Bricklayer	No response	Under £20k	40
	5	31	Married	White British	Wife and children	Market trader	None	£20k-£30k	20
	6	62	Single	White British	Alone	Retired	No response	£20k-£30k	30
5 Women	1	46	Divorced	White British	Daughter	Housewife	C/G	Under £20k	10-12
	2	51	Married	White	Friend	Housewife	BII personal	£20k-£30k	5

(31+)				British			license holder		
	3	44	Married	White British	Husband	Housewife	GCSE's	£20k-£30k	15
	4	63	Separated	White British	Alone	Retired	SEN	Under £20k	20
	5	65	Single	White British	87 year old mother	Retired	Diploma	£30k-£40k	35
	6	66	Married	White British	Husband	Retired	5 GCSE's	Under £20k	5-10
	7	34	Divorced	White British	3 children	Housewife	Left secondary school	£20k-£30k	15-20
6 Men (Under 30)	1	29	Single	White British	Alone	Unemployed	None	Under £20k	20
	2	20	Common law	White British	Partner	Sub-contractor	City & Guilds	£20k-£30k	5-10
	3	18	Girlfriend	White British	Parents and brothers	Electrician	GCSE's	£30k-£40k	2
	4	30	Separated	White British	Alone	HGV driver	CSE Grade 2	£20k-£30k	20
	5	30	Single	White British	Girlfriend	Delivery Driver	GCSE	Under £20k	10-15

## How to overcome the barriers that smokers face in quitting cigarettes

### Participant Information Sheet

I am a Doctorate in Health Psychology student at City University and a Community Health Improvement Networker at South West Essex PCT. I would like to invite you to participate in research that I am carrying out. Before you make a decision about participating, please read the information sheet and understand why the research is being done and what it will involve.

#### **What is the purpose of the study?**

The aim of the study is to understand the barriers that the local residents of Basildon face in quitting cigarettes and to explore how the barriers in quitting cigarettes can be overcome. It should be noted that we will not be asking you to quit smoking during the discussion. The results from the discussion will help us to understand the needs of the local people and will enable us to make the local stop smoking service more accessible for local people that smoke.

#### **Why have I been chosen?**

The reason you have been chosen to take part in this study is because you are a smoker living in Basildon, Essex.

#### **What do I have to do?**

If you decide to take part in this study you will be required to take part in a group discussion. The discussion will typically take one hour and will remain strictly anonymous. The discussion will consist of approximately six other participants and will be semi structured in nature, which means that you will be asked open ended questions and the discussion will be designed to explore your view of things with minimal amount of assumption from the moderator. You and other participants will be expected to discuss your thoughts on the barriers you face in quitting cigarettes and then to suggest ways of overcoming the barriers. Your discussion will be audio recorded to help with the transcription process which will allow the researcher to analyse the discussion.

#### **Expenses and Payment**

You will be given a £25 Marks and Spencer voucher as a thank you for taking part in the discussion, which will be funded by South West Essex PCT but your travel expenses will not be reimbursed.

### **Will my taking part in this study be kept confidential?**

If you consent in taking part in the study all the information which is collected about you and from you will be kept strictly confidential. The information under no circumstances will be passed on to anybody. Your name will always remain separate from the answers that you give and you will be recognised by a participant number. Your personal details and once transcription has taken place your audio recordings will be destroyed, this should take place no later than October 2008.

### **What will happen to the findings of the interview?**

The findings from the discussion will be presented in a Doctorate of Health Psychology thesis and might be presented in reports, journal articles and presentations. The findings will be presented via unidentifiable quotes which have been taken from the discussion.

### **What are the possible benefits of taking part?**

We cannot promise the study will help you but the information we get from this study will help in understanding the barriers that people face in attending their local stop smoking service.

### **Do I have to take part?**

You don't have to take part in this study. Taking part is entirely voluntary. If you decide to take part you are still free to withdraw at any time and without giving a reason.

### **Contact Details**

If you have any questions, queries or would like to take part then please contact Henna Ali on 01268 705 144.

Thank you

## Consent Form

### How to overcome the barriers that smokers face in quitting cigarettes

I confirm that I have read and understood the information sheet for the above study and have had an opportunity to ask questions.

I understand the responses I give will be treated as confidential, my contact details will always remain separate from the data and I will only be recognised by my participant number.

I understand that participation in this study is entirely voluntary and refusal to take part involves no penalty and I may withdraw from the study at any point during the focus group.

I understand that standardised debriefing will take place once the focus group has taken place. The debriefing will include the purpose of the study, background research and the design of the study so that I can recognise my contribution to the research.

**By signing this form I am stating that I am over 18 years of age, and that I understand the above information and consent to participate in this study being conducted by a student of City University and an employee of South West Essex PCT.**

**Participant Number:**

**Signature:** \_\_\_\_\_

**(of participant)**

**Signature:** \_\_\_\_\_

**(of researcher)**

**Today's Date:** \_\_\_\_\_

**Today's Date:** \_\_\_\_\_



## APPENDIX 4

### Debriefing Form

Thank you for taking your valuable time out to take part in this research. Your contribution is very much appreciated. The purpose of this study is to investigate how to increase the number of referrals into the local stop smoking service. The way this is investigated is by assessing your views on the barriers you as a smoker feel in quitting cigarettes and then asking for your views on how to overcome the barriers.

The research involved holding focus groups with people who smoke. These discussions were held in order to get views on what barriers the local people of Basildon are faced with when trying to quit smoking. Based upon the overall findings a public health campaign will be developed to combat the stated barriers and to increase the number of referrals into the local stop smoking service.

In order to provide people who smoke with the best advice it is important to understand the reasons behind why they do not want to quit smoking and why they do not access the stop smoking services. Within current literature the barriers are listed but there is a reduced attempt to carry out research to overcome the stated barriers. Studies are needed to alleviate the barriers to quitting by means of public health campaigns and interventions which will help smokers to quit. In addition to that it is important to evaluate the effectiveness of the campaign/interventions to measure the success. Overall the study will help in broadening knowledge, improving the local Stop Smoking Service and increasing self referrals into the local Stop Smoking Service.

If you by any way have been affected by taking part in this research then you can consult the researcher as they have basic counselling skills or alternatively please contact your G.P. If you would like further information on smoking or quitting then please contact any of the services below:

#### **Local NHS Stop Smoking Service**

South West Essex Stop Smoking Service

Tel: 0800 077 8000

#### **NHS Smoking Helpline**

Tel: 0800 169 0 169

Open 7am – 11pm every day.

Senior advisors (counsellors) available 10am –11pm.

Answerphone out of hours

#### **ASH- Action on Smoking and Health**

[www.ash.org.uk](http://www.ash.org.uk)

Gives information on a range of tobacco related issues. ASH is a campaigning public health charity which is working to achieve a reduction and eventual elimination of the health problems caused by tobacco.

If you have further questions about this study or if you wish to lodge a complaint or concern then please contact:

Henna Ali

01268 705 144

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I declare that the information I have provided above is correct to the best of my knowledge.

## **Section C: Professional Practice**

## **Area of Competence: Generic Professional**

### **Working as a Trainee Health Psychologist within a Primary Care Trust (NHS)**

**SETTING: PCT**

#### **IMPLEMENT AND MAINTAIN SYSTEMS FOR LEGAL, ETHICAL AND PROFESSIONAL STANDARDS IN APPLIED PSYCHOLOGY**

Practicing as a Trainee Health Psychologist I was always aware of and carried out my duties in accordance to legal, professional and ethical standards. The British Psychological Society (BPS) code of conduct (2009) was used as a tool to uphold the standard set out by the BPS for a psychologist. The code is based on four ethical principles, which constitute the main domains of responsibility within which ethical issues are considered. These are:

- Respect
- Competence
- Responsibility
- Integrity

Throughout my practice I have adhered to these four principles. I have always shown respect to the participants of all of my research studies without disregarding their right of privacy and without discriminating on the basis of age, disability or behaviour. I have protected sensitive information by ensuring that voice recordings are deleted once transcribed, personal information sheets are shredded, and that forms such as

consent forms and information sheets are stored within the office in a locked cabinet or alternatively for electronic/digital material I ensured that my laptop was always password protected to safeguard the information. In addition to this I have always sought permission before making audio recording or using data. I have also shown respect to the people that I have worked with during the years in my role as a Trainee Health Psychologist. I have valued the continuing development and maintenance of high standards of competence in my professional work by ensuring that I am familiar with and am using the Code of Ethics and Conduct and that I practice within the boundaries of my competence and where I feel that I am going outside of the boundary I sought advice from my supervisor and my manager within my workplace. To extend my competency I engaged in continued professional development (CPD) by attending courses such as the level 2 smoking cessation, the alpha course in Public Health and cognitive behavioural therapy (CBT). The third principle of responsibility was adhered to by valuing my responsibilities to clients, to the general public, and to the profession and science of Psychology, including the avoidance of harm and the prevention of misuse or abuse of my contribution to society. Part of this principle it to be mindful of any potential risks to clients/participants. During the time of conducting focus groups for my research study, one of the groups taking part were pregnant women. Therefore I ensured that there was another member of staff present throughout the focus group and that I made myself familiar with the first aid staff within the council building where the focus group was taking place. Lastly, I valued honesty, accuracy, clarity, and fairness in my interactions with all persons, and sought to promote integrity in all facets of my scientific and professional endeavours.

During the time of completing the doctorate some vital changes had occurred within the regulation for psychologists. With effect from the 1<sup>st</sup> July 2009, the regulator of applied psychologists became the Health Professions Council (HPC). As a result of this move, anyone can call themselves a 'psychologist', as the title is not regulated by the HPC. This is not good news for the profession or ultimately for members of public, who will not be able to differentiate between a fully qualified psychologist and somebody who decides to call themselves a psychologist without any formal training. Members of public should be protected, as non-regulation such as this can bring the profession in to disrepute. It is therefore the responsibility of the qualified members of this profession to raise awareness and continue discussions with the HPC to regulate the title of psychologist.

In my role at the PCT I was managing two Trainee Health Psychologists. It was ensured that one to one meetings were held every month as well as regular team meetings. The meetings allowed both me as the manager and the Trainees to discuss progress, development and any issues. Every year an appraisal was carried out where objectives were set for the year and weaknesses were discussed with the intention of identifying training and CPD needs.

Upon delegating work during projects the strengths and weaknesses of both Trainees were taken in to account. For example at the beginning of the Trainees placement one project entailed carrying out focus groups. Trainee 1 was experienced in qualitative research whereas Trainee 2 had very little experience. Therefore it was decided that before Trainee 2 moderated a focus group, she will observe both me and Trainee 1. After observation Trainee 2 was given the opportunity to moderate under my supervision. This process enabled Trainee 2 to experience moderating and made her

confident in her ability to carry out a focus group. Therefore a weakness within her practice had diminished.

#### **CONTRIBUTE TO THE CONTINUING DEVELOPMENT OF SELF AS A PROFESSIONAL APPLIED PSYCHOLOGIST**

Every year my manager at the PCT carried out an appraisal for my development. The appraisal evaluates job performance and is an analysis of an employee's recent successes and failures, personal strengths and weaknesses, and suitability for promotion or further training (Murphy & Margulies, 2004). This process assisted me in evaluating my current progress and further development needs. In my role as a Trainee Health Psychologist I continuously aimed to expand my competence and to become better skilled in different facets. I sought opportunities for further development and thus experienced:

- Working as a visiting lecturer for two London based universities
- Presenting at national and international conferences
- Attending conferences
- Attending training courses
- Writing a book chapter

I have been a visiting lecturer at two universities for three years. I have provided lectures on smoking cessation, diet during pregnancy and social marketing and have experienced teaching undergraduate, MSc and DPsych students. I have also presented my research at the UK National Smoking Cessation conference, UK Public Health

conference, International Society of Critical Health Psychology conference and the East of England Strategic Health Authority conference. Presenting at conferences is not only beneficial because it allows dissemination of research, it also provides a very good opportunity to meet peers and network with other psychologists. To develop myself I have attended training courses as highlighted by my appraisals and training needs. During my time as a Trainee I have attended the following training courses: level 2 smoking cessation, alpha course in public health, alcohol brief intervention, CBT, health and safety and manual handling. As well as these training courses I attended regular workshops at City University as part of the Doctorate course. The workshops were designed to provide intense advice, skills and information on a number of topic areas such as teaching and training, consultancy and counseling. Through all of the above experiences I am now competent as a researcher, lecturer, manager, writer, presenter and a consultant. I have also gained a number of skills such as project management, delegation, working as part of a team or equally as well as an individual, problem solving and time management.

When working on either a work related project or a consultancy project I actively sought feedback from clients and my manager and held regular meetings to assess progress. I also actively sought feedback from my supervisors at university as it was important to evaluate my work academically. I often found it difficult to balance the differences between a piece of work being academically sound and appropriate for an NHS audience. Therefore it was warranted that advice and feedback was continuously sought from both my work and university supervisor/manager.

During my practice there was a particular project that I was working on which was quite specialised in nature and I required advice on how to carry out the project. My



workplace manager had not worked within this area and neither had my university supervisor, thus I identified an individual who was an expert within the field and arranged to meet him to get advice. This assisted me by realising that I can actively seek consultation and advice from other individuals also, rather than predominately consulting with my manager and supervisor on all occasions.

### **PROVIDE PSYCHOLOGICAL ADVICE AND GUIDANCE TO OTHERS**

Through my work as a Trainee Psychologist I have provided psychological advice and guidance to different types of people (clients, colleagues, health professionals) on a frequent basis. I have provided training to individuals and groups on how health psychology can better and make social marketing more stringent. I provided training to staff within the PCT where I worked, to other organisations such as the Cardiac and Stroke Networks and to DPsych students. I have also throughout my practice carried out research within the PCT with a focus on providing psychological advice and recommendations at the end of it. For example my DPsych research was on exploring the barriers that smokers faced in quitting cigarettes and then to explore how the barriers could be overcome. Upon analysis of my data I made recommendations based upon my findings and literature review; that a new lifestyle modification service is set up. The service idea was heavily influenced by health psychology theories and models such as increasing self efficacy, self monitoring (Bandura, 1986), implementation intentions (Gollwitzer, 1993) and goal setting (Locke & Latham, 1990).

At the beginning of my training I was heavily involved in health promotion and was responsible for promoting smoking cessation and the stop smoking service. This piece of work involved designing promotional material, writing advice for stop cessation on

the stop smoking service website and writing articles for groups such as pregnant women to stop smoking. I used my knowledge of health psychology to carry out these tasks. As an example I was asked to write an article regarding stop smoking for a local newspaper. During my research I had found that the local women were keen readers of the women's page in the local newspaper that is printed every Monday. Therefore I negotiated for my article to be placed in the women's section and the focus of the article was to increase self efficacy by mentioning that they were four times more likely to quit smoking if they attended the stop smoking service and discussing the effects of smoking during pregnancy and second-hand smoke. The article also highlighted the effects of smoking on teeth, nails and hair and on their wallets, as finance and beauty were the two biggest motivators for quitting during the research that I had carried out.

Upon carrying out research projects at my workplace I mostly disseminated the findings and the recommendations to the senior management teams and key stakeholders. Hence I had to make sure that the information presented to individuals was coherent and presented in a manner that facilitated understanding. Therefore I often used PowerPoint presentations and before the presentation I would email the slides to the individuals attending. This way it was expected that people would have read the slides before attending, again facilitating understanding. Initially I did not email the slides to stakeholders and mostly found that when people attended the dissemination meeting they knew nothing much about the project, thus it took much longer to present. I also realised quite quickly that even though most stakeholders were in senior positions there was still a need to present psychological information in a clear and non-jargon manner.

Psychological guidance and advice was also provided to the two Trainee Psychologists that I managed. The guidance was given on both an ongoing basis and during one to one/team meetings. Guidance was offered on ethical considerations, research methodology and on practicing as a Trainee.

### **PROVIDE FEEDBACK TO CLIENTS**

Providing feedback that is appropriate and structured is very important for a Health Psychologist. Being able to give feedback can help one to evaluate performance, engage with clients and receive feedback yourself. My work with individual patients was very limited so instead the majority of the feedback I gave was to colleagues within the PCT after completing consultancy projects for different teams. Before feedback was provided I identified the feedback needs of the clients; as some wanted oral feedback with a PowerPoint presentation and others wanted just a written report with the findings. Therefore knowing what was the preferred method I could better manage the project and the time. Clients also differed in what they wanted feedback on; some preferred to get feedback on the entire methodological process followed by results and recommendations and others showed a preference for just getting feedback on the findings and recommendations. To limit misunderstandings I mostly asked the client for their preferred method of feedback at the onset of the project.

Before the feedback event I would regularly contact the client and ask them which stakeholders they wanted present at the event and how long I will be given to present. This enabled me to better manage the content of the feedback and prepare materials accordingly. On the day of the feedback if I was doing a presentation, I always made

sure to print handouts for everyone attending. This way if the projector was not working or there was an issue with the laptop then there was a contingency plan in place.

During the times of giving lectures I incorporate a lot of feedback as it helps the development of students and helps them to evaluate their performance. The feedback given has been both informal and formal. Formally, I have been involved in marking assignments for MSc students and providing feedback on a case by case basis. Informally, I have provided feedback to students after tasks within the lectures/workshops. The feedback I give always starts off with a positive, as if negative feedback is given first, individuals will be left at their least positive and most defensive. Positive feedback given at this stage may not be as readily listened to or accepted and may leave the recipient feeling less positive than before. It is not always appropriate to share every possible piece of feedback. It is appropriate to decide how much feedback to give so that the experience is helpful and useful to him/her. It is also appropriate to select priority areas (the appropriate number of the most important, useful points) and express these genuinely, positively and sensitively as it is not wise to provide feedback on every area.

Finally, it is important not only to give feedback but to receive it also. Thus when I was given feedback I carried out the following steps:

- Listened to the feedback
- Ask for clarification at the end so that I am sure that I understand exactly what the feedback is and what evidence the comments are based on

- Devise an action plan to specify ways in which I can make changes on the task and new ideas to try for next time
- Keep a written record so that it can be used for later reflection and action planning

## **SUMMARY AND REFLECTION**

I have significantly grown as a health psychologist in training. I have experienced working across a variety of different roles such as a practitioner, researcher, consultant and lecturer within the field of health psychology. The majority of the experiences have taken place within my workplace however as my confidence as a Trainee grew I became more active in seeking extra opportunities to expand my competence and skills set. Occasionally some of the opportunities such as being module leader and giving a three day lecture on social marketing was very daunting; however I took it as a chance to gain further experience. This enhanced my confidence levels and boosted my ability to more readily say yes to opportunities which are out of my comfort zone. I believe being able to manage and supervise two Trainee Health Psychologists offered me the chance to become better at time management, project management, delegation and working in a team. At times there were certain difficulties to surpass, especially when I like the two Trainees was also a Trainee Psychologist enrolled in to the same university doing the same course. However regular and honest meetings were the key to maintain a professional and productive relationship. Overall I have wholeheartedly enjoyed the process and my development as a health psychologist in training and I feel that I am prepared with the knowledge and skills to becoming a fully qualified Health Psychologist.

## REFERENCES

Bandura A. (1986). *Social foundations of thought and action: a social cognitive theory*. Englewood Cliffs, NJ, USA: Prentice- Hall

Gollwitzer, P. M. (1993). Goal achievement: The role of intentions. *European Review of Social Psychology*; 4: 141–185

Locke, E. A., & Latham, G. P. (1990). *A theory of goal setting and task performance*. Englewood Cliffs, NJ: Prentice Hall

Murphy, T. H. & Margulies, J. (2004). *Performance Appraisals*. ABA Labour and Employment Law Section Equal Employment Opportunity Committee 2004 Mid-Winter Meeting. Accessed via: <http://www.bnabooks.com/ababna/eo/2004/eo55.pdf>

The British Psychological Society (2009). *Code of ethics and conduct*. Leicester: The British Psychological Society.

## **Area of Competence: Consultancy**

### **Investigating barriers faced by pregnant smokers in quitting cigarettes**

**SETTING:** PCT

**TARGET GROUP:** Pregnant smokers over the age of 18 living in a deprived town in Essex.

#### **AIMS OF THE CONSULTANCY:**

- To investigate the barriers that pregnant smokers face in quitting cigarettes through primary research.
- To disseminate findings to senior public health team.

#### **ASSESSING REQUESTS FOR CONSULTANCY**

In December, 2006 I was asked to attend a meeting with my manager. In the meeting I was informed that the PCT wanted to better understand the barriers that pregnant women face in quitting cigarettes. This was due to priority been given to target pregnant women that smoke in the government White Paper Smoking Kills (1998). From the first meeting I gathered that my manager (client) knew what he wanted the end result to be but was unsure about the route to take. I suggested that I would like to carry out focus groups to investigate (a) what the barriers are in quitting, and (b) what barriers pregnant smokers face in accessing the local stop smoking service. It was agreed that two focus groups consisting of approximately 6-7 pregnant women each would be carried out. Morgan (1992a) suggested that focus groups should consist of

between 6 to 10 participants, as it facilitates discussion and disclosure. Morgan (1992a) also suggested that diversity in either the participant or the range of topics to be covered will increase the number of groups necessary. Hence due to the groups being homogenous (pregnant smokers) and the topic of discussion being barriers in quitting smoking it was decided that two focus groups will be sufficient to reach data saturation.

The client's expectations and input required were:

- Recruitment of approximately 10-14 pregnant women that smoke
- Hiring out a central location to hold focus groups in
- Carrying out the focus groups
- Analysing the focus groups
- Present findings in a summarised format
- Disseminate findings to senior public health team

The consultancy was accepted at the end of the meeting and it was agreed that given that I was carrying out this consultancy during contracted hours, no further payments would be made. It was also agreed that I would provide 30 days of input for this project.

### ***Reflection***

The client provided me with the expected outcome which was to better understand the barriers that pregnant smokers face in quitting cigarettes, but left me to decide the route I wanted to adopt to investigate this. I quite enjoyed this process as it allowed me to look back at my previous experiences and use the knowledge and skills that I



have gained. It gave me freedom as a consultant to choose the methodology I wanted to use.

At this stage I was slightly worried as the client wanted me to only explore why the pregnant women were not accessing the stop smoking service but I felt that it was important to also explore their beliefs and attitudes towards smoking in general and the barriers they face in quitting cigarettes. I explained this to the client and it was agreed that their overall smoking behaviour should be investigated.

### **PLANNING CONSULTANCY**

It was jointly agreed with the client that it was utterly important that any recommendations I make to increase the number of women accessing the stop smoking service are evidence based and use a bottom up approach.

The project was a qualitative study. The reason behind selecting this model was that this type of research is inductive, generates hypothesis and has a focus on *how* things happen rather than *that* they happen. By using this method the data generated is rich because it describes and makes sense of the participant's experiences (Silverman, 2004). Analysis is predominately interpretive and deals with descriptions, meanings and characteristics of people.

It was decided that focus groups will be held with pregnant women that smoke to discuss what barriers they face in quitting cigarettes. By far one of the biggest advantages of using focus groups is that they are competent in being used as a preliminary method for topics and subjects where there is no prior research, which

can later on provide an input into developing services, questionnaires, other measurement instruments. Focus groups are a valuable tool in significant involvement of the communities such as minority and other vulnerable populations we serve and hope to understand (Merton, 2003).

After the acceptance of the consultancy I started to read up on the qualitative method I would be using to analyse the focus groups. I read several books and articles and in the end decided to use the abbreviated version of grounded theory. Grounded theory was used for many reasons. The underpinnings of grounded theory are appropriate to the study. The aim of this method is to identify contextualised social processes and is designed to assist with the discovery of theory that is grounded within the data. Grounded theory offers thorough and systematic procedures for data collection, analysis and theorising (Willig, 2001) and the stress on the process enables researchers to analyse individual and interpersonal processes and look at how they are developed, maintained or transformed (Charmaz, 2000). The abbreviated version (Willig, 2001) was chosen for data analysis. The abbreviated version differs to the original grounded theory by only coding and constantly comparing themes within the data already gathered, further data is not collected as the study continues (Willig, 2001).

A 'doctor-patient' model of consultancy was used (Schein 1999). This model is based on the initial process by which a consultant focuses on the problems that exist in an organization and the factors influencing these problems. The doctor-patient model allows the consultant to use their existing experience to diagnose the issues for the company and introduce potential methods for change (Schein 1999). One of the

problems with this kind of model is that it requires a developed relationship between the consultant and the organization, one that allows these professionals access to many different types of organizational information (Schein 1999). Fortunately being employed by the organisation meant that I already had a developed relationship with my client and allowed me to access any information that I required

During the planning process it was realised that the project would take up a lot of my time thus I set up a meeting with the client to discuss the potential for hiring someone who could transcribe the focus groups once they are carried out. It was agreed that I would find a transcriber and the client would pay for the transcription services. I also spoke to the client about purchasing a digital voice recorder for the recording of the focus groups. I was asked to purchase a recorder and to claim the money back. Lastly I discussed with him the need to have another colleague present at the focus group for health and safety reasons. It was agreed that I could invite a colleague to the focus group and they can get their time back in lieu. A contract was prepared and was signed by the client (Appendix 1).

### ***Reflection***

As I only had experience of using interpretive phenomenological analysis (IPA) (Smith, 1997) to analyse focus groups in the past I did not want to automatically assign it as the methodology I was going to use for this consultancy. Hence I started to read about the other methodologies and was constantly comparing them to ascertain which methodology was most suitable for research of this kind. In the end I selected the abbreviated version of grounded theory. It is quite easy at times to become comfortable with one methodology and continue using it for all future work but the

methodology used should depend on the research question and research objectives. I was also very pleased with the client for being so understanding about my time constraints and paying for a transcriber and a digital voice recorder. This made the planning stages of the consultancy much easier.

#### **ESTABLISHING, DEVELOPING AND MAINTAINING WORKING RELATIONSHIPS WITH CLIENTS**

I kept in touch with the client via emails and meetings. Due to the client being my manager I had the opportunity to discuss the consultancy with him during my monthly supervision meetings. The meetings allowed us to speak to each other about our concerns and/or the progress to date. This ensured that I was working towards a common perspective and not side tracking into something the client was not happy with. During the sessions the client was helpful in providing assistance with passing the details of some of his contacts that might be of help to me during the project, such as contacts in the local council for the recruitment of participants.

Having my manager as a client had many positives. Firstly, we were aware of each others working styles which ensured that we had a relationship that neither suffocated nor isolated both of us. Secondly, working in the same organisation and team there was mutual trust and respect, which is very important in a client-consultant relationship. Thirdly, due to being based in the same building we both had easy access to each other, making meetings easy to arrange.

### ***Reflection***

My working relationship with the client was always very good. The roles were assigned and we both knew what was expected of each other. I liked that the client was not too authoritarian during the consultancy, as this allowed me to acquire project management skills. Sometimes clients can be very prescriptive which can lead to difficulties in the client-consultant relationship.

### **CONDUCTING CONSULTANCY**

The project officially began in June, 2007. I contacted the local council to book a room to hold the focus groups as I wanted the location to be central and easily accessible. The posters to recruit the pregnant women were designed and were displayed at local pharmacies, libraries and local shops. I waited two weeks for a response from the recruitment campaign but no pregnant woman came forward to participate. A meeting was set up with the client to discuss this. Upon discussion it was agreed that a marketing company should be used to recruit the women. A marketing company was sought and briefed. The fee for the marketing company came from the client.

A few days before the focus groups I spoke to a colleague about being present at the focus group for health and safety purposes. The focus groups were arranged to take place on the same day, one in the morning and one in the afternoon in July, 2007. Information sheets were prepared and handed to the marketing company. Consent forms and debriefing forms were prepared for distribution on the focus group day.

The focus group schedule was prepared with predominantly open ended question. A funnel approach was used where I started with generic questions and as the focus group went on the questions became more specific.

The focus groups went well and the audio recordings were sent to the transcribers. The transcriptions were returned within two weeks. The data was analysed and two core themes were found in the data; (1) barriers in quitting and (2) overcoming barriers. Barriers in quitting has a further six main themes, (1) positive perception of smoking, (2) association/triggers, (3) competition, (4) motivation, (5) healthcare professionals and (6) stop smoking service. Overcoming barriers has a further three main themes; (1) negative perceptions of smoking, (2) models of treatment and (3) marketing services (See Appendix 2 for themes table). Each of the themes was explored.

## **1. BARRIERS IN QUITTING**

The issue of barriers in quitting was a dominant theme during the focus groups. When participants spoke about the barriers that they faced whilst trying to quit smoking, they labelled many factors as the either the main or one of the causes of their failure to stop smoking. Below those factors will be very briefly discussed in the form of main themes.

### **1.1 Positive Perception of Smoking**

When participants spoke about their perceptions of smoking a large number of them talked about the positive nature of smoking. Smoking was used as a relaxation tool, it

acted as a reward, it was used as a mean of avoiding boredom and lastly many people found smoking an enjoyable exercise.

*“When I’m at home then I start thinking like I don’t feel well or I start stressing, then I light up a fag” ( P5-FG1)*

## **1.2 Association/Triggers**

The participants were associating smoking with factors such as weight gain, stress, alcohol, cravings and their partners smoking. There was a common view that by quitting cigarettes weight will be gained, stress will increase and that drinking alcohol would become less satisfying. The participants regardless of age described these associations as being one of their biggest barriers in quitting cigarettes.

*“I’d rather smoke than be fat” (P?-FG5)*

*“The minute he (husband) gets up and sparks up a fag I wanna sit down and have a fag with him, whereas I might have gone another hour without having another cigarette before he got up”(P4 FG1)*

## **1.3 Competition**

Competition was found to be both internal and external. In the context of this study internal competition are the personal factors that are competing with making a quit attempt; such as blame minimisation and low threat perception. Many participants were well versed in the dangers of smoking. They understood the health risks but there was a common attitude of ‘it will not happen to me’. Many women defended

their decision to smoke during pregnancy by saying it caused no harmful effect on their child.

*“But they say that when you’re smoking and you’re pregnant you can stunt the growth of your baby. Well, all I have to say is good job I did smoke with him, because he was 9 lb. 6oz. If I didn’t smoke he would’ve been 25 pounds!” (P1-FG2)*

External competition on the other hand are outer factors that acted as barriers such as the stop smoking service branding and non-NHS stop smoking services that are competing for the attention of a smoker. The participants were keener to explore hypnosis and acupuncture before accessing the free local stop smoking service to quit smoking.

*“There’s only one thing I’d try and that’s hypnosis, cos hypnosis would, if I was the kind of person who wanted to give up, I wouldn’t want to do any of these other things” (P? FG2)*

#### **1.4 Motivation**

Having motivation is an important tool to assist people in trying to quit cigarettes or not to relapse. Motivation can be affected by many factors. The three that were discussed within the focus groups were self efficacy/confidence, willpower and social support. If motivation is weak this can become a barrier in quitting. The participants, regarded lack of confidence as a barrier to quitting cigarettes. Social support had a big impact on quit attempts and long term quit success. Participants considered a lack of social support as being a barrier in quitting cigarettes.



## 1.5 Healthcare professionals (HCP)

GPs were seen as the ‘experts’, the healthcare professionals who they sought advice from. Midwives were seen as support mechanisms during pregnancy. However the same healthcare professionals undermined their positions by showing a lack of empathy, by providing incorrect information and by displaying negative body language. Many women described the advice they received from their midwives whilst being pregnant. A large number of them explained that they were told not to stop smoking because it would be ‘stressful for the baby’.

*“My midwife told me that it’s actually more stressful for the baby trying to give up smoking in pregnancy – it’s better if you can cut down” (P3-FG1)*

*“When I was pregnant with my first son I was under a lot of pressure so I was smoking more, and I was paranoid about smoking all the way through, but I couldn’t stop, and she (midwife) told me it would be the worst thing to do would be to give up” (P?-FG1)*

*“would you be interested in getting help to stop smoking?” (HA-FG1)*

*“Well, we’re not allowed. Well the midwives told us” (P2-FG1)*

*“they said its best for the baby, because it would stress the baby out more” (P1- FG1)*

*“Well when I was pregnant with my last one they told me that I couldn’t give up smoking” (P2-FG2)*

Women were actively told not to quit smoking and due to the heavy reliance on healthcare professionals for health related advice the women did not challenge this view and believed it to be correct.

## **1.2 Stop Smoking Service**

Awareness of stop smoking services such as free group sessions, NRT on prescription and stop smoking support at GPs was generally quite poor. It was generally thought that the availability was scarce and the price would be high. Participants also held incorrect views on treatment and stop smoking medication.

*“What about cost of smoking cessation treatments?” HA*

*“They are pricey” (P?-FG1)*

As well as not being aware of the services on offer participants held a number of incorrect views on treatment and medication. Their main sources of incorrect information were family and friends. The most popular view held was that NRT was as damaging as a cigarette and it would be like replacing one addiction with another.

## **2. OVERCOMING BARRIERS**

The second super-ordinate theme is overcoming barriers. One of the aims of the study was to explore how barriers in quitting could be overcome which in turn can assist in a successful quit attempt. This section is divided up in three main themes; (1) negative perceptions of smoking; (2) models of treatment and (3) marketing.

## **2.1 Negative Perceptions of Smoking**

As well as talking about smoking in a positive way the participants also discussed the negative aspects of smoking. Frequently participants spoke about smoking in a purely physiological way. They saw smoking as an addiction, as something that the body needs and must be given. Giving the title of addiction to their smoking at times took away their responsibility to stop smoking. It was used to justify the difficulties in quitting and made the problem to be external. Bad health also made participants consider the effect the cigarette was having on them, especially the effects that they cannot see

*“When people know you’re pregnant as well...Yeh you do get the dirty looks but people do look at you, you feel a burning in the back of your neck” ( P4- FG1)*

## **2.2 Models of Treatment**

Within the focus groups participants were asked about what kind of services they require to assist them to quit smoking. Throughout the focus groups participants did not speak about their smoking in an isolated individual way. They always associated their smoking with factors such as weight gain, stress and alcohol. However when getting treatment for smoking they could not understand why only the smoking was being addressed and the reasons as to why they smoke is never targeted. When the participants themselves did not perceive their smoking to be one dimensional they could not understand why then the treatment they were receiving or was on offer is so one dimensional. It was believed that by having a treatment model that holistic and

addresses their complete problem will lead to fewer relapses and will enable them to have a better lifestyle

### **2.3 Marketing**

As well as speaking to the participants about their smoking behaviour and stop smoking treatments, marketing was also explored. The participants were asked about previous promotional efforts and future marketing. Pregnant women again like the wanted emotive adverts. They wanted children to be at the centre of the campaign and they preferred factual adverts based on true stories.

*“I tell you one thing that did upset me, when I saw that little girl on telly that time with her dad; did you see it. He had throat cancer. She was crying. That really did get to me” (P?-FG2)*

Many participants could not recall any past local marketing campaigns. That is not surprising as in the past one advert would be used to target all segments of the local population. Pregnant women want adverts to be placed on route to schools on billboards, in magazines, in local newspapers, especially the women’s section in the local newspaper. The women also said they read all material that their children bring back from school; therefore it would be worthwhile to disseminate information through schools.

### ***Reflection***

I was very disappointed when I was unable to recruit any participants for the focus groups as I had spent quite a lot of time preparing and working on recruitment. What I

learnt from this was that due to there being a taboo around pregnant smokers, not many women were forthcoming as they thought that the focus groups were going to turn into lectures. Whereas when the marketing company recruited they spoke to women directly and could answer any questions that they had plus a cash incentive was offered. Due to most women being from a low socio economic group the cash incentive was very attractive as opposed to giving out store vouchers.

#### **MONITORING THE PROCESS OF CONSULTANCY**

Meetings with the client were held regularly to discuss each phase of the consultancy. Though it was felt that a lot of control was handed to me as a consultant and I was allowed to make decisions that I thought would benefit the consultancy. Input from the client was quite low.

Changes occurred during the consultancy. I was not aware that I would find it so difficult to recruit participants, thought the recruitment posters were put up in the local area. Hence using the marketing company was the only way to recruit. The difference between the recruitment styles was that the marketing company approached people directly and offered cash incentives.

The signed consent forms were collected from participants at the beginning of the focus group and held in a folder. Each participant was recognised by a participant number ensuring further privacy. Their personal information form which included their name and contact details were kept separate from the transcriptions and consent forms. This was to maintain confidentiality for the participants. The information was

kept in a locked drawer within the office and all transcripts and digital voice recordings were kept on one computer which was password protected.

### ***Reflection***

Due to the client being my manager there was less formality within the consultancy processes. At times I found that if a priority project came up I would have to give that my attention. For next time I will make sure that I set myself days and times that I will dedicate to the consultancy and make sure that I stick to them.

It would have been beneficial for me and the client to have a formal monitoring process set up. If I was to accept another consultancy role I will ensure that I have an agreed monitoring system in place.

### **EVALUATING THE IMPACT OF CONSULTANCY**

The impact of the consultancy was wide ranging. A number of steps were taken to increase the number of pregnant smokers accessing the NHS Stop Smoking Service:

- A targeted marketing campaign was launched for pregnant women- that took account of the barriers that they faced (Appendix 4)
- All midwives were asked to carry out a CO reading of all pregnant women on their first visit, and if the reading showed that the pregnant woman was a smoker then an automatic referral would be made into the local stop smoking service
- The head of midwifery for the local area was contacted and informed about the findings of this study. They were specifically informed about

some midwives advising women not to quit smoking whilst pregnant. This led to a revised training package for midwives which incorporated more role plays and the training was revisited by approximately 50% of all the midwives.

I was also asked to write a brief report (Appendix 3) and present this research to the PCT board and the senior management team of the PCT. The consultancy was well received and led to a lot of interest in the findings and the approaches used.

### ***Reflection***

Though there was no formal evaluation I got the opportunity to present my work to the PCT board and at the SMT meeting. I was initially very nervous about presenting my work as it had clinical implications. I was very pleased at the response I got from the PCT and it allowed them to ask me questions on the project.

### **SUMMARY**

Overall I was very pleased with this consultancy project. I have strengthened my contract writing, research, data analysis, presenting and disseminating skills. I have built my skills as a consultant and have learnt some important lessons along the way such as ensuring that I have rigorous monitoring and evaluation processes in place.

## REFERENCES

- Department of Health. (1998). *Smoking kills: A White Paper on tobacco*. London: The Stationary Office
- Lowry, R. J., Hardy, S., Jordan, C. & Wayman, G. (2004). Using social marketing to increase recruitment of pregnant smokers to smoking cessation service: a success story. *Public health*; 118(4):239-43.
- Merton, R. (2003). Focusing on focus groups. *Journal of Adolescent Health*; 32:329-330
- Morgan, D. L. (1992a). Designing focus group research. *In Tools for Primary Care Research*, ed. Stewart, M. et al, pp.177-193. Thousand Oaks. CA:Sage
- Schein. E. (1999). *Process Consultation Revisited: Building the Helping Relationship*. Reading, MA: Addison-Wesley
- Silverman, D. (2004) *Doing qualitative research: A practical handbook*. SAGE Publications Ltd, London, UK.
- Smith, J. A. (1996). Beyond the divide between cognition and discourse: using interpretative phenomenological analysis in health psychology. *Psychology & Health*; 11: 261-71
- Willig, C. (2001). *Introducing qualitative research in psychology: Adventures in theory and method*. Buckingham: Open University Press



## Appendices

### APPENDIX 1

#### Contract for Consultancy

**Title of work:** Investigating barriers faced by pregnant smokers in quitting cigarettes

**Contracting client:** Associate Director of Public Health at a PCT

**Consultant:** Henna Ali, Trainee Health Psychologist

**Objectives:**

The aim of the consultancy is:

- To investigate the barriers that pregnant smokers face in quitting cigarettes through primary research.
- To disseminate findings to senior public health team.

In order to achieve the above aims the following work will be carried out:

A qualitative research will be conducted, encompassing two focus groups with pregnant smokers residing in deprived areas of the town. The qualitative data will be transcribed and analysed via abbreviated grounded theory. The findings will be disseminated to the public health team, PCT board and senior management team of the PCT.

Outcome of the consultancy:

The contracting client will be provided with a report of the barriers faced by pregnant smokers in quitting smoking and will have the work presented to them and their team.

### **Consultant requirements**

- The PCT will pay for all costs associated with this project (room hire costs, incentive costs etc.) and will be the sole sponsor
- Regular contact will be maintained with the client to provide feedback and progress
- The PCT will pay for the recruitment of the participants which will be carried out by a market research company

### **Timeframe**

The total duration of the consultancy is 10 months.

Start of consultancy: November 2006

End of consultancy: September 2007

### **Code of conduct**

The consultant will carry out this piece of consultancy according to the British Psychological Society Code of Conduct and the NHS Code of Conduct.

### **Intellectual property**

The consultant shall be named on any publications arising from her work.

**Cost**

This piece of consultancy is will be carried out during office hours and forms part of the consultant's job description, hence no fee will be charged. However if a fee was charged then it would be at a cost of £7,500 (30 days). Cost per day would be £250.

**Signature:** \_\_\_\_\_ **Signature:** \_\_\_\_\_  
(of consultant) (of client)

**Today's Date:** \_\_\_\_\_ **Today's Date:** \_\_\_\_\_

APPENDIX 2

**Qualitative Themes Table**

<b>Barriers in Quitting</b>				
	<b>Positive Perception of smoking</b>			
		Enjoy Smoking		
		Relaxing		
		Reward		
		Avoidance of boredom		
		Social norms		
	<b>Association/ Triggers</b>			
		Stress		
		Weight		
		Alcohol		
		Cravings		
		Partner smoking		
	<b>Competition</b>			
		<b>External</b>	<b>Internal</b>	
		Branding	Blame minimisation	
		Alternative therapy	Low threat perception	
	<b>Motivation</b>			
		Self efficacy/ confidence		
		willpower		
		Social support		
	<b>HCP</b>			
		Relationship with HCP		
			GPs	
			Other HCP	
		Incorrect advice		
	<b>Stop Smoking Service</b>			
		Awareness		
			Availability of services not known	

			Incorrect views of treatments/meds	
		Experience of stop smoking programmes		
<b>Overcoming Barriers</b>				
	<b>Negative Perceptions of Smoking</b>			
		Health		
		Financial		
		Addiction		
		Chastised		
		Children		
	<b>Models of Treatment</b>			
		Holistic model		
		Tailored service and access		
		Location and staff		
		Socialising		
	<b>Marketing the Service</b>			
		Targeted adverts		
		Mediums and location of advertisement		

## **Barriers Pregnant Women Face in Quitting Cigarettes**

### **Introduction**

Smoking is a risk factor for many illnesses and diseases and can ultimately cause death. There are over 4000 different chemical compounds found within inhaled smoke, from which hundreds are known carcinogenic. In the UK there are an estimated 120,000 deaths which are caused by smoking. From these an estimated 42,800 deaths are from smoking-related cancers, 30,600 from cardiovascular disease and 29,100 from emphysema and other chronic lung diseases (Action on smoking and health). Over 50% of the people who continue smoking for the rest of their lives die of their dangerous habit; 25% die before the age of 69 (Department of Health (DOH), 1998) and this too at the time when the average life expectancy is 75 for men and 81 for women in the UK (National Statistics- Life Expectancy, 2004). Due to smoking being the single cause for most preventable illnesses and premature death in the world, health organisations worldwide are prioritising reducing smoking amongst their population (DOH, 1998).

In spite of this, the town of Basildon located in South West Essex has the highest estimated prevalence of smoking in Essex standing at 30% in certain wards whilst the national average is 22%. This is unsurprising given the high levels of deprivation in many wards within Basildon. According to the local Smokefree Basildon-Tobacco control strategy, 2006 and National Statistics Online Basildon has six wards in the top 20% most deprived in England and Wales, four out of ten wards most deprived in South Essex, six out of nine wards rank in the top ten most deprived against the Income deprivation indices and four out of nine wards are ranked in the top ten most deprived against the health deprivation and disability indices.

It is estimated that 70% of smokers would like to quit cigarettes. Yet intention alone does not always lead to actual behaviour change (Sheeran and Silverman, 2003). Other factors that are hindering behaviour change should be examined. One of the main factors could be perceived barriers to quitting smoking. Research suggests that there a large number of barriers that make it difficult for smokers to quit. The barriers reported are:

1. Enjoyment of smoking (Oksuz, Mutlu & Malhan, 2007)
2. Cravings (Daughton et al., 1999)
3. Loss of smoking as means of handling stress (McGee and Williams, 2006)
4. Fear of weight gain (Jenks and Higgs, 2007)
5. Low self efficacy (Bandura, 1986)
6. Cost of smoking cessation treatments (Hines, 1996 & Roddy, Antoniak, Britton, Molyneux, & Lewis, 2006)
7. Lack of awareness of the smoking cessation treatments available (Roddy et al, 2006)
8. Fear of failure (Ussher, Etter & West, 2006)
9. Fear of withdrawal symptoms (Hughes, Higgins & Hatsukami, 1990)
10. Loss of social relations/life (Harrakeh et al, 2007)

Within current literature the barriers are listed but there is a reduced attempt to carry out research to overcome the stated barriers. Studies are needed to alleviate the barriers to quitting by means of public health campaigns and interventions which will

help smokers to quit. In addition to that it is important to evaluate the effectiveness of the campaign/interventions to measure the success.

The aim of this study is to understand the barriers that pregnant women face in quitting cigarettes.

## **Methodology**

### **Design**

The research is a qualitative study. The reason behind selecting this model was that this type of research is inductive, generates hypothesis and has a focus on *how* things happen rather than *that* they happen. By using this method the data generated is rich because it describes and makes sense of the participant's experiences (Silverman, 2000). Analysis is predominately interpretive and deals with descriptions, meanings and characteristics of people. The outcome of this process enables the development of explanatory models and concepts.

Focus groups were held with pregnant smokers to discuss what barriers they face in quitting cigarettes. Focus groups are a valuable tool in significant involvement of the communities such as minority and other vulnerable populations we serve and hope to understand (Merton, 2003). Therefore focus groups were deemed to be the most appropriate method to use.



## **Participants**

1. The sample of this study consisted of eleven participants who smoke to take part in the two focus groups. Focus group 1 had 5 participants and focus group 2 had 6 participants.

The participants were recruited via a marketing company and the marketing company were given £25 Marks and Spencers vouchers to be distributed to each participant as a way of thanking them for taking part in the focus group.

## **Materials**

A digital voice recorder was used for recording the focus group discussions. Two information sheets had to be filled out by the participants. Information sheet one contained questions such as name, address, and telephone number and information sheet two contained information on demographics such as age, ethnicity, occupation, education, marital status and who the participant lives with.

## **Data Collection**

The study was conducted in an ethically appropriate manner according to formal guidelines from the British Psychological Society (Code of Conduct and Ethical Principles and Guidelines, 2000). Focus groups were the selected method of data collection within the study. Informed consent of each participant was obtained via a consent form. The participants were given full explanation of the purpose of the study and were informed that the focus groups will be audio. Participants were reminded in the consent form that they could withdraw from the focus group whenever they

wished and that their responses would not affect the healthcare they receive or would receive from their doctors and midwives.

Demographic information including age, ethnicity, occupation, education, marital status and who the participant lives with was obtained before the focus group via a question sheet. Participants within the study were identified via their participant number given to them at the time of their focus group. No names had been included to ensure participant confidentiality and privacy.

The focus groups lasted between 45 and 60 minutes, and open ended questions were posed to the participants. After the focus groups the participants were given debriefing forms. Verbatim transcripts of the recorded focus groups were produced. The tapes were destroyed after transcription.

### **Data Analysis**

The data was analysed via a combination of two approaches; social marketing and abbreviated grounded theory. Grounded theory was used for many reasons. Firstly the underpinnings of grounded theory are appropriate to the study. The aim of this method is to identify contextualised social processes and is designed to assist with the discovery of theory that is grounded within the data. The aim of the study is to understand what the perceived barriers are for smokers within the Basildon area and how they feel that the barriers can be overcome and grounded theory allows the researcher to get close to the participants world. Secondly, grounded theory offers thorough and systematic procedures for data collection, analysis and theorising (Willig, 2001). Thirdly, the stress on the process enables researchers to analyse

individual and interpersonal processes and look at how they are developed, maintained or transformed (Charmaz, 2000).

In Strauss and Corbin's (1998) method of grounded theory the analysis of data and data collection are carried out simultaneously and theoretical sampling is applied. However for this study an abbreviated version (Willig, 2001) of grounded theory was used for the analysis of this study. The data was coded and constant comparative analysis was carried out to develop the themes, but further data was not collected to reach saturation point. Initial open coding of the data was carried out using line-by-line coding (Charmaz, 2006) to identify descriptive low-level categories and codes grounded in the data (Willig, 2008). During this process comparisons were made between what was being said and what had been said elsewhere by other participants and groups. Themes began to emerge and codes that were found to be similar were grouped into categories. The connection between the categories were further explored which led to higher-order categories with sub-categories within them.

## **Findings**

The data was analysed and two core themes were found in the data; (1) barriers in quitting and (2) overcoming barriers. Barriers in quitting has a further six main themes, (1) positive perception of smoking, (2) association/triggers, (3) competition, (4) motivation, (5) healthcare professionals and (6) stop smoking service. Overcoming barriers has a further three main themes; (1) negative perceptions of smoking, (2) models of treatment and (3) marketing services (See Appendix 2 for themes table). Each of the themes was explored.

## **1. BARRIERS IN QUITTING**

The issue of barriers in quitting was a dominant theme during the focus groups. When participants spoke about the barriers that they faced whilst trying to quit smoking, they labelled many factors as the either the main or one of the causes of their failure to stop smoking. Below those factors will be very briefly discussed in the form of main themes.

### **1.1 Positive Perception of Smoking**

When participants spoke about their perceptions of smoking a large number of them talked about the positive nature of smoking. Smoking was used as a relaxation tool, it acted as a reward, it was used as a mean of avoiding boredom and lastly many people found smoking an enjoyable exercise.

*“When I’m at home then I start thinking like I don’t feel well or I start stressing, then I light up a fag p5 fg1 pg9*

### **1.2 Association/Triggers**

The participants were associating smoking with factors such as weight gain, stress, alcohol, cravings and their partners smoking. There was a common view that by quitting cigarettes weight will be gained, stress will increase and that drinking alcohol would become less satisfying. The participants regardless of age described these associations as being one of their biggest barriers in quitting cigarettes.

*“I’d rather smoke than be fat” p? fg5*

*“the minute he (husband) gets up and sparks up a fag I wanna sit down and have a fag with him, whereas I might have gone another hour without having another cigarette before he got up” p4 fg1 pg 29*

## **1.6 Competition**

Competition was found to be both internal and external. In the context of this study internal competition are the personal factors that are competing with making a quit attempt; such as blame minimisation and low threat perception. Many participants were well versed in the dangers of smoking. They understood the health risks but there was a common attitude of ‘it will not happen to me’. Many women defended their decision to smoke during pregnancy by saying it caused no harmful effect on their child.

*“But they say that when you’re smoking and you’re pregnant you can stunt the growth of your baby. Well, all I have to say is good job I did smoke with him, because he was 9 lb. 6oz. If I didn’t smoke he would’ve been 25 pounds!” p1 fg2*

External competition on the other hand are outer factors that acted as barriers such as the stop smoking service branding and non-NHS stop smoking services that are competing for the attention of a smoker. The participants were keener to explore hypnosis and acupuncture before accessing the free local stop smoking service to quit smoking.

*“There’s only one thing I’d try and that’s hypnosis, cos hypnosis would, if I was the kind of person who wanted to give up, I wouldn’t want to do any of these other things” p? fg2*

## **1.7 Motivation**

Having motivation is an important tool to assist people in trying to quit cigarettes or not to relapse. Motivation can be affected by many factors. The three that were discussed within the focus groups were self efficacy/confidence, willpower and social support. If motivation is weak this can become a barrier in quitting. The participants, regarded lack of confidence as a barrier to quitting cigarettes. Social support had a big impact on quit attempts and long term quit success. Participants considered a lack of social support as being a barrier in quitting cigarettes.

## **1.8 Healthcare professionals (HCP)**

GPs were seen as the ‘experts’, the healthcare professionals who they sought advice from. Midwives were seen as support mechanisms during pregnancy. However the same healthcare professionals undermined their positions by showing a lack of empathy, by providing incorrect information and by displaying negative body language. Many women described the advice they received from their midwives whilst being pregnant. A large number of them explained that they were told not to stop smoking because it would be ‘stressful for the baby’.

*“My midwife told me that it’s actually more stressful for the baby trying to give up smoking in pregnancy – it’s better if you can cut down” p3 fg1 pg 11*

*“When I was pregnant with my first son I was under a lot of pressure so I was smoking more, and I was paranoid about smoking all the way through, but I couldn’t stop, and she (midwife) told me it would be the worst thing to do would be to give up”*

*p? fg1 pg12*

*“would you be interested in getting help to stop smoking?” HA*

*“Well, we’re not allowed. Well the midwives told us” p2*

*“they said its best for the baby, because it would stress the baby out more” p1 fg1*

*“Well when I was pregnant with my last one they told me that I couldn’t give up smoking” p2 fg2*

Women were actively told not to quit smoking and due to the heavy reliance on healthcare professionals for health related advice the women did not challenge this view and believed it to be correct.

### **1.3 Stop Smoking Service**

Awareness of stop smoking services such as free group sessions, NRT on prescription and stop smoking support at GPs was generally quite poor. It was generally thought that the availability was scarce and the price would be high. Participants also held incorrect views on treatment and stop smoking medication.

*“What about cost of smoking cessation treatments?” HA*

*“They are pricey” fg1*

As well as not being aware of the services on offer participants held a number of incorrect views on treatment and medication. Their main sources of incorrect information were family and friends. The most popular view held was that NRT was as damaging as a cigarette and it would be like replacing one addiction with another.

## **2. OVERCOMING BARRIERS**

The second super-ordinate theme is overcoming barriers. One of the aims of the study was to explore how barriers in quitting could be overcome which in turn can assist in a successful quit attempt. This section is divided up in three main themes; (1) negative perceptions of smoking; (2) models of treatment and (3) marketing.

### **2.4 Negative Perceptions of Smoking**

As well as talking about smoking in a positive way the participants also discussed the negative aspects of smoking. Frequently participants spoke about smoking in a purely physiological way. They saw smoking as an addiction, as something that the body needs and must be given. Giving the title of addiction to their smoking at times took away their responsibility to stop smoking. It was used to justify the difficulties in quitting and made the problem to be external. Bad health also made participants consider the effect the cigarette was having on them, especially the effects that they cannot see

*“When people know you’re pregnant as well...Yeh you do get the dirty looks but people do look at you, you feel a burning in the back of your neck” p4 fg1 pg 18*



## **2.5 Models of Treatment**

Within the focus groups participants were asked about what kind of services they require to assist them to quit smoking. Throughout the focus groups participants did not speak about their smoking in an isolated individual way. They always associated their smoking with factors such as weight gain, stress and alcohol. However when getting treatment for smoking they could not understand why only the smoking was being addressed and the reasons as to why they smoke is never targeted. When the participants themselves did not perceive their smoking to be one dimensional they could not understand why then the treatment they were receiving or was on offer is so one dimensional. It was believed that by having a treatment model that holistic and addresses their complete problem will lead to fewer relapses and will enable them to have a better lifestyle.

## **2.6 Marketing**

As well as speaking to the participants about their smoking behaviour and stop smoking treatments, marketing was also explored. The participants were asked about previous promotional efforts and future marketing. Pregnant women again like the wanted emotive adverts. They wanted children to be at the centre of the campaign and they preferred factual adverts based on true stories.

*“I tell you one thing that did upset me, when I saw that little girl on telly that time with her dad; did you see it. He had throat cancer. She was crying. That really did get to me”p? fg2*

Many participants could not recall any past local marketing campaigns. That is not surprising as in the past one advert would be used to target all segments of the local population. Pregnant women want adverts to be placed on route to schools on billboards, in magazines, in local newspapers, especially the women's section in the local newspaper. The women also said they read all material that their children bring back from school; therefore it would be worthwhile to disseminate information through schools.

### **Conclusion**

The barriers in quitting discussed within the study were not surprising and not too far apart from other research studies in this area. This study shows that to increase the number of quitters not only do you need to make the stop smoking services more effective but you need to promote the services just as extensively, because if people are not aware of the services available regardless of how effective they are, the access rate will be low. One size does not fit all. We have to evolve the services that we offer to the public and evolve the way in which we market our services. Most public health departments currently are working in silo with separate tobacco, obesity and alcohol departments, they need to start working more holistically and offer more holistic services to their clients/patients. The biggest challenge to any stop smoking service will be to offer choice to their clients, as in today's world patients are consumers that want services according to their need at a time that suits them.

## References

- Bandura A. (1986). *Social foundations of thought and action: a social cognitive theory*. Englewood Cliffs, NJ, USA: Prentice- Hall
- Charmaz, M. Grounded Theory. In: Smith, J. (2003) *Qualitative Psychology: A Practical Guide to Research Methods* (pp. 81-109). London: Sage
- Daughton, D. M., Fortmann, S. P., Glover, E. D., Hatsukami, D. K., Heatley, S. A., Lichtenstein, E., Repsher, L., Millatmal, T., Killen, J. D., Nowak, R. T., Ullrich, F., Patil, K. D. & Rennard, S. I. (1999). The smoking cessation efficacy of varying doses of nicotine patch delivery systems 4 to 5 years post-quit day. *Preventive Medicine*, 28, 113–118.
- Department of Health. (1998). *Smoking kills: A White Paper on tobacco*. London: The Stationary Office
- Harakeh, Z., Engels, R. C. M. E., Van Baaren, R. B., & Scholte, R. H. J. (2007). Imitation of cigarette smoking: An experimental study on smoking in a naturalistic setting. *Drugs and Alcohol Dependence*; 86:199-206
- Hines, D. (1996) Young smokers' attitudes about methods for quitting smoking: barriers and benefits to using assisted methods. *Addictive Behaviors*; 21(4):531-535
- Hughes, J. R., Higgins, S. T., & Hatsukami, D. K. (1990). *Effects of abstinence from tobacco: A critical review*. In L. T. Kozlowski, H. Annis, H. D. Cappell, F. Glaser, M. Goodstasdt, Y. Israel, H. Kalant, E. M. Sellers, & J. Vingillis. *Research advances in alcohol and drug problems*, vol. 10. (pp. 317– 398). New York7 Plenum Press
- Jenks, R.A. and Higgs, S. (2007). Associations between dieting and smoking-related behaviours in young women. *Drug and Alcohol Dependence*; 88: 291-299
- McGee, R. & Williams S. (2006). Predictors of persistent smoking and quitting among women smokers. *Addictive Behaviours*; 31 (9):1711–1715
- Merton, R. (2003). Focusing on focus groups. *Journal of Adolescent Health*; 32:329-330
- National Statistics- Life Expectancy, (22<sup>nd</sup> July, 2004).  
<http://www.statistics.gov.uk/CCI/nugget.asp?ID=934&Pos=2&ColRank=2&Rank=1000> Accessed on 15/04/10.
- Oksuz, E., Mutlu E.T. & Malhan, S. (2007). Characteristics of daily and occasional smoking among youths. *Public Health*; 121(5): 349-356
- Roddy, E., Antoniak, M., Britton, J., Molyneux, A. & Lewis, S. (2006). Barriers and motivators to gaining access to smoking cessation services amongst deprived smokers—a qualitative study. *BMC Health Services Research*; 6:147

Silverman, D. (2004) *Doing qualitative research: A practical handbook*. SAGE Publications Ltd, London, UK.

Sheeran, P. & Silverman, M. (2003). Evaluation of three interventions to promote workplace health and safety: evidence for the utility of implementation intentions. *Social Science & Medicine*; 56: 2153-2163

Strauss, A., & Corbin, J. (1998). *Basics of qualitative research: Grounded theory, procedures and techniques*. Newbury Park, CA: Sage.

The British Psychological Society (2000). *Code of ethics and conduct*. Leicester: The British Psychological Society

Ussher, M., Etter, J. & West, R. (2006). Perceived barriers to and benefits of attending a stop smoking course during pregnancy. *Patient Education and Counselling*; 61 (3): 467-472

Willig, C. (2001). *Introducing qualitative research in psychology: Adventures in theory and method*. Buckingham: Open University Press

# Baby



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## **Area of Competence: Teaching and Training**

### **Case Study 1: Delivering a Social Marketing Workshop to a Cardiac and Stroke Network**

**SETTING:** A local Cardiac and Stroke Network

**TARGET GROUP:** Managers of the network

**DESCRIPTION OF WORK:** To teach managers from the network about the use of social marketing in public health.

#### **PLANNING AND DESIGNING TRAINING PROGRAMMES THAT ENABLE STUDENTS TO LEARN ABOUT PSYCHOLOGICAL KNOWLEDGE, SKILLS, AND PRACTICES**

I am a Trainee Health Psychologist at a PCT and my manager is the Associate Director of Public Health. My manager was contacted by the Director of a local Cardiac and Stroke Network in early May, 2008 to enquire about the social marketing research carried out by myself on smoking cessation. The network was planning an away day and social marketing was a topic they wanted more to learn more about. Health related Social Marketing is the systematic application of marketing alongside other concepts and techniques, to achieve specific behavioural goals, to improve health, and to reduce health inequalities (National Social Marketing Centre, 2009). My manager thought it would be best if I spoke to her directly and passed her details onto me. I contacted the Director and spoke to her at length regarding what type of information she requires, the length of the workshop, the number and job titles of the people attending and what they hope to achieve from the workshop.

I was informed that they wanted to become more familiarised with social marketing and how it can be used within public health as they were thinking about carrying out social marketing research in the future. In the last few years social marketing has become increasingly popular and this was even more evident when the UK government released a public health white paper in which it mentioned the “power of social marketing” and how “marketing tools applied to social good used to build public awareness and change behaviour” (Department of Health, 2004). Since then many other official reports have been released and initiatives such as the National Social Marketing Strategy (NSMS) and the National Social Marketing Centre (NSMC) have emerged. Social marketing is not a theory but rather a framework that draws from areas such as psychology and communication theory to understand how to influence people’s behaviour. It seeks to learn from commercial marketers’ success in changing behaviour, and is an increasingly important aspect of the public health agenda in England. The NSMC have an eight category national benchmark criteria for social marketing which includes the concepts of; customer orientation, behaviour, theory, insight, exchange, competition, segmentation and methods mix. Health psychology research involves the processes of customer orientation, behaviour, theory and insight. By adding the other social marketing components to health psychology and public health research the research methodology has the potential to become far more robust and all rounded. The focus as well as being on understanding the behaviour and developing interventions for individuals/populations, we need to think of effective ways of communicating these ideas back to the public. Interventions/services without effective targeted marketing or targeted marketing without effective intervention/services cannot work. Thus social marketing is the

marriage of these two concepts, and when applied together shows an increase in healthy behaviours and behaviour change.

The Cardiac and Stroke Network had a number of other workshops and lectures planned for the day so I suggested a one-hour slot for the social marketing workshop. I asked the director whether anybody within her team had any experience of social marketing and I was informed that this workshop is taking place to introduce the concept to the team members thus this illustrated that the workshop needed to cover basic elements of social marketing and that I should conclude it with a summary of the social marketing research I carried out as a practical example. The best approach for this workshop would be to have a PowerPoint presentation as this would ensure that the attendees of the workshop would have something they can refer back to. I contacted the Personal Assistant (PA) of the director to enquire whether a laptop and projector would be available on the day of the workshop to carry out the presentation. It was confirmed that the equipment would be available.

The slides that I produced were split into two distinct sections (Appendix 1). The first section introduced social marketing by giving a definition, the core concepts (i.e., segmentation, objective setting, marketing mix, communication and competition) and the types of research methodologies that can be used. The second section was a case study of the social marketing research I carried out on “overcoming barriers faced by cigarette smokers to quit”. I included the case study as a practical example of the techniques I was informing the group about. The case study would allow the group to see the way how I set my objectives, how I segmented the population, the research methodologies I used and how I applied the research in a National Health Service (NHS) setting. A number of diagrams and charts were produced to be included within



the slides, this was done to simplify the messages that I was relaying. I also printed slides as handouts for the group to enable them to take notes during the workshop.

#### **DELIVERING THE TRAINING PROGRAMME**

On 18<sup>th</sup> June, 2008 the workshop was delivered to 12 members of the Cardiac and Stroke Network (CSN). I started the workshop by introducing myself and requesting members of the group to introduce themselves also. Plus I made it known from the onset that I expected this one hour workshop to be as interactive as possible. The interactivity would be achieved by allowing people to ask questions during the workshop rather than waiting till the end of the session. This approach put people at ease. The aims of the workshop were clearly outlined to the group before the commencement of the workshop and I asked them if there was anything else they wanted me to discuss during the hour slot that I have not included. There were no new requests.

The workshop plan was fully adhered to and the group members asked a number of questions during and after the PowerPoint presentation. The questions would often lead to a small discussion which facilitated further learning.

#### **PLANNING AND IMPLEMENTING ASSESSMENT PROCEDURES FOR THE TRAINING PROGRAMME**

No formal assessment procedures were planned as the purpose of the workshop was to increase the groups understanding on social marketing. Their understanding was

assessed via asking the group questions on the information given and by involving them in discussions. If it was felt that group members were not participating or giving incorrect information then I would present the same information in a different way to ensure that the information was understood. For example during discussions if certain members of the group were not participating I would ask them for their opinions/view points. This in turn would lead to those members taking part.

### **EVALUATING THE TRAINING PROGRAMME**

At the end of the workshop the group members were all given an evaluation questionnaire to complete (Appendix 2). The evaluation questionnaire was devised to identify the extent to which the group understood the workshop and the material. This was a valuable tool for receiving feedback on the quality of the workshop especially since the evaluation forms did not require the members name. The feedback obtained was positive and the group stated that they now have a much clearer understanding of social marketing and its uses. They also stated that including the case study within the presentation was helpful and will allow them to replicate the methodology within their work. The group identified the following areas for further improvement:

- The group felt that they would have liked to have dedicated more time to the workshop so that they could get involved in group tasks to strengthen their understanding of how to carry out and apply the research.
- Increased focus on research methodologies and the ways in which they can impact the outcome.

The reason behind not going into more detail about the research methodologies and not having group tasks was due to time constraints. The length of the programme was jointly agreed by myself and the Director, however if I were to do a similar workshop again I would make sure that I request a longer time slot.

At the end of the workshop I was informed by the Director of the network that they were having problems with stroke awareness within Essex and after taking part in the workshop she felt that social marketing research could shed some light on some of the underlying reasons as social marketing coupled with research methodologies such as in depth focus groups has the ability to identify the local communities thoughts, knowledge and beliefs. I was asked whether I would have the capacity to carry out social marketing research for the network surrounding stroke awareness. I was very excited at the prospect of working in the area of stroke as I previously had no such experience. In addition to this the project would allow me to carry out research across Essex thus building my profile. This could be viewed as an informal evaluation as it led to a consultation request.

#### **SUMMARY AND REFLECTION**

By delivering this workshop I feel that I have strengthened my own knowledge on social marketing and have improved my ability to deliver a workshop. Whereas before I might have looked at my slides often, for this workshop I was much more interactive and less reliant upon the slides. This is due to becoming a much more confident speaker and knowing my subject matter very closely. Participating in the teaching and training workshop at the University ensured that I had experience of delivering a short workshop as well being more aware of the different learning styles

of people. Whilst I was planning my workshop I was trying to include information in a variety of learning styles (Fleming & Mills, 1992). So for the visual learner I included a number of diagrams, for the auditory learner there were the discussions, for the kinaesthetic learner there was the example of the case study. If I had more time during the workshop I would have allocated the group with a task which the kinaesthetic learner would learn best from as they remember things best when they have done them rather than just read about them. The slides I produced for this workshop have also shown a great improvement as they have become more concise and I produced a number of diagrams, charts and tables to illustrate my point. Tables and diagrams can at times exhibit much more information than plain words and they are usually much easier to understand and remember.

The feedback I received from the group was overall very positive and the group left with a much better understanding of social marketing.

## REFERENCES

Department of Health. *Choosing Health. Making healthy choices easier*. London: Stationary Office; 2004. (CM 6374)

Fleming, N.D. & Mills, C. (1992). Not Another Inventory, Rather a Catalyst for Reflection, *To Improve the Academy*; 11: 137

Lowry, R. J., Hardy, S., Jordan, C. & Wayman, G. (2004). Using social marketing to increase recruitment of pregnant smokers to smoking cessation service: a success story. *Public Health*; 118(4): 239-243

National Social Marketing Centre (2009). <http://thensmc.com>. Accessed on August, 2009.

## **Area of Competence: Teaching and Training**

### **Case Study 2: Delivering a Social Marketing Workshop to DPsych Students**

**SETTING:** University, London

**TARGET GROUP:** Doctorate in Health Psychology (DPsych) Students

**DESCRIPTION OF WORK:** To give a full day workshop on social marketing to Doctorate in Health Psychology students

#### **PLANNING AND DESIGNING TRAINING PROGRAMMES THAT ENABLE STUDENTS TO LEARN ABOUT PSYCHOLOGICAL KNOWLEDGE, SKILLS, AND PRACTICES**

In June 2008, my University supervisor discussed an opportunity for me to give a full day's workshop on social marketing and how it could be incorporated within the Health Psychology curriculum at a London University in the next academic year. It was felt that due to the heavy emphasis on social marketing in the National Health Service (NHS) it would be informative to see how Health Psychology could use this strategy to strengthen its health promotion arm.

Health-related social marketing is the systematic application of marketing concepts and approaches to achieve behavioural goals relevant to improving health and reducing health inequalities (National Social Marketing Centre, 2009). The White Paper, *Choosing Health* (2004) sets out the importance of using a social marketing approach to encourage positive health behaviour. Using this information, people can then take action to improve their health. Social marketing is not a theory in itself;

rather it is a framework that draws from areas such as psychology, sociology and communications theory to understand how to influence people's behaviour (Kotler and Zaltman, 1971).

Part of the defining qualities of health psychology, for example are attempts to integrate educational and scientific contributions both to the promotion and maintenance of health and the prevention and treatment of illness. Psychological theory informs strategies for health enhancement and the prevention of health damaging behaviours (Bennett & Murphy, 1997). Theoretical frameworks such as Social Marketing help facilitate this process. Social marketing has a wider remit than looking at why people do the things that they do, it takes into account the concept of segmentation, competition and exchange (Hastings, 2007). In health psychology we usually analyse themes within transcripts, whereas in social marketing there is an added phase of segmentation. People are segmented according to their behaviours. This in essence makes it easier to target different groups of people who display similar behaviours. The messages can be targeted and more refined for each group, which increases the likelihood of campaign success. In addition to this social marketing tries to understand what factors impact on the customer and that compete for their attention and time as well as application of the 'exchange' concept which is understanding what is being expected of the customer and the real cost to them when they do what we want them to do (Hastings and Haywood, 1991).

Social marketing has shown to be effective in many areas of health. Lowry et al. (2004) carried out social marketing research to explore the needs of pregnant smokers in Sunderland and to devise a successful smoking cessation programme. Focus groups

were carried which provided insights into the issues facing smoking pregnant women. The information was used to overcome barriers by developing a special training module with midwives in which role plays were used and the development of a monthly magazine was carried out. The intervention led to a ten-fold increase in the number of pregnant smokers accessing the stop smoking service and shows how social marketing principles can bring about behaviour change in a hard-to-change population.

This exhibits an intervention which is targeting several factors simultaneously. It is providing training to the stop smoking advisors, it is changing its service to align with what the local population need and then it is marketing effectively to raise awareness of the service. Therefore social marketing does not only emphasise on achieving behaviour changes but takes a wider approach to focus on how to promote, establish and maintain the changes over time.

I agreed to undertake the facilitation of the workshop and was told further details would be sent after a few months. In October 2008, I received an email with the date of the workshop. I enquired about the timing of teaching required, number of students expected and the available equipment. I was told the workshop would take place between 10 am and 5pm and the number of students would be confirmed closer to the time.

Having attended the Doctorate in Health Psychology workshops I was aware that there was no mention of social marketing in the previous workshops however some of the students who were working in the NHS might have either come across social marketing or have a slight understanding of it. Therefore I came to the conclusion that



the workshop should start with the basics and the main aim should be to make the students confident in using social marketing in their own work.

The workshop for clarity was divided into six parts. The first part was an introduction of social marketing. This included information on definition, the history and emergence of social marketing and key principles. Section two of the workshop was on promotion; the slides included were on communication type, the use of fear within advertisement campaigns and the use and effectiveness of branding. Section three expanded upon the principles of success when carrying out a social marketing project. This section was included as it was thought that it would give students more confidence in carrying out a project solely, as this would work as a checklist. I added interactivity in my materials by having section four and five to review case studies (Appendix 5) in social marketing and then to highlight which key principles that were discussed in the prior sessions they have been able to identify within them. Lastly section six of the workshop would be dedicated to my own social marketing project. I felt that would help in further enhancing the students understanding of social marketing if they could see the theory being put into practice.

I also typed up a handout detailing the advantages and disadvantages of using different advertising mediums (Appendix 6). This would assist the students when devising their own marketing campaigns.

The material took approximately one week to put together and all the slides handouts and case studies (Appendix 4) were printed out for each of the students.

## **DELIVERING THE TRAINING PROGRAMME**

On the day of the workshop I arrived early to check the equipment which was going to be used. I checked the PowerPoint presentation, laptop, projector and camera to ensure they were all working properly and I knew how to use them.

Prior to the workshop I had experience of delivering lectures to MSc and BSc psychology students for which I had received feedback. Though the social marketing workshop was going to be full day rather than two hours, it was felt that the feedback I received from the previous lectures that I gave would be useful to implement as it would ensure that I do not make the same mistakes again.

On 2<sup>nd</sup> December, 2008 the workshop was delivered to nine DPsych students at a University in London. I started the workshop by introducing myself and requesting members of the group to introduce themselves also. The aims and objectives of the workshop were outlined and the students were asked of any other areas within social marketing that they would like covered, however no new requests were made.

The workshop plan (Appendix 3) was fully adhered to and the group members asked a number of questions during and after the PowerPoint presentation. The tasks were carried out with relatively ease and whilst the tasks were taking place I moved from group to group. This was to ensure that the task was being carried out properly and if the groups had any queries or questions they could ask privately.

At the end of the workshop the students were given evaluation sheets to fill out and a list of key texts was put up on the projector for further reading. The workshop was finished on time.

## **PLANNING AND IMPLEMENTING ASSESSMENT PROCEDURES FOR THE TRAINING PROGRAMME**

No formal assessment procedures were planned. The students' understanding was assessed via the case study task in which they were asked to get into three groups and identify the key principles of social marketing within the case studies, after which they presented their work to the rest of the students. This task assisted the students in two ways; (1) they read a case study which used social marketing thus enhancing their knowledge and (2) due to the task of identifying key methodology principles within the case study, provided an opportunity for the students to apply the knowledge presented to an example. The case studies given were on smoking cessation, diabetes awareness and food promotion for children.

The second task consisted of handing out results and profiling for the Vitality study (Appendix 5) and asking the students to form groups and come up with ideas for the recommendations that they would make based upon the findings. This tested their understanding of the material taught during the workshop and their ability to devise recommendations not only for service but also targeted advertisement which is a key component of social marketing. Due to the practical nature of social marketing an informal assessment like this is more appropriate than an academic formal assessment.

At the beginning of the workshop it was also mentioned that if the students had any questions then they can ask for further clarity or information during the workshop. This allowed for mini discussions during the workshop which again worked as a way to assess the students' knowledge on what was being taught.

## EVALUATING THE TRAINING PROGRAMME

At the end of the workshop the group members were all given an evaluation questionnaire to complete (Appendix 7). The evaluation questionnaire was devised to identify the extent to which the group understood the workshop and the material. This was a valuable tool for receiving feedback on the quality of the workshop. The evaluation sheet was devised into three sections; (1) the students understanding of the subject and the confidence in applying the techniques (scale based); (2) the presentation style and the content (scale based) and (3) questions on what they found useful, least useful and what could be improved.

The feedback obtained was positive and the group stated that they now have a much clearer understanding of social marketing and how they could apply it in their work. They also stated that including several case studies within the workshop was helpful and would allow them to replicate the methodology within their work. The group also found useful the information on how social marketing could complement health psychology. The group enjoyed the step by step process of teaching and found the checklist idea useful. The group identified the following areas for further improvement:

- The tasks should have been divided so that one was in the morning session and one in the afternoon session
- The workshop should have been longer
- The workshop should have been shorter
- Further ideas on how to recruit participants from the street

In hindsight it would have been a good idea to split the tasks, so that one could have taken place in the morning and one in the afternoon. The way it was carried out meant that the morning session was quite theory based and included a PowerPoint presentation whereas the afternoon session was predominately interactive. If I was to carry out this workshop again I would make sure that the morning session is also interactive.

The length of the workshop was decided by the University Course Director; however I feel that a full day workshop is sufficient for beginners to social marketing. I believe that if I was to offer a half day workshop that would not be sufficient to cover relevant areas of social marketing and enable student to acquire a detailed understanding of social marketing. The contradictory feedback with regards to the length of the workshop might be due to individual's interest in the subject matter. Some members of the group were working in organisations where social marketing was an emerging framework, thus their interest in the topic was high, whereas some members had not come across the social marketing and therefore they might have felt that it is not applicable to their current status at work.

The summary breakdown of the evaluation can be found in appendix 7.

## **SUMMARY AND REFLECTION**

Prior to the commencement of the workshop I was extremely nervous of delivering a full day workshop to my peers. I had no previous experience of delivering a workshop/lecture for longer than two hours therefore I did not know what the outcome of the workshop would be. I felt the only way I could overcome this initial

difficulty would be by being well prepared and devising a realistic time plan which I would stick to. Due to this being the first time I delivered the social marketing workshop I felt that I was relying a little too often on my slides and notes because some material were also a little new to me.

I was pleased with my slides and handouts for the workshop. They were informative and gave the students information in a clear manner. Further to the slides, I also provided trainees with five case studies, profiles of major media types and examples of participant group profiling. Therefore if the students want to carry out their own social marketing research the handouts and slides should benefit them.

Overall, all the students claimed that they are now more confident in applying social marketing to their own work and this could be indicative that the objectives of this workshop were met.

Reflective commentary of a video recording presenting a social marketing lecture can be found in appendix 8.

## REFERENCES

Bennett, P. & Murphy, S. (1997). *Psychology and Health Promotion. Health Psychology Series*. Open University Press, Bucks (UK)

Department of Health. *Choosing Health: Making healthy choices easier*. London: Stationery Office; 2004. (Cm 6374)

Hastings, G. B. & Haywood, A. J. (1991). Social marketing and communication in health promotion. *Health Promotion International*; 6(2): 135-145.

Hastings, G. (2007). *Social Marketing: Why should the devil have all the best tunes?* Oxford: Butterworth-Heinemann

Kotler, P. & Zaltman, G. (1971). Social marketing: an approach to planned social change. *Journal of Marketing*; 35: 3-12

Lowry, R., Hardy, S., Jordan, C. & Wayman, G. (2004). Using social marketing to increase recruitment of pregnant smokers to smoking cessation service: a success story. *Public Health*; 118: 239-243

National Social Marketing Centre (2009). <http://thensmc.com>. Accessed on August, 2009.

# Appendices

## APPENDIX 1

Slide 1



**Social Marketing**

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**Henna Ali**  
Trainee Health Psychologist  
South West Essex PCT  
Henna.Ali@swessexpct.nhs.uk  
June, 2008

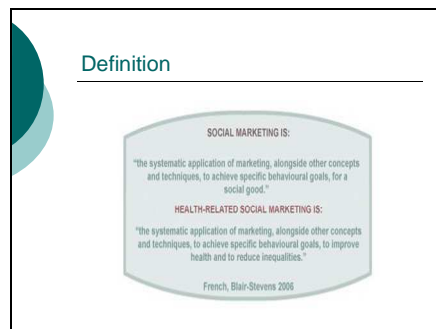
Slide 2



**About me** 

- o Doctorate in Health Psychology
- o Trainee Health Psychologist at South West Essex PCT
- o Areas of interest: Smoking cessation, diet and body image during pregnancy, social marketing, media, holistic treatments.

Slide 3



**Definition**

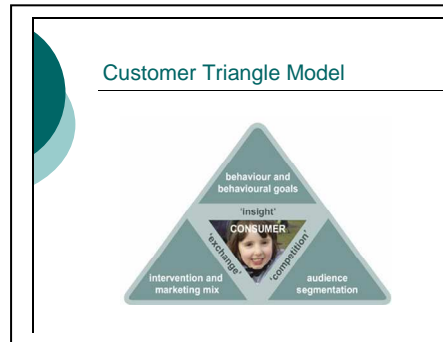
**SOCIAL MARKETING IS:**  
"the systematic application of marketing, alongside other concepts and techniques, to achieve specific behavioural goals, for a social good."

**HEALTH-RELATED SOCIAL MARKETING IS:**  
"the systematic application of marketing, alongside other concepts and techniques, to achieve specific behavioural goals, to improve health and to reduce inequalities."

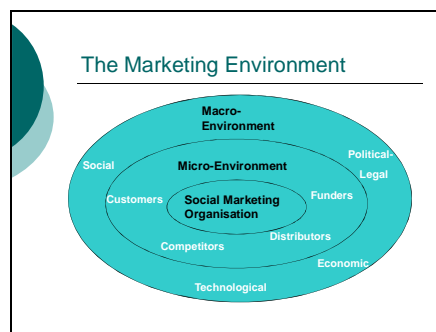
French, Blair-Stevens 2006



Slide 4



Slide 5



Slide 6

- ### Segmentation
- Three commonly used segmentation criteria:
- Personal characteristics
    - Demographics
    - Psychographics
    - Geodemographics
  - Past behaviour
    - Previous Purchasing
    - Loyalty to a brand
  - Perceived Benefits
    - Why people do as they do at present
    - How motives vary

Slide 7

### Marketing mix

“Marketing is essentially about getting the right *product*, at the right time, in the right *place*, with the right *price* and presented in the right way (*promotion*) that succeeds in satisfying buyer needs”

Slide 8

### Product

**The behavioural offer made to target adopters**

- Products attributes:
  - Trialability
  - Ease
  - Risks
  - Image
  - Acceptability
  - Duration
  - Cost

Slide 9

### Price

- Cost
- Time
- Effort
- Pain
- Perceived social stigma
- Embarrassment

	Tangible	Intangible
Low cost	Personal benefits e.g. wearing seat belt	Societal benefits e.g. recycling programme
High cost	Personal benefits e.g. smoking cessation	Societal benefits e.g. avoiding use of car

Slide 10

### Place

---

**Place is where and when the target market will perform the behaviour**

- Can we make the location:
  - Closer?
  - Extended hours?
  - More appealing?
  - Be there at the point of decision making?
- Objective is to make it as convenient and pleasant as possible

Slide 11

### Promotion

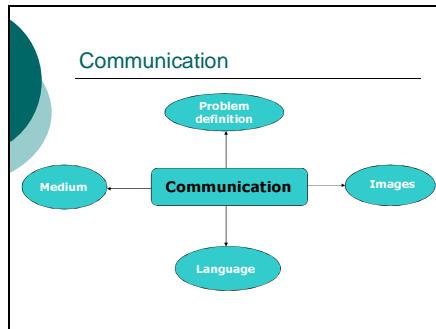
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**Message Strategy + Media Channels = Promotion**

↓

- Emotional
- Nonverbal
- Lifestyle
- Scientific expertise
- Personality symbol

Slide 12

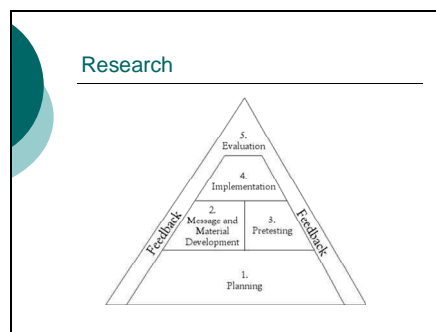


Slide 13

### Communication

- Audience research
  - Problem definition
  - Strengthens research
- Using fear
  - Not the be all and end all
- Branding
  - Most advanced emotional tool
  - Adds value/loyalty
  - Guarantees of quality

Slide 14



Slide 15

### Competition

- Deal with voluntary behaviour which means our clients always have a choice!
  - Competition: short term definite benefits
  - Social marketing: long term, probabilistic benefits
- Need alternative delivery methods that not only we meet targets but expand-people have every opportunity to get involved

Slide 16




**Relationship thinking**

---

- Focusing effort on client satisfaction
- Supporting long-term rather than intermittent change
- Building trust and showing commitment
- Engaging and mobilizing target populations

Slide 17




**Case Study**

---

Overcoming Barriers That Smokers Face in Quitting Cigarettes

Slide 18



**Aims**

---

1. Understand the barriers that the local residents face in quitting cigarettes.
2. Explore how the barriers in quitting cigarettes can be overcome.
3. Develop individual level and population level public health campaigns to increase the number of people quitting cigarettes.
4. Evaluate the effectiveness of the public health campaigns.

Slide 19

**Method**

---

- Qualitative study:
  - Focus groups
  - Open ended questions
- Five groups:
  - Male over 30
  - Male under 30
  - Female over 30
  - Female under 30
  - Pregnant women (x2)
- Voice recorded and transcribed
- Analysed via grounded theory & social marketing

Slide 20

**Results**

---

- Themes emerging:
  - Low self efficacy
  - Association/triggers
  - Relationship with healthcare professionals
  - Competition


Slide 21

**Results...**

---

- Low self efficacy:
  - Lack of confidence
  - Reduction of self worth
  - Low/no will power
  - Decreased desire of self protection
  - Fear of failure
- Associations/triggers
  - Associate smoking with:
    - Weight gain
    - Stress
    - Alcohol

Slide 22




**Results...**

---

- Relationship with healthcare professionals:
  - Don't find midwives, doctors other healthcare staff empathetic
  - At times given incorrect/confusing information
  - Fear of being judged
  - Feel doctors do not have time for them
  - Pick up negative body language
  - Find attitudes dictatorial
  - Dislike of the "NHS" brand when accessing wellbeing services
  - Link to low self esteem/confidence/experience of education

Slide 23



**Results...**

---

- Competition:
  - Addiction
  - Enjoy cigarettes
  - Low threat perception
  - Alternative therapies
  - Other stop smoking promotions – strong brand vs. confusion / low awareness of our own branding
  - Blame minimisation
  - 'Social smoker'

Slide 24



**Recommendations**


---

**One size does not fit all**

Evolve the services we offer  
- Holistic not silo

Evolve the way we market the services to create a single brand for the Provider Health Improvement Directorate

Slide 25



What We Could Offer:  
Recommendations for Service

---

- Lifestyle programme which integrates:
  - Healthy eating
  - Smoking cessation
  - Exercise
  - Stress management
  - Alcohol advice
- Tailoring intervention likely to be far more effective than blanket approach

Slide 26




What we could offer:  
Recommendations for service...

---

- Increase service choice by offering:
  - 1:1's
  - Couple session
  - Trial sessions
  - Telephone support
  - Allen Carr
- Increasing self control and self efficacy
  - Social support
  - Empathetic healthcare professionals
  - Empowerment
  - Changes in self concept required
  - Lifestyle programme

Slide 27



What We Could Offer:  
Recommendations for Service...


---

- Training G.P's
  - First point of advice
  - Body language
- Train midwives
  - Role plays

Make them good salespeople



Slide 28



Recommendations for Advertisement


---

## Branding

Raise awareness and familiarity

What is it saying?  
What is the content?  
How are you executing it?

Slide 29



Advertisement...

---

o **Women:**

- Ads that have children in them
- Gruesome
- Factual
- Graphical
- Bold writing
- Pictures

o **Men:**

- Highlight issues such as impotence
- Gentle
- Straight to the point
- Softly-softly approach

Slide 30



Advertisement...

---

o **Advertise in:**

- Supermarkets
- Fitness centres
- Billboards
- Town centre
- Hair dressers
- Newspapers
- Stations
- Shopping centres
- Bus shelters
- Near schools

## Slide 31

**Implementation**

- Commissioned advertisement agency to produce a brand for the health improvement services we offer
- Seven brands with strap lines produced
- The brands were market tested and the most popular was the heart logo and the name Vitality

## Slide 32

**Branding**



**VITALITY**  
*Your Health & Wellbeing Service*  
LOVEVITALITY.ORG

## Slide 33

**Implementation**

- The Vitality brand will eventually incorporate the following services: smoking, obesity, alcohol and positive mental health.
- Advertisement company asked to produce a smoking cessation campaign based upon the research findings
- Targeted adverts based upon research

Slide 34

**I would  to stop**

Want to stop smoking? We can help. **Vitality** is your **FREE** support service. We can help you build your courage and give you **FREE** support advice for a smoke-free life.

Take the first easy step to stop. **FREEPHONE 0800 077 8000** or visit [WWW.LOVITALITY.org](http://WWW.LOVITALITY.org)



Supported by your local  **VITALITY** Your Local Health & Wellbeing Service

Slide 35

**Stop in the name of **

Smoking adds stress and puts your health, your job, your home, and even your life at risk. **FREE** NHS services can help you stop. Our **FREE** support service can help you build your courage and give you the extra support you need to succeed. **FREE** support advice for a smoke-free life.

Take the first easy step to stop. **FREEPHONE 0800 077 8000** or visit [WWW.LOVITALITY.org](http://WWW.LOVITALITY.org)



Supported by your local  **VITALITY** Your Local Health & Wellbeing Service

Slide 36

**Addicted to **

Smoking is not only unhealthy for you and your kids, it leads to serious conditions like emphysema.

Take the first easy step to stop. **FREEPHONE 0800 077 8000** or visit [WWW.LOVITALITY.org](http://WWW.LOVITALITY.org)

If you need to stop, we can help. We are a **FREE** support service offering help and advice for a smoke-free life.



Supported by your local  **VITALITY** Your Local Health & Wellbeing Service

Slide 37



## hate relationship

Relationships take your health, waste your funds, and damage the people around you. You can get an instant VITALITY support card. We can help you locate your nearest and give you FREE health advice for a better, healthier life.

- FREE delivery advice
- FREE local stop smoking therapy - 10mg a month, 100% over your pack
- FREE help for any problems and general enquiries
- FREE help booklet

Take the first step today to stop. **FREEPHONE 0800 077 8000** or visit [WWW.LOVEVITALITY.ORG](http://WWW.LOVEVITALITY.ORG)

Supported by your local  **VITALITY** Your Local Health & Wellbeing Service

Slide 38



## My Ex



If smoked as a Stop Smoking service, a lot of help. You can get an instant VITALITY support card. We can help you locate your nearest and give you FREE health advice for a better, healthier life.

What to give up smoking? We can help you make a decision. We'll give you FREE personal advice and moral support - at the end of a phone, and on our website.

Take the first step today to stop. **FREEPHONE 0800 077 8000** or visit [WWW.LOVEVITALITY.ORG](http://WWW.LOVEVITALITY.ORG)

Supported by your local  **VITALITY** Your Local Health & Wellbeing Service

Slide 39



## Baby



An expectant mum, it is important to give your baby the best start in life. If you're pregnant or looking for a baby, you can get an instant VITALITY support card. We can help you locate your nearest and give you FREE health advice for a better, healthier life.

We can help you. We provide FREE support, advice, local groups, help with patches, groups and online health advice. Take the first step today to stop. **FREEPHONE 0800 077 8000** or visit [WWW.LOVEVITALITY.ORG](http://WWW.LOVEVITALITY.ORG)

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Slide 40

The Well-being Service

- On route to designing a well-being service
- One stop shop
- Holistic service


Slide 41

Summary

- Social and health sector can do its own marketing
- Evidence based
- Not a silver bullet- could be used in conjunction with other techniques and methodologies
- Progress depends on a deep and sustained understanding of people's real needs

Slide 42

Any Questions?



APPENDIX 2

**Social Marketing Workshop Evaluation**

**Date: June, 2008**

**Please rate the workshop on the scale indicated below. Your comments are most appreciated**

<b>As a result of the workshop...</b>	<b>Strongly Agree</b>	<b>Agree</b>	<b>Neutral</b>	<b>Disagree</b>	<b>Strongly Disagree</b>
I understand the difference between commercial and social marketing	83%	17%			
I understand what the 4P's stand for	17%	17%			
I more aware of using different communication techniques	67%	33%			
I understand the principles of a successful social marketing project	58%	42%			
I feel confident in applying social marketing in my work	50%	50%			
<b>The presentation...</b>	<b>Outstanding</b>	<b>Excellent</b>	<b>Good</b>	<b>Needs Work</b>	<b>Unacceptable</b>
<b>The Presenter</b>					
Enthusiasm	42%	42%	17%		
Interaction with the audience	50%	42%	8%		
<b>The Presentation</b>					
Information was presented in an organized manner	33%	50%	17%		
Used case-based methods; related information to practical problems	75%	25%			
Quality of audiovisual aids	33%	50%	17%		
<b>The Content</b>					
Volume and complexity of the information was appropriate	42%	42%	16%		
Related content to current evidence in the literature	33%	33%	33%		

What did you find most useful in the workshop?

- Discussing the difference between commercial marketing and social marketing
- Going through the 4P's was very useful
- The Vitality case study was great to see as it explains how social marketing can be applied
- Different methods of communications were explained very well
- Slides were easily understood and well done

What did you find least useful?

- All useful
- Nothing
- All was useful
- 

What would you like to see improved?

- Would have liked the workshop to have been longer
- The social marketing workshop needed to be longer

Any other comments?

- A very enjoyable workshop
- Very informative and well presented
- Henna was very enthusiastic and approached the subject with a lot of maturity
- Thank you
- Cannot wait to try social marketing myself!

## **Social Marketing**

**Doctorate in Health Psychology**

**2nd December 2008**

# **Facilitator: Henna Ali**

10.00	Part One - Introducing Social Marketing
11.15	Break
11.30	Part Two - Promotion
12.15	Part Three - Principles of Success
13.00	Lunch
14.00	Part Four - Review case studies
14:30	Part Five- Task
15.30	Break
15.45	Feedback and Discussions
16.15	Part Six – Vitality Case Study
16.45	Questions
17.00	End



Slide 1




## Social Marketing


---

**Henna Ali**  
Health Psychology Team Leader  
South West Essex PCT  
Henna.Ali@swessex.nhs.uk  
December, 2008

Slide 2




### About me



- o Doctorate in Health Psychology
- o Health Psychology Team Leader at South West Essex PCT
- o Areas of interest: Smoking cessation, diet and body image during pregnancy, social marketing, health promotion, holistic treatments.

Slide 3



### Objectives

---

- o To understand the key planning features of social marketing
- o To understand how social marketing can be used in conjunction with health psychology principles
- o To be aware of using different communication techniques
- o To understand the principles of a successful social marketing project
- o To feel confident in applying social marketing in your work

Slide 4




## Introducing Social Marketing Part One

---

- Definition
- History
- Key Principles

Slide 5



## Definition

---

**SOCIAL MARKETING IS:**


"the systematic application of marketing, alongside other concepts and techniques, to achieve specific behavioural goals, for a social good."

**HEALTH-RELATED SOCIAL MARKETING IS:**

"the systematic application of marketing, alongside other concepts and techniques, to achieve specific behavioural goals, to improve health and to reduce inequalities."

French, Blair-Stevens 2006

Slide 6



## History of Social Marketing

---

- **1970's**
  - Philip Kotler & Gerald Zaltman introduced the term social marketing (1971)
  - Described it as: "the use of marketing principles and techniques to advance a social cause, idea or behaviour."
- **1980's**
  - World Bank, WHO & Centers for Disease Control start to use & promote interest in social marketing
  - No longer about *if* S.M should be applied but rather *how*
  - Development of theory and practise

## Slide 7



### History of Social Marketing...

- **1990's**
  - Academic programmes established
  - Publication *Social Marketing Quarterly* launched
  - A text, *Fostering Sustainable Behaviour* provided introduction to community based social marketing
- **2000's**
  - The National Social Marketing Centre formed in London
  - Social Marketing increasingly being used across NHS
  - Review commissioned by DoH called "It's our health" launched


## Slide 8



### Commercial Marketing vs. Social Marketing Differences

○ Selling goods & services	○ Selling desired behaviours
○ Financial Gain	○ Societal Gain
○ Competition is other organisations offering similar goods/services	○ Competition is current or preferred behaviour of target market

## Slide 9



### Commercial Marketing vs. Social Marketing Similarities

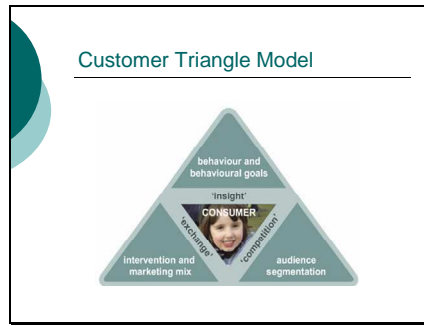
- Customer orientation is critical
- Exchange theory is fundamental
- Market research is used throughout the process
- Audiences are segmented
- All 4Ps are considered
- Results are measured and used for improvement

Slide 10

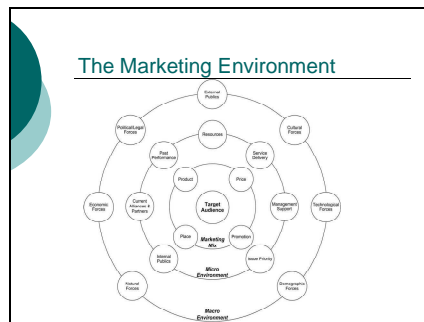
### Social issues that can benefit from S.M

- o **Health promotion**
  - Tobacco use
  - Heavy/binge drinking
  - Obesity
  - Teen pregnancy
  - Screening and immunisation
- o **Environmental protection**
  - Recycling
  - Energy conservation
  - Forest destruction
  - Air pollution
  - litter
- o **Injury prevention**
  - Drinking and driving
  - Seatbelts
  - Domestic violence
  - Falls
  - Fires
- o **Community involvement**
  - Voting
  - Literacy
  - Blood donation
  - Organ donation

Slide 11



Slide 12



Slide 13

**Social Marketing Planning in 10 Steps**

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<p><b>Step # 1</b> Background, purpose &amp; focus</p> <ul style="list-style-type: none"><li>○ Social issue to be addressed</li><li>○ What's the problem?</li></ul>	<p><b>Step # 2</b> Situation Analysis</p> <ul style="list-style-type: none"><li>○ SWOT</li><li>○ Lit review</li><li>○ Past or similar efforts; activities, results &amp; lessons learned</li></ul>
---	--

Slide 14

**Social Marketing Planning in 10 Steps**

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<p><b>Step # 3</b> Target Market Profile</p> <ul style="list-style-type: none"><li>○ Size</li><li>○ Demographics</li><li>○ Geographics</li><li>○ Related behaviours</li><li>○ Psychographics</li><li>○ Stage of change</li></ul>	<p><b>Step # 4</b> Objectives &amp; Goals</p> <ul style="list-style-type: none"><li>○ S.M objectives<ul style="list-style-type: none"><li>▪ Behaviour</li><li>▪ Knowledge</li><li>▪ Beliefs</li></ul></li><li>○ Goals<ul style="list-style-type: none"><li>▪ Measurable</li><li>▪ Impact</li><li>▪ Doable</li><li>▪ Time sensitive</li></ul></li></ul>
--	--

Slide 15

**Target Market Profile: Segmentation**

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Three commonly used segmentation criteria:

- Personal characteristics
  - Demographics
  - Psychographics
  - Geodemographics
- Past behaviour
  - Previous Purchasing
  - Loyalty to a brand
- Perceived Benefits
  - Why people do as they do at present
  - How motives vary

Slide 16

**Task**

You have been awarded a contract to improve sexual health of Brownnton's teens. You have 6 months, a modest budget and a large supply of condoms.

What objectives might you set for the programme?

Slide 17

**Social Marketing Planning in 10 Steps**

<p><b>Step # 5</b> Barriers &amp; motivators</p> <ul style="list-style-type: none"><li>o Perceived barriers to desired behaviour</li><li>o Perceived benefits for desired behaviour</li><li>o Competing behaviours</li><li>o Put your health psychology hat on!</li></ul>	<p><b>Step # 6</b> Positioning statement</p> <ul style="list-style-type: none"><li>o How you want the target audience to see the desired behaviour</li><li>o Where you want it to be</li></ul>
---	--

Slide 18

**Positioning Statement**

" We want [Target Audience] to see [Desired Behaviour] as [Descriptive Phase] and as more important and beneficial than [Competition]"

Slide 19




### Social Marketing Planning in 10 Steps

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Step # 7 4Ps	Step # 8 Evaluation plan
<ul style="list-style-type: none"><li>o Product</li><li>o Price</li><li>o Place</li><li>o promotion</li></ul>	<ul style="list-style-type: none"><li>o Purpose &amp; audience for evaluation</li><li>o What will be measured?</li><li>o How &amp; when measures will be taken</li></ul>

Slide 20




### Marketing mix- 4Ps

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“Marketing is essentially about getting the right *product*, at the right time, in the right *place*, with the right *price* and presented in the right way (*promotion*) that succeeds in satisfying buyer needs”

Slide 21



### Product

---

**The behavioural offer made to target adopters**

- o Products attributes:
  - Trialability
  - Ease
  - Risks
  - Image
  - Acceptability
  - Duration
  - Cost

Slide 22

### Price

- o Cost
- o Time
- o Effort
- o Pain
- o Perceived social stigma
- o Embarrassment

	Tangible	Intangible
Low cost	Personal benefits e.g. wearing seat belt	Societal benefits e.g. recycling programme
High cost	Personal benefits e.g. smoking cessation	Societal benefits e.g. avoiding use of car

Slide 23

### Place

**Place is where and when the target market will perform the behaviour**

- o Can we make the location:
  - Closer?
  - Extended hours?
  - More appealing?
  - Be there at the point of decision making?
- o Objective is to make it as convenient and pleasant as possible

Slide 24

### Promotion

**Message Strategy + Media Channels = Promotion**

↓

- Emotional
- Nonverbal
- Lifestyle
- Scientific expertise
- Personality symbol



Slide 25

**Social Marketing Planning in 10 Steps**

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<b>Step # 9</b> Budget	<b>Step # 10</b> Implementation plan
<ul style="list-style-type: none"><li>o Cost for implementing marketing plan</li></ul>	<ul style="list-style-type: none"><li>o Who will do what, when and for how much?</li></ul>

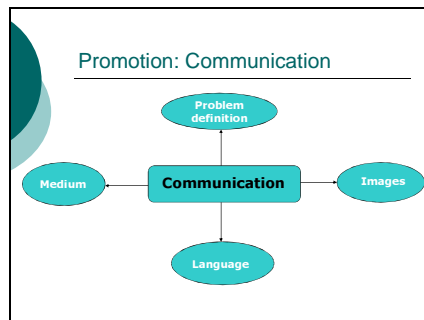
Slide 26

**Promotion**  
Part Two


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- o Communication
- o Fear
- o Branding

Slide 27



Slide 28




### Communication

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- Audience research
  - Problem definition
  - Strengthens research
- Using fear
  - Not the be all and end all
- Branding
  - Most advanced emotional tool
  - Adds value/loyalty
  - Guarantees of quality

Slide 29




### Fear

---

- Several attempts made to develop a theory to predict how fear works
- 1. **Curvilinear model:**
  - Fear can persuade up to a threshold of tolerance
- 2. **Leventhal's (1970) Parallel response model:**
  - Emotional & cognitive factors act independently to mediate behaviour
  - Emotional factors- affecting internal attempts to cope with the threat
  - Cognitive factors-determine the behaviour change
- 3. **Roger's (1975) expectancy- valence model:**
  - Effectiveness of a fear arousing communication is function of: magnitude of threat; probability of it's occurrence and efficacy of advocated protective response

Slide 30



### Fear...

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- Fear appeals can raise awareness
- Fear appeals can make people re-evaluate and change their attitudes
- Fear may be successful in stimulating an intention to change behaviour in future
- In some cases immediate behaviour change takes places after exposure

## Slide 31

### When using fear, think about...

- A strong fear based appeal works best when accompanied by *solutions* that are effective/easy to perform
- A strong fear based appeal may be most persuasive to those who have *previously been unconcerned*
- appeal might work better when directed towards *someone who is close to potential target adopter rather than the target adopter*. E.g. older people
- The more *credible the source*, the more persuasive the fear based appeal

## Slide 32

### Branding

What is Branding?	What's in a Brand?
Name, term, sign, symbol, design or a combination that identifies the maker or seller of a product.	<ol style="list-style-type: none"><li>1. Longevity</li><li>2. Subtlety</li><li>3. Trust</li><li>4. Cultural relevance</li><li>5. Co-ownership and empowerment</li></ol>

## Slide 33

### How do Brands Work?

- Positive associations – brand promotes them based on strategic marketing objectives
- Images inspire aspiration – I want the promised external ideal
- The individual aspires to close the gap between his or her own self-image, and the external idealized image
- "Social imagery" (i.e., my perception of the external ideal) can also explain health behaviors

Slide 34

### What is Public Health Branding?

- o Commercial brands are associations that enhance the value of products and services for consumers
- o Branded products or services project socially desirable models & idealized imagery for consumers
- o PH brands are associations that enhance value of health behaviours for an audience (better life as a non smoking, physically active, condom user)
- o They are not about commercial products that have social benefit (subsidized condoms)
- o Public health brands promote the net positive value of healthy lifestyles

Slide 35

### Brands that we know

- o Nutrition: 5 a day
- o Road Safety: Think!
- o Drugs: Frank
- o Condom use: Essential Wear
- o Smoking: Smokefree
- o Any more?

Slide 36

### Pictures of Brands

The slide displays four distinct public health branding campaigns. On the left, a poster titled 'DYING TO TAKE THE CALL?' features a mobile phone and a person. In the center, the '5 A DAY' campaign uses a green staircase graphic and the slogan 'Just Eat More (fruit & veg)'. On the right, the 'FRANK' campaign shows a person holding a sign that reads 'I'M TAKING YOU ONE'. At the bottom, the 'SMOKEFREE' campaign includes a person holding a sign that says 'CONDOM'.


Slide 37

**Branding...**

- Branding is a vital part of the behaviour change domain
- The commercial sector has shown how effectively it can be used
- We need to pick up the baton: long term, serious investment in consumer relationships
- Social marketing is about hearts as well as minds and bodies

Slide 38

**Principles of Success**  
Part Three




Slide 39

**15 Principles for Success**

<p><b>#1 Take advantage of prior &amp; existing campaigns</b></p> <ul style="list-style-type: none"><li>○ Learn from successes and failure of others</li><li>○ Public sector: borrow campaigns</li></ul>	<p><b>#2 Start with target markets most ready for action</b></p> <ul style="list-style-type: none"><li>○ The low-hanging fruit</li><li>○ Ideal characteristics:<ul style="list-style-type: none"><li>• Having a want or need</li><li>• Having the knowledge/info</li><li>• Having self efficacy</li><li>• Engaged in desired behaviour irregularly</li></ul></li></ul>
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Slide 40




### 15 Principles for Success

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<p><b>#3 promote single, simple, doable behaviours- one at a time</b></p> <ul style="list-style-type: none"><li>o Action-orientated message</li><li>o Clear instructions</li></ul>	<p><b>#4 Identify and remove barriers to behaviour change</b></p> <ul style="list-style-type: none"><li>o Knowing the barriers is a gift!</li><li>o If barriers known you know what to:<ul style="list-style-type: none"><li>• say to them</li><li>• do for them</li><li>• give them</li></ul></li></ul>
--	--

Slide 41




### 15 Principles for Success

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<p><b>#5 Bring real benefits into the present</b></p> <ul style="list-style-type: none"><li>o Ensure benefits are real for audience</li><li>o Benefits they value and believe</li><li>o Highlight benefits that they will realise sooner rather than later</li></ul>	<p><b>#6 Highlight costs of competing behaviours</b></p> <ul style="list-style-type: none"><li>o Identify the competition</li><li>o Competition:<ul style="list-style-type: none"><li>• behaviour your audience prefers, tempted to do or currently doing</li><li>• organisation or group</li></ul></li><li>o Choice &amp; consequences</li></ul>
--	---

Slide 42



### #6 Competition...

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- o Deal with voluntary behaviour which means our clients always have a choice!
  - Competition: short term definite benefits
  - Social marketing: long term, probabilistic benefits
- o Need alternative delivery methods that not only we meet targets but expand-people have every opportunity to get involved

Slide 43




### 15 Principles for Success

---

<p>#7 Promote a tangible good/service to help target audience perform the behaviour</p> <ul style="list-style-type: none"><li>○ Provide encouragement, remove barriers</li><li>○ Enhance branding campaign messages</li><li>○ Good at measuring impact</li></ul>	<p>#8 Consider nonmonetary incentives in the form of recognition &amp; appreciation</p> <ul style="list-style-type: none"><li>○ Recognition &amp;/or appreciation</li><li>○ E.g. recognising a family who have gone through a weight management programme</li></ul>
--	---

Slide 44




### 15 Principles for Success

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<p>#9 Make easy access</p> <ul style="list-style-type: none"><li>○ Premium on time &amp; convenience</li><li>○ Should provide:<ul style="list-style-type: none"><li>• Easy way to sign up</li><li>• Convenient location</li><li>• Reasonable hours and days of the week</li></ul></li></ul>	<p>#10 Have a little fun with messages</p> <ul style="list-style-type: none"><li>○ Using humour</li><li>○ Not always the right approach; e.g. for a sexual assault campaign</li><li>○ Look for opportunities where it might be appropriate</li></ul>
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Slide 45



### 15 Principles for Success

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<p>#11 Use media channels at the point of decision making</p> <ul style="list-style-type: none"><li>○ Ideal moment to speak to audience</li><li>○ Being at point of decision making can be powerful</li></ul>	<p>#12 Try for popular/entertainment media</p> <ul style="list-style-type: none"><li>○ TV</li><li>○ Newspapers</li><li>○ Entertainers</li><li>○ "rap songs"</li></ul>
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Slide 46

### 15 Principles for Success

<b>#13 Get commitments &amp; pledges</b>	<b>#14 Use prompts for sustainability</b>
--	---

- o Effective
- o Increases likelihood that audience will follow through
- o Makes them more likely to agree to a subsequent more demanding activity

- o Reminder
- o Visual or auditory aids
- o Works to address the most human trait - simply forgetting

Slide 47

### 15 Principles for Success

<b>#15 Track results &amp; make adjustments</b>	<b>My #16</b>
---	---------------

- o Monitor progress
- o Make important adjustments
- o Allows current/planned strategies to support objectives & goals

The diagram is a pyramid with five horizontal layers. The layers are numbered 1 through 5 from bottom to top. Layer 1 is 'Planning', layer 2 is 'Message and Material Development', layer 3 is 'Promotion', layer 4 is 'Implementation', and layer 5 is 'Evaluation'. The left side of the pyramid is labeled 'Feasible' and the right side is labeled 'Evident'.

Slide 48

## Case Study


### Part Six

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Overcoming Barriers That Smokers Face in Quitting Cigarettes



Slide 49




**Aims**

---

1. Understand the barriers that the local residents face in quitting cigarettes.
2. Explore how the barriers in quitting cigarettes can be overcome.
3. Develop individual level and population level public health campaigns to increase the number of people quitting cigarettes.
4. Evaluate the effectiveness of the public health campaigns.

Slide 50




**Method**

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- Qualitative study:
  - Focus groups
  - Open ended questions
- Five groups:
  - Male over 30
  - Male under 30
  - Female over 30
  - Female under 30
  - Pregnant women (x2)
- Voice recorded and transcribed
- Analysed via grounded theory & social marketing

Slide 51




**Results**

---

- Themes emerging:
  - Low self efficacy
  - Association/triggers
  - Relationship with healthcare professionals
  - Competition


Slide 52



Results...

- Low self efficacy:
  - Lack of confidence
  - Reduction of self worth
  - Low/no will power
  - Decreased desire of self protection
  - Fear of failure
- Associations/triggers
  - Associate smoking with:
    - Weight gain
    - Stress
    - Alcohol


Slide 53



Results...

- Relationship with healthcare professionals:
  - Don't find midwives, doctors other healthcare staff empathetic
  - At times given incorrect/confusing information
  - Fear of being judged
  - Feel doctors do not have time for them
  - Pick up negative body language
  - Find attitudes dictatorial
  - Dislike of the "NHS" brand when accessing wellbeing services
  - Link to low self esteem/confidence/experience of education

Slide 54



Results...

- Competition:
  - Addiction
  - Enjoy cigarettes
  - Low threat perception
  - Alternative therapies
  - Other stop smoking promotions – strong brand vs. confusion / low awareness of our own branding
  - Blame minimisation
  - 'Social smoker'

Slide 55



**Recommendations**


---

**One size does not fit all**

Evolve the services we offer  
- Holistic not silo

Evolve the way we market the  
services to create a single brand for  
the Provider Health Improvement  
Directorate

Slide 56



**What We Could Offer:  
Recommendations for Service**

---

- Lifestyle programme which integrates:
  - Healthy eating
  - Smoking cessation
  - Exercise
  - Stress management
  - Alcohol advice
- Tailoring intervention likely to be far more effective than blanket approach

Slide 57




**What we could offer:  
Recommendations for service...**

---

- Increase service choice by offering:
  - 1:1's
  - Couple session
  - Trial sessions
  - Telephone support
  - Allen Carr
- Increasing self control and self efficacy
  - Social support
  - Empathetic healthcare professionals
  - Empowerment
  - Changes in self concept required
  - Lifestyle programme

Slide 58




What We Could Offer:  
Recommendations for Service...

- Training G.P's
  - First point of advice
  - Body language
- Train midwives
  - Role plays

Make them good salespeople

Slide 59




Recommendations for Advertisement

## Branding

Raise awareness and familiarity

What is it saying?  
What is the content?  
How are you executing it?

Slide 60



Advertisement...

○ <b>Women:</b>	○ <b>Men:</b>
<ul style="list-style-type: none"><li>● Ads that have children in them</li><li>● Gruesome</li><li>● Factual</li><li>● Graphical</li><li>● Bold writing</li><li>● Pictures</li></ul>	<ul style="list-style-type: none"><li>● Highlight issues such as impotence</li><li>● Gentle</li><li>● Straight to the point</li><li>● Softly-softly approach</li></ul>

Slide 61

Advertisement...

- o **Advertise in:**
  - Supermarkets
  - Fitness centres
  - Billboards
  - Town centre
  - Hair dressers
  - Newspapers
  - Stations
  - Shopping centres
  - Bus shelters
  - Near schools

Slide 62

Implementation

- o Commissioned advertisement agency to produce a brand for the health improvement services we offer
- o Seven brands with strap lines produced
- o The brands were market tested and the most popular was the heart logo and the name Vitality

Slide 63

Branding



**VITALITY**  
*Your Health & Wellbeing Service*  
LOVEVITALITY.ORG

Slide 64

### Implementation

- The Vitality brand will eventually incorporate the following services: smoking, obesity, alcohol and positive mental health.
- Advertisement company asked to produce a smoking cessation campaign based upon the research findings
- Targeted adverts based upon research

Slide 65

**I would  to stop**

Want to stop smoking? We can help. We're in your PRIME support network, and your health is always a priority. For more information, visit [www.LOVEVITALITY.org](http://www.LOVEVITALITY.org).

Take one for us every day for us every day. **FREEPHONE 0800 017 0000** or visit [www.LOVEVITALITY.org](http://www.LOVEVITALITY.org)

Supported by your local  **VITALITY** Your Local Health & Wellbeing Service

Slide 66

**Stop in the name of **

Drinking water your diet your **PRIME** health, with your family, and **PRIME** your diet. It's all about making your health a priority. For more information, visit [www.LOVEVITALITY.org](http://www.LOVEVITALITY.org).

Our **PRIME** support network can help you, family, your manager and your **PRIME** health address a healthy lifestyle. **PRIME**

• **FREE** local Stop Smoking Groups

• **FREE** help with healthy choices and pain or prescription management **PRIME** services

Take one for us every day for us every day. **FREEPHONE 0800 017 0000** or visit [www.LOVEVITALITY.org](http://www.LOVEVITALITY.org)

Supported by your local  **VITALITY** Your Local Health & Wellbeing Service

Slide 67

**Addicted to**

Thinking to quit only reinforces for you and your kids, friends or others, conditions like...  
If you need to stop, we can help.  
We are a FREE support service offering free and online for a better, healthier life.

Take the first easy step to stop.  
**FREEPHONE 0800 077 0000**  
or visit [www.LOVEVITALITY.org](http://www.LOVEVITALITY.org)

Supported by your local NHS **VITALITY** Your Local Health & Wellbeing Service

Slide 68

**hate relationship**

Thinking about your health, maybe your friends and health the only...  
Vitality is your FREE support service. We can help you...  
mean advice for a better, healthier life.

Take the first easy step to stop.  
**FREEPHONE 0800 077 0000**  
or visit [www.LOVEVITALITY.org](http://www.LOVEVITALITY.org)

- FREE advice online
- FREE Local Stop Smoking Clinics - FREE support and guidance
- FREE help kits including patches and gum for cravings
- FREE text booklets

Supported by your local NHS **VITALITY** Your Local Health & Wellbeing Service

Slide 69

**My Ex**

It started as a long, healthy...  
They say...  
And the...  
It was...  
Want to give up...  
a...  
and...  
the...  
Take the first easy step to stop.  
**FREEPHONE 0800 077 0000**  
or visit [www.LOVEVITALITY.org](http://www.LOVEVITALITY.org)

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Slide 70

**Baby**

As an important step, it is important to get your baby the best start in life. Experts suggest introducing a bottle and solids. NOW is the time to begin.

We can help you. We provide FREE support, dietary advice, food guides, help with feeding, sleep and bottles, and practical advice to give you and baby a better start in life. Take the first easy step to help. FREEPHONE 0800 077 0000 or visit [WWW.LOVEVITALITY.org](http://WWW.LOVEVITALITY.org)

Supported by your local NHS

VITALITY Your Local Health & Well-being Service

Slide 71

### The Well-being Service

- On route to designing a well-being service
- One stop shop
- Holistic service

Slide 72

### Relationship thinking

- Focusing effort on client satisfaction
- Supporting long-term rather than intermittent change
- Building trust and showing commitment
- Engaging and mobilizing target populations



Slide 73

**Summary**

- Social and health sector can do its own marketing
- Evidence based
- Not a silver bullet- could be used in conjunction with other techniques and methodologies
- Progress depends on a deep and sustained understanding of people's real needs


Slide 74

**Key Texts**

- Social Marketing. Why should the devil have all the best tunes. Gerard Hastings
- Social Marketing. Influencing Behaviours for Good. Philip Kotler & Nancy R. Lee

Slide 75

**Any Questions?**



## **Social Marketing Workshop Task**

### **Overcoming barriers that smokers face in quitting cigarettes**

Behavioural risk factors such as smoking cause significant health inequality amongst social classes. Smoking behaviour is highly linked with individual socioeconomic factors, such as income, occupation and level of education and it has been researched that people from a low socioeconomic background are more likely to initiate smoking and least likely to stop smoking.

Effective communications of health messages are increasingly playing a critical role in public health. They aid with informing, educating and empowering people about their health issues. However when knowledge has increased this has not always led to improved behaviour. Continuing and widening the knowledge needs among smokers requires audience specific delivery in multiple formats over time and this can only be achieved if we understand the needs and barriers of our local population.

Specifically, social marketing research principles have recently shown effectiveness in raising awareness in smokers. Lowry et al (2004) used social marketing to increase the recruitment of pregnant smokers to a smoking cessation service. After carrying out the focus groups the researchers designed interventions such as a targeted media campaign, role plays to engage health professionals and consumer friendly cessation support. Once the interventions had taken place there was a 10 fold increase in the number of women recruited into the smoking cessation service. This clearly displays a significant result and

thus we in Tobacco Control feel that we can achieve this success within South West Essex.

The aim of this study is to:

1. Understand the barriers that the local residents of Basildon face in quitting cigarettes.
2. Explore how the barriers in quitting cigarettes can be overcome.
3. Develop individual level and population level public health campaigns to increase the number of people quitting cigarettes.
4. Evaluate the effectiveness of the public health campaigns.

## **Method**

The research was qualitative in nature in which focus groups were carried out with the following groups

2. Men between the ages of 18-29
3. Men over 30 years of age
4. Females between the ages of 18-29
5. Females over the age of 30

The focus groups were voice recorded and later transcribed. The data was analysed via a combination of two approaches; social marketing and abbreviated grounded theory.

Grounded theory was used for many reasons. Firstly the underpinnings of grounded theory are appropriate to the study. The aim of this method is to identify contextualised social processes and is designed to assist with the discovery of theory that is grounded within the data. The aim of this research was to understand what the perceived barriers are for smokers within the local area and how they felt that the barriers could be overcome and grounded theory allows the researcher to get close to the participants world. Social marketing is the systematic application of marketing alongside other concepts and techniques to achieve specific behavioural goals, to improve health and to reduce health inequalities. It does not only emphasise on achieving behaviour changes but takes a wider approach to focus on how to promote, establish and maintain the changes over time. Both methods used complement one another and provide richer analysis.

## **Findings**

Four main themes relating to barriers to quitting cigarettes were identified. These were competition, low self efficacy, relationship with healthcare professionals and association/triggers:

### **Competition**

It has been found that the South West Essex Stop Smoking Service is competing with a range of factors. The competing factors are:

1. Addictive nature of cigarettes
2. Some people enjoy smoking
3. Low threat perception
4. People are willing to pay for alternative therapies such as hypnosis and acupuncture but will not access our free service
5. There are other stop smoking promotions going on at the same time by brands which are easily recognised thus more likely to be remembered, such as Tesco's and Boots. There is brand confusion for our Stop smoking services.
6. Blame minimisation- People do not take responsibility for their smoking
7. Some label themselves as a 'Social Smoker' thus don't view smoking as a problem

### **Low self efficacy**

Smokers are facing a reduction of self worth and thus this is promoting addiction by reducing the critical balancing influence of desire for self protection. In addition to this people do not have the confidence in their ability to quit smoking. The participants claimed to lack "willpower" in order to quit smoking and feared failure.

The majority of the population are from a low SES and from this research it has been found that the participants have a very restricted range of opportunities available for reward. As smoking is seen as a reliable source of reward they do not have the confidence in their ability to quit smoking and replace it with another rewarding activity.

### **Relationship with healthcare professionals**

It has been found that one of the key barriers in quitting is the lack of empathy towards the smoker from healthcare professionals. Most often the participants felt as though they could not speak to their G.P. regarding smoking due to negative body language and a feeling of being rushed. At other times midwives were found to be providing pregnant smokers with incorrect information such as, claiming that it is ok to continue smoking during pregnancy and if the pregnant woman was to quit then their unborn child will experience withdrawal symptoms and stress. The participants find the health care professionals to be judgemental, patronising and dictatorial.

### **Association/Triggers**

The participants are associating smoking with factors such as weight gain, stress and alcohol. There is a common view that by quitting cigarettes weight will be gained, stress will increase and that drinking alcohol would become less satisfying. These views will have to be challenged if there is to be an increase in people accessing the stop smoking service.

## **Task**

**You have carried out this piece of research and you now have to report back to the PCT commissioners your recommendations in response to these findings as a Trainee Health Psychologist (Think about the principles of success!).**

APPENDIX 6

**Profiles of Major Media Type**

<i>Medium</i>	<i>Advantages</i>	<i>Disadvantages</i>
<b>Newspapers</b>	Flexibility, timeliness, good local market coverage, broad acceptability, high believability	Short life, poor reproduction quality, small pass-along audience
<b>Television</b>	Good mass-market coverage, low cost per exposure; combines sight, sound and motion; appealing to the senses	High absolute cost, high clutter, fleeting exposure, less audience selectivity
<b>Direct Mail</b>	High audience selectivity, flexibility, allows personalisation	Relative high cost per exposure, “junk mail” image
<b>Radio</b>	Good local acceptance, high geographic and demographic selectivity, low cost	Audio only, fleeting exposure, low attention (“the half-hear” medium); fragmented audiences
<b>Magazines</b>	High geographic and demographic selectivity, credibility, and prestige, high-quality reproduction, long life and good pass-along readership	Long ad purchase lead time, high cost, no guarantee of position, less audience selectivity (geographically)
<b>Outdoor</b>	Flexibility, high repeat exposure, low cost, low message competition, good positional selectivity	Little audience selectivity, creative limitations
<b>Internet</b>	High selectivity, low cost, immediacy, interactive capabilities	Small, demographically skewed audience; relatively low impact; audience controls exposure
<b>Sales promotions</b>	Attention-getting, stronger and quicker buyer response, incentives adding value	Short life, potential image of “trinkets and trash”
<b>Public Relations</b>	High credibility, ability to catch prospects off guard, reaching prospects preferring to avoid salespeople & advertisements	Less audience reach and frequency
<b>Events &amp; Experiences</b>	Relevance, high involvement and active engagement, and more “soft sell”	Less audience reach, high cost per exposure
<b>Personal selling</b>	Effective for understanding consumer objections and for building buyer preference, convictions, action, and relationships	Audience resistance, high cost

Source: Kotler, P. & Lee, N. R. (2008). *Social Marketing. Influencing Behaviours for Good. Third Edition.* Sage Publications

APPENDIX 7

**Social Marketing Workshop Evaluation**

**Date: 2<sup>nd</sup> December, 2008**

**Please rate the workshop on the scale indicated below. Your comments are most appreciated**

<b>As a result of the workshop...</b>	<b>Strongly Agree</b>	<b>Agree</b>	<b>Neutral</b>	<b>Disagree</b>	<b>Strongly Disagree</b>
I understand the key planning features of social marketing	78%	22%			
I understand what the 4P's stand for	67%	33%			
I am aware of how social marketing can be used in conjunction with health psychology principles	67%	33%			
I more aware of using different communication techniques	56%	45%			
I understand the principles of a successful social marketing project	78%	22%			
I feel confident in applying social marketing in my work	33%	67%			

<b>The presentation...</b>	<b>Outstanding</b>	<b>Excellent</b>	<b>Good</b>	<b>Needs Work</b>	<b>Un-acceptable</b>
<b>The Presenter</b>					
Enthusiasm	33%	56%	11%		
Interaction with the audience	33%	22%	45%		
<b>The Presentation</b>					
Information was presented in an organized manner	33%	33%	33%		
Used case-based methods; related information to practical problems	45%	22%	33%		
Quality of audiovisual aids	33%	45%	11%	11%	
<b>The Content</b>					



Volume and complexity of the information was appropriate	33%	56%	11%		
Related content to current evidence in the literature	45%	45%	11%		
<p>What did you find most useful in the workshop?</p> <ul style="list-style-type: none"> <li>• Concept of social marketing and its uses</li> <li>• Going through step by step process</li> <li>• Practical work</li> <li>• The case study exercise and the example of vitality. It was inspiring to see how structured social marketing is and how it complements health psychology in an applied manner</li> <li>• Real life case studies and group work to run through these</li> <li>• Case studies and slides</li> <li>• A good recap having attended SM course at NCSM. Very useful workshop demonstrating importance and relevance of health psychology within this area</li> <li>• The ten steps</li> </ul>					
<p>What did you find least useful?</p> <ul style="list-style-type: none"> <li>• I found it all useful</li> <li>• All useful</li> <li>• A bit of a long day but useful</li> <li>• 6 N/A's</li> </ul>					
<p>What would you like to see improved?</p> <ul style="list-style-type: none"> <li>• Include more interactive methods from the start rather than wait until the afternoon</li> <li>• Probably two days instead of one day</li> <li>• It was all very good, so there is little to improve. However the speed of delivery was slightly fast initially but when I highlighted this the speaker was responsive and modified it.</li> <li>• A video of the practical side of approaching people in the street</li> </ul>					

- Meeting a social marketing team
- Facilitators awareness of other peoples experiences of social marketing- as in different to her own
- 3 N/A's

Any other comments?

- Very informative workshop and very well facilitated
- It was a good insight into social marketing approach, and how it can be linked to health psychology
- Very knowledgeable, did a good job
- Thank you

## APPENDIX 8

### Reflective Commentary on Video Recording of a Social Marketing Lecture to MSc Students

The video recording shows a clip from a social marketing lecture being given to MSc Health Psychology students.

The beginning of the tape shows me going through the slides. Due to the recording starting a quarter of a way in to the lecture, at this stage of the tape I am presenting a case study to reflect what I had taught the students at the beginning of the lecture. Due to the topic area being new for the majority of the students I felt it was important to present a case study quite early on in the lecture as it will allow them to see how social marketing can be used to influence health behavior change.

After the case study example I move on to the main task of the lecture. I ensure the students understand clearly the nature of the task and are able to do it well. Due to the large size of the class, I divided the students in to four large groups. I believe this was a good decision because if I had asked the students to divide themselves then this could have caused several problems. Firstly the groups could have either been too large or too small and secondly some students might have been left out causing awkwardness.

Once the task had started I moved from group to group answering any questions that they had and made sure that they were fully aware of what the task entailed. I believe this was very helpful as many students asked a number of questions and discussed their thoughts

on the subject area. I had provided students with a suggested timeframe for each section of the task, this allowed for students to complete the task on time. Once the task was completed the students were asked to present their work to the rest of the groups. This enabled the students to share their learning and to be able to learn from other groups. After each presentation I asked the other students to express what they thought of the presentation and if they had any questions. This did not go too well as initially students were quite shy to ask any questions, however eventually the number of questions increased. As the lecturer I provided feedback to each group, stating the positive aspects and also briefly discussing changes that they can make to further improve.

I was happy with the overall style of my delivery. I did not spend a lot of time reading of the slides and added extra detail and examples to facilitate learning. My body language and speaking manner was friendly. The speed of my delivery might have come across as being a little fast, so for next time I will ensure that the speed of my delivery is a little slower.

## **Optional area of Competence 5.2: Direct the implementation of intervention**

### **To direct the implementation of a cardio-vascular disease risk assessment intervention to be carried out by Trainee Health Psychologists**

**SETTING:** PCT

**TARGET GROUP:** Adults over 40 years of age residing in two deprived towns within Essex

**DESCRIPTION OF WORK:** To direct the implementation of a Cardio-vascular disease risk assessment intervention to be carried out by Trainee Health Psychologists

#### **ESTABLISH NEEDS AND IMPLEMENT STRATEGIES FOR THE PROCUREMENT OF INTERVENTION RESOURCES**

In September 2008, a Public Health Commissioning Manager from the PCT where I currently work contacted me to discuss a new initiative being set up for the local community around Cardio-vascular disease (CVD) risk assessment. CVD is one of the four priority areas highlighted for action in the government's White Paper Saving Lives: Our Healthier Nation (1999). The following national target has been set to address CVD: To reduce the death rate from coronary heart two-fifths (40%) by the year 2010 (Department of Health, 1999). The 'Joint British Societies' guidelines on prevention of cardiovascular disease in practice', published in 2005, emphasized that all adults from 40

years onwards, who have no history of CVD or diabetes, and who are not already on treatment for blood pressure or lipids, should be considered for an opportunistic comprehensive CVD risk assessment in primary care. Evidence shows that it is possible to identify the risk factors for CVD and also to act to decrease the risk. Early intervention to reduce risk can prevent, delay, and, in some circumstances, reverse the onset of vascular disease. Therefore the Department of Health (2008) decided that a national programme will be launched to assess the CVD risk of all individuals between the ages of 40-74, followed by the offer of personalised advice and treatment and individually tailored management to help individuals manage their risk more effectively.

Before this project was launched I was asked to carry out research on how the local community perceive CVD, whether they would like CVD risk assessments, what would help/hinder in having risk assessments and how to make the local community aware of this initiative. Based upon what has been proved effective in the past it was decided a qualitative study incorporating social marketing would help in answering these questions. Social marketing was used to be able to segment the population according to their behaviours and attitudes and to then develop a service and marketing capabilities that would target the different segments (Kotler and Zaltman, 1971). It was agreed that a project proposal would be produced for clarity before the research started.

A mini literature review and needs assessment (Appendix 1) was carried out and it was found that CVD is associated with several modifiable risk factors including: high blood pressure, high blood cholesterol, cigarette smoking, physical inactivity, diabetes, and

poor diet. Control of these risk factors is imperative to preventing CVD and its complications (Clark, Hartling, Vandermeer & McAlister, 2005). Measures of social and economic status are extremely powerful predictors of CVD. CVD is more common in deprived communities (Smith, Hart, Blane, Gillis, & Hawthorne, 1997) and therefore the most important contributor to the inequality gap in life expectancy. Thus it was proposed that the research should focus on the two most deprived areas within the PCT area.

In order to develop strategies for improving a population's health status, it is crucial to understand how different populations view and experience cardiovascular health and cardiovascular diseases. It is important to understand cultural variation in diet, lifestyle, health beliefs, health experiences, discrimination, poverty, and lack of education, and how these factors impact the health status of different populations and their use of, and trust of, the National Health Service (Kington & Smith, 1997). This research project will facilitate the exploration of these issues.

Due to amount of work and shortage of time it was decided that the research should also be carried out by two members of the health psychology team with me directing the implementation of this project. It was thus agreed that the project would start in early October and would be completed before the Christmas break.

### ***Reflection***

At the start of this project many meetings were held with the Commissioning Manager to gain a better understanding of what the commissioning expectations were from the

project. The sole focus from the client centred on marketing activities upon launch of the CVD risk assessments. I showed hesitance in carrying out a research project which had emphasis on only advertising and explained that their initiative would work best if focus groups were held and the emphasis was on what people felt about CVD and their current knowledge on the subject followed by in what format would they like these risk assessments to be carried out in and only then to discuss a marketing campaign. In the end it was agreed that this was the best approach to take.

Initially I felt a little nervous about carrying out such a big project on a topic that I had no previous in depth knowledge about and it was also my first time bidding for money from the PCT think-tank. However my knowledge in the subject area grew whilst carrying out the literature review and writing proposal. This helped my understanding and knowledge substantially.

#### **ASSESS THE CAPABILITIES OF THE PEOPLE REQUIRED TO CONDUCT AND MONITOR A PLANNED INTERVENTION**

It was identified that two first year trainee health psychologists would carry out the research work alongside me. They had newly joined the team after being awarded a sponsorship by the PCT for the DPsych course at a London University. Both trainees had a BSc in psychology and an MSc in health psychology. One had experience of carrying out a qualitative piece of research thus I was confident that she would be competent in implementing the research project. The second trainee however had no experience of



qualitative research but it was felt that by working on the project and regular supervision she would develop her knowledge and overcome her lack of experience.

A meeting was set up with the trainees to discuss the CVD project and a supervision plan was developed (Appendix 2). I started off by discussing what CVD was and why the CVD risk assessment initiative was being launched. For further reading they were given a copy of the White Paper (Department of Health, 2008) which launched the risk assessments initiative. A project plan and a supervision plan were put together. The project plan broke down the tasks to dates, this was to ensure that the project would be completed on time and tasks were allocated. The supervision plan was agreed to maintain regular meetings to discuss the work up to that date and to plan the work ahead. (See Appendix 3 for a reflective analysis of the potential problems in implementing the intervention and supervising its implementation).

### ***Reflection***

Due to working on the project along with directing it, I had opportunities to observe the trainees carrying out their work. It also gave them the chance to raise any concerns and issues rather than waiting for a supervision meeting. This in turn enabled the trainees to move on with their work at a faster pace.

### **ADVISE AND GUIDE THE ACTIVITIES OF DESIGNATED OTHERS**

In the first supervision meeting with the trainees, a plan was produced outlining tasks and timelines. It was agreed that trainee one would produce the interview schedule,

information sheet, consent form and debriefing form for the focus groups and trainee two would start obtaining quotes from a marketing company to recruit participants and to find a company to transcribe the audio recordings. During this time I arranged venues for the focus groups to be held at, as the venue needed to be centrally located for participants' convenience.

After these tasks were undertaken the second phase of the research would be carrying out the focus groups. It was agreed that both of the trainees and I would carry out four focus groups each. The total numbers of focus groups were 12 hence dividing them up across the two trainees and I resulted in 4 focus groups each. Additionally, dividing them up would ease the workload and the focus groups would be completed in a shorter time span. I also wanted to observe the initial focus groups that the trainees were carrying out to make sure that the correct procedure was being followed and the trainees were comfortable in the moderator role.

Phase three of the research would be the analysis of the transcripts. The Trainees and I would analyse four transcripts each and would then meet to compare themes. The methodology chosen to analyse the transcripts was template analysis (Crabtree & Miller, 1999). Template provides a framework to capture the richness of the data but also to help organise the data collected into a structure. Thematic analysis enables researchers to organise the data into codes and themes and therefore assists in managing the data by developing templates from the themes and codes (King, 2004). At the end of the analysis we got together to discuss the themes that each of us found within the data. The cross

checking of themes was very useful as it allowed all three of us to discuss the themes we found in our own data sets and to compare them with the themes of others. The majority of the themes were found across all the transcripts without any discrepancies, adding to the validity. The last stage of phase three consisted of discussing the recommendations that the health psychology team is going to make to the Public Health and Primary Care teams in light of the research findings. Service recommendations were decided together during an extended meeting and advertisement recommendations were decided by collating results from each focus group on a template that I devised and then by summarising the findings.

The final phase of the research was to write the project report that would allow us to disseminate the findings. It was collaboratively decided in a team meeting that trainee one would write up the quantitative results section which outlined the demographics of the participants. Six themes were identified in total and it was decided that trainee one and two would write up the results from two themes each and I would write up the results from the remaining two themes. I gave the trainees a template to write up the results section in; this ensured that the style remained consistent across the different authors. Lastly, trainee 2 and I would write the recommendations for the service section and trainee one would write the advertisement recommendation section.

### *Reflection*

I felt it was a good decision to work on the project alongside the trainees as at first I was a little nervous about them carrying out the focus groups. It is extremely difficult to

recruit participants from the local community, therefore I did not want the focus groups to be handled in an incorrect way, as that could lead to (a) participants walking out; (b) participants feeling patronised and (c) the local PCT being viewed in a negative way. Due to trainee two not having any experience of qualitative research, I ensured that sufficient time was spent with her discussing the techniques used. I also made sure that trainee two sat in on a focus group run by myself and one by trainee one. After these focus groups we spoke again about the techniques and discussed any questions that she had.

#### **ENSURE TECHNICAL SUPPORT FOR A PLANNED INTERVENTION**

Digital voice recorders were required for the audio recordings of the focus group. To fully ensure that the recordings took place it was decided that two digital voice recorders should be used per focus group. Thus I ordered the recorders before the commencement of the research.

Upon arrival participants were given a copy of the information sheet, a consent form and at the end were given a debriefing form, thus a printer was required for the printing. A new printer had recently been installed in the health psychology office to carry out the printing. No other technical support was identified or required for the project.

## **OVERSEE AND DIRECT THE CONDUCT OF A PLANNED INTERVENTION**

The PCT research and ethics team were informed of this project before it started and systems for ensuring participant confidentiality were in place. The recordings of the focus group were uploaded on a secure password protected website to be ready for transcription by the transcribing firm. There was a confidentiality agreement between the PCT and the transcription firm. Once the recordings were uploaded they were deleted from the digital voice recorder. The personal data obtained in form of consent forms and private information forms was kept in a locked cabinet in the health psychology office. The systems in place were compliant with the Data Protection Act (1998) and the British Psychological Society Code of Conduct and Ethics (2000)

Whilst carrying out the focus groups I sat in on a focus group being carried out by trainee two. Though trainee two had past experience of carrying out focus groups, I felt that at certain times she did not allow enough time for the participants to respond to the question presented, thus after the focus group ended I had a brief chat with the trainee and discussed what I thought. I also emphasised all the positive attributes of the focus group as mentioning just a negative point might de-motivate the trainee, and this too at such an early stage of her career.

## **Findings**

The analysis of the focus group led to six main themes. The themes identified were; Awareness, self autonomy, fatigue of daily life, time, relationship with healthcare professionals and fear.

Overall this project highlighted that CVD risk assessments are attractive to most of the research sample. They gave out the message that the NHS cares but the participants were sceptical about health care professionals like the G.P's to be able to deliver on such a programme. It was felt that once risk assessments are carried out patients would be ignored and would not be provided with adequate one to one support to deal with the assessment outcome.

Knowledge on heart conditions was found to be relatively high; however knowledge about stroke was very low. People viewed CVD to mean heart attacks/angina but did not think that word is a collective term for both heart conditions and stroke. It was recommended that we as the PCT should be in a position to offer people choice in services if people are told that they have a high risk of CVD. Most of the current PCT services are not tailored for the older generation, thus it would be important to develop new services which are (a) tailored to their physical capabilities and (b) which are liked, as the group we are aiming to carry out the risk assessments on are between the ages of 40-74.

From a social marketing perspective it was found that it is important not to use the term CVD or the words "cardio vascular disease" in any promotion as a stand alone because

the local population will not fully understand its meaning, and that can lead to confusion and the advert will be ignored.

As well as having a big launching campaign for CVD risk assessments it should be ensured that G.P's and other healthcare professionals such as pharmacists are prepared to talk to people about CVD and provide information to patients when asked. They should play a big part in launching this initiative as people are more likely to take the assessment seriously if the G.P. was to discuss it with them. Profiling for different genders and ages was carried out to show how adverts can be targeted effectively to raise awareness about CVD and to raise awareness about the CVD risk assessment. (See Appendix 4 for the final report on this project).

## **Development for Trainees**

In the evaluation meeting the two trainees discussed their experience of carrying out this piece of work. A number of things were discussed:

1. The trainees felt that they have strengthened their skills in qualitative and social marketing methodology
2. They are now much more confident in carrying out focus groups
3. They are confident in carrying out thematic analysis
4. They are now more experienced in writing reports for PCT staff as opposed to writing in an academic way

5. Working in a Health Psychology team was very refreshing as it enables close proximity to people within your own field, which can assist in problem solving and the discussion of ideas

It was concluded that the project was a very good ice breaker for the newly formed Health Psychology team. It provided the trainees with valuable experience and they felt that having their work recognised amongst colleagues in the Public Health and Primary Care teams was a great accolade.

### ***Reflection***

Due to the project consisting of focus groups with adults over the age of 40, this meant that the majority of focus groups were held in the evening. It was always ensured that all three of us were present in the evening and that suitable arrangements were made to travel back home.

The team work during the project was very commendable. Being able to work with two other trainee psychologists was very refreshing and provided lots of opportunities to share learning and experiences. Any problems during the project were discussed and solved fairly quickly as I emphasised to the trainees that they did not have to wait for the supervision meeting or one to ones to discuss any queries or questions. This saved the team and the project valuable time. The team received a lot of praise from the other teams at the PCT and as a result this led to the Health Psychology team being offered more projects to carry out.



The team also received a lot of praise from the participants taking part in the focus group who stated that they were very pleased that their local NHS wants to know their thoughts.

#### **SUMMARY**

The CVD project found very interesting results from the local communities of the PCT area. The information obtained in this project will enable the Public Health and Primary Care department of the PCT to launch a new CVD risk assessment service based upon the local needs and wants. They will also be in a better position to then market the service effectively in a targeted manner.

## REFERENCES

- British Cardiac Society, British Hypertension Society, Diabetes UK, HEART UK, Primary Care Cardiovascular Society, Stroke Association. (2005). JBS 2: Joint British Societies' guidelines on prevention of cardiovascular disease in clinical practice. *Heart*; 91:v1-52.
- Clark, A. M., Hartling, L., Vandermeer, B. & McAlister, F.A. (2005). Meta-analysis: secondary prevention programs for patients with coronary artery disease. *Annals of Internal Medicine*; 143:659–72
- Crabtree, B.F. & Miller, W.L. (1999). *Doing Qualitative Research in Primary Care: Multiple Strategies (2nd Edition)*. Newbury Park, CA: Sage Publications
- Data Protection Act (1998). Retrieved July 2008, from, <http://www.legislation.gov.uk/ukpga/1998/29/contents>
- Department of Health. (1999). *Saving Lives: our healthier nation*. London: Stationery Office.
- Department of Health. (2008). *Putting prevention first - vascular checks: risk assessment and management*. London: Stationery Office.
- King, N. (2004) Using templates in the thematic analysis of text, in Cassell, C. & Symon, G. (Eds.) *Essential Guide to Qualitative Methods in Organizational Research*. London: Sage
- Kington, R. S. & Smith, J. P. (1997). Socioeconomic status and racial and ethnic differences in functional status associated with chronic diseases. *American Journal of Public Health*; 87(5): 805-810.
- Kotler, P. & Zaltman, G. (1971). Social marketing: an approach to planned social change. *Journal of Marketing*, 35: 3-12.
- Smith, G. D., Hart, C., Blane, D., Gillis, C., & Hawthorne, V. (1997). Lifetime socioeconomic position and mortality: Prospective observational study. *British Medical Journal*; 314(7080): 547–552.
- The British Psychological Society (2000). *Code of conduct, ethical principles and guidelines*. Leicester: The British Psychological Society

## **Appendices**

### APPENDIX 1

## **CVD Risk Assessment Project Proposal**

### **Problem Definition**

CVD is the single largest cause of death in the UK, accounting for approximately 200,000 deaths per year. Most of these deaths result from either heart disease or strokes. In 2000, BBC reported that the UK has one of the highest death rates from coronary heart disease in the world. CVD cost the UK economy £29.1 billion in 2004, with CHD and cerebrovascular disease accounting for 29% (£8.5 billion) and 27% (£8.0 billion) of the total, respectively (Luengo-Fernandez, Leal, Gray, Petersen & Rayner, 2006). The major cost component of CVD was health care, which accounted for 60% of the cost, followed by productivity losses due to mortality and morbidity, accounting for 23%, with the remaining 17% due to informal care-related costs (Luengo-Fernandez, Leal, Gray, Petersen & Rayner, 2006).

CVD is one of the four priority areas highlighted for action in the government's White Paper Saving Lives: Our Healthier Nation (1999). The following national target has been set to address CVD: To reduce the death rate from coronary heart two-fifths (40%) by the year 2010. The 'Joint British Societies' guidelines on prevention of cardiovascular disease in practice', published in 2005, emphasized that all adults from 40 years onwards, who have no history of CVD or diabetes, and who are not already on treatment

for blood pressure or lipids, should be considered for an opportunistic comprehensive CVD risk assessment in primary care.

CVD is associated with several modifiable risk factors including: high blood pressure, high blood cholesterol, cigarette smoking, physical inactivity, diabetes, and poor diet. Control of these risk factors is key to preventing CVD and its complications (Clark, Hartling, Vandermeer & McAlister, 2005). Measures of social and economic status are extremely powerful predictors of CVD. CVD is more common in deprived communities – and therefore the most important contributor to the inequality gap in life expectancy (Smith, Hart, Blane, Gillis, & Hawthorne, 1997).

If a person has high risk of developing CVD, they can be given different types of medicine to reduce the risk of their arteries hardening. In severe cases of arteriosclerosis, surgery may be needed to unblock the arteries. Arteriosclerosis can be prevented by eating a healthy diet, not smoking, taking regular exercise, and drinking alcohol in moderation

In order to develop strategies for improving a population's health status, it is crucial to understand how different populations view and experience cardiovascular health and cardiovascular diseases. It is important to understand cultural variation in diet, lifestyle, health beliefs, health experiences, discrimination, poverty, and lack of education, and how these factors impact the health status of different populations and their use of, and

trust of, the National Health Service (Kington & Smith, 1997). This research project will facilitate the exploration of these issues.

### **Aims and Objectives**

The aims of this project are as follow:

- To assess public awareness of CVD and prevention
- To gain understanding on ways to enhance CVD awareness and encourage people to attend CVD risk assessment
- To identify barriers that deter community members from gaining CVD risk assessments
- To aid in strategic and marketing guidance for further developing communications efforts to increase levels of awareness for CVD prevention and treatment.

### **Method**

Males (40-49)	Females (40-49)
Males (50-59)	Females (50-59)
Males (60+)	Females (60+)

Focus groups will be conducted in two deprived communities. Specific areas with high level of deprivation will be targeted. Six focus groups will be conducted in each area. The table above displays the segmentation of participant for the focus group:

Each focus group will last for approximately 45 minutes and will consist of 6-7 participants. A marketing company will be hired to assist in the recruitment of participants for these focus-groups. Participants will be paid an incentive of £25 for their participation in the focus –group. The focus-group will be voice recorded and transcribed. The data obtained from the focus group will be analysed via template analysis.

Template analysis (Taylor & Board, 1984) is a method for identifying, analysing and reporting patterns (themes/ templates) within data. It minimally organizes and describes a data set in (rich) detail. Some of the advantages of this analysis method are listed below (Braun & Clarke 2006):

- Flexibility.
- Relatively easy and quick method to do
- Results are generally accessible to educated general public.
- Can usefully summarize key features of a large body of data, and/or offer a ‘thick description’ of the data set.
- Can highlight similarities and differences across the data set.
- Can generate unanticipated insights.
- Allows for social as well as psychological interpretations of data.

## References

Braun, V. & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*; 3: 77-101

British Cardiac Society, British Hypertension Society, Diabetes UK, HEART UK, Primary Care Cardiovascular Society, Stroke Association. (2005). JBS 2: Joint British Societies' guidelines on prevention of cardiovascular disease in clinical practice. *Heart*; 91:v1-52.

Clark, A. M., Hartling, L., Vandermeer, B. & McAlister, F.A. (2005). Meta-analysis: secondary prevention programs for patients with coronary artery disease. *Annals of Internal Medicine*; 143:659–72

Department of Health. (1999). *Saving Lives: our healthier nation*. London: Stationery Office

Kington, R. S. & Smith, J. P. (1997). Socioeconomic status and racial and ethnic differences in functional status associated with chronic diseases. *American Journal of Public Health*; 87(5): 805-810.

Luengo-Fernandez, R., Leal, J., Gray, A., Petersen, S. & Rayner, M. (2006). Cost of Cardiovascular diseases in the United Kingdom. *Heart*; 92:1384-1389

Smith, G. D., Hart, C., Blane, D., Gillis, C., & Hawthorne, V. (1997). Lifetime socioeconomic position and mortality: Prospective observational study. *British Medical Journal*; 314(7080): 547–552.

Taylor, S. J., & Bogdan, R. (1984). *Introduction to qualitative research methods: The search for meanings*. New York: John Wiley & Sons

APPENDIX 2

**Plan of Supervision**

At the beginning of the project a supervision plan and a timetable of the work to be done was created. This was done so that everybody involved in the project knew what tasks were to be done and by when. The supervision plan was based on the assumption that weekly one to one meetings and team meeting will take place between me as the supervisor and the two supervisees. The plan is as follows (Table 1):

<b>Date of Supervision (week commencing)</b>	<b>Objective</b>	<b>Delegated Tasks</b>	<b>Supervision</b>
1 <sup>st</sup> October 2008	Meet to discuss brief	Supervisor: Discuss the project with supervisees and talk about their past work experiences.	Trainee 2 lacks qualitative experience, thus it was decided that the first week of running the focus groups Trainee 2 will observe.
6 <sup>th</sup> October	Commence working on proposal	All: work on proposal	
13 <sup>th</sup> October	Present proposal to the Associate Director of Public Health and obtain approval & obtain quotes for recruitment, transcription and venues	Supervisor: Present Proposal and upon approval book recruitment, transcription and venue.  Supervisees: Obtain quotes and get approval on venues.	The supervisees will be provided with information on the local area and key venues. They will be asked to obtain quotes for centrally located venues where the focus groups can take place. They will also be asked to obtain quotes for recruitment and transcription.
20 <sup>th</sup> October	Complete working on focus group schedule and ethics forms	Supervisor: Provide on-going support and template for ethics form and focus group schedule.  Supervisees:	Assistance with developing the focus group schedule and with developing ethics forms. Templates will be provided to the Trainees. It will be ensured that the trainees act in an



		Develop information sheets,	ethically appropriate manner.
27 <sup>th</sup> October	Run six focus groups and send transcriptions	Supervisor and Trainee 1 to run 3 focus groups each. Trainee 2 will observe.	Before the commencement of the focus groups a team meeting will be held with the supervisees and advice and guidance will be provided on the expectations from the project, ethical considerations and communication skills. I will observe Trainee 1 for the first two focus groups and will provide feedback. Trainee 2 will observe all 6
3 <sup>rd</sup> November	Run six focus groups and send transcriptions	Supervisor: Run 1 focus group and observe 5 Trainee 1: Run 1 focus group Trainee 2: Run 4 focus groups	I will provide feedback to Trainee 2 after her first focus group moderation and will continue to observe the remainder of the focus groups.
10 <sup>th</sup> -26 <sup>th</sup> November	Analyse transcripts	All: All will analyse four transcripts each and half way through and in the end will compare the themes found.  Supervisor: will supervise Trainee 2 with her first transcript.	I will assist the supervisees with analysis and go through a previous qualitative research project as a case study. Trainee 2 will require more support than Trainee 1 for analysis and a guided analysis approach will be adopted.
1 <sup>st</sup> - 10 <sup>th</sup> December	Write report	All: All will contribute to writing the report	The supervisees will be provided advice on how to write a report of this kind for the PCT. They will be explained the difference between academic writing and writing within the NHS. I as supervisor will also

			proof read all submitted report chapters.
15 <sup>th</sup> December	Hand in report	Supervisor: The report to be handed in to the Associate Director of Public Health at the PCT.	Feedback to be given to both supervisees individually on their performance, their strengths and weaknesses.

## APPENDIX 3

### **Reflective Analysis of the Problems that could be Encountered in Implementing the Intervention and Supervising its Implementation**

A number of problems can occur during the implementing the intervention and supervising the implementation. The problems could be:

- The relationship between the supervisor and supervisees
- Time management
- Difficulty in recruiting participants and participants not turning up at the focus groups

Each one will now be discussed in further detail.

#### **The relationship between the supervisor and supervisees**

This project comes at a time when the supervisees have newly joined the NHS and have come under the management of the supervisor. The relationship is still new and developing. This can lead to a gap between expectation and delivery as well as not yet understanding the strengths and weaknesses of everybody involved in the project. It is anticipated that before the beginning of the project one to one meetings will be held in which the supervisor will discuss the project proposal in detail and will get the opportunity to speak about the strengths and weaknesses of the supervisees as well as their past work experiences. This will assist in delegating tasks according to their preference and expertise. Where the supervisees feel they lack in expertise it will be

ensured that they are given the opportunity to learn on the project and observe with the intention of carrying out the task shortly afterwards.

### **Time management**

The length of the entire project is three months from start to finish. Within this time frame a proposal will need to be developed, participants are to be recruited, 12 focus groups need to be run and analysed, a final report needs to be written and the findings are to be disseminated. There is a high probability that a number of factors might impact upon the anticipated end date. Factors such as; experiencing a delay in obtaining approval for the proposal, not finding a suitable location to carry out the focus groups, not being able to recruit participants, participants not turning up at the focus group and the transcribers taking longer than anticipated. Any one of these factors could severely affect the December deadline. Therefore it will be ensured that all the preparation is done at the beginning of the project. The venues need to be booked as soon as the proposal is agreed up. Whilst we wait for the approval a marketing company to recruit participants and a transcription service will be sought and quotes will be obtained. In order to avoid a lower turnout, the recruitment company will be asked to over recruit, so that if a few people do not turn up then others can replace them.

### **Difficulty in recruiting participants and participants not turning up at the focus groups**

There might be difficulties in (a) recruiting participants to take part in the focus groups and (b) participants who have been recruited not turning up on the day of the focus group.

The 12 focus groups to be run have participants aged 40+ and there are four focus groups which will have participants aged 60+. Therefore there might be difficulties in recruiting older participants, especially because it is winter and due to the focus groups being run in the evening it also gets dark much quickly, thus the older participants might not be very keen to attend. In light of this, it was decided that a recruitment company will be used to recruit the participants. This will ensure that time is saved and more concentration can be given to booking venues and developing the focus group schedule. However, even once the recruitment has taken place there are no guarantees that all the participants recruited will attend the focus group. On average focus groups should have approximately 6 participants, therefore if participants do not attend the numbers will fall and this might affect the group dynamics and the quality of the discussion (Merton, 2003). In order to combat this, the recruitment company will be told to recruit more than 6 participants for each of the focus groups as it is very unlikely that there will be a 100% turnout. By taking this step even if a few participants do not attend there will be others to replace them with.

## **Reference**

Merton, R. (2003). Focusing on focus groups. *Journal of Adolescent Health*; 32:329-330

## **CVD Risk Assessment Project Report**

### **Introduction**

Arteriosclerosis is a condition where the arteries - the blood vessels that supply oxygen and other nutrients to the body's organs - harden and become narrower. This can restrict the supply of blood running through the arteries.

Arteriosclerosis is a major risk factor for many different conditions that involve the flow of blood. Collectively, these conditions are known as cardiovascular disease (CVD).

Examples of CVD include:

- deep vein thrombosis (DVT) - blood clots in the legs
- peripheral arterial disease - a condition where the supply of blood to your legs is blocked, causing muscle pain
- heart disease
- strokes
- heart attacks.

Risk factors of CVD:

Irreversible factors that can lead to heart disease:

- getting older
- being male

- genetic/family history of CVD

Factors that are potentially reversible or could be modified:

- cigarette smoking
- increased levels of cholesterol, triglycerides, or low-density lipoprotein (LDL) in the blood
- being overweight
- waist circumference (above 81cm/32in for women, 89cm/35in Asian men and 94cm/37in European men)
- high blood pressure
- being inactive
- diabetes
- having a tendency for blood clotting

As many CVDs that are associated with arteriosclerosis are serious, and can prove fatal, much of the treatment for arteriosclerosis is focused on prevention. If a person has high risk of developing CVD, they can be given different types of medicine to reduce the risk of their arteries hardening. In severe cases of arteriosclerosis, surgery may be needed to unblock the arteries. Arteriosclerosis can be prevented by eating a healthy diet, not smoking, taking regular exercise, and drinking alcohol in moderation.

### **Problem Definition**

CVD is the single largest cause of death in the UK, accounting for approximately 200,000 deaths per year. Most of these deaths result from either heart disease or strokes. In 2000, BBC reported that the UK has one of the highest death rates from coronary heart disease in the world. CVD cost the UK economy £29.1 billion in 2004, with CHD and cerebrovascular disease accounting for 29% (£8.5 billion) and 27% (£8.0 billion) of the total, respectively. The major cost component of CVD was health care, which accounted for 60% of the cost, followed by productivity losses due to mortality and morbidity, accounting for 23%, with the remaining 17% due to informal care-related costs.

CVD is one of the four priority areas highlighted for action in the government's White Paper *Saving lives our healthier nation?* The following national target has been set to address CVD: To reduce the death rate from coronary heart two-fifths (40%) by the year 2010. The 'Joint British Societies' guidelines on prevention of cardiovascular disease in practice', published in 2005, emphasized that all adults from 40 years onwards, who have no history of CVD or diabetes, and who are not already on treatment for blood pressure or lipids, should be considered for an opportunistic comprehensive CVD risk assessment in primary care.

As previously mentioned, CVD is associated with several modifiable risk factors including: high blood pressure, high blood cholesterol, cigarette smoking, physical inactivity, diabetes, and poor diet. Control of these risk factors is key to preventing CVD and its complications. Measures of social and economic status are extremely powerful



predictors of CVD. CVD is more common in deprived communities – and therefore the most important contributor to the inequality gap in life expectancy.

In order to develop strategies for improving a population's health status, it is crucial to understand how different populations view and experience cardiovascular health and cardiovascular diseases. It is important to understand cultural variation in diet, lifestyle, health beliefs, health experiences, discrimination, poverty, and lack of education, and how these factors impact the health status of different populations and their use of, and trust of, the National Health Service. This social marketing campaign will facilitate the exploration of these issues.

### **Aims and Objectives**

The aims of this project are as follow:

- To assess public awareness of CVD and prevention
- To gain understanding on ways to enhance CVD awareness and encourage people to attend CVD assessment
- Develop individual level and population level public health campaigns to increase awareness on CVD and the importance of CVD assessment
- To identify barriers that deter community members from gaining CVD assessments

- To aid in strategic and marketing guidance for further developing communications efforts to increase levels of awareness for CVD prevention and treatment in Basildon and Thurrock
- To evaluate the effectiveness of the CVD awareness campaigns

## **Method**

This evaluation was qualitative in nature in which focus groups were carried out with the following groups:

Males (40-49)	Females (40-49)
Males (50-59)	Females (50-59)
Males (60+)	Females (60+)

Table 1 – Segmentation of Participants

Focus groups were conducted in Grays and Basildon. Six focus groups were conducted in each area. Table 1 displays the segmentation of participant for the focus group:

Each focus group lasted approximately 1 hour and consisted of 7-8 people. A marketing company was hired to assist in the recruitment of participants for these focus-groups. Participants were paid an incentive of 25 pounds for their participation in the focus group.

Consent and information sheets were provided to participants before they took part in the focus group. At the end of the focus group participants were given a debriefing form that consisted of information on the purpose of this evaluation, sources to obtain further knowledge on CVD and contact details of investigators.

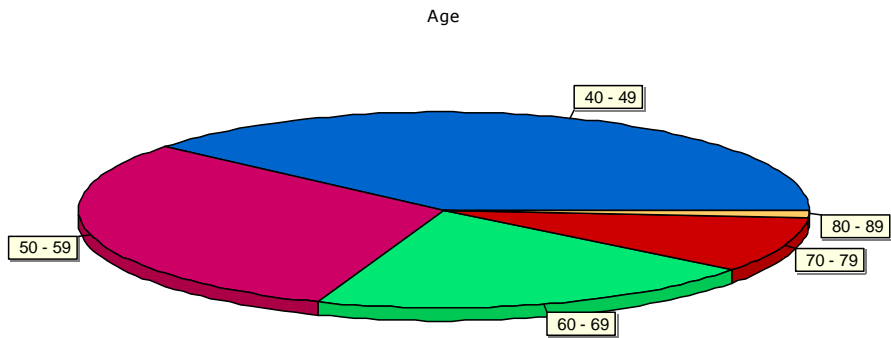
In the focus group, participants were asked questions on:

- General health (e.g. how would you define health)
- CVD – Cardiovascular disease (e.g. in your view, what is CVD)
- CVD Prevention (e.g. in your opinion, are there any lifestyle alterations that can be made to reduce the risk of CVD)
- Social Marketing on CVD (e.g. could you suggest ways to improve public awareness of CVD; what kind of images, wording, design and colours can be used to make stroke awareness materials more appealing to the public)

### **Participants**

A total of 85 (43 males, 42 females) attended the focus groups. Participants ranged from 40 years old to 81 years. The age distribution of participants in the focus groups is graphically represented below (chart 1). 67 participants were British White while 16 participants were Black British African. One participant was British Pakistani, while another participant was Irish White.

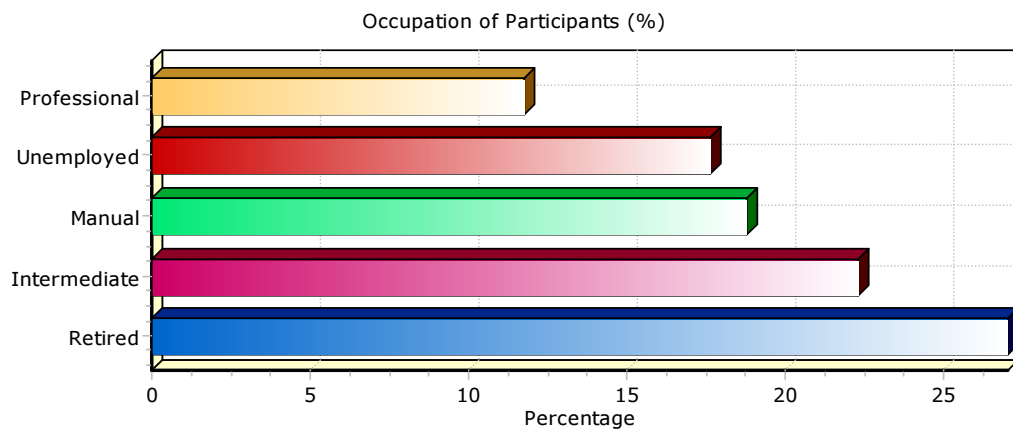
Chart 1 - Age Distribution



**Occupations**

Majority of the participants were retired (27%) whilst nearly a fifth were unemployed.

The occupations of the participants in the focus groups are presented in the chart below:



**Household type**

Majority of participants were married with no dependant children (33%). Twenty-two percent (22%) of participants were married with dependant children. Eighteen percent

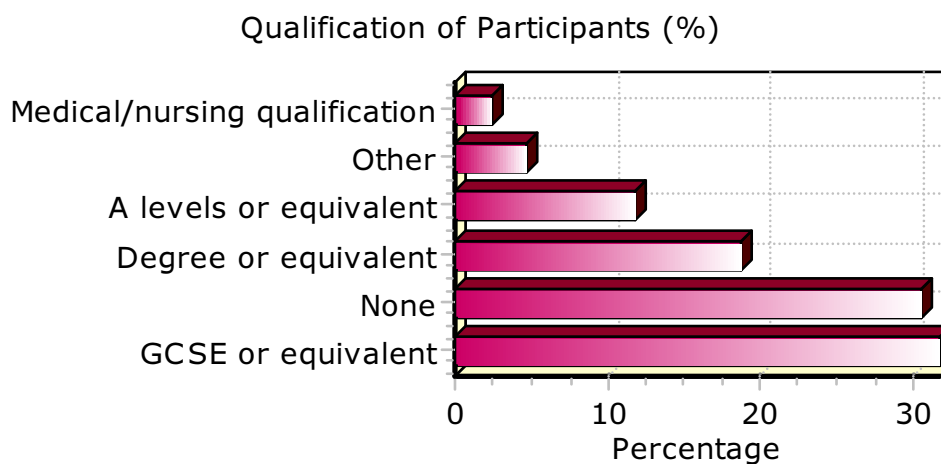
(18%) of participants were single and a further thirteen percent (13%) were divorced/separated. Nine percent (9%) were co-habiting while six percent were lone parent.

### **CVD experience**

Seventy-seven participants had never experienced a CVD episode. Six participants had experienced angina, while three participants had experienced a heart attack. None of the participants has experienced a stroke.

### **Qualification**

Thirty-two percent (32%) of participants had GCSE or equivalent education, while thirty-one percent (31%) of participants had none of the stated qualifications. The qualifications of the participants in the focus groups are graphically presented in the graph below:



### **Self-reported overall health status**

Majority of participants described themselves as being healthy to very healthy (68%). Twenty seven percent (27%) of participants described their health as average, while five percent (5%) reported that they had poor health.

All focus-groups were voice recorded and transcribed. The data obtained from the focus groups were subjected to template analysis and social marketing.

Template analysis is a method for identifying, analysing and reporting patterns (themes/ templates) within data. It minimally organizes and describes a data set in (rich) detail.

Some of the advantages of this analysis method are listed below:

- Flexibility
- Relatively easy and quick method to do
- Results are generally accessible to educated general public
- Useful method for working within social marketing paradigm, with participants as collaborators
- Can usefully summarize key features of a large body of data, and/or offer a 'thick description' of the data set
- Can highlight similarities and differences across the data set
- Can generate unanticipated insights
- Allows for social as well as psychological interpretations of data
- Can be useful for producing qualitative analyses suited to informing policy development

The transcripts were analysed and reoccurring themes were abstracted. The themes were categorised as subordinate themes and then sub themes. The methodology employed had high validity as similar themes were identified by all three trainee Health Psychologists who analyzed the data.

## **Results**

Overall six themes are identified within the data. The themes are:

1. Awareness
2. Self autonomy
3. Fatigue of daily life
4. Time
5. Relationship with healthcare professionals
6. Fear

### **Awareness (1)**

This theme consisted of four sub themes, which were: *need for more information, mistrust, knowledge about CVD, awareness about CVD and stroke.*

#### **Need for more information**

It became apparent that the groups all felt that they wanted more information about health and CVD. The example below illustrates how the participant is relying on the messages communicated in the media to inform her about health.

### Example A

Well what else can I do... what else do you want me to do? It's only the fact that you watch, even silly adverts sometimes, you know, the cholesterol drinks... it's only what you pick up in bits and pieces.

Additionally the participants were unaware of the CVD services available to them. However those that had personal experience of CVD had greater knowledge about the services and CVD in general.

Consequently it was common amongst all of the groups that the participants stated that large efforts should be made to raise awareness on CVD, to enhance their knowledge and almost satisfy their need for information.

### Example B

Tell us more about it tell us more how it works.

The older groups stated that felt patronised due to their age by Healthcare professionals (HCP) and workplaces, as they were deemed to be unwell. Hence they suggested that efforts should be made to make the younger generations, HCP's and workplaces aware about CVD and health issues, whilst acknowledging placing less emphasis on age.



### Example C

I think the younger people, because they're very fit, very active and because obviously as you get older you slow up, it doesn't mean to say that you're not fit but they perceive you to be fit and unwell.

### **Mistrust**

Despite participants communicating the need for more information, another emerging theme was mistrust. For example participants felt that there was a bombardment of messages, causing a lot of confusion regarding healthy lifestyles (i.e. diets, alcohol consumption, etc). As a result the participants describe that they lack trust in the messages, and in some cases felt that they were primed to ignore the messages.

### Example D

*And then you can eat that... and then a month later, it says you mustn't eat that...*

*So really all you want to do is ignore the lot.*

### **Knowledge about CVD.**

In this sub-theme it was apparent across all groups, that the participants had knowledge of what a healthy lifestyle is, and described the measures' to prevent CVD (healthy lifestyle, not smoking, healthy balanced diet, low salt intake, physical activity, etc).

Yet many of the participants thought that CVD was not preventable, but it was treatable if caught early on. They also said that genetics would strongly affect whether CVD was

preventable or not. For example it was thought that if one is more prone to CVD due to genetics, it would be less likely to treat CVD or prevent it. Thus there was a fatalistic attitude to CVD.

#### Example E

*I don't think it is preventable... if you're going to die of a heart attack you're going to die from a heart attack*

#### Example F

*...but I do believe that if you look after your health and diet, and do regular exercises, unless there is a hereditary problem of heart then you are highly unlikely to get it.*

#### **Awareness about CVD and stroke**

Across all of the groups the knowledge about the term CVD encompassing stroke was extremely low. The majority of the participants focused on the heart or blood vessels when asked to describe CVD; exemplifying that their awareness about stroke and CVD being related is very minimal. Interestingly their knowledge about CVD as greatly increased if the participants had personal experience with CVD.

However the majority of the participants were aware about stroke, as they often gave accounts about blockages in the blood supply to the brain, paralysis and mini strokes. In fact some participants thought that stroke was more serious than CVD.

## **Self Autonomy (2)**

*Self-autonomy* was an emerging theme across all 12 groups. The idea of personal autonomy is to have personal rule of the self while remaining free from controlling interference by others. The autonomous person acts in accordance with a freely self-chosen and informed plan. A person of diminished autonomy, by contrast, is in at least some respects controlled by others or is incapable of deliberating or acting on the basis of his or her own plans. The theme of self autonomy theme has two sub themes; psychological factors and physical capacity.

### **Psychological factors**

#### ***Factor 1: Motivation***

Research found that self autonomy was affected by psychological factors such as motivation, habits and self esteem. *Motivation* seemed to affect the participants' ability to adopt a healthier lifestyle, as there was a gap between the participants intention to act.

#### **Example G**

*I know the right things to do but don't really follow them.*

Some on the other hand stated that they were either '*lazy*', or they felt that they had no role model to aspire to. Motivation increasingly lacked in the over 60's due to the lack of good role models within their local communities. It was felt that inspiration was needed to get motivated thus this in turn would increase self autonomy.

### Example H

*It's fine actually buying healthy foods, but the exercise idea, it really needs inspiration of someone else or other groups of people you're working with.*

### ***Factor 2 & 3: Habits and Self Esteem***

Some described how they were struggling or even resisting changes in their lifestyle due to lifelong *habits* (i.e. eating certain foods). There was a clash between what they have been taught from family and society in their younger days to what the current health guidelines are. There was a dislike of what they felt was interference by the “changing society”. Some participants from the over 60's groups made a point of stating that they did not want to live forever, therefore their main aim was to enjoy the life. They resisted being told by others how they should live their remaining life.

### Example I

Do you want to live forever? Am I going to lose this 4 stone...Is it worth it?

Despite this there were some participants that postulated that they had struggled but managed to successfully change their habits as they reported high levels of self-esteem. Interestingly they tended to be people that were conscious and well informed about health issues.

### **Physical Capacity**

The second sub theme was physical capacity. This affected the participants' self autonomy due to the affects that age had on their capabilities of leading active lifestyles.

#### **Example J**

*I don't really exercise enough because I don't go out that much and because I've got arthritis it prevents me from walking too much.*

Different groups reported different levels of *physical capacities*. For example the older (60+ years) groups reported fears of over-exertion and not being as able-bodied; whereas the females 50-59 years described how the menopausal change affected their ability to be physically active.

### **Fatigue of daily life (3)**

The *fatigue of daily life* was a common theme across all of the focus groups. It was commonly used by the participants as a factor which affected their ability to carry out certain behaviours for CVD prevention and/or to lead healthy lifestyles. The theme was divided into two sub themes; (1) *stress* & (2) *lifestyle*.

### **Stress**

*Stress* was often used as a factor which caused or contributed to illnesses such as CVD, as illustrated in example K and it was felt by many groups that stress caused a stroke (example L).

Example K

*P1: Yes, stress is the worst thing.*

*P2: I think stress is one of the biggest factors for making you feel ill.*

Example L

*I thought a stroke came from stress...*

However the types of stress varied, as some described *financial stress* as being a barrier to afford gym membership, healthy foods (example M) and even going to the doctor as people do not want to be paying for medication (example N). Whereas the females tended to describe *family stress* a barrier for CVD prevention (example O). Family stress can also lead to a false sense of security as they feel that they are healthy due to their busy lifestyles. This was more evident in the 40-49 age groups and also showed signs in the 50-59 age groups.

Example M

*I am trying to eat healthy and it's quite expensive*

Example N

*A lot of people probably can't or are probably thinking that if they did got to the doctors they couldn't afford the prescription anyway*

Example O

*I feel reasonably healthy. I feel very tired because of the children, homework and rushing around. So I think they are a problem for me really. I'm just trying to get through the day as a single aren't.*

### **Lifestyle**

Additionally *lifestyle* was another sub theme identified. Participants' described how would rather have they convenience food as they thought that '*good food takes more time to prepare than fast food*'. As well instances of peer/family pressure, whereby the female participants describe how they will eat what has been cooked for the family rather than cooking something for themselves which is deemed to be healthier.

### **Time (4)**

Time was a major theme in the data set. This theme had four sub themes: *people have too much/too little time; G.P's do not have time; accessibility and choice in service.*

### **People have too much/too little time**

Participants stated that they did not have the time to be healthy; especially in the groups of 40-59 year olds (example P). Whereas the groups of 60+ year olds, stated that time was not an issue, and used *self-autonomy* as a justification for barriers to be healthy (example Q).

#### **Example P**

*Sometimes, people don't have the time, like where you're so busy; you go to work ... you come back with loads of things; you don't have time to eat very well.*

#### Example Q

*We haven't got a barrier of time, but I think younger people have got barrier with  
time*

#### **G.P's don't have time**

However *time* was also a factor that emerged in relation to the participants describing how GPs don't enough have time to spend for the consultations, and how that can affect whether they seek help for CVD or their health in general.

#### Example R

*...before you come into the GP and he is already telling you your time is up, or  
write you a prescription without having a proper diagnosis*

It was for such reasons the participants highlighted that they wanted a more tailored service, to overcome this barrier. Whereby the GP has more time with the patients, enabling greater understanding and exploration of the health issue/s the patient has presented.

#### Example S

*You have got your GP dealing with another issue. We need life coaches that would go  
into a home, to a young woman who has may be got two children under five, who is not  
eating properly. May be has gene deficiency and a history of bad genes that needs to be  
brought forward and educated in everyth*



## **Accessibility**

There were five factors that heavily contributed to this sub-theme: *drop ins/mobile vans; workplace; pharmacists-more accessible; local services and opening hours.*

### ***Factor 1: Drop ins/mobile vans***

Participants stated that they would need the CVD assessment to be carried out in, mobile vans, or have a drop-in unit in the local town areas; facilitating greater accessibility.

#### **Example T**

*...the mammogram vans that go round to different areas and different towns and they're out for a couple of hours, so you could go to a company and the whole company could... If you feel you need the knowledge or you've got a history of heart attacks or strokes, you could go and see somebody there.*

### ***Factor 2: Workplace***

Participants expressed that CVD assessment should be conducted in workplaces to improve uptake of assessments. Although workplace assessment was widely discussed during the focus groups, some participants did not see this measure favourably as they feared that employers might want to gain insight on the result of the assessment which will eventually affect their job status.

***Factor 3: Pharmacists-more accessible***

Additionally the participants said that they would access the assessment in their local pharmacy as it is more accessible. Participants found pharmacist to be more approachable and equipped with expertise to deal with their queries, as exemplified in the example below.

Example U

*Chemist. I mean I'm...these days I find that I ask them quite a few things where I wouldn't have done years ago. You just didn't did you? But now you go and approach the chemist*

***Factor 4: Local services and opening hours***

More importantly the participants said that the opening hours of health services would need to be extended to permit those that work to come in and access the assessment, as it was awkward to get leave from work and risk assessments have to be locally placed.

Example V

If it's only going to be done within certain hours, they may not be able to afford to have that time off to go and have it done, and therefore they don't bother. In an instance where you feel well, even though they might be problems in your family, if it is going to cost you a day's pay to go and have this check, then more likely to turn around and say, well I will have to take a chance on that one, I can't afford to go.

## **Relationship with HCP (5)**

This theme was seen as a mediating factor as to whether medical advice was sought regarding the participants' general health or for CVD related issues. This theme had four sub themes: *G.P is the 'expert'*; *G.P's are dictatorial*; *pharmacists seen as new healthcare provider*; *G.P nurse liked and communication*.

### **G.P is the 'expert'**

The outcome of the focus groups indicated that patients had respect for their G.P. and perceived them to be the “*expert*”. Hence, advice /guidance provided by the G.P. was perceived as very important and beneficial. Participants also expressed that they would prefer a letter from their G.P inviting them for the CVD assessment. Participants felt that this invitation letter could prompt greater uptake in CVD assessment.

#### **Example W**

*They know what we don't, so you go to the people that can give you the answers, so I would expect my GP to be able to answer any question I've got*

### **G.P's are dictatorial**

There are instances where the GP's were seen as being dictatorial. For example the smoker felt that “*everything is blamed on smoking*” and that GPs only focused on that rather than other health issues the patient wishes to discuss. Many participants expressed that they would not go to the G.P to gain advice on healthy living, behaviour

modification or other health related situation. In other words, participants would only seek the G.P during crisis situation.

#### Example X

*In my opinion, you don't go to your GP because you've sprained your foot, it's just wasting their time, and all they're going to do is say go down to the minor injuries unit.*

#### **Pharmacists seen as new healthcare provider**

It was common amongst all of the groups that the pharmacists were seen as new healthcare providers, compared to the GPs, as they were deemed as being more attentive to the patients' needs. Participants found pharmacist to be more approachable, accessible and have necessary skills to deal with their queries. Similarly the GP nurses were positively regarded by the participants.

#### Example Y

*Mine was when I got the diabetes, the chemist where I had to go to get ... he was so good and giving me different leaflets and advice, really well yes.*

#### **Communication**

Additionally, communication was a reemerging sub theme on two levels. Firstly participants postulated that a lack of communication between providers affected the quality of care they received, as illustrated in example Z. Secondly the participants felt

that there was a lack of communication by the GPs regarding disclosure of information about their illnesses, diseases, procedures and medicine (example 1).

#### Example Z

*No communication between the two. When I see my doctor, he has to ask me what's happening. He can't get any information from the hospital, even though he tries. May be tests or blood tests they take, he should get the information but he never does*

#### Example 1

*Even if he took my blood pressure he says, good, good, good. What's the reading, it's good, you know and even now I'm having constant headache and I know it's stress but my blood pressure is good so what do I know, they're the professional.*

### **Fear (6)**

This theme was frequently occurring amongst all of the groups, and consisted of three sub-themes: *fear of finding out the CVD risk assessment results*, *a desire to have fear based appeals*, and *denial*.

#### **Fear of finding out the CVD risk assessment results**

It became evident that some participants were fearful about finding out their CVD risk assessment outcome. Hence some participants suggested that people may not want the CVD assessment, or seek generic medical advice. Some in fact described that not knowing would be more ideal, as it would not elicit fear (*ignorance is bliss*). The

example below clearly illustrates this fear that is being associated with the CVD risk assessment.

#### Example 2

*I don't know if I want to go to this assessment centre, be assessed, and then have them turn around and say to me, don't fancy your chances... I think you'll frighten the life out of me... he might say you've got six months to live.*

*...that'd frighten the life out of me. I don't think I'd want to know.*

#### **Desire to have fear based appeals**

This sub-theme explores how fear was often suggested by the participants to be used in the CVD risk assessment campaign. The majority of the groups all expressed that they would attenuate fear-based adverts, as they would have the “*shock-element*”.

#### Example 3

Interviewer: *do you think the adverts should be very specific, to the point or factual?*

*: ...they should shock people, frighten them.*

#### Example 4

*The cigarette ones, they are hard hitting... something like that sort of thing*

However some opposed this suggestion, and stated that if such fear-based adverts are to be used positive outcomes, such as a list of solutions to minimise CVD should be given, to neutralise the fear element; consequently informing the observer.

#### Example 5

*It's the way you attract something. I think you can flag up the symptoms and say if you're suffering from any of these this is the place you can go.*

#### **Denial**

The third sub-theme was *denial*. It was composed of two factors: *storytelling* and *blaming others*.

As the participants highlighted that there was an element of fear being associated with the outcome of the CVD risk assessment. Participants' displayed and identified two mechanisms which could be/ or were in fact being used to avoid getting the CVD risk assessment done.

Firstly participants used '*storytelling*' as a mechanism to assert that CVD can happen to the healthiest of individuals. Thus there was no reason for getting the CVD assessment done, as it can happen to those that in fact should be at a lower risk of CVD.

#### Example 6

*Well I went to a funeral, a friend's son, 38 years old, never drunk, never smoked in his life, and he was a bodybuilder, he had muscles on his muscles... He came in from work one night, had his evening meal, went up the stairs, collapsed, dead, heart attack.*

Denial was also presented when the participants used *blame*. For example it was common for the government, food companies and genetics to be blamed as an effort to shun responsibility from themselves for CVD prevention.

#### Example 7

*but don't you think whether it's healthy eating or not smoking at the end of the day if the ready meals with all the additives weren't available and if the cigarettes weren't available etc... then we wouldn't all be in this state would we.*

### **Service Recommendations**

In response to the six themes discussed, thirteen recommendations for the CVD risk assessment service have been identified, and are given below.

#### **Where will it take place?**

1. The service needs to be accessible. Thus the service needs to be offered in local places such as G.P. surgeries, chemists, supermarkets, work places, drop-ins and



mobile units. Also the groups aged 60 years and above identified sheltered accommodation for places to carry out the risk assessment.

## 2. Drop-ins/mobile units

There was a general consensus amongst all the participants that drop-in clinics, and mobile vans in strategic positions (town centres, outside work places/supermarkets) would be very attractive to them. This was due to several reasons such as, the visibility factor, close proximity to where they live, and they were deemed more accessible if they could just drop-in without an appointment at a time that suits them.

## 3. The risk assessment needs to be available for the public, in a supermarket setting as participants thought that due to the lack of time they could get their risk assessment done whilst doing their shopping. This would have less of an impact on their time and it is a place that they frequently visit.

## 4. Some people wanted the risk assessment to be conducted in the workplace as it would be more accessible. However there was a re-emerging fear, that if this was to be done the employers could access the results which could potentially jeopardise their jobs. Therefore it would be important to offer the risk assessment in the workplace, but to have an agreement with the employer to ensure that the results would be kept confidential and not shared.

### **Who will carry it out?**

1. Pharmacists are fast become a new-liked health care provider. Participants felt that they can ask questions, or discuss health issues without feeling pressed for time, or patronised. Whereas participants felt that in order to consult or visit a GP they need to be at crisis point. . Thus it is very important that we fully utilise this relationship and offer the CVD risk assessment at local pharmacies. Participants also mentioned the need for them to have a one-to-one in-depth conversation with the health care provider who will be carrying out the risk assessment. Therefore the pharmacists along with nurses at GP surgeries would be more suitable to this role.
2. Participants expressed fears about the risk assessment outcome. Consequently believing that the outcome would not be followed up. Thus it would be advisable to have CVD CHIPS to help give more advice about how to make changes, on a one-to-one basis and to make this information available.
3. The participants felt that only a clinically trained professional would be preferred to carry out the risk assessment, as they could be trusted to carry out the assessment properly.

### **How should it take place?**

1. In all of the groups the participants stated that they would be more aware and more likely to take the risk assessment seriously if an invitation letter was sent to

- the patients by their G.P's. due to the fact that this would give the campaign more credibility. They wanted the same format as the cervical screening assessment where every few years a reminder letter is sent to patients from their G.P's to book an appointment. This should be the first point of action.
2. The participants felt that they lacked information about CVD. Most reported that their GPs had not spoken to them about CVD, and they did not know who to contact to obtain more information about it. They thought that stroke and CVD were un-associated, and that Stroke was deemed to be more serious than CVD. So it would be advised that the term CVD/ cardio-vascular is not used in the advertising campaign. As people automatically assume that the term is associated with heart disease rather than heart disease and stroke. It is also advised that G.P's start talking to patients over 40 about CVD and personally inform them about the CVD risk assessment initiative. This would strengthen the invitation letter message.
  3. It is proposed that an information campaign takes place alongside the risk assessment campaign. This would help increase the knowledge base, and make people more likely to attend the risk assessment.
  4. It might be beneficial to the campaign if either a monetary or a non- monetary incentive is offered to people who are having a risk assessment carried out. The incentive might be one/two month free gym membership to their local gym for

either them or a member of their family. It might also be in the form of vouchers for fresh fruit/vegetables.

5. It would be advisable to have a set of tailored services in place for the different age groups before the risk assessment campaign gets off the ground. As it was derived from the data sets for the over 60s they would prefer programs that were relevant to them based on their physical capabilities and likes. Such as walking and gardening. Whereas for women 40-49 felt that due to financial pressure they cannot afford to attend the gym. Thus if the gym was free or considerably subsidised it would increase the likelihood of women attending.
6. Across all services it would be important for the providers to be aware that the older the patients are, the more the resistance to change there is. This is due to habits and “not wanting to live forever” attitude, therefore providers need the knowledge about the traditional/ cultural beliefs that impact the patients’ lifestyles, to provide more support during the process of change.
7. The services would need to have greater communication between the different providers. As lack of communication between providers affected the quality of care the patients received, and was seen as a barrier.

## **Advertising Recommendations**

### **Universal List**

Almost all groups expressed that an incentive should be offered to encourage people to attend a CVD risk assessment. Hence, adverts / posters /pamphlets should include a note on the incentives that members of public can receive by attending the screening.

All adverts / posters /pamphlets must have consistent messages. Participants in the focus groups expressed that when they are confronted with confounding messages, their trust in the message decreases.

### **Almost all groups emphasised on the followings:**

- Mobile units for CVD assessments
- Posters at Job centres and adverts in local newspapers
- G.P. sending invitation letter for CVD assessment
- Incentives
- Checklist type format on leaflets and pamphlets
- Positive and negative messages- Balanced campaign
- The NHS logo should be prominent in the adverts-to increase credibility

Below is the list of recommendations based upon the responses from the different groups.

### **Group: Women 40-49**

- This group expressed interest in advertisement that focuses on the age factor. In other words, advertisements should emphasise that women of younger age can be affected by CVD.
- This group wanted direct and straight to the point messages.
- This group expressed dislike for the term CVD, stating that it sound more like a sexually transmitted disease. They also did not like the term cardiovascular disease. They wanted simple terms like, heart disease and stroke. In their view, these terms were more understandable.
- This group expressed that they are more likely to take notice of the adverts if children were used in the campaigning. So for example the advert might say that if you die young what would happen to your children?
- Women in this group also expressed preference for clever adverts that are thought provoking.
- The main theme of advertisement targeting this group should emphasise on the fact the CVD can happen to people of any age. Hence preventive measures should be taken to prevent premature death caused by CVD.

### **Places to advertise CVD**

- Posters in G.P surgery
- Local newspaper
- Essex FM- Martin & Sue morning programme
- Bus stops

- Schools – letter from schools to parents
- Local supermarkets
- Local pharmacies
- Information packs in letterboxes

### **Group: Men 40-49**

- Participants in this group expressed that they would like adverts that have a combination of positive and negative messages.
- They wanted the campaign to send the message “be selfish about yourself”.
- Men in this group wanted leaflet/ booklets on CVD to have a ‘checklist’ format.  
for example : a tick box asking questions related to CVD like :are you over 40 ; are you over weight?....You are at risk of CVD, get your assessment from the local G.P.
- It is recommended that adverts targeting this age group could also utilize a ‘traffic light’ style. E.g. Green indicating low risk of CVD, amber indicating moderate risk of CVD and red indicating high risk of CVD. This style of advertising would be eye-catching and will be easily comprehensible by men of this age.

### **Places to advertise CVD**

- Supermarkets
- Flyers through letter box
- Taxis
- Trains

- Buses
- Schools – letter from schools to parents
- Essex FM
- Billboards
- Letter from G.P
- Mobile units

### **Group: Women (50-59)**

- Participants in this group expressed that they would like adverts that have a combination of positive and negative messages.
- Women in this group wanted leaflet/ booklets on CVD to have a ‘checklist’ format. for example : a tick box asking questions related to CVD like :are you over 40 ; are you over weight?....You are at risk of CVD , get your assessment from the local G.P.
- This group were very vocal on the issue of health. For example, it was really important for them to remain healthy. Hence this should be the main focus of the advert. The adverts should focus on ways to maintain good health.
- Women in this group also expressed that they would like adverts that are tugging at heart string. Hence an emotional advert is recommended for this group.

### **Places to advertise CVD**

- Leaflets
- G.P surgery



- Schools – letter from schools to parents
- Pharmacy
- Supermarket
- Job centres
- Toilets

### **Group: Men 50-59**

- Participants in this group expressed that they would like adverts that have a combination of positive and negative messages.
- Men of this age group said that they would prefer an advert that would have catch phrases that would stick in their minds.
- This group emphasised on being able bodied and maintaining their healthy status. Hence, adverts targeting this group can focus on the preventability factor of CVD
- This group also expressed interest in adverts that played around with colour. Specifically red and blue (e.g. red representing a healthy body / blue representing an unhealthy body).

### **Places to advertise CVD**

- Local paper
- Radio
- Food shop
- Football stadiums
- Transports

- Supermarkets
- Post-office
- Bus stops

### **Group: Women 60+**

- Adverts / Posters targeting this group should emphasise on what a person will be leaving behind if she is affected by CVD.
- Women in this group wanted simple and straight forward and clear adverts/posters (e.g. It can kill you).
- Adverts should also address issue of time (e.g. : add time to your life).
- Women in this group wanted a balanced message. They wanted adverts /poster to have a combination of fear and solution based information.
- This group expressed preference for the colour red. Hence it is recommended that adverts targeting this group would include the colour red as this colour was associated with warning.

### **Places to advertise CVD**

- Shelter schemes
- Local services
- Local paper
- Public Toilets
- Supermarkets

### **Group: Male 60+**

- This group emphasised on their physical capability and their inability to carry out activities that they were able to do when younger
- Hence it is recommended that adverts targeting this group, should emphasise on the fact that CVD can be prevented and is important to secure a mobile life. As this group was the most vocal in their inability to carry out tasks that they could previously do.
- The messages for this group should also highlight factual information as they mistrusted health adverts the most. Consistent and factual messages are the key. Thus it might be an idea to use a real life case study to promote CVD risk assessments.
- This group also preferred pictures rather than words. Hence it is recommended that adverts/posters targeting this group would have a non verbal picture based message. This groups also expressed their preference for red colour hence the utilization of this colour would make the adverts/posters more appealing for this age group.
- This group expressed preference for case studies. Hence , utilization of case studies will be highly beneficial for advert/posters for this age group
- This group also expressed preference in campaigns that have celebrity endorsements. Hence using celebrities or famous people in the adverts will be beneficial. It is felt that a local role model could also be used to have a similar effect.

### **Places to advertise CVD**

- Sports pages in local paper
- Pages 1 and 2 of local paper
- G.P surgery
- Hospitals
- Football grounds
- Taxis
- Buses
- Swimming pools
- Post offices

### **Concluding Remarks**

Overall this piece of work highlights that CVD risk assessments are attractive to most of the research sample. They give out the message that the NHS cares but the public are sceptical that health care professionals like the G.P. will not be able to build on this feeling. Rather it is felt that once risk assessments are carried out people will be brushed off and would not given one to one support to deal with the assessment outcome.

Knowledge on heart conditions is relatively high; however knowledge about stroke is very low. People view CVD to mean heart attacks/angina but do not think that word is a collective term for both heart conditions and stroke. Therefore it is important not to use

the term CVD or the word cardio vascular disease in any promotion as a stand alone because the local population will not fully understand its meaning.

As well as having a big launching campaign for CVD risk assessments it should be ensured that G.P's and other healthcare professionals such as pharmacists are prepared to talk to people about CVD and provide information to patients when asked. They should play a big part in launching this initiative as people are more likely to take the assessment seriously if the G.P. was to discuss it with them.

And lastly, we should also be in a position to offer people choice in services if people are told that they have a high risk of CVD. Most of our current services are not tailored for the older generation, thus it would be important to develop new services which are (a) tailored to their physical capabilities and (b) which are liked.

## **Optional Area of Competence 5.7: Contribute to the evolution of legal, ethical and professional standards in health and applied psychology**

### **Designing, developing and implementing a workplace Smokefree policy**

**SETTING:** NHS

**TARGET GROUP:** All Primary Care Trust (PCT) employees, contractors, visitors and patients.

**DESCRIPTION OF WORK:** To design, develop and implement a workplace Smokefree policy PCT wide.

#### **MONITOR AND EVALUATE DEVELOPMENTS IN LEGAL, ETHICAL AND PROFESSIONAL STANDARDS IN HEALTH AND APPLIED PSYCHOLOGY**

In 2004 the Government White Paper 'Choosing Health' was produced. The purpose of the White Paper was to set out the principles for supporting the public to make healthier and more informed choices in regards to their health. Choosing health sets out how we will work to provide more of the opportunities, support and information people want to enable them to choose health. It aims to inform and encourage people as individuals, and to help shape the commercial and cultural environment we live in so that it is easier to choose a healthy lifestyle. Within Choosing Health, amongst other public health issues smoking was highlighted as one of the most important behaviors to be challenged. A

debate about the rights of smokers and the rights of non smokers who do not want to inhale second hand smoke was highlighted.

Second-hand smoke is a known carcinogenic and is associated with respiratory and heart disease. It also can damage the health of infants and children by causing an increased risk of cot death, meningitis, middle ear disease, asthma and pneumonia (Scientific Committee on Tobacco and Health (2004) and World Health Organization International Agency for Research on Cancer (2004)).

It was concluded that by 2006 all government departments and the National Health Service (NHS) will become smoke-free and must provide comprehensive support for smokers who want to give up. It was also proposed that consultation on detailed proposals will take place for regulation and if necessary legislation to turn all enclosed workplaces and public places smoke-free. The balance was significantly shifted towards smoke-free environments.

With the smoking ban coming into place on the 1<sup>st</sup> July 2007 all workplaces will become 'Smokefree'. Very early on in this project the Human Resources department of the PCT shifted the responsibility for the Smokefree policy on to the Public Health department. My manager is the Associate Director of Public Health and was at that time leading on the tobacco control agenda, thus he was asked to lead on the policy. To assist him with this task I was asked to find out the definition of 'Smokefree' as at this stage it was not known what being "smokefree" meant and entailed. Having never heard about the

proposed smoking ban I researched the term and found that the Health Development Agency (HAD) published 'Guidance for Smoke Free Hospital Trusts' in addition to this I also called the National Institute of Clinical Excellence (NICE).

In 2005 HAD published 'Guidance for Smoke Free Hospital Trusts'. This guidance was published to inform the NHS on the steps that it has to take to ensure compliance. It gave a definition of what the government meant by Smoke-free NHS. The definition given is as follows:

**“Smokefree** means that smoking is not permitted anywhere within hospital buildings. No exceptions will be made for staff or visitors. For long-stay mental health patients in an acute psychiatric state or terminally ill patients exceptions may be made on a case-by-case basis. However, no blanket exceptions will be allowed for particular categories of patients.”

(Guidance for Smokefree hospital trusts (2005), p. 2)

I held a meeting with my manager to discuss what I found out about going Smokefree and the procedures we had to follow in writing the policy. I was told to write a summary on what was required from the PCT by the government. At the beginning of the document I stated what is compulsory by law (Choosing Health, 2004 & Guidance for Smokefree Hospital Trusts, 2005) and also included what the documents suggested as



being best practice. Additionally towards the end of the document I made recommendations which outlined the options available to us as a PCT. Once the summary document was completed I held another meeting with my manager. In the meeting we discussed the requirements and smoking policies which have been produced at different PCT's and discussed how prescriptive we want the new policy to be. I was told that since I have read on the requirements of the policy I should lead on it and write the policy for the PCT.

#### **IMPLEMENT DEVELOPMENTS IN LEGAL, ETHICAL AND PROFESSIONAL STANDARDS IN APPLIED PSYCHOLOGY**

As I had no previous experience of writing policies I thought a good place to start was to look the PCT's current smoking policy. In October 2006 the PCT that employed me joined up with two other local PCT's to form one larger PCT. Thus I viewed the old policies for all three trusts. I felt that this task would inform me of the extent that the PCT is already complying with the government's recommendations. Having viewed the policies I concluded that they were either too simplistic or too wordy and were not in line with the new recommendations. For example one PCT's policy was over 20 pages long. For a document which needs to be easily read and understood by different groups of people it was felt that having it overly long would reduce the number of people reading/understanding it. In addition to this the policies were written prior to the Choosing Health paper which stated that all NHS trusts need to be completely Smokefree. Having decided that none of the three old policies can be used for the reasons

mentioned above I decided to find policies based upon the new guidance policies of other NHS trusts. Upon research, I found a number of policies, which were all differing in style, layout and the recommendations that they were adopting, but I used them for information purposes from time to time. So for example some policies differed by how prescriptive they were. Some allowed for managers to decide on how to deal with staff who disregarded the policy whilst others stated a step to step guide on what to do if a breach takes place. Also, some PCT's were adopting a full outright ban on smoking on grounds as well as buildings whilst other PCT's were imposing a ban only inside the buildings.

The regulations within the HAD guidance did not state that the grounds as well as the buildings had to become Smokefree, though it stated that if an NHS trust decided to do that it was considered as being the gold standard. The flipside of this was that if a trust decided not to ban smoking on its ground this could give a very poor impression especially if people were smoking directly outside an entrance (hospital, clinic, surgery etc.) and others were expected to walk through a cloud of smoke.

A decision needed to be made regarding whether we will extend the policy to include grounds as well as the buildings. After my discussion with my manager the decision reached was that we were going to introduce a total ban of smoking to include both buildings and grounds. This decision was based upon a number of reasons; if a ban on the grounds is not taking place then it becomes quite difficult to decide at what point smokers allowed to smoke. So for example should they be allowed to smoke just outside the entrance or whether a Smokefree zone should be designated outside the entrance? Also if smoking is allowed on the grounds of hospitals and other NHS buildings this would result

in smoking litter or building and maintaining smoking shelters. The money spent on these activities could be better spent on supporting employees/ patients who would like to quit smoking (Guidance for Smokefree Hospital Trusts, 2006). Lastly it was felt that by having a total ban the PCT will be making a statement about its commitment to Smokefree environments.

I wanted the policy to be clear, helpful whilst providing reasons behind the decisions that were taken. Therefore I started the policy by describing why the policy was being produced and the effects of second hand smoke. As well as writing about the ban in buildings and grounds it was also stated within the policy that staff were not allowed to smoke in their uniform and staff who drive a company car (lease car) were also not allowed to smoke within the car. The reasons behind this were several. Firstly, when a member of staff is in uniform they are representing and are the face of their organisation, and if they are seen smoking by members of the public it can be viewed as hypocrisy. Secondly, we did not want staff to smell of cigarettes whilst caring for their patients as this again would be seen as unfair and unprofessional. Staff at the PCT are expected to represent the PCT in a positive way in the local community (Dignity Policy at the PCT, 2004). Thirdly, leased cars are not owned by members of staff and are the property of the PCT. Thus due to a ban on smoking taking place at all PCT owned property, smoking in the lease cars would not be allowed. .

As an employer we have a duty to support our employees who will be affected with this ban thus it was essential that a 'support available' section was included within the policy.

This was a new idea and I had not seen any other PCT adding it to their policy. The section was put into the appendix and was referred to in the main body of the policy. It covered the telephone numbers and email addresses of different organisations that can help smokers to quit. So, for example, the local stop smoking service, different language national stop smoking service numbers and Action on Smoking and Health (ASH) were included. It was also ensured that the local stop smoking service was made aware of their mention within the policy and was prepared for a probable increase in demand. It was decided that if demand for the stop smoking group was high, then the groups could take place in-house at the PCT offices and staff will be allowed to take time off work to attend.

Once the first draft was complete I arranged a meeting with my manager and he suggested that I make a few changes. He felt that the policy was slightly prescriptive in its approach and he wanted me to delete the section on what the managers should do if a breach of the policy takes place. I had originally suggested a warning system (Appendix 1). As I had put in quite a lot of work around the breach procedure I was a little disappointed that the idea was not going to be taken forward, however, the reason behind this was that it was felt that managers might deal with breaches in their own way. Upon making these changes I was asked to send a copy of the policy to the local council as they were in the process of developing theirs and wanted to see a local example. A copy was also sent to the director of Human Resources (HR) for consideration. I was quite surprised that since a lot of points raised in the policy are HR issues that HR did not lead on the policy. It is felt that the reason HR did not take lead on this policy is due to an

increased workload and due to the topic of smoking sitting in the Public Health (PH) domain they must have come to the conclusion that PH should lead on it.

Within a month I was sent an email by the Director of HR to let me know that the policy went through the Joint Negotiation and Consultative Committee (JNCC) of the PCT and they have suggested a few changes to be made. Some of the comments made are as follows:

1. I should have two documents instead of one; the main policy document and a guidelines document. Deciding to have two documents instead of one, might be due to wanting the main policy document to be shorter and easily readable.
2. The aims and the introduction of the policy are long and the policy contains health promotion information. They suggest that these get moved in to the guidelines document.
3. Few questions on the budget.

It was decided that money will come out of the Public Health budget to account for promotion of the policy and information for patients and the amended policy was emailed to the HR director again. In April, the policy was accepted by the PCT board and a member of staff who had previously written the former smoking policy for one of the PCT's that had merged emailed me to congratulate me on the acceptance of my policy by the PCT board and asked how this new policy differed from the policy that he had

written. I replied back by saying that the new policy is shorter, more concise, less prescriptive in its approach and gives more control to managers.

I was requested by the HR director to liaise with a number staff such as communications personnel for the publicity, corporate development to get the policy registered and to speak to the Estates department about appropriate signage in all PCT buildings. I spoke to the HR manager regarding my concerns of not having a working party in place and we finally came to the conclusion that it is a bit too late for that at the present time but a working party can be formed in time for the first review meeting of the policy. The working party would review the policy at different intervals and would ensure that it is being implemented accurately and whether any issues have arisen within their departments.

In the next few days based upon the HAD guidance I got in touch with the HR director to request him to represent HR on the working party, due to time constraints he suggested we have the HR manager on the party. He was later contacted and agreed to be on the party. It was important to have representation from the HR department in the working party as it would ensure that they are involved in the implementation of the policy. I then got in touch with PCT union rep and explained why I needed her on the working party and she agreed to be on it as well. The last person I needed on board was the Health and Safety manager and she also agreed to be on the working party.

I had a meeting with the communications officer regarding promoting the policy to all PCT staff members. We decided that we will get a press release out to inform all patients that smoking was not allowed in PCT buildings and grounds. Plus a letter and the policy will be sent to all the clinics within the area and the policy will be displayed on the PCT intranet and advertised within the “teamtalk” (monthly staff magazine) for all staff members.

The estates and facilities departments in all three localities of the PCT’s were contacted to find out whether the no smoking signage was being put up in all PCT buildings. It was identified that in one locality signage was up, and in the other two it was not. Due to the deadline nearing, I called the managers of both the localities and spoke to them about organising signage. I gave them the email address of Smokefree England through where they can obtain free signage in bulk. I was later informed that a company was commissioned to check signage compliance across all PCT sites.

The policy was officially registered within the PCT in June 2007 and publicised within the local PCT area.

## **REFLECTION**

Initially when I was given this task I felt quite privileged working on the strategic side of the public health department especially so soon after joining the PCT. I found it extremely interesting and something I would not have considered that I could do. I have

learnt that even if you have not tried an area of work before that is not a good reason to dismiss it; instead you should be open to working in different areas as it expands your skills base. Due to a lack of experience I had to be sure that anything I suggested to my manager for the requirements of the policy were well sourced and researched.

I found writing the summary document fairly straightforward and easy but when it was time to start writing the policy document I realised that the task was not as easy as I had first imagined. Thus I felt the need to explore how other PCT's have written their policies. The differences between them were vast. Some were long, others short, some were very prescriptive therefore deriving inspiration from them was a good decision.

By far one of the biggest challenges of this process was that staff and patients were not consulted on the policy due to significant time constraints. The policy needed to be implemented by July 2007, thus this did not leave much time behind to adopt a bottom up approach. Ideally as a trainee psychologist I felt that focus groups with staff and questionnaires with patients should have been carried out to assess what their needs are, whether they would prefer a grounds ban and how we can better support them once the ban comes in. This would have prepared us much better and would have made us more confident that we had created and implemented the policy based upon the views of the people who will be affected by it.

When I was asked to forward my policy to the local council at the beginning I was quite hesitant due to it not yet being approved by the PCT board. Yet I found that helping other workplaces to write their policy is quite interesting. One gets to view what steps other



organisations are taking in tackling smoking and the problems that they are facing. This can give a broader perspective on how different organisations tackle the same problem. Plus this kind of activities can increase partnership working which is utterly important to tackle an issue such as smoking.

When the policy was sent to HR for comments it was quite a difficult time. The reason being that having worked on it for such a long time it is easy to become attached and protective over ones work but I had to consciously detach myself by understanding that I by no means am an expert in policy writing and therefore I will need guidance and a bigger body to see if what I have written is correct. At this point another reason behind my frustration was that I felt that I had not received any help from HR on this matter whatsoever and from what I understood they should have been leading on this and due to time constraints they could not. What I have learnt is that roles become blurred and some people expect you to do everything, even work which might not be in your remit. At this stage of my career I don't necessarily think that this a bad think as it gives me more experience, but if at any point I feel that I cannot cope then I should raise my concerns.

Upon receipt of the comments I was a little surprised at was that they felt the policy was repetitive, I can't say I thought about that. I was under the initial impression that we have to be very clear and write everything down in a policy, but the key is to be concise. At least I know that now.

I continue to learn how to be flexible and have the ability to change my style of writing. I am also improving in being able to identify what my strengths and weaknesses are. I did

not know that policies go through a board; it is comforting to know that before the policy is put into the public domain it has been thoroughly reviewed. It was also very useful to get feedback from my manager and be able to go to the HR Director with anything that we are unsure about. This is a constant learning curve. It improves my weak areas of practise and gives the opportunity to evaluate my work.

I was really shocked when I found out from a member of staff that the policy I had written had been accepted. I was hoping I would be told first, but that did not happen. Additionally I was under the impression that before they fully accept the policy it has to go through a working party but that has not been done. This is not how I envisaged the process of policy acceptance. I realised I needed to contact the Director of HR to ask for a copy of the accepted version.

Overall I gained valuable experience in policy writing. I accomplished something that I never imagined I could, especially so early in my career. This has provided me with knowledge on how legislations can impact organisations and cultures and the steps that have to be taken to reach compliance. I have learnt how to write in a different style and how to write more concisely. It is not as easy as it sounds neither is it as complicated as a novice might initially find it.

## REFERENCES

Department of Health (1998). *Smoking Kills. A White Paper on Tobacco*. London: Stationery Office.

Department of Health (2004). *Choosing health. Making healthy choices easier*. London: Stationery Office

Health Development Agency (2005). *Guidance on Smokefree hospital trusts*. London: Health Development Agency. Available at:  
[http://www.nice.org.uk/aboutnice/whoweare/aboutthehda/hdapublications/guidance\\_for\\_smokefree\\_hospital\\_trusts.jsp](http://www.nice.org.uk/aboutnice/whoweare/aboutthehda/hdapublications/guidance_for_smokefree_hospital_trusts.jsp)

Scientific Committee on Tobacco and Health (2004). *Secondhand smoke: review of evidence since 1998. Update of evidence on health effects of secondhand smoke*. London: Department of Health. Available at:  
[www.advisorybodies.doh.gov.uk/scoth/PDFS/scothnov2004.pdf](http://www.advisorybodies.doh.gov.uk/scoth/PDFS/scothnov2004.pdf)

World Health Organization International Agency for Research on Cancer (2004). *Tobacco smoke and involuntary smoking*. IARC Monographs on the Evaluation of Carcinogenic Risks to Humans 83. Summary available at: [www.iarc.fr](http://www.iarc.fr)

## Appendices



### APPENDIX 1

## Smokefree Policy

## **1. Definition of terms**

### **1.1**

For the purpose of this policy, smoking is defined as the burning of lighted cigarette, pipe, cigar, chewing tobacco and any other matter or substance that contains tobacco.

## **2. Introduction**

### **2.1**

Smoking is a risk factor for many illnesses and diseases and can ultimately cause death. In the UK there are an estimated 120,000 deaths, which are caused by smoking. From these an estimated 42,800 deaths are from smoking-related cancers, 30,600 from cardiovascular disease and 29,100 from emphysema and other chronic lung diseases (Action on smoking and health).

## **3. Principles and/or Responsibilities**

### **3.1 Chief Executive**

**3.1.1** The Chief Executive is responsible for ensuring that reasonable resources are made available for the implementation of this policy.

### **3.2 Managers**

**3.2.1** Managers are responsible for informing their staff about the requirements of the Smokefree policy as they would with other health and safety issues.

**3.2.2** Managers will be made aware with regards to their responsibilities in relation to the Smokefree policy and they will be expected to ensure that staff, patients, clients and visitors are aware of the policy.

**3.2.3** Managers are advised to contact Human Resources when issues of breaching of the Smokefree policy arise, particularly in cases where support has not been sufficient in achieving a change in behaviour.

### **3.3 Staff**

- 3.3.1** All South West Essex PCT staff members have the responsibility to comply with the Smokefree Policy.
- 3.3.2** Staff are only permitted to smoke during their designated break times out of sight of the general public
- 3.3.3** Staff are not permitted to smoke at any time in public when representing the PCT and when attending meetings on behalf of the PCT, wherever these are held. It is not appropriate for those who are recognisable as a representative of the PCT to be seen to be smoking, as this is in conflict with the NHS aims to improve health and reduce smoking.
- 3.3.4** Any questions regarding the policy that employees may have should be directed to their line manager so that the correct information can be given.
- 3.3.5** All breaches to the policy that staff should witness should be reported to their line manager. Alternatively, if staff wish to raise any breaches confidentially then they may use the Trusts Whistleblowing Policy.
- 3.3.6** The safety of our members of staff is paramount for the Trust. Therefore under no circumstances should any member of staff encourage the enforcement of the policy if they feel that the situation might turn dangerous for them. If a situation does become dangerous for the member of staff they should immediately leave the area and follow the normal incident procedures.

### **3.4 Staff Working Outside of PCT Premises**

- 3.4.1** It is important for the Trust to ensure that its employees are protected from the health risks associated with second hand smoking in all settings.
- 3.4.2** A verbal request may also be made at the time of the visit and the client should be respectfully asked not to smoke whilst the member of staff is working in that environment.
- 3.4.3** If the client and/or other occupants do not comply with the policy then the member of staff can remove themselves from the premises of the patient/client as soon as it is clinically safe to do so and inform their line manager.

### **3.5 Human Resources**

- 3.5.1 All job descriptions and job advertisements will include a statement about the Trusts Smokefree policy and commitment to our employees' health and safety. Job advertisements and descriptions will indicate that adherence to the policy is contractual.
- 3.5.2 All new and potential staff will be informed about the requirements of the Smokefree policy. Information about the policy will be included in the induction handbook and reiterated at local induction.
- 3.5.3 The policy will be included in contractual documentation for contractors and suppliers.
- 3.5.4 Patients and visitors will be advised of the Smokefree policy via patient leaflets and other correspondence which will come out of the Public Health Budget.

### **3.6 Contractors**

- 3.6.1 Contractors will not be allowed to smoke on any Trust premises
- 3.6.2 Tenders and contracts with the South West Essex Trust will stipulate adherence to this policy as a contractual condition
- 3.6.3 Contractors that fail to comply with the policy should be reported to the person responsible for monitoring the conduct of contractors on site.
- 3.6.4 Non-trust employees may wish for advice on stopping smoke and should be given information about the local and national NHS Stop Smoking Service.

### **3.7 Patients, Clients and Visitors**

- 3.7.1 Patients, clients and visitors entering Trust sites are expected to abide by the terms of this policy
- 3.7.2 Patients will be advised of the policy prior to admission and/or on admission to the Trust premises
- 3.7.3 GP practices will also be informed of the Trusts Smokefree policy
- 3.7.4 Existing patients will be informed via appropriate signage
- 3.7.5 Patients will be able to access support from the local Stop Smoking Service
- 3.7.6 Visitors and clients can access support or obtain information either via their G.P's or the South West Essex Stop Smoking Service

**3.7.7** Appropriate signs will be placed at all entrances to the Trusts premises which remind patients, clients and visitors not to smoke

**3.7.8** If staff members see a visitor smoking on Trust premises, they should make the visitor aware of the smoking policy and request them to stop smoking. If the visitor fails to comply with the policy they should be asked to leave the premises

### **3.8 Vehicles**

**3.8.1** Smoking is not permitted in vehicles owned and leased by the PCT

**3.8.2** Smoking is not permitted in private vehicles whilst being used on PCT business.

### **3.9 Exceptions**

**3.9.1** The Trust recognises that some patients have circumstances that will require staff to make an assessment as to whether special arrangements need to be made so that the patients will be permitted to smoke on a Trust site

**3.9.2** Permission to smoke in exceptional circumstances can only be given by the nurse in charge of the ward or unit, clinician or senior manager.

**3.9.3** In all cases where an exception has been made there should be evidence that smoking cessation has been fully considered as part of the patient pathway, in conjunction with the patient and/or their relatives

**3.9.4** Where an exception has been made every effort must be made to minimise staff exposure to smoke. This would mean that smoking will only be permitted outdoors where staff and other patients would not be in close proximity to the smoker.

**3.9.5** This allowance does not extend to staff or visitors who are connected with the patient/client.

## **4.**

### **Dealing with Staff Non Compliance**

**4.1** Non compliance with the policy in the first instance will be regarded as a management support matter rather than a disciplinary matter.

**4.2** As a final resort, staff who fail to comply and breach the policy are likely to face a disciplinary procedure.



## **5. Monitoring and Review**

- 5.1** The policy will be monitored by the working party which will have broad representation including members from: health and safety, tobacco control, human resources, and trade unions.
- 5.2** The policy will be reviewed every quarter by the working party for the first year to examine the implementation of the policy after which the policy will be reviewed annually to ensure that it continues to meet the aims of the original policy.
- 5.3** A formal review will be carried out by the policy lead after six months of the policy being introduced, with support from the working party, and yearly thereafter.

## **Smokefree Policy Guidelines**

## **1. Policy statement**

- 1.1** By the end of 2006 all hospitals within the NHS will be 'smoke free'. That decision, made by the Secretary of State and supported by the Chief Medical Officer, will require careful management if it is to gain the whole hearted support of staff, patients and visitors. The PCT recognises that subsequent 'smoke free' workplace measures will depend for their credibility on the success of the NHS in securing a 'smoke free' environment for the Trust & its contractors as a workplace.
- 1.2** The PCT believes that this success is reliant upon staff understanding the benefits to be gained from such a policy. Therefore, it is important to be clear about the reasons for the introduction of this policy. For example, medical evidence has proven that Inhaling sidestream smoke and second-hand smoke is now a demonstrable health hazard. Estimates vary but up to 750 workplace deaths a year are caused by second-hand smoke inhalation and in the case of a hospital where patients' well being is already compromised it is especially important that such evidence informs our practice.
- 1.3** The PCT is also aware of the issues and the question of the 'rights of smokers'. In some cases advocates of the 'smoke free' hospital policy have been accused of impinging on the 'human rights' of staff and patients. To better explain PCT policy on this issue it may be helpful to remember an argument put by John Stuart Mills' (in his essay 'On Liberty') in which he argues "the only purpose for which a power can be rightfully exercised over a member of a civilised community against his will is to prevent harm to others".
- 1.4** Therefore, it is PCT policy (as part of its responsibility under Health and Safety legislation and being a good employer) to protect those staff, patients and public vulnerable to passive smoking and to ensure their continued health and safety requires our intervention.

## **2. Introduction**

- 2.1** Smoking is a risk factor for many illnesses and diseases and can ultimately cause death. In the UK there are an estimated 120,000 deaths, which are caused by smoking. From these an estimated 42,800 deaths are from smoking-related cancers, 30,600 from cardiovascular disease and 29,100 from emphysema and other chronic lung diseases (Action on smoking and

health).

- 2.2 Over 50% of the people who continue smoking for the rest of their lives die of their dangerous habit; 25% die before the age of 69 (Smoking Kills, A White Paper, 1998) and this too at a time when the average life expectancy is 75 for men and 81 for women in the UK (National Statistics- Life Expectancy, 2004).
- 2.3 Second hand smoking has immediate effects that include eye irritation, headache, cough, sore throat, dizziness and nausea. Adults with asthma can experience a significant decline in lung function when exposed to second hand smoking. Short term exposure to tobacco smoke also has a measurable effect on the heart in non-smokers. Just 30 minutes exposure is enough to reduce coronary blood flow.
- 2.4 Due to increasing medical evidence of active and passive smoking being one of the major causes for most preventable illnesses and premature death in the UK, the Public Health white paper, *Choosing Health* makes a clear commitment to a smokefree National Health Service (NHS) by the end of 2006 and requires NHS organisations to take action to eliminate second hand smoke from all their premises and to provide extensive support for smokers who would like to stop smoking.
- 2.5 Section 2(2) of the Health and Safety at Work Act 1974 places a duty on employers to:  
***'...provide and maintain a safe working environment which is, so far as is reasonably practicable, safe, without risks to health and adequate as regards facilities and arrangements for their welfare at work.'***
- 2.6 South West Essex Primary Care Trust acknowledges that breathing other peoples smoke is a public health hazard. Therefore the following policy has been adopted concerning smoking at all PCT premises.

### 3. Aims and Scope of the Policy

- 3.1 The aim of the policy is to:
  - 3.1.1 Ensure all staff, visitors, service users and contractors to South West Essex primary care trust premises benefit from a smoke-free environment.
  - 3.1.2 Comply with the Health and Safety Legislation and Employment Law.
  - 3.1.3 Provide opportunities and support for staff who wish to stop smoking.

- 3.1.4** Set an example to other employers and workforces, particularly in health related locations.
- 3.1.5** Promote culture of a Smokefree trust.
- 3.1.6** Meet the Smokefree NHS standard as proposed by the White Paper on Public Health.
- 3.1.7** Increase knowledge on the dangers associated with exposure to tobacco smoke.
- 3.2** The policy will apply to all staff members (including locum, agency, volunteer and seconded staff, whether temporary or permanent), patients, visitors, contractors and other persons, who enter Trust owned or rented premises, building or grounds (including car parks, entrances and gardens) for any purpose whatsoever.
- 3.3** Where Trust premises are co-owned or co-shared by other organisations the policy will apply to enclosed buildings only.
- 3.4** The scope of this policy extends to vehicles (including Trust vehicles and private vehicles used while on business, but it does not apply to the vehicles privately owned and not being used for business purposes or during business hours.

## **4. Advice and Support**

- 4.1** The PCT recognises its duty towards its employees and member of staff have the full support of the Trust in the delivery of this policy.
- 4.2** It is recognised that some smokers will need to adjust to this policy and thus will welcome smoking cessation support. Research has indicated that the most effective strategy to support smokers who would like to quit includes the combination of behavioural support (one-to-one or in group settings) and the use of stop smoking aids such as Nicotine Replacement therapy (NRT) and Bupropion (Zyban) (West et al 2000).
- 4.3** The South West Essex Stop Smoking Service offers one-to-one sessions by trained advisors. The Stop Smoking Service also provides group support. The groups are run for 6 weeks and include advice on how to quit, how to cope with withdrawal symptoms and advice on how NRT and Zyban can help.
- 4.4** The Trust will provide advice and support for staff and service users, including:
  - Referrals to the South West Essex smoking cessation service, the NHS Stop Smoking Service and free NRT/ Zyban on

prescription.

- Allowing staff time away from duties to attend smoking cessation services. Arrangements need to be negotiated with individual line managers prior to attending the support services.

**4.5** Staff wishing to access advice or support should contact their line manager in the first instance. Alternatively staff and service users can make direct contact with the organisations listed in Appendix A.

## Appendix A Support Available

### **Local Stop Smoking Services**

South Essex Stop Smoking Service

Tel: 01268 46 45 11

Thurrock Stop Smoking Service

Tel: 01375 40 64 11

### **NHS Stop Smoking Service**

England and Wales - 0800 169 0169

Scotland and Northern Ireland – 0800 848484

Pregnancy Smoking Helpline – 0800 169 9169

[www.givingupsmoking.co.uk](http://www.givingupsmoking.co.uk)

### **NHS Asian Tobacco Helplines**

Support is available through NHS in a variety of languages:

Urdu	0800 169 0 881
Punjabi	0800 169 0 882
Hindi	0800 169 0 883
Gujrati	0800 169 0 884
Bengali	0800 169 0 885

## **Section D: Systematic Review**

### **A Systematic Review of Smoking Cessation Interventions for Smokers with Children Suffering from Asthma**



## **Abstract**

Exposure to second hand smoke (SHS) is a critical clinical problem for many children with asthma. Children who are exposed to SHS have a higher than average risk of developing asthma (Environmental Protection Agency, 1992), impaired recovery after hospitalisation for an acute asthma exacerbation, use more asthma medication and use emergency services more frequently than children who are not exposed to SHS (Mannino, Homa & Redd, 2002).

### **Aim**

The aims of this review are: (1) to evaluate the amount of quality trials that target smoking cessation in smokers who have a child suffering from asthma (2) to evaluate the methodological quality of the interventions, (3) to determine whether the smoking cessation interventions were effective in promoting abstinence.

### **Search Strategy**

Web of Science, Medline via Ovid, Scencedirect, Swetswise, APA journals, Psycinfo, PsycArticles, Cochrane Central Register of Controlled Trials (CCTR) were searched from 1994 to August, 2010. Articles were also hand searched in peer reviewed journals.

### **Selection Criteria**

The selection criteria were; randomised controlled trials, adults 16> years who smoke and who are a parent, guardian and/or caregiver to an asthmatic child were included

in the review. The studies in the review investigated the effectiveness of smoking cessation interventions for smokers who have a child suffering from asthma, with smoking cessation of at least three months either self reported or validated by use of biomarkers.

### **Quality Assessment**

To assess the methodological quality of the journals a seven quality assessment criteria was used. The criteria were scored from 0 to 2.

### **Results**

Both the included trials showed no statistical significance between the intervention and the control, thus intervention format was not associated with trial results. In the first trial Borelli et al., 2010 found in their 2 and 3 month follow up that the BAM and PAM group had non-significant ( $p = .059$ ) differences in the abstinence rate. However at the 2 month follow up participants in the PAM condition were more than twice as likely (32%) as those in the BAM condition (14%) to report continuous abstinence ( $OR = 2.80$ , 95%  $CI = 0.95-8.18$ , Cohen's  $d = .42$ ) and in the 3 month follow up, participants receiving the PAM intervention were more likely (19%) than those receiving BAM (12%) to be continuously abstinent. In the second trial Irvine et al. (1999) found that only 12 parents/caregivers (7 intervention group and 5 in control group) out of 501 (2.8%) had stopped smoking. Therefore 98% of the participants continued to smoke, hence showing no significance. The children showed a small decrease in cotinine concentrations at post intervention. The mean decrease in the

intervention group (0.70 ng/ml) was slightly smaller than in the control group (0.88 ng/ml).

## **Discussion**

This review highlights the need for more studies that focus on smoking cessation in parents of asthmatic children rather than focusing on reducing household second-hand smoke. The integration of smoking cessation into well-accepted interventions like asthma education can facilitate proactive reach to smokers who might not spontaneously or willingly seek help to stop smoking or who do not have ready access to primary care or preventive health services. Reactive interventions, by contrast, may not reach those most at risk.

# 1. Background

Smoking is a risk factor for many illnesses and diseases and can ultimately cause death. In the UK there are an estimated 120,000 deaths which are caused by smoking. From these an estimated 42,800 deaths are from smoking-related cancers, 30,600 from cardiovascular disease and 29,100 from emphysema and other chronic lung diseases (Action on smoking and health (ASH), 2005). Over 50% of the people who continue smoking for the rest of their lives die of their dangerous habit; 25% die before the age of 69 (Department of Health (DOH), 1998) and this too at the time when the average life expectancy is 75 for men and 81 for women in the UK (National Statistics- Life Expectancy, 2004). Due to smoking being the single cause for most preventable illnesses and premature death in the world, health organisations worldwide are prioritising reducing smoking amongst their population (DOH, 1998).

## 1.1 Passive Smoking

Breathing and inhaling other people's smoke is called passive, involuntary, or second hand smoking. The non-smoker breathes 'sidestream' smoke from the burning tip of the cigarette and 'mainstream' smoke that has been inhaled and then exhaled by the smoker (ASH, 2005). Environmental tobacco smoke (ETS) or second hand smoke (SHS) is caused by a combination of the smoke from the burning end of a cigarette and the smoke exhaled by a smoker. It contains over 4,000 chemical substances, of which more than 50 are known to be carcinogenic (Lofroth, 1989). Over the last 20 years evidence has shown that SHS causes a wide range of health problems and is associated with more than 12,000 deaths a year in the UK (ASH, 2004). There is no

longer any credible evidence to suggest that exposure to SHS does not cause disease and death.

Some of the immediate effects of passive smoking include eye irritation, headache, cough, sore throat, dizziness and nausea. Adults with asthma can experience a significant decline in lung function when exposed, while new cases of asthma may be induced in children whose parents smoke (Otsuka, 2001). Short term exposure to tobacco smoke also has a measurable effect on the heart in non-smokers. Just 30 minutes exposure is enough to reduce coronary blood flow (DOH, 2004). Jamrozik (2005), estimated that domestic exposure to secondhand smoke in the UK causes around 2,700 deaths in people aged 20-64 and a further 8,000 deaths a year among people aged 65 years or older.

In the long term, passive smokers suffer from an increased risk of smoking-related diseases. Non-smokers who are exposed to passive smoking in the home, have a 25% increased risk of heart disease and 24% increased risk of lung cancer (Otsuka, 2001). A major review by the Government-appointed Scientific Committee on Tobacco and Health (DoH, 2004) concluded that passive smoking is a cause of lung cancer and ischaemic heart disease in adult non-smokers, and a cause of respiratory disease, cot death, middle ear disease and asthmatic attacks in children.

## **1.2 Passive Smoking in Children**

Active smoking has been recognised as being harmful to smokers for more than five decades, however it was not until 1974 that research and medical literature first began to discuss the effect of parental smoking on the health of children (Harlap, 1974). In 2000, it was estimated that almost half of all children in the UK were exposed to tobacco smoke at home (Jarvis et al., 2000). By early 2007 this figure had dropped to 40% (British Medical Association, 2007). The proportion of children living in smokefree homes has risen from 21% in 1996 to 37% in 2007 (Jarvis et al., 2009). Nevertheless, secondhand smoke in the home remains the principal source of exposure for children.

There are numerous documented effects of ETS specific to children's health. American Academy of Paediatrics in 2009 published a study that found that exposure of SHS on children causes significant morbidity and mortality, showing an association of SHS exposure in children with respiratory illnesses, middle-ear infections, tonsillectomy and adenoidectomy, cough, asthma and asthma exacerbations, hospitalisations and sudden infant death syndrome. According to the study, SHS has also been associated with the exacerbation of many chronic illnesses such as sickle cell disease (Best, 2009). In addition SHS exposure increases health service use and cost (Lam, Leung & Ho, 2001).

Passive smoking increases the risk of lower respiratory tract infections such as bronchitis, pneumonia and bronchiolitis in children. One study found that in

households where both parents smoke, young children have a 72% increased risk of respiratory illnesses (Strachan and Cook, 1997). Passive smoking is also associated with middle ear infection as well as possible cardiovascular impairment and behavioural problems (World Health Organization, 1999). Children exposed to second-hand smoke have more days off from school (Mannino, Moorman, Kingsley, Rose & Repace, 2000), and there is some evidence that exposure to second-hand smoke can impair mental development (Svanes et al., 2004). A US study found deficits in reading and reasoning skills among children even at low levels of smoke exposure (Yolton, Dietrich, Auinger, Lanphear & Hornung, 2002).

A new report by the British Medical Association has found that there is evidence that exposure to SHS causes childhood cancer in particular brain cancer and lymphoma and meningitis. It can also lead to cancer in adulthood and the initiation and progression of cardiovascular disease (BMA Board of Science, 2007). Tobacco smoke may also impair olfactory function in children. Nageris (2001) concluded that passive smoking reduced children's ability to detect a wide variety of odours compared with children raised in non-smoking households.

### **1.3 Passive Smoking in Children with Asthma**

Asthma is the most frequent of chronic diseases in children in the western world and affects up to 35% of the population (Beasley et al., 1998). Asthma is an inflammatory disease of the airways involving respiratory symptoms, such as wheezing and coughing, and reversible airflow limitation. Its severity differs widely between

patients, but most people with asthma have a mild form of the disease. Asthma severity is classified according to four grades; intermittent, mild persistent, moderate persistent and severe persistent (Asthma UK, 2010).

Management of the paediatric asthma patient can be challenging due to the multiple medical, behavioural, and environmental factors that contribute to asthma symptoms and exacerbations. Of these factors, exposure to SHS is a critical clinical problem for many children with asthma. SHS not only triggers asthma episodes, but also has an adverse effect on airway reactivity (Carlsen & Carlsen, 2001) which makes the airways more responsive to other irritants and allergens that affect asthma.

Children who are exposed to SHS have a higher than average risk of developing asthma (Environmental Protection Agency, 1992), impaired recovery after hospitalisation for an acute asthma exacerbation, use more asthma medication and use emergency services more frequently than children who are not exposed to SHS (Mannino, Homa & Redd, 2002).

Cook and Strachan (1997) conducted a systematic review to investigate the effects of parental smoking on the onset of childhood asthma. They found a significant increased risk for the development of asthma based on parental smoking status. The prevalence of asthma symptoms increased with the number of smokers living in the home. Although maternal smoking appeared to have a greater deleterious effect on asthma onset than paternal smoking, the effect of paternal smoking alone was still



significant. This indicates that smoking by either parent is likely to increase the risk for the development of asthma.

There is some evidence that parental educational level and socioeconomic status may moderate the effects of parental smoking and SHS exposure on incidence of childhood asthma. Martinez and colleagues (1992) found that children of mothers who smoked at least 10 cigarettes per day and who had lower educational level (12 years or less of formal education) were approximately 2.5 times more likely to have asthma than children of non-smoking mothers. This result was not found in the group of children whose mothers had more than 12 years of education. The authors concluded that differential occupational patterns based on educational status may relate to varying rates of actual SHS exposure, which may in turn affect risk for asthma onset. Despite these risks, parents of children with asthma continue to smoke at levels comparable to the general population of smokers (Liem, Kozyrskyj, Benoit, & Becker, 2007).

The findings from one large scale, epidemiologic survey study suggested that SHS may not have a direct effect on the incidence rate of asthma in children, but rather augment the effects of exposure to other irritants, allergens, or infections in triggering wheezing episodes (Gilliland, Li & Peters, 2001). This survey assessed parental reports of several factors including parental smoking, child wheezing, and child asthma. Although maternal smoking during pregnancy increased the odds of diagnosis of asthma after birth and wheezing for children, current SHS exposure was

associated with wheezing, but not with a diagnosis of asthma. Taken together, the findings of these various studies suggest that SHS exposure, either directly or in combination with other factors, plays a significant role in the development of asthma in children.

#### **1.4 Interventions to Reduce SHS Exposure in Children with Asthma**

Due to the well documented detrimental health effects of parental smoking on children various interventions have been designed to reduce SHS exposure. Intervention approaches within this population group have ranged from brief advice to self help approaches to more intensive face to face counselling. For example McIntosh, Clark & Howett (1994) examined the effectiveness of a brief intervention delivered by General Practitioners (GP's). Families of children with asthma and a smoker in the home were randomly assigned to either a usual care group, or an experimental group that received feedback on their child's urinary cotinine levels and brief advice for SHS reduction in combination with usual medical care. At a 6 months follow-up, a larger number of families in the intervention group reported trying to avoid smoking inside the home (86% vs. 43%) and more parents in the intervention group were able to accomplish this modification of their smoking behaviour (35% vs. 17%).

More intensive interventions have shown even more encouraging effects. Winickoff and colleagues (2003) designed a smoking cessation program for parents of children hospitalised for respiratory illness, with asthma as the most common admitting diagnosis. The intervention incorporated motivational interviewing, nicotine

replacement therapy, telephone counselling and educational resources to promote complete parental smoking cessation. At a 2 months follow-up, 49% of parents reported having made a quit attempt in the previous 24 hours, 21% reported abstaining from cigarettes in the previous week, and the rate of smoking bans within the home increased from 29% to 71%. Though the study was limited by the lack of a control group and the reliance on self-report outcome measures, the feasibility of providing smoking cessation services to parents during a child hospitalisation was demonstrated as being effective.

## **2. Purpose & Aim**

The purpose of this systematic review is to explore the effectiveness of smoking cessation interventions for parents/guardians/caregivers who smoke that have children that are suffering from asthma. No previous systematic reviews have been carried out on this topic.

The aims of this review are: (1) to evaluate the amount of quality trials that target smoking cessation in people who have a child suffering from asthma (2) to evaluate the methodological quality of the interventions, (3) to determine whether the smoking cessation interventions were effective in promoting abstinence.

## **3. Method**

### **3.1 Study Selection Criteria**

#### ***Type of studies***

Randomised controlled trials

#### ***Type of participants***

Only adults 16> years who smoke and who are a parent, guardian and/or caregiver to an asthmatic child were included in the review.

#### ***Type of intervention***

The studies in the review investigated the effectiveness of smoking cessation interventions for smokers that have a child who is suffering from asthma.

#### ***Type of outcome measure***

Smoking cessation of at least three months either self reported or validated by use of biomarkers.

#### ***Search Strategy and Search Terms***

Web of Science, Medline via Ovid, Sciencedirect, Swetswise, APA journals, Psycinfo, PsycArticles, Cochrane Central Register of Controlled Trials (CCTR) were searched from 1994 to August, 2010. Articles were also hand searched in peer reviewed journals.

The search terms used were:

- Smoking
- Cessation
- Smokers
- Tobacco
- Cigarette

AND

- Asthma
- Respiratory
- Intervention
- Family
- Parent
- Caregiver
- Carer
- Child
- Youth
- Paediatric
- Pediatric
- Minor

AND

- RCT
- Randomised controlled trial
- Randomized controlled trial
- Randomization
- Randomisation
- Controlled
- Single/double/treble/triple blind

***Inclusion and Exclusion Criteria***

In the first stage all the publications that matched the inclusion keywords were selected. The keywords were applied to the titles, abstracts and key words of the journal in the computerised literature search.

In the second stage journals on smoking cessation in adolescents and teenagers were excluded (only adults <18 years were included) as well as publications on smoking cessation in adults who do not have an asthmatic child.

For the final stages additional inclusion criteria was applied to select the journals which will be further reviewed and assessed. The studies had to be randomised controlled trials of any interventions that aim to help parents/carers of asthmatic children to quit smoking.

### 3.2 Methods of Review

#### *Criteria based analysis*

To assess the methodological quality of the journals the following quality assessment criteria was used (descriptions and scoring for each is given below):

1. Randomisation (needs to be mentioned)
2. Description of intervention
3. Baseline comparisons (intervention and control group baseline comparisons of age, gender etc.)
4. Use of bio-markers (95% or more cases with CO level monitored, saliva or urine sample)
5. Withdrawals and dropouts explained
6. Sample size justification
7. Measurement of motivation to quit (needs to be measured)

The following quality assessment rating system was used:

Were the participants randomly allocated?

2 = computer randomised

1 = other randomisation

0 = no explanation provided

Was a complete description of the intervention given?

2 = full description

1 = some description

0 = inadequate/ minimal description

Were baseline comparisons made between the intervention and control group?

2 = baseline comparisons adequately made

1 = some comparison made

0 = no comparison made

Were biomarkers used to validate abstinence?

2 = biomarkers carried out in 95% of self reported quits

1 = biomarkers carried out for less than 95% of self reported quits

0 = no biomarkers used

Were withdrawals and dropouts explained?

2 = numbers and reasons provided for all withdrawals and dropouts

1 = some information provided on withdrawals and dropouts

0 = no statement on withdrawals and dropouts

Was the sample size adequate?

1 = sample size established by power analysis or sample size of 100+

0 = power analysis not carried out and sample size under 100



Was motivation to quit measured?

1 = yes

0 = no

The maximum score for studies was 12. Studies receiving between 9-12 points were classified as high quality, 5-8 points as medium quality and studies with a score of 4 or less were defined as low quality.

### ***Data abstraction and analysis***

In order to compare the publications the data that was extracted from the journals is as follows:

1. Study author
2. Year of publication
3. Country of research
4. Study population (gender, age, ethnicity if provided, SES if provided)
5. Sample size
6. Type of intervention
7. Outcome measure
8. Adherence rate
9. Follow up adherence rate
10. Trial quality

## 4. Results

### 4.1 Search for Trials

Forty-eight abstracts were read for inclusion in the study, from which two were shortlisted for inclusion. A total of two studies met the inclusion criteria and were included within the review. The studies were conducted in 1999 and 2010 and the sample size varied from 133 to 501 participants. A total of 46 studies were excluded from the review. The studies were excluded for a number of reasons; study was not a RCT, smoking cessation in asthmatic adults without asthmatic children, studies published not in English, smoking cessation in teenagers with asthma, outcome not smoking cessation but instead household smoking bans and reducing number of cigarette smoked. Table 1 provides a summary of the two included studies.

	<b>RCT 1</b>	<b>RCT 2</b>
<b>Author(s), Year &amp; Trial Location</b>	Borelli, McQuaid, Novak, Hammond & Becker (2010)  USA	Irvine, Crombie, Clark, Slane, Feyerabend, Goodman & Cater (1999)  Scotland UK
<b>Population</b>	Hispanic smokers with an asthmatic child younger than 18  Recruited through hospitals,	Smokers with asthmatic children between the ages of 2-12 years  Recruited through GP

	outpatient asthma clinics and Latino agencies and community centres	practices by searching the database for asthmatic children who had at least one parent/ caregiver/ guardian that smoked
<b>Number Recruited (%)</b>	BAM Group (n=68) - 53 (78%) Females  PAM Group (n=65) - 44 (67%) Females	Intervention Group (n=213) - 171 (80%) Females  Control Group (n=222) - 174 (78%) Females
<b>Mean Age (Yrs)</b>	BAM - 37.1  PAM - 36.6	Intervention Group - 32.7  Control Group - 33.3
<b>Intervention</b>	Two different groups; (a) behavioural action model (BAM) and the (b) precaution adoption model (PAM).  The BAM condition consisted of following clinical guidelines for smoking cessation and was based on the social cognitive theory. The intervention focused on increasing	Compared a basic commercial leaflet with a behavioural intervention which included advice.  The intervention group were given information on passive smoking and the risk it has on their asthmatic child. Financial

	<p>self efficacy of the smoker through teaching them; problem solving and coping skills, overcoming barriers to quitting, self-monitoring, goal setting and support on reframing past quit attempts as learning experiences as opposed to failures.</p> <p>The PAM condition was used to increase risk perception where motivational interviewing (MI) was used to deliver physiological feedback regarding smoking exposure to oneself and to one's child. The intervention consisted of providing verbal and graphical feedback on carbon monoxide levels, symptoms that are associated with the level and how quitting can attenuate disease risk and symptoms. The counsellor also provided feedback on the</p>	<p>and health benefits were discussed and the participants were provided information on how to seek help to stop smoking. The participants were also advised that if they did not wish to stop smoking then they should smoking in a different as their child and ask visitors not to smoke around their children.</p>
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	<p>level of second hand smoke exposure to the child. The exposure was assessed through two passive nicotine monitors positioned for 1 week prior to the feedback: one worn by the child and one placed in the room in which the child spends most of their time in. Consistent with MI, all feedback was given Elicit-Provide-Elicit-Process, where the counsellor elicits the smokers current knowledge about the topic area, requests their permission to provide feedback on the topic area and then elicits the smokers reaction to the feedback (Borelli, Riekert, Weinstein &amp; Cardella, 2007). The counsellor also used a number of other MI strategies to help motivate quitting, such as, discussing cost and benefits of quitting, empathising and</p>	
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	<p>resolving ambivalence and highlighting cognitive dissonance by helping the smoker view smoking as seriously discrepant with their goals. If the smoker stated that they were ready to quit then cessation options would be discussed and skill building and problem solving regarding how to cope with triggers to smoke were discussed. Due to the population sample being Latino, this condition was designed to be consistent with the values of the Latino culture, hence making it culturally sensitive</p>	
<b>Follow Up</b>	<p>End of treatment 2 month follow up 3 month follow up</p>	<p>Initial visit 12 months</p>
<b>Outcome Measures</b>	<p>Self reported cigarette consumption verified by CO monitor 7-day point prevalence abstinence</p>	<p>Cotinine concentrations in both parents and children Self reported cigarette</p>

	Continuous abstinence Objective secondhand smoke exposure Asthma morbidity	consumption
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**TABLE 1:** Two included RCT's

## 4.2 Population and Setting

One trial took place in the United States (Borelli, McQuaid, Novak, Hammond & Becker, 2010) and one in Scotland UK (Irvine et al., 1999). Both trials recruited participants who were parents/caregiver/guardian over the age of 18 however the age of their asthmatic child differed. Borelli et al. (2010) recruited parents with an asthmatic child younger than 18 whereas Irvine et al. (1999) recruited parents of children between the ages of 2-12 years. The reason provided for the maximum age of 12 was that the researchers wanted to ensure that the asthmatic child was not a smoker themselves. In both trials the ratio of female to male was significantly different. The trials predominately had female participants. Ethnicity was targeted specifically in one trial in which they only recruited participants from the Latino community (Borelli et al., 2010). Ethnicity was not measured in the second trial (Irvine et al., 1999).

## 4.3 Experimental and Control Interventions

The intervention methods used in the two trials were different. One trial compared a basic commercial leaflet with a behavioural intervention which included advice (Irvine et al., 1999). The second trial (Borelli et al., 2010) had two different groups;

(a) behavioural action model (BAM) and the (b) precaution adoption model (PAM). The BAM condition consisted of following clinical guidelines for smoking cessation and was based on the social cognitive theory. The PAM condition was used to increase risk perception where motivational interviewing (MI) was used to deliver physiological feedback regarding smoking exposure to oneself and to one's child. Both the trials scored high on the quality criteria however the Borelli et al. (2010) study used more psychological theory and concepts such as self efficacy (Bandura,1977), cognitive dissonance (Festinger,1957), MI (Miller & Rollnick, 1992), social cognitive theory (Bandura,1986), problem solving and teaching coping skills. Whereas the Irvine et al. (1999) study did not report whether their intervention was derived from any behaviour change models or theories, however they discussed financial and health benefits of quitting which could act as facilitators in quitting and could reflect the smokers attitude towards quitting. This is a component of the theory of planned behaviour, which reflects that behaviour change theory has been used to drive parts of their intervention condition, though this has been very limited.

#### **4.4 Trial Quality**

The quality of the papers was checked by two researchers independently after which the scoring was compared. The method adopted was double-blind, so neither of the researchers knew each other's scores. No discrepancies were found between the scoring, however it was pre-agreed that if a discrepancy was found then it would be discussed and an agreement will be reached jointly.



Neither of the two studies fulfilled all the quality criteria; however both (Borelli et al., 2010; Irvine et al., 1999) of the trials were given 11 out of 12 points. Hence they are being defined as high quality. Borelli et al. (2010) lost one point due to not justifying their sample size and using less than 100 participants in both the control and intervention groups. Irvine et al. (1999) lost one point due to not explaining or describing the method of randomisation in their study. Table 2 provides the score summary for each trial.

Quality Criteria (Score out of)	Borelli et al., 2010	Irvine et al., 1999
	Scores	
Randomisation (2)	2	1
Description of intervention (2)	2	2
Baseline comparisons (2)	2	2
Use of bio-markers (2)	2	2
Withdrawals and dropouts explained (2)	2	2
Sample size justification (1)	0	1
Measurement of motivation to quit (1)	1	1
<b>Total Score</b>	<b>11</b>	<b>11</b>
<b>Quality</b>	<b>High</b>	<b>High</b>

**Table 2.** Summary of quality criteria scores

The trial quality was assessed using seven criteria. The first criterion for the review was that the studies were randomised controlled Trials (RCT). Both the included studies were randomised however Borelli et al. (2010) described their method of

randomisation to be computer generated however Irvine et al. (1999) did not describe how the randomisation took place. The description of the intervention in both of the studies was in depth and followed a step by step explanation, providing a fuller picture of the differences between the intervention and control group.

One of the trials provided extensive comparisons between the control and intervention group; stating the age, gender, socioeconomic status, smoking status, number of cigarettes smoked and motivation to quit for each group (Irvine et al., 1999). The trial showed no baseline differences between the two groups. The second trial also made an in depth baseline comparison between both the control and intervention groups (Borelli et al., 2010). They also found no significant difference on any baseline variables, even after accounting for multiple testing using a Bonferroni correction.

Both of the studies used bio-markers to confirm abstinence. One trial measured salivary cotinine (Borelli et al., 2010) and the other trial used carbon monoxide monitoring ( $\leq 10$  ppm = abstinence) to validate smoking cessation (Irvine et al., 1999). Irvine et al. (1999) used more than 100 participants in their study, with 213 participants in the intervention group and 222 participants in the control group whereas the second trial (Borelli et al., 2010) had less than 100 participants in each group.

The final inclusion criterion for the systematic review was whether or not motivation to quit was examined. Both of the studies measured and reported the motivation to

quit. Borelli et al. (2010) assessed motivation with the Contemplation Ladder (Abrams & Biner, 1992), a one item, 11 point scale of motivation (0 = no thought of quitting and 10 = taking action to quit). Irvine et al. (1999) simply asked the participants whether they had a strong desire to stop smoking and rated it as either yes or no.

#### **4.5 Trial Results**

Both the trials show no statistical significance between the intervention and the control, thus intervention format was not associated with trial results. Borelli et al., 2010 found in their 2 and 3 month follow up that the BAM and PAM group had non-significant ( $p = .059$ ) differences in the abstinence rate. However at the 2 month follow up participants in the PAM condition were more than twice as likely (32%) as those in the BAM condition (14%) to report continuous abstinence (OR = 2.80, 95% CI= 0.95-8.18, Cohen's  $d=.42$ ) and in the 3 month follow up, participants receiving the PAM intervention were more likely (19%) than those receiving BAM (12%) to be continuously abstinent. No significant changes over time, condition, or Time x Condition were observed. This study also objectively examined secondhand smoke exposure to the child. Secondhand smoke concentrations, as assessed by home monitors, significantly decreased from pre-intervention to the 3 month follow up in the BAM condition, (baseline  $M = 1.07$ ,  $SE = 0.19$ , and 3 month  $M = 0.28$ ,  $SE = .11$ ,  $\chi^2(1) = 8.41$ ,  $p < .01$ ), whereas the decrease observed in the PAM condition was non-significant (baseline  $M = 0.73$ ,  $SE = 0.12$ , and 3 month  $M = 0.60$ ,  $SE = 0.19$ ,  $\chi^2(1) = 0.09$ ,  $p < .05$ ).

In the second trial Irvine et al. (1999) found that only 12 parents/caregivers (7 intervention group and 5 in control group) out of 501 (2.8%) had stopped smoking. Therefore 98% of the participants continued to smoke, hence showing no significance. Salivary cotinine concentrations in the asthmatic children were also measured. The children showed a small decrease in cotinine concentrations at post intervention. The mean decrease in the intervention group (0.70 ng/ml) was slightly smaller than in the control group (0.88 ng/ml).

## **5. Discussion**

The aims of this review were: (1) to evaluate the amount of quality trials that target smoking cessation in parents/caregivers/guardians of children who suffer from asthma, (2) to evaluate the methodological quality of the smoking cessation interventions, (3) to determine whether the smoking cessation interventions were effective in promoting abstinence in this population group.

Regarding the first aim, the amount of quality trials found which targeted smoking cessation in parents/caregivers/guardians of children who suffer from asthma was extremely small. Whilst carrying out the search it quickly became apparent that a large number of studies targeting this population group are not interested in smoking cessation in the parents/caregiver/guardian instead the focus is very much on reducing second-hand smoke by means of reduction in the number of cigarettes smoked and smoking in a different room from the asthmatic child. Most often this

was measured by salivary cotinine concentrations and carbon monoxide levels of the child. Overall this systematic review found only two RCT's from the last 16 years that have focused on smoking cessation in parents of asthmatic children. One of the reasons behind such a low number of studies could be the difficulty in recruiting this population group to a smoking cessation intervention.

Firstly, the link between smoking and deprivation is widely known and it is also known that there is some evidence that parental educational level and socioeconomic status may moderate the effects of parental smoking and SHS exposure on incidence of childhood asthma (Martinez et al., 1992). Therefore recruiting individuals from a low socio economic group might be difficult as it is most often seen that people who usually participate in smoking cessation programmes are those who have an education of beyond secondary school which suggest that the population participating is self selected (Monos, Campbell, Tonnesen, Gustavsson & Morera, 2006).

Secondly, ethnicity can be playing a part in the lack of trials focusing on parents smoking cessation. A systematic review and meta-analysis of epidemiological studies within the UK has found that despite originating from low risk areas internationally, South Asians and Afro-Caribbean's experience significantly poorer asthma outcomes than do Whites (Netuveli et al., 2005). Possible reasons for these poorer outcomes could include differences in asthma incidence, severity, management and/or health seeking behaviour between ethnic groups (Jackson, Bannan & Beevers, 1981). It was also found that in the UK South Asians and Afro-Caribbean's (3× and 2×

respectively) were more likely to be admitted to hospital for asthma related problems than Whites (Netuveli et al., 2005) and since hospitals are popular recruitment venues for researchers to recruit parents who have children with asthma, it is not surprising that researchers are less likely to target the parents smoking habit; as researchers might feel that if they introduced a smoking cessation programme to this group then this might result in difficulties in understanding due to language barriers, therefore translation and catering for people with different spoken languages would be required, resulting in extra cost and inconvenience. As well as recruitment and language barriers, there might be different social pathways by which ethnicity has an influence on behaviours such as smoking, therefore by discovering these pathways it will become easier for researchers to design smoking cessation programmes that are intended for and targeting the correct audience making it a less daunting task (Sorenson, et al., 2003).

Thirdly, it has been found that amongst low income women only those willing to participate in smoking cessation interventions are those who have a high self efficacy and who have the intention to quit (Pohl, Martinelli & Antonakos, 1998). And since most studies looking at parental smoking have predominately a female sample this can further add to the difficulties of recruitment. Nevertheless researchers in one of the included RCT's (Borrelli et al., 2010) found ways of recruiting this hard to reach population of smokers. The trial to recruit low income women did so by recruiting them from places where they took their children, i.e. hospital accident and emergency and outpatient asthma clinics and classes.

Concerning the second aim the methodological quality of the trials included was very high. Both of the trials (Borrelli et al., 2010; Irvine et al., 1999) scored 11 out of 12 points and were RCT's, however one fully described the method they used to generate randomisation and had used computer generated randomisation (Borrelli et al., 2010) whereas the second trial simply stated that their sample was randomised without describing the method of randomisation (Irvine et al., 1999). Both of the trials fully described the intervention, gave details of baseline comparisons, used bio-markers to confirm abstinence, fully explained the withdrawals and dropouts and included a motivation to quit measure. However, Irvine et al., (1999) measure of motivation to quit was extremely simplistic and only asked for a yes or no answer, compared to the other trial (Borrelli et al., 2010) that assessed motivation to quit with the Contemplation Ladder (Abrams & Biener, 1992), a one-item, 11-point scale of motivation (0 \_ *no thought of quitting* and 10 \_ *taking action to quit*), which has demonstrated highly significant correlation of 0.64 between the ladder score and a single-item measures of intention to try to quit. Lastly, the sample size for one of the trials (Borrelli et al., 2010) was below 100 per group and no power analysis was conducted to justify the sample size. Whereas Irvine et al., (1999) within their trial had 213 participants in the intervention group and 222 participants in the control group, resulting in an extra point in the quality criteria score. Overall the quality of both of the trials was very high.

The third aim of the review was to determine whether smoking cessation interventions were effective in promoting smoking abstinence in

parents/caregivers/guardians of children with asthma. Overall both of the trials showed no significant results in abstinence rates; therefore this systematic review shows no effect of intervention.

Both of the trials used different methods to intervene. One used brief intervention (Irvine et al., 1999) whereas the other used a mixture of motivational interviewing, counselling and feedback (Borrelli et al., 2010).

One of the measures used by both studies was motivation to quit, surprisingly Irvine et al., (1999) found that fewer parents in the intervention group (30/206; 15%) reported an increased desire to stop smoking at the end of the study than parents in the control group (51/217; 24%), but this difference was not significant ( $P = 0.06$ ). It was also found that more parents in the intervention group (58/213; 21%) than in the control group (47/222; 27%) reported smoking more overall at the end of the study than they had at baseline. Again this was a surprising finding as this intervention only resulted in an overall cessation rate of 3% whereas the rate of unaided smoking cessation is reported as 7% (Ashenden, Silagy & Weller, 1997). These unexpected results can be explained by the two following reasons.

Firstly, research suggests that patients are resistant to information or advice when it is not being sought (Rollnic, Kinnorsley & Stott, 1993). Butler, Pill & Stott (1996) found that by telling patients what to do can make them feel challenged and can provoke them to assert control by continuing their unhealthy behaviours with renewed vigour. In light of the recruitment process of the parents/caregivers/guardians in the Irvine et al. (1999) study it can be suggested that



the participants erected barriers in response to the attempted imposition of a medical agenda. The participants were recruited through accessing GP database and searching for children who suffer from asthma and either have one or both parents as a smoker. The response rate and agreement to take part in the research from all the families contacted was 48% which is very high. The reason why the rate may be high could be due to both the control and intervention taking place within the family home, hence there being very little inconvenience for the family. This could have seemed like an attractive proposition in a situation where they felt obliged to take part.

Secondly, the intervention for this trial was quite weak and non-intensive. The intervention group was given information on passive smoking and the risk it has on their asthmatic child. Financial and health benefits were discussed and the participants were provided information on how to seek help to stop smoking. The participants were also advised that if they did not wish to stop smoking then they should smoke in a different area to their child and ask visitors not to smoke around their children. Yet there was no mention of using any behavioural change theories or models to establish the intervention. By reviewing the intervention that the trial used it seems that the participant was not playing a fully active role within it, instead nurses were bombarding information at the parents. Alternatively the second trial (Borrelli et al., 2010) sought active participation from the smokers. The smokers developed personalised strategies to quit smoking after having motivational counselling. This intervention combines components of the TPB with the theory of Implementation Intentions (Gollwitzer, 1993) in which control is handed from the self to the environment and if one comes across the situational cue (such as time and

place) that triggers the intended behaviour. Moreover, implementation intention on its own cannot influence behaviour. Implementation intention has to be preceded by goal intention (Gollwitzer, 1993). Therefore stage one of the intervention targeted the components of TPB by discussing perceived barriers followed by implementation intention in which the participants had to personalise the strategies in order for behaviour change to take place.

Borelli et al (2010) also found no significant results for abstinence but that could be due to the following reasons. Firstly, recruitment and retention of the Latino participants was lower than the researchers expected, due to the many immigration checks in the area that occurred during the time of the study. Several of the participants were deported during the course of the study. This illustrates the difficulties of the sample being from an ethnic minority. Secondly, statistical significance is easier to achieve with the presence of a true control group. The trial did not have a no-treatment control or assessment-only group but rather chose to compare two different treatments. In their justification they stated that this results in a stronger test of the hypothesis of whether tailored treatments improve quit rates over and above treatments based on existing clinical guidelines for smoking cessation (Fiore et al., 2000).

The study (Borelli et al., 2010) theorised that parents who continued to smoke despite their child's asthma needed an intervention that focused on augmentation of risk perception for self and the child, not simply an intervention that provided

problem solving and education about how to quit. Therefore, the finding that the PAM group outperformed the BAM suggests that clinical guidelines alone may have only limited efficacy and should include an intervention component that targets risk perceptions in parents.

It should be noted that even though motivation to quit was measured in both studies, the results of the measure did not impact upon the type of intervention provided. Readiness to change of the individuals was not used to personalise the intervention package.

## **6. Conclusion**

This review highlights the need for more studies that focus on smoking cessation in parents of asthmatic children rather than focusing on reducing household second-hand smoke. The integration of smoking cessation into well-accepted interventions like asthma education can facilitate proactive reach to smokers who might not spontaneously or willingly seek help to stop smoking or who do not have ready access to primary care or preventive health services. Reactive interventions, by contrast, may not reach those most at risk.

The prevalence of asthma in children in the UK has increased by 2 to 3-fold over the past 50 years, but recently the rates of asthma have started to plateau (Anderson, Gupta, Strachan & Limb, 2007). In order for this trend to continue more needs to be done to ensure that smokers who have children are offered smoking cessation

support. Especially if they have a child suffering from asthma, as it will help with the reduction of symptoms.

Traditional smoking cessation support encompassing brief advice and motivational interviewing should begin to incorporate components to target risk perceptions in parents as seen in the study by Borrelli et al., (2010). Targeting risk perceptions and cognitive dissonance can assist in increasing abstinence and can ultimately result in better health for the children of parents that smoke.

## References

- Abrams, D. B., & Biener, L. (1992). Motivational characteristics of smokers at the workplace: A public health challenge. *Preventive Medicine*; 21: 679–687.
- Abulhosn, R. S., Morray, B. H., Llewellyn, C. E., & Redding, G. J. Passive smoke exposure impairs recovery after hospitalization for acute asthma. *Archives of Pediatrics & Adolescent Medicine*; 151:135-139.
- Actions on smoking and health (Nov, 2005). <http://www.ash.org.uk>. Accessed on 15/04/06
- Anderson, H. R., Gupta, R., Strachan, D. P., & Limb, E. S. (2007). 50 years of asthma: UK trends from 1955 to 2004. *Thorax*; 62:85–90
- Ashenden, R., Silagy, C., & Weller, D. (1997). A systematic review of the effectiveness of promoting lifestyle change in general practice. *Family Practice*; 14:160-74.
- Asthma, UK (August, 2010). <http://www.asthma.org.uk/>. Accessed on 01/08/10
- Bandura, A. (1977). *Social Learning Theory*. New York: General Learning Press.
- Bandura A. (1986). *Social foundations of thought and action: a social cognitive theory*. Englewood Cliffs, NJ, USA: Prentice- Hall
- Beasley, R. (1998). Worldwide variation in prevalence of symptoms of asthma, allergic rhinoconjunctivitis, and atopic eczema: ISAAC. *Lancet*; 351:1225–32
- Best, D. (2009). Secondhand and prenatal tobacco smoke exposure. *Pediatrics*; 124:1017-1044;
- Borelli, B., McQuaid, E. L., Novak, S. P., Hammond, S. K. (2010). Motivating latino caregivers of children with asthma to quit smoking: a randomised controlled trial. *Journal of Consulting and Clinical Psychology*; 78(1): 34-43
- Borrelli, B., Riekert, K. A., Weinstein, A., & Cardella, L. (2007). Clinical strategies for motivating asthma medication adherence: Motivational interviewing. *Journal of Allergy and Clinical Immunology*; 12: 1023–1030
- Butler, C., Rollnick, S., & Stott, N. (1996). The practitioner, the patient and resistance to change: recent ideas on compliance. *The Canadian Medical Association Journal*; 154:1357-62.
- British Medical Association (2007). *Breaking the cycle of children's exposure to tobacco smoke*. BMA Board of Science.

Cook, D. G., & Strachan, D. P. (1997). Health effects of passive smoking. 3. Parental smoking and prevalence of respiratory symptoms and asthma in school age children. *Thorax*; 52:1081-1094.

Department of Health. (1998). *Smoking kills: A White Paper on tobacco*. London: The Stationary Office.

Department of Health (2004). *Secondhand smoke: Review of evidence since 1998*. Scientific Committee on Tobacco and Health (SCOTH). London: Department of Health

Environmental Protection Agency (1992). *Respiratory Health Effects of Passive Smoking: Lung Cancer and other Disorders*. Environmental Protection Agency, Washington, DC.

Festinger, L. (1957). *A Theory of Cognitive Dissonance*. Stanford, CA: Stanford University Press.

Fiore, M. C., Bailey, W. C., Cohen, S. J., Dorfman, S. F., Goldstein, M. G., Gritz, E. R., et al. (2000). *Treating tobacco use and dependence: Clinical practice guideline*. Rockville, MD: U.S. Department of Health and Human Services, Public Health Service.

Gilliland, F. D., Li, Y. F., & Peters, J. M. (2001) Effects of maternal smoking during pregnancy and environmental tobacco smoke on asthma and wheezing in children. *American Journal of Respiratory and Critical Care Medicine*; 163(2):429-436.

Gollwitzer, P. M. (1993). Goal achievement: The role of intentions. *European Review of Social Psychology*; 4: 141–185.

Harlap, S., & Davies, A. M. (1974). Infant admissions to hospital and maternal smoking. *Lancet*; 1(7857):529-32

Irvine, L., Crombie, I. K., Clark, R. A., Slane, P. W., Feyerabend, C., Goodman, K. E., & Cater, J. I. (1999). Advising parents of asthmatic children on passive smoking: randomised controlled trial. *British Medical Journal*; 318: 1456-1459

Jackson, S. H. D., Bannan, L. T., & Beevers, D. G. (1981). Ethnic differences in respiratory diseases. *Postgraduate Medical Journal*; 57:777-778.

Jamrozik, K. (2005). Estimate of deaths among adults in the United Kingdom attributable to passive smoking. *British Medical Journal*; doi:10.1136/bmj.38370.496632.8F (published 2 March 2005)

Jarvis, M. J., Goddard, E., Higgins, V., Feyerabend, C., Bryant, A., & Cook, D. G. (2000). Children's exposure to passive smoking in England since the 1980s: cotinine evidence from population surveys. *British Medical Journal*; 321: 343-345

- Jarvis, M. J., Mindell, J., Gillmore, A., Feyerabend, C., & West, R. (2009). Smokefree homes in England: prevalence, trends and validation by cotinine in children. *Tobacco Control*; 18: 491-495
- Lam, T. H., Leung, G. M., & Ho, L. M. (2001). The effect of environmental tobacco smoke on health services utilization in the first eighteen months of life. *Pediatrics*; 107(6):e91
- Liem, J. J., Kozyrskyj, A. L., Benoit, C. M., & Becker, A. B. (2007). Asthma is not enough: Continuation of smoking among parents with an asthmatic child. *Canadian Respiratory Journal*; 14: 349–353.
- Lodrup Carlsen, K. C., & Carlsen, K. H. (2001). Effects of maternal and early tobacco exposure on the development of asthma and airway hyperreactivity. *Current Opinion in Allergy and Clinical Immunology*; 1(2): 139-143.
- Lofroth, G. (1989). Environmental tobacco smoke: overview of chemical composition and genotoxic components. *Mutation Research*; 222:73–80.
- Mannino, D. M., Homa, D. M., & Redd, S. C. (2002). Involuntary smoking and asthma severity in children: Data from the Third National Health and Nutrition Examination Survey. *Chest*; 122: 409–415.
- Mannino, D. M., Moorman, J. E., Kingsley, B., Rose, D., & Repace, J. (2001). Health effects related to environmental tobacco smoke exposure in children in the United States: data from the Third National Health and Nutrition Examination Survey. *Archives of Pediatrics & Adolescent Medicine*; 155(1): 36–41.
- Martinez, F. D., Cline, M., & Burrows, B. (1992). Increased incidence of asthma in children of smoking mothers. *Pediatrics*; 89(1):21-26.
- McIntosh, N. A., Clark, N. M., & Howatt, W. F. (1994). Reducing tobacco smoke in the environment of the child with asthma: a cotinine-assisted, minimal-contact intervention. *Journal of Asthma*; 31(6):453- 462.
- Miller, W. R. & Rollnick, S. (1991) *Motivational Interviewing: Preparing People to Change Addictive Behaviour*. New York: Guilford Press
- Monos, E., Campbell, J., Tonnesen, P., Gustavsson, G. & Morera, J. (2001). Sociodemographic predictors of success in smoking intervention. *Tobacco Control*; 10: 165-169
- Nageris, B. (2001). Effects of passive smoking on odour identification in children. *Journal of Otolaryngology*; 30 (5): 263-5
- National Statistics- Life Expectancy, (22<sup>nd</sup> July, 2004).

<http://www.statistics.gov.uk/CCI/nugget.asp?ID=934&Pos=2&ColRank=2&Rank=1000>  
. Accessed on 15/04/10.

Netuveli, G., Hurwitz, B., Levy, M., Fletcher, M., Barnes, G., Durham, S. R., & Sheikh, A. (2005). Ethnic variations in UK asthma frequency, morbidity and health-service use: a systematic review and meta-analysis. *Lancet*; 365:312-17.

Netuveli, G., Hurwitz, B., & Sheikh, A. (2005). Ethnic variations in incidence of asthma episodes in England & Wales: national study of 502,482 patients in primary care. *Respiratory Research*; 6:120

Otsuka, R. (2001). Acute effects of passive smoking on the coronary circulation in healthy young adults. *The Journal Of the American Medical Association*; 286: 436-441

Pohl, J. M., Martinelli, A. & Antonakos, C. (1998). Brief Report. Predictors of participation in a smoking cessation intervention group among low income women. *Addictive Behaviours*; 23(5): 699-704

Rollnick, S., Kinnersley, P., & Stott, N. (1993). Methods of helping patients with behaviour change. *British Medical Journal*; 307:188-90.

Sorensen, G., Emmons, K., Hunt, M. K., Barbeau, E., Goldman, R., Peterson, K., Kuntz, K., Stoddard, A. & Berkman, L. (2003). Model for incorporating social context in health behavior interventions: applications for cancer prevention for working-class, multiethnic populations. *Preventive Medicine*; 37: 188-197

Strachan, D. P. & Cook, D. G. (1997). Health effects of passive smoking. 1. Parental smoking and lower respiratory illness in infancy and early childhood. *Thorax*; 52: 905-14

Svanes, C., Omenaas, E., Jarvis, D., Chinn, S., Gulsvik, A., & Burney, P. (2004). Parental smoking in childhood and adult obstructive lung disease: results from the European Community Respiratory Health Survey. *Thorax*; 59(4):295-302

Winickoff, J. P., Hillis, V. J., Palfrey, J. S., Perrin, J. M., & Rigotti, N. A. (2003). A smoking cessation intervention for parents of children who are hospitalized for respiratory illness: the stop tobacco outreach program. *Pediatrics*; 111(1):140-145.

World Health Organization (1999). International Consultation on ETS and Child Health WHO/NCD/TFI/99.10

Yolton, K., Dietrich, K., Auinger, P., Lanphear, B. P., & Hornung, R. (2002). Exposure to environmental tobacco smoke and cognitive ability among US children. *Environmental Health Perspectives*; 113(1): 98-103



# **Appendices**

## APPENDIX 1

### **Systematic Review Protocol**

A Systematic Review of Smoking Cessation Interventions for Smokers with Children  
Suffering from Asthma

#### **Background**

Asthma is the most frequent of chronic diseases in children in the western world and affects up to 35% of the population (Beasley et al., 1998). Asthma is an inflammatory disease of the airways involving respiratory symptoms, such as wheezing and coughing, and reversible airflow limitation. Its severity differs widely between patients, but most people with asthma have a mild form of the disease. Asthma severity is classified according to four grades; intermittent, mild persistent, moderate persistent and severe persistent (Asthma UK, 2010).

Management of the paediatric asthma patient can be challenging due to the multiple medical, behavioural, and environmental factors that contribute to asthma symptoms and exacerbations. Of these factors, exposure to SHS is a critical clinical problem for many children with asthma. SHS not only triggers asthma episodes, but also has an adverse effect on airway reactivity (Carlsen & Carlsen, 2001) which makes the airways more responsive to other irritants and allergens that affect asthma.

Children who are exposed to SHS have a higher than average risk of developing asthma (Environmental Protection Agency, 1992), impaired recovery after hospitalisation for an acute asthma exacerbation, use more asthma medication and use emergency services more frequently than children who are not exposed to SHS (Mannino, Homa & Redd, 2002).

Cook and Strachan (1997) conducted a systematic review to investigate the effects of parental smoking on the onset of childhood asthma. They found a significant increased risk for the development of asthma based on parental smoking status. The prevalence of asthma symptoms increased with the number of smokers living in the home. Although maternal smoking appeared to have a greater deleterious effect on asthma onset than paternal smoking, the effect of paternal smoking alone was still significant. This indicates that smoking by either parent is likely to increase the risk for the development of asthma.

There is some evidence that parental educational level and socioeconomic status may moderate the effects of parental smoking and SHS exposure on incidence of childhood asthma. Martinez and colleagues (1992) found that children of mothers who smoked at least 10 cigarettes per day and who had lower educational level (12 years or less of formal education) were approximately 2.5 times more likely to have asthma than children of non-smoking mothers. This result was not found in the group of children whose mothers had more than 12 years of education. The authors concluded that differential occupational patterns based on educational status may

relate to varying rates of actual SHS exposure, which may in turn affect risk for asthma onset. Despite these risks, parents of children with asthma continue to smoke at levels comparable to the general population of smokers (Liem, Kozyrskyj, Benoit, & Becker, 2007).

The findings from one large scale, epidemiologic survey study suggested that SHS may not have a direct effect on the incidence rate of asthma in children, but rather augment the effects of exposure to other irritants, allergens, or infections in triggering wheezing episodes (Gilliland, Li & Peters, 2001). This survey assessed parental reports of several factors including parental smoking, child wheezing, and child asthma. Although maternal smoking during pregnancy increased the odds of diagnosis of asthma after birth and wheezing for children, current SHS exposure was associated with wheezing, but not with a diagnosis of asthma. Taken together, the findings of these various studies suggest that SHS exposure, either directly or in combination with other factors, plays a significant role in the development of asthma in children.

### **Interventions to Reduce SHS Exposure in Children with Asthma**

Due to the well documented detrimental health effects of parental smoking on children various interventions have been designed to reduce SHS exposure. Intervention approaches within this population group have ranged from brief advice to self help approaches to more intensive face to face counselling. For example McIntosh, Clark & Howett (1994) examined the effectiveness of a brief intervention

delivered by General Practitioners (GP's). Families of children with asthma and a smoker in the home were randomly assigned to either a usual care group, or an experimental group that received feedback on their child's urinary cotinine levels and brief advice for SHS reduction in combination with usual medical care. At a 6 months follow-up, a larger number of families in the intervention group reported trying to avoid smoking inside the home (86% vs. 43%) and more parents in the intervention group were able to accomplish this modification of their smoking behaviour (35% vs. 17%).

More intensive interventions have shown even more encouraging effects. Winickoff and colleagues (2003) designed a smoking cessation program for parents of children hospitalised for respiratory illness, with asthma as the most common admitting diagnosis. The intervention incorporated motivational interviewing, nicotine replacement therapy, telephone counselling and educational resources to promote complete parental smoking cessation. At a 2 months follow-up, 49% of parents reported having made a quit attempt in the previous 24 hours, 21% reported abstaining from cigarettes in the previous week, and the rate of smoking bans within the home increased from 29% to 71%. Though the study was limited by the lack of a control group and the reliance on self-report outcome measures, the feasibility of providing smoking cessation services to parents during a child hospitalisation was demonstrated as being effective.

## **Aims**

The aims of this review are: (1) to evaluate the amount of quality trials that target smoking cessation in smokers who have a child suffering from asthma (2) to evaluate the methodological quality of the interventions, (3) to determine whether the smoking cessation interventions were effective in promoting abstinence

## **Study Selection Criteria**

### ***Type of studies***

Randomised controlled trials

### ***Type of participants***

Only adults 16> years who smoke and who are a parent, guardian and/or caregiver to an asthmatic child were included in the review.

### ***Type of intervention***

The studies in the review investigated the effectiveness of smoking cessation interventions for smokers that have a child who is suffering from asthma.

*Type of outcome measure*

Smoking cessation of at least three months either self reported or validated by use of biomarkers.

*Search Strategy and Search Terms*

Web of Science, Medline via Ovid, Sciencedirect, Swetswise, APA journals, Psychinfo, PsycArticles, Cochrane Central Register of Controlled Trials (CCTR) were searched from 1994 to August, 2010. Articles were also hand searched in peer reviewed journals.

The search terms used were:

- Smoking
- Cessation
- Smokers
- Tobacco
- Cigarette

AND

- Asthma
- Respiratory
- Intervention

- Family
- Parent
- Caregiver
- Carer
- Child
- Youth
- Paediatric
- Pediatric
- Minor

AND

- RCT
- Randomised controlled trial
- Randomized controlled trial
- Randomization
- Randomisation
- Controlled
- Single/double/treble/triple blind

### ***Inclusion and Exclusion Criteria***

In the first stage all the publications that matched the inclusion keywords were selected. The keywords were applied to the titles, abstracts and key words of the journal in the computerised literature search.

In the second stage journals on smoking cessation in adolescents and teenagers were excluded (only adults <18 years were included) as well as publications on smoking cessation in adults who do not have an asthmatic child.

For the final stages additional inclusion criteria was applied to select the journals which will be further reviewed and assessed. The studies had to be randomised controlled trials of any interventions that aim to help parents/carers of asthmatic children to quit smoking.

## **Methods of Review**

### ***Criteria based analysis***

To assess the methodological quality of the journals the following quality assessment criteria was used (descriptions and scoring for each is given below):

1. Randomisation (needs to be mentioned)



2. Description of intervention
3. Baseline comparisons (intervention and control group baseline comparisons of age, gender etc.)
4. Use of bio-markers (95% or more cases with CO level monitored, saliva or urine sample)
5. Withdrawals and dropouts explained
6. Sample size justification
7. Measurement of motivation to quit (needs to be measured)

The following quality assessment rating system was used:

Were the participants randomly allocated?

2 = computer randomised

1 = other randomisation

0 = no explanation provided

Was a complete description of the intervention given?

2 = full description

1 = some description

0 = inadequate/ minimal description

Were baseline comparisons made between the intervention and control group?

2 = baseline comparisons adequately made

1 = some comparison made

0 = no comparison made

Were biomarkers used to validate abstinence?

2 = biomarkers carried out in 95% of self reported quits

1 = biomarkers carried out for less than 95% of self reported quits

0 = no biomarkers used

Were withdrawals and dropouts explained?

2 = numbers and reasons provided for all withdrawals and dropouts

1 = some information provided on withdrawals and dropouts

0 = no statement on withdrawals and dropouts

Was the sample size adequate?

1 = sample size established by power analysis or sample size of 100+

0 = power analysis not carried out and sample size under 100

Was motivation to quit measured?

1 = yes

0 = no

The quality assessment will be carried out by two researchers via a double blind method.

If there is a discrepancy between the scores then these will be discussed and a mutually agreed score will be given.

### *Data abstraction and analysis*

In order to compare the publications the data that was extracted from the journals is as follows:

1. Study author
2. Year of publication
3. Country of research
4. Study population (gender, age, ethnicity if provided, SES if provided)
5. Sample size
6. Type of intervention
7. Outcome measure
8. Adherence rate
9. Follow up adherence rate
10. Trial quality

## References

- Asthma, UK (August, 2010). <http://www.asthma.org.uk/>. Accessed on 01/08/10
- Beasley, R. (1998). Worldwide variation in prevalence of symptoms of asthma, allergic rhinoconjunctivitis, and atopic eczema: ISAAC. *Lancet*; 351:1225–32
- Cook, D. G., & Strachan, D. P. (1997). Health effects of passive smoking. 3. Parental smoking and prevalence of respiratory symptoms and asthma in school age children. *Thorax*; 52:1081-1094.
- Environmental Protection Agency (1992). *Respiratory Health Effects of Passive Smoking: Lung Cancer and other Disorders*. Environmental Protection Agency, Washington, DC.
- Gilliland, F. D., Li, Y. F., & Peters, J. M. (2001) Effects of maternal smoking during pregnancy and environmental tobacco smoke on asthma and wheezing in children. *American Journal of Respiratory and Critical Care Medicine*; 163(2):429-436.
- Liem, J. J., Kozyrskyj, A. L., Benoit, C. M., & Becker, A. B. (2007). Asthma is not enough: Continuation of smoking among parents with an asthmatic child. *Canadian Respiratory Journal*; 14: 349–353.
- Mannino, D. M., Homa, D. M., & Redd, S. C. (2002). Involuntary smoking and asthma severity in children: Data from the Third National Health and Nutrition Examination Survey. *Chest*; 122: 409–415.
- Martinez, F. D., Cline, M., & Burrows, B. (1992). Increased incidence of asthma in children of smoking mothers. *Pediatrics*; 89(1):21-26
- McIntosh, N. A., Clark, N. M., & Howatt, W. F. (1994). Reducing tobacco smoke in the environment of the child with asthma: a cotinine-assisted, minimal-contact intervention. *Journal of Asthma*; 31(6):453- 462
- Winickoff, J. P., Hillis, V. J., Palfrey, J. S., Perrin, J. M., & Rigotti, N. A. (2003). A smoking cessation intervention for parents of children who are hospitalized for respiratory illness: the stop tobacco outreach program. *Pediatrics*; 111(1):140-145.