Implementation of brief opportunistic health promotion Services (Smoking Cessation, Weight Management and Alcohol Intervention) in an NHS Urgent Care Walk in Treatment Centre for Minor Injury and Illness: a feasibility study using mixed methods.

Cindy, U. Chacha-Mannie

The thesis is submitted in partial fulfilment of the requirements for the award of the degree of Professional Doctorate in Nursing of the University of Portsmouth

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Abstract

**Background**: NHS walk in centres were opened in 2000 to modernize the NHS and to increase accessibility to health care. They are successfully used by the public. However, little is known about the clients presenting and even less about the role of health promotion more so, as there is a global epidemic of long-term conditions and non-accidental premature deaths. In Portsmouth, over 23% of adults are regular smokers, 33% overuse alcohol, 58% are overweight and obese. Avoidable unhealthy behaviours lead to early onset of long-term conditions and are major causes of premature non-accidental deaths. The purpose of this mixed methods feasibility study is to explore the feasibility, efficacy and acceptability of brief health promotion interventions on smoking, alcohol overuse, overweight and obesity in an NHS urgent care walk in treatment centre for minor injury and illness by producing a profile, conducting a randomized controlled trial, client survey and nurse practitioner interviews.

**Study methods and results**: A profile was developed by screening 16-75 year old clients for unhealthy behaviour on a mandatory booking in form. Of 4029 clients in four weeks, 80% were aged 16-75 years. Over 76% had unhealthy behaviours from smoking 13%, obesity 47%, alcohol overuse 10% and 15% had a combination of these behaviours.

A randomised controlled trial with 204 participants (102 participants in two arms) was conducted to compare the efficacy of healthy conversation, offer of referral to a Wellbeing service and a written leaflet at initial or delayed consultation. The primary outcome was the number of referrals made. A total of 22 referrals (11%) equal in each arm were made. Brief health promotion interventions took an average of 3 minutes.

Self-administered questionnaires were completed by 204 client participants to explore the acceptability of a brief health promotion intervention. Over 80% were positive about the intervention when they had presented for an injury or illness and 1% expressed negative views. Over 60% reported that they would utilise the service in future and over 80% stated that they would inform friends, family and colleagues.

One-on-one semi-structured interviews were conducted with 14 nurse practitioners. The majority of nurse practitioners were positive about brief health promotion. Training and knowledge of health promotion were brought up as barriers by 80% while time was viewed as a barrier by 14%.

**Conclusion**: It is feasible, effective and acceptable to offer brief health promotion intervention on smoking, alcohol, overweight and obesity in walk in urgent care centres for minor injury and illness. It is recommended that brief health promotion forms part of a routine consultation with training to support nurse practitioners to engage in brief health promotion.
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<td>A&amp;E</td>
<td>Accident and Emergency</td>
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<td>CCG</td>
<td>Clinical Commissioning Group</td>
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<tr>
<td>DH</td>
<td>Department of Health</td>
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<tr>
<td>ED</td>
<td>Emergency Department</td>
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<tr>
<td>GP</td>
<td>General Practice/practitioner</td>
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<td>HP</td>
<td>Health Promotion</td>
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<td>LTC</td>
<td>Long Term Condition</td>
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<td>MIU</td>
<td>Minor Injury/Illness Unit</td>
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<td>MIAMI</td>
<td>Minor Injuries and Minor Illnesses Unit</td>
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<td>NHS</td>
<td>National Health Service</td>
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<td>PH</td>
<td>Public Health</td>
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<td>PHC</td>
<td>Primary Health Care</td>
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<td>UK</td>
<td>United Kingdom</td>
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<tr>
<td>UCC</td>
<td>Urgent Care Centre</td>
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<td>UTC</td>
<td>Urgent Treatment Centre</td>
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<td>WIC</td>
<td>Walk in Centre</td>
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Declaration of Authorship

I, Cindy University Chacha Mannie declare that this thesis and the work presented is as a result of candidate’s research work under the guidance of the supervisory team.

The project was conducted solely for the doctoral programme but has further been implemented at the workplace.

Whilst registered as a candidate for the above degree, I have not been registered for any other research award.

The results and conclusions embodied in this thesis are the work of the named candidate and have not been submitted for any other academic award.

Name: Cindy University Chacha Mannie

Signed: [Signature]

Date: January 2019

Place: Portsmouth

Word Count: 64572
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I thank God for all my blessings; I am truly blessed (Teddy Pendergrass, 1991).
Publication and Dissemination:


Presentations, conferences and dissemination

i. University of Portsmouth Ageing Network (UPAN) Public Talk. Presenting quantitative methods and a pragmatic randomised control trial. May 2017

ii. Nursing in practice conference. Presentation in October 2018, Bournemouth

iii. International conference on primary care and family medicine. Presentation of study on 28-29 November 2017 in Madrid, Spain

iv. Nursing Science Conference 6-8 August 2018, London; presentation

v. Peer group presentations and training at St Mary’s NHS Treatment Centre with aims to roll out to Southampton.

vi. Southern Health research and development conference, January 2019, Southampton; presentation

vii. Public Health Conference, March 2019, Southampton; presentation
viii. Have accessed and successfully passed Making Every Contact Count (MECC) as trainer of trainees.

ix. Trainer for brief health promotion and making every contact count for Care UK

x. Member of the nursing advisory board of Namibia University to incorporate health promotion into nursing degrees.

xi. Clinical supervisory educator and health promotion link person at my work place
**Synopsis**

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CHAPTER ONE
BACKGROUND AND RATIONALE FOR STUDY

Introduction

This chapter aims to present the background and rationale for undertaking research on the need to introduce health promotion interventions within a walk in urgent treatment centre for minor injury and illness to address smoking, obesity and alcohol misuse among the adult population in Portsmouth. In doing so, the chapter examines the health status and health behaviours of people in Portsmouth, the study catchment area, and the wider context of England. Key health indicators this chapter will examine include long-term conditions and premature non-accidental deaths. These indicators are proven to have been associated with lifestyle indicators/practices such as smoking, being overweight or obese and alcohol overuse. National Institute for Health Care Excellence (NICE) confirm that long-term conditions, specifically heart disease, cancers, respiratory disease, diabetes type 2 and liver disease are major causes of premature non-accidental deaths, and are closely linked to unhealthy behaviours, specifically smoking, unhealthy diet, being overweight, alcohol misuse and risky sexual behaviour. Changing one or more of these behaviours will reduce the risk of illness, long-term non-curable diseases, disability, premature non-accidental deaths and inequalities (NICE, 2015a). Focus of this research is on implementing interventions on reducing three lifestyle practices/outcomes: smoking, obesity, and alcohol misuse that have a significant impact on long-term conditions and premature non-accidental deaths in England. Further, the chapter will discuss current health promotion policies and programmes in relation to smoking, obesity and alcohol misuse in England, the evolution of modern walk in centres, minor injury/illness units and conclude with the gap in knowledge about provision of health promotion activities on smoking, obesity and alcohol misuse through the local walk in urgent treatment centre for minor injury and illness. The chapter will end with a brief outline of the study site and the opportunities walk in centres provide for health promotion.

1.1. Long term conditions and non-accidental premature deaths in England

Long-term conditions have become one of the major health challenges in the developed world including England. Long-term conditions (LTC’s) also known as non-communicable diseases or chronic diseases, are defined as medical conditions for which there is currently no cure. They are managed by drugs and other treatment (DH, 2013c, 2012).
Some examples of long-term conditions are heart disease, cancer, diabetes, respiratory disease, liver disease and musculoskeletal disease.

In England, about 15.4 million people are estimated to be living with one or more long-term conditions in 2018 and this is expected to reach 18 million by 2025 (King’s Fund, 2018, NHS England, 2018). Long-term conditions were found to be prevalent among 58% of the population over the age of 60 years and 14% under the age of 40 years. The prevalence of these conditions is higher (60%) among poorer social classes compared to higher social classes (30%) (Public Health England, 2016b). There is further evidence of co-morbidities and multi-morbidities among more deprived populations. Further, the onset of long-term conditions is about 10-15 years earlier among people living in the most deprived areas compared to less deprived areas (Barnett et al., 2012).

Generally, long-term conditions are more prevalent among the elderly population. However, there is currently a change in this pattern as the proportion of younger people acquiring long-term conditions is increasing. However, the onset is now observed in earlier ages, as early as 30-40 year olds. More people are living longer with long-term conditions. Thus, the burden of long-term conditions is increasing for the individual, family and the health system. Ironically, although life expectancy is high and increasing, the “healthy life expectancy” remains at significantly lower levels. For example, while the life expectancy at birth for England in 2017 was 87 years for males and 88 years for females, the “healthy life expectancy” was 63 years for males and 64 for females. This has implications for quality of life and public provision of health care. These deaths are largely caused by long term conditions that used to occur later on in life.

Globally, long-term conditions are some of the major causes of non-accidental premature mortality. Long-term conditions are the leading causes of up to 88% non-accidental premature deaths (deaths below age 75 years) in high income countries including England (WHO, 2015b). Between 2012 and 2017 heart disease accounted for about 17.5 million deaths, followed by 8.2 million deaths from cancers, 4 million deaths from respiratory disease and 1.5 million from diabetes type 2 (WHO, n.d.).

In England, around 103,000 people die prematurely before the age of 75 each year from diseases and long-term conditions that are largely avoidable (DH, 2014a). In 2007, one in six people died before the age of 65 due to circulatory diseases, coronary heart disease, stroke, deep vein thrombosis, diabetes type 2, cancers, and respiratory disease (mainly chronic obstructive pulmonary disease) accounting for 75% of all deaths that year (DH, 2013a).
During 2013-2015, coronary heart disease and stroke accounted for 28% of all deaths, compared to 29% for cancers. In 2017, heart disease was the leading cause of non-accidental premature deaths, followed by cancers and respiratory diseases with a higher death rate from heart disease in males linked to poor diet and tobacco smoking (Public Health England, 2017a). Heart disease remains the leading cause of non-accidental premature mortality.

Long-term conditions are currently costing the National Health Service [NHS] around 5 billion pounds per year (DH, 2012). People with long-term conditions account for 50% of general practice (GP) appointments, 64% of hospital outpatient appointments, 70% of hospital stays and around 70% expenditure on health care (DH, 2014a). It is not only living with a long-term condition that is a burden, there is the reduced quality of life, economic years lost, costs of care, costs to the NHS and the psychological effects on those living with long-term conditions, their families, communities and the government (Goodwin, Curry, Naylor, Ross & Duldig, 2010).

The epidemic of long term conditions is: “partly linked to the way we live our lives” (DH, 2010:2), and “if the current attitudes continue, rates of avoidable ill-health and health inequalities are likely to grow” (DH, 2009:2). It is known that 33% of some cancers and 80% of heart disease, stroke and diabetes type 2 could be prevented by following a healthy lifestyle, in particular, not smoking (The Office for National Statistics, 2017). “People with at least one long term condition are more likely to have risky health behaviours; they are more likely to be obese” (DH, 2012:12). According to the World Health Organisation (2014b, 2015a) there is a strong link between early onset of long-term conditions and smoking, overuse of alcohol, being overweight and obese due to reduced levels of physical activity, poor and unhealthy diet. There is good evidence to suggest that a diet low in fruit is linked to cancer and cardio vascular disease; smoking is not only strongly linked to cancer, cardiovascular disease, respiratory disease and endocrine disease, it is also linked to diabetes, while alcohol is linked to multiple long-term adjusted life changes and disease (Cecchini et al, 2010). NHS England (2013) affirm that the risk of developing long-term conditions is “greatly increased” by personal unhealthy behaviour, predicting that by 2035, 46% men and 40% women will be obese, resulting in an additional 550,000 people living with diabetes type 2 and an additional 400,000 living with stroke and heart disease which could be avoided. Thus, if unhealthy behaviours are not prevented, the risk to individual wellbeing and public health care system will be enormous.

Three unhealthy behaviours/outcomes this project will examine are smoking, alcohol overuse and obesity.
1.2. Smoking, alcohol overuse, overweight and obesity in England

In general, smoking, alcohol overuse and obesity are the three lifestyle behaviours/outcomes that are responsible for poor health leading to long-term health conditions. A significant proportion of the population in England practice unhealthy behaviour: over 66% of the adult population do not meet the minimum levels of physical activity and 70% do not consume the recommended amounts of fruits and vegetables (DH, 2009). There is a strong association between socio-economic status and poor health behaviours. It is acknowledged that there have been improvements in health among higher socio-economic and more educated groups compared to groups with no qualifications. It is reported that people with no educational qualifications are more than five times likely to engage in unhealthy behaviour such as smoking, alcohol overuse, poor diet and low physical activities (Buck & Focini, 2012:1). According to King’s Fund (2010) current trends in health status in England is an indication of a growing socio-economic divide as the more advantaged adopt healthier lifestyle choices while those from less advantaged backgrounds do not. This is further supported by a study carried out in England (Stringhini, Sabia and Shipley, 2010) that smoking, overuse of alcohol, poor diet and physical inactivity are higher among the lower class group and are strongly linked to long-term conditions and health inequality. There is also a link between unhealthy behaviour and other socio-economic indicators such as ethnicity and age. Graham, et al (2016) observed in their study in England that the unhealthiest behaviour group had the highest proportion of smokers, binge drinkers, low intake of fruit and vegetables and low levels of physical activity and this group largely consisted of white, socially disadvantaged, younger, unmarried people with lower educational levels.

1.2.1. Smoking

Smoking is the leading cause of preventable diseases and deaths. In 2016 there were 9.6 million adult smokers (19%) in Britain of whom 24% were between 25 and 34 years. In 2017 a reduction in smokers was observed as 7.4 million adults (15%) were reported to smoke compared to 19% in 2016. In 2017 there were 17% male smokers compared to 13% female with 25 to 34 years age group continuing to have the highest proportion of smokers (20%) (Office for National Statistics, 2018). Smoking is higher in more deprived areas (29%).

It is documented that some people will also smoke when they consume alcohol; however they do not consider themselves to be smokers (Drobes, 2002).
Thus, although smoking is declining in Britain the pattern of smoker profile remains the same, i.e. more males continue to smoke than females and the age group 25-34 remains the highest age category.

Over 100,000 smokers are estimated to die each year from smoking related causes. Respiratory disease (COPD), cancers (lip/mouth, throat, trachea, lungs, bladder, kidney, abdominal organs and cervix), and coronary heart disease are linked to smoking (WHO, 2014b). Action on Smoking (2016) report that 80% of deaths from lung cancer, 80% from bronchitis and emphysema and 15% from heart disease have been caused by smoking.

In England during 2014/15, over 1.7 million smokers were admitted to hospital with conditions that could have been caused by smoking, of which 28% were definitely attributed to tobacco smoking, resulting in 78,000 deaths attributed to smoking (Health and Social Care Information Centre 2015). Thus, smoking causes a significant burden to the health care system besides its catastrophic impact on the individual and family wellbeing. A reduction in the smoking rate has been observed in England from 20% in 2010 to 15% in 2017.

The World Bank (2016) observe that even with the current intervention strategies and reduction in smoking rates, global deaths will increase to 520 million by 2050 due to smoking related causes.

1.2.2. Alcohol Overuse

Unlike smoking, availability of alcohol is regulated by government alcohol policies. In U.K, permissible alcohol unit intake per week is 14 units for both males and females (DH, 2016).

Among three behavioural factors (smoking, obesity, and alcohol), excessive use of alcohol has a major contribution to long-term conditions (DH, 2014a). Over 7% of adults in England consume alcohol over the recommended units (Office for National Statistics, 2017). In 2013, over a million alcohol related hospital admissions were reported in England, of which 65% were males and the remaining 35% females (Alcohol Concern, 2015). In 2014, alcohol overuse was stated to be responsible for 10% of the burden of deaths, with 8,700 alcohol related deaths reported that year. There has been a 94% increase in alcohol overuse reported for ages between 15 and 59 in the past ten years (Alcohol Concern, 2015).

Alcohol has further been observed to be a causal factor for over 60 medical conditions including high blood pressure, liver disease, depression and cancers of the mouth, throat, stomach, liver and breast (Alcohol Concern, 2016).
A number of people between ages 60 and 74 years are stated to have been admitted with mental and behavioural disorders associated with alcohol.

Alcohol consumption is also linked to obesity. For example, a prospective cohort study reported by the National Obesity Observatory (NOO) found that British men aged 40-59 years that were heavy drinkers had the highest prevalence of weight gain and obesity (NOO, 2012).

The same age and gender group was reported to have high prevalence of heart disease including strokes and early onset of long-term conditions including hypertension (NHS Choices, 2013, National Heart, Lung and Blood Institute, 2014). However, this group delays seeking medical advice.

There is good evidence of association between alcohol intake, poor diet, unhealthy weight control, body dissatisfaction and sedentary behaviour. People are not aware of the calories in alcohol and the impact alcohol has on obesity. Alcohol accounts for 10% of calorie intake and unhealthy food choices on the day of alcohol consumption are reported (NOO, 2012).

An important factor that contributes to excessive consumption of alcohol is believed to be the increasing affordability due to reducing cost. Alcohol Concern (2016) observed that alcohol is currently 61% cheaper than it was 30 years ago and they recommend that selling alcohol at over 50 pence per unit would reduce health inequality, reduce crime, reduce hospital admissions and save lives.

1.2.3. Overweight and obesity
Overweight and obesity have been defined as an accumulation of excess fat in the body measured by the Body Mass Index (BMI). BMI is a form of measurement for indicating nutritional status in adults (Public Health England, 2016a). BMI is the weight in kilograms, divided by the square of the person’s height in metres. It is an easy measure and calculation. It is a widely used tool to correlate the risk of health problems and adiposity related medical problems at population level, although it has been criticized for not taking into consideration, age, physical activity levels and gender (WHO, 2013). However, it has also been recognized to be quick, easy to use and closer to revealing the true nature of excess fat. It has been used in this context as an objective measure to indicate results of being overweight and obese.

Britain has the worst rate of obesity in Europe with 17% stated to be overweight and 21% obese (World Health Organization, 2015a). Obesity increased from 13% in 1993 to 26% in 2013 among men while among women it increased from 16% to 24%.
During the same period the proportion of overweight population increased from 58% to 67% for men and 49% to 57% for women, excluding children (Health and Social Care Information Centre, 2015).

In 2016, over 26% of adults were classed as obese and 62% as overweight (Office for National Statistics, 2018). Although there are biological and medical factors involved, personal choices, societal influences, poor diet, lack of physical activity and environmental changes have been strongly attributed to the high rates of obesity and overweight (Public Health England, 2015a). The cause of rapid rise in obesity is attributed to modern lifestyle, car use, television, computers, desk bound jobs, lack of physical activity and high calorie foods, referring to obesity as a crisis in the country (NHS Choices, 2015).

High amounts of body fat can lead to weight gain and weight related diseases. There are a number of medical conditions associated with being overweight and obese, including joint and back problems, osteoarthritis, high blood pressure, heart disease and stroke, type 2 diabetes, cancer (endometrial, breast and colon) and respiratory problems to name a few (NICE, 2015c).

According to the Foresight Report of 2007, initiatives have been observed such as the labelling of foods and affordable prices of fruit and vegetables (Butland, et al. 2007). Regardless, more needs to be done to combat the obesity epidemic. A significant number of premature non-accidental deaths can be avoided through good quality healthcare and wider public health interventions (Office for National Statistics, 2017).

1.3. An overview of health and attributable unhealthy behaviour in Portsmouth
This section will examine socio-demographic and health indicators including unhealthy practices of the population in Portsmouth.

1.3.1. Brief demographic data
Portsmouth is the second largest city in the county of Hampshire and the only island city on the south coast of England (Visitportsmouth, 2016). The estimated population in 2017 was 209,000 (Portsmouth City Council, 2017) with 49.6% males and 50.4% females.

Seventeen percent of the population in Portsmouth is aged 0-14 years, 69% is aged between 15 and 65 years, and 14% over 65 years of age (Portsmouth Clinical Commissioning Group, 2014a). Over 87% of the city are white British, followed by 4% other White, 3% Indian, 2% Chinese background, 1% Black Africans, 1% Bangladeshi and 2% other Asian and other Black backgrounds.
Portsmouth has a long industrial history with many people in the city working in the docks and factories. In 2016, the percentage of economically active population (16-64 years) who were either employed or unemployed was 77%. About 12% of the population in Portsmouth was 20-24 years of age compared to about 7% in England and 37% of those young people were students (Portsmouth City Council, n.d).

Of the other 77% of the working age population 24% were home makers or carers for their families, 20% were reported to be on long term sickness, 9% were retired and 7% other (namely on benefits, lone parents, job seekers, and other benefits). The 2017/2018 labour market profile illustrated in table 1.1 reveals an increased percentage of unemployed people compared to 2016 – from 4.2% to 4.5%.

Percentage of students reduced to 32% from 37% and home makers/carers reduced to 18% from 24%. There is a notable increase in the percentage of people that are on early retirement which increased from 9% to 15% (Portsmouth City Council, 2017). Over half of the working population is observed to work in non-skilled and non-professional jobs. It has been established that less skilled people are at higher risk of lower life expectancy, early mortality, premature morbidity and unhealthy behaviour (Portsmouth City Council, 2016).

**Table 1.1: Economic and employment status in 2016 and 2017/8**

<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th>2017/2018</th>
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<tbody>
<tr>
<td>Population 16-64</td>
<td>67.3% (142,763)</td>
<td>67.4% (144,800)</td>
</tr>
<tr>
<td><strong>Economically active</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>In employment</td>
<td>77% (109,927)</td>
<td>78.3% (113,700)</td>
</tr>
<tr>
<td>In employment: male</td>
<td>73.5% (105,000)</td>
<td>74.8% (108,600)</td>
</tr>
<tr>
<td>In employment: female</td>
<td>71.5% (53,465)</td>
<td>79.8% (59,900)</td>
</tr>
<tr>
<td></td>
<td>68.1% (51,535)</td>
<td>69.4% (48,700)</td>
</tr>
<tr>
<td>Unemployed</td>
<td>4.2% (4,920)</td>
<td>4.5% (5,200)</td>
</tr>
<tr>
<td><strong>Economically inactive</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student</td>
<td>19% (32,836)</td>
<td>21.7% (30,800)</td>
</tr>
<tr>
<td>Home makers and carers</td>
<td>37% (12,149)</td>
<td>32.1% (9,900)</td>
</tr>
<tr>
<td>Long term sick</td>
<td>24% (7,880)</td>
<td>17.6% (5,400)</td>
</tr>
<tr>
<td>Retired</td>
<td>20% (6,560)</td>
<td>16.7% (5,200)</td>
</tr>
<tr>
<td>Other</td>
<td>9% (2,960)</td>
<td>14.9% (4,600)</td>
</tr>
<tr>
<td></td>
<td>7% (2,300)</td>
<td>16.4% (5,000)</td>
</tr>
</tbody>
</table>

1.3.2. Long-term conditions and non-accidental premature deaths in Portsmouth

Similar to England, Portsmouth is faced with an epidemic of long-term conditions and premature non-accidental deaths. Over 65% of adults from the age of 16 years have one or more long term conditions in Portsmouth.
Chapter One

In 2017, over 64% of the population were diagnosed with circulatory and heart diseases of whom 56% have been diagnosed with hypertension and 86% have had a stroke that year. In Portsmouth, the highest cause of premature non accidental deaths is from coronary heart and circulatory disease (34%) followed by cancers (28%), diabetes (17%) and 14% from respiratory disease (Public Health England, 2017b).

Although life expectancy has increased in Portsmouth, the number of years spent in “good health” remains lower. In 2016 the number of years spent in “good health” was 62 years although the life expectancy was as high as 86 years. There is a clear difference in health status of the population in the most and the least deprived areas in Portsmouth. For example, life expectancy was 9.8 years lower for males and 6.1 years lower for females in the most deprived areas compared to the least deprived areas (Portsmouth Health Profile, 2017).

More males (24.4%) die prematurely from coronary heart and circulatory disease compared to females (23.6%). However, for cancer there are more female deaths (31.7%) compared to male deaths (18.3%). There are more non accidental premature deaths from heart disease, stroke, lung cancer, obstructive pulmonary disease and chronic liver disease in the more deprived areas compared to the less deprived areas in the city (Public Health England, 2014). The rate of long-term disease has increased significantly in the past 25 years and observed to be higher in Portsmouth compared to the national England average (Public Health England, 2017a). There is a high rate of death from heart disease and cancers in Portsmouth attributed to avoidable unhealthy lifestyle behaviours which can be amended to healthy lifelong behaviours (Hampshire County Council, 2013b).

1.3.3 Unhealthy behaviour in Portsmouth

Similar to England, high rates of poor health and deprivation in Portsmouth are attributed to unhealthy lifestyle behaviours, mainly smoking, alcohol misuse, unhealthy diet and lack of exercise leading to overweight and obesity. Portsmouth City Council Joint Strategic Needs Assessment Team (2016), report that 70% of the population in the city follows unhealthy behaviour, specifically smoking, alcohol use over the recommended units and behavior leading to being overweight or obese.

Figure 1.1 below illustrates a comparison of estimated levels of adult healthy eating, smoking and physical activity between England and Portsmouth revealing that the rates of unhealthy behaviour in Portsmouth are higher.
1.3.3.1. Smoking

Overall, smoking prevalence in Portsmouth is higher than the national average. In 2014, about 22% of people in Portsmouth reported tobacco use compared to 19% nationally. There has been a decline in smoking in Portsmouth from 29% in 2003-2005 to 22% in 2014 (Public Health England, 2014). In 2014, about 10% of the population in Portsmouth reported occasional smoking and 17% smoked during pregnancy. Smoking is initiated at various ages. In Portsmouth, about 49% of smokers reported to have started smoking below the age of sixteen years, while 24% started when they were between 16 and 17 years and 20% started between the age of 18 and 24 years. Smoking is the main reason for the gap in life expectancy between the less and more deprived areas in the city. Significantly higher levels of lung cancer have been associated with smoking (Portsmouth Clinical Commissioning Groups, 2014b).

Typically, smokers spend about £3,000 per year on smoking 20 cigarettes a day on average. The estimated cost of smoking is provided in figure 1.2. The highest cost of smoking is due to economic output lost from premature non-accidental deaths; this is reported to be 18.4 million pounds per annum. Thirteen million pounds are lost from “smoking breaks” that are taken during work time and a further £11.2 million for NHS care. Over 3 million pounds is spent on health problems associated with passive smoking while domestic fires due to smoking cost over 2 million pounds (Action on Smoking, 2015). Thus, the overall cost and burden of smoking is very high to the economy.
1.3.3.2. Overuse of alcohol

Alcohol use is high in Portsmouth. Over 45% of adults consume alcohol at risky levels, 33% of adults consume alcohol that could harm their health and a further 12% consume alcohol at higher risk levels, putting them at a higher risk of early onset of long term conditions and premature non-accidental deaths. About 22% over the age of 16 in Portsmouth are binge drinkers (Public Health England, 2014). Among the age groups, a significant proportion of alcohol overuse has been reported among young people and adults aged 16 to 34 years. They are at higher risk of developing early onset of long-term conditions.

Impact of alcohol overuse varies within Portsmouth, although the pattern of overuse does not vary significantly. There is no difference in alcohol overuse in the less deprived areas compared to more deprived areas. However, people from more deprived areas and low socio-economic groups are affected more disproportionately from alcohol overuse compared to people from less deprived areas. This is linked to the type of alcohol they consume, poor health, co-morbidities, poor access to health services and other unhealthy behaviour. Drinking has implications for eating behaviour.

According to Yeomans (2010) alcohol and unhealthy food choices are linked. He suggests that small amounts of alcohol consumed before a meal caused a clear, consistent increase in food intake and that heavy drinking was reported to lead to overeating, thus leading to overweight and obesity. Young people are found to be making unhealthy food choices after drinking (Lloyd-Richardson, Lucero, DiBello, Jacobson et al, 2008).
1.3.3.3. Overweight and obesity

In 2014 about 25% of the population in Portsmouth was obese (Portsmouth City Council, 2016). Figure 1.3 shows prevalence of underweight, healthy weight, overweight and obese comparing national, regional and the city during 2012-2014. Overweight figures are slightly lower than England average however the rate continues to increase and thus increasing the risk of early onset of long term conditions. Noticeably, rates of obesity in Portsmouth are higher compared to national and surrounding cities including Southampton City. Within Portsmouth there has been an increase in obesity. For example, the percentage of population with obesity increased to 25% in 2014 from 24% in 2012 (Portsmouth City Council, 2016).

![Figure 1.3 Adjusted weight prevalence in Portsmouth 2012-2014](image)

In Portsmouth there is also an epidemic of obesity among children. Over 10% of children were found to be obese in school year one and 21.6% were found to be obese in the final primary school year. These children in a very few years’ time are going to be adults with early onset of long-term conditions unless drastic measures are taken to combat childhood obesity (Portsmouth Clinical Commissioning Group, 2014a).
Long-term conditions that used to occur later in life are now diagnosed at earlier ages; young obese children now are at higher risk of early onset of type 2 diabetes. Overweight and obesity lead to a burden on health as there is an increased risk of cardiovascular disease, diabetes and cancers, specifically breast, ovarian, prostate, liver, colon and other cancers. There is also an increased risk of musculoskeletal disease including osteoarthritis and other degenerative joint disease (NOO, 2012).

Priorities set by Portsmouth City Council Joint Strategic Needs Assessment, (2014), include reducing obesity, increasing physical activity, better nutrition, tackling alcohol and smoking. Health promotion and public health interventions are needed to improve the state of health for people in Portsmouth for longer and healthier lives.

1.4. Health and determinants of health
Health is central to human happiness and well-being; it makes an important contribution to the economy and helps the population to live longer. It is defined by World Health Organisation (WHO, 2003:100) as:

“a state of complete physical, mental and social well-being and not merely the absence of disease of infirmity”, it is the extent to which an individual or group is able to realise aspirations to needs and to change or cope with the environment, it is seen as a resource for everyday life, not the object of living, it is a positive concept emphasising social and personal resources as well as physical capacities”.

Maintaining good health will help people to live longer. There are a number of factors that impact on the health of an individual and the public; reducing such factors will help to maintain good health. The social model of Dahlgren and Whitehead (1991) in figure 1.4 illustrates factors that affect health.
According to the model, the first inner layer that influences health is a set of intrinsic factors: age, gender and genetic factors. These factors cannot be altered normally. The second layer consists of acquired factors/behaviours: diet, smoking, alcohol. These factors have direct links with the health of a person. These factors are negatively or positively influenced by the third layer consisting of family, friends and community, for example, smoking may be influenced by peer pressure or the presence of a smoker in the family.

The next layer refers to living and working conditions and that both have a direct and indirect influence on health. These include work environment, education, food, unemployment, water and sanitation, health care, and housing. The last layer consists of economy and environment as the macro level context in which people live. Again, these factors can have a negative or positive impact on the health of a person.

Over the past twenty years a number of national reports, namely the Acheson Report (Department of Health [DH], 1998), Wanless Report of 2004 (The National Archives, 2008) and Marmot Review (2010), reported that there is strong evidence of the poor state of the nation’s health because of societal inequalities including unhealthy behaviour (Exworthy, Blane & Marmot, 2003). These reports identified the need to introduce public health measures to address the nation’s health problems. Health promotion is identified as an important intervention to address health inequalities.

Health promotion is an integral aspect of public health and primary health care aimed to maintain good health, reduce the burden of disease and premature non-accidental deaths.
1.5. Health Promotion

Health promotion is complex and difficult to define as its remit is not homogenous. The World Health Organisation (1998) refer to health promotion as an umbrella term, representing a comprehensive social and political process, it embraces actions directed at strengthening skills and capabilities and changing social, environmental and economic conditions to alleviate the impact on individual and public health. It has also been referred to as a process of enabling individuals and communities to be healthy. However, it is not static, it has evolved over time, relative to developing technology, changing environments, public demands, advances in science and changes in health service provision (Baggott, 2000). Lalonde (1981: online) attempts to define health promotion as “a science and art of helping people to change their lifestyle to move toward a state of optimal health.” According to the Health Protection Agency (2009) health promotion is done by, with and for people. Core pre-requisites of health promotion are enabling, advocating and mediating (WHO, 2008). These can be applied in practice by educating, information and multidisciplinary networking. It requires workable health promotion policies for successful implementation.

Over the years health promotion has often been confused with health education. Such confusion still exists, yet nonetheless, the shift from individual health, prevention of specific disease and tackling community needs has shifted the terminology to health promotion rather than just health education. Nutbeam (1996), states that health education is a term used to present constructed opportunities for learning to facilitate behaviour change. Downie, Tannahill and Tannahill (1996) concur, observing that health education could be traditional, focusing on prevention of illness, it could be transitional, focusing on curative care, or modern which emphasises the responsibility of individuals, the public and health care professionals, while health promotion also focuses on the wider determinants of health including protection of individuals and the public, environmental and economic factors. Nonetheless, health education remains an integral part of health promotion (Naidoo & Wills, 2005). It is well documented that due to the non-homogeneity of people, societies and science, health promotion programmes can be targeted to the population sub-groups, at-risk individuals, communities and clinical interventions (Hernandes-Quevedo & Weatherly, 2015).

Health promotion is indispensable and significant, where clients can be supported to take control over their lives and that of their families (WHO, 1998).
National Institute for Care and Health Excellence (NICE) report that there is no current consistent strategic health promotion approach; consequently, different models and approaches are being used “in an uncoordinated way” (NICE, 2007a). Furthermore, health promotion is also a long term investment that is difficult to measure and to measure its outcomes (WHO, 2013). Identifying effective measurable approaches and strategies that benefit the population as a whole, will enable practitioners to operate more effectively and achieve more health benefits (NICE, 2007b).

There are a number of variations to health promotion interventions and programmes, from environmental and community to individual screening and rehabilitation. Aspects of health promotion include behaviour change interventions for smoking, alcohol overuse, overweight and obesity.

1.5.1. Behaviour Change

The National Institute for Health and Care Excellence (2012) has for years advocated behaviour change interventions at community and individual levels. Behaviour change has not been clearly defined, however; it is stated to be interventions that involve sets of techniques to change unhealthy behaviours (NICE, 2007a). Strategies to behaviour change need to take into consideration principles, delivery and evaluation as at present there is no strategic approach to behaviour change (NICE, 2015b). Behaviour change has also been highlighted in the five year forward view.

The government intends to tackle obesity, smoking, alcohol and “other major health risks” by making it the responsibility of every clinician to engage in healthy conversations utilising different health promotion interventions (NHS England, 2015). Behaviour change interventions can take minutes to years, delivered in different settings, with different objectives and outcomes.

An individual's behaviour modification engagement will determine the behaviour outcome. Prochaska and DiClemente’s (1992) trans-theoretical model of behaviour modification has been widely used and found effective in the understanding of behaviour modification stages, illustrated in figure 1.5. This model is applicable to all behaviour modification initiatives.
The psycho-behavioural trans-theoretical behaviour change model proposes six stages through which individuals seek to end an addictive behaviour. The stages include pre-contemplation, contemplation, preparation, action, maintenance and termination.

- Pre-contemplation - unaware of negative consequences, do not intend to modify;
- Contemplation - start to think about health, modify within 6 months;
- Preparation - ready to take action within 30 days, start taking small positive steps;
- Action - modification has taken place and they continue moving forward;
- Maintenance - behaviour change is sustained for at least 6 months;
- Termination - no desire to return to unhealthy behaviour though this stage is rarely reached.

At least 40% of people living with unhealthy behaviour are in the pre-contemplation and contemplation stages and 20% are in preparation stage (Naidoo & Wills, 1994). A primary health care practitioner does not know the behaviour change stage until a client is screened and engaged in behaviour modification. The centre of this model is the notion that interventions to change behaviour are most effective if tailored to the stage of change. The significance of the model and its stages of behaviour change is a reminder for every professional to utilise opportunities for health promotion interventions as it may take this opportunity for a client to take action towards unhealthy behaviour modification. Action can be taken in accordance to the stage of behaviour change.

A client in the pre-contemplation stage could be given written information to read about the behaviour, while a client in contemplation stage could be redirected to services that may help when they are ready, compared to a client who is in preparation stage who can be immediately referred to a wellbeing service for further action.
1.5.2. Brief and very brief health promotion intervention

Brief and very brief intervention means succinct, concise, non-confrontational, non-judgmental motivation (NHS Glasgow and Clyde, 2015). Brief intervention is a structured way to deliver advice that can take different methods of delivery, including brief advice by proactively raising awareness, assessing for readiness to engage, motivational interviewing and opportunistic contact.

Brief intervention is not only better than no intervention, it has been found to be better than more extensive interventions. Brief interventions need to be user friendly for all clinicians, more so as there are very few clinicians that are skilled in the use of brief interventions (NICE, 2007a). Brief intervention constitutes a step beyond brief advice as it provides more formal help, reading material and referral/follow up support. Brief intervention provides the opportunity for clinicians to increase positive outcomes by using these modalities independently, as stand-alone interventions or as additions to other forms of treatment in a variety of settings (NICE, 2015b). It is recommended that it should not be longer than 10 minutes and according to Rockville (1999) the length of a session can range from 5 to 10 minutes, delivered by a wide range of professionals. According to NICE (2010), the intervention can be as short as a few seconds, short-term, brief, minimal or long term, using different material, namely posters, media, leaflets, verbal or computer, all aimed at motivating a client towards healthier behaviour.

1.5.3. Making every contact count

Making Every Contact Count (MECC) is an approach to behaviour change by organisations that interact with people on a day to day basis to support them to make positive changes to their physical and mental health (Public Health England, 2016).

These interactions take only a few minutes and are intended not to increase busy workloads. It is structured to fit and complement existing professional, care and social engagement approaches. Current NHS England five year forward view has recently mandated MECC to ensure every professional engages in a healthy conversation with every client contact (NHS England, 2014).

MECC enables opportunistic delivery of consistent and concise healthy lifestyle information about individual health across organisations; not only the health sector but also from other sectors. Brief and very brief health promotion that has already been defined, is included in the mandatory MECC and is a government mandate signifying that all opportunities with clients need to be utilised regardless of contemplation stage.
1.5.4. Provision of health promotion in the United Kingdom

In the United Kingdom, traditionally, the management of unhealthy behaviour at individual level has been carried out within general practice as part of Primary Health Care. The management of unhealthy behaviours has been primarily delivered by the practice nurse through pre-planned booked clinics (DH, 2009, 2014b). The government paid pre-planned health promotion services are pre-booked in advance by a client who is in the preparation stage of behaviour modification. A client who decides to quit smoking can book a specific appointment for smoking cessation, a government paid initiative. The payment of the services is part of the “quality outcomes framework” introduced by the government (DH, 2014b). The quality outcomes framework is a voluntary reward and incentive programme, rewarding GP practices in England for the quality of care they provide to their patients. Further quality outcomes framework is further is seen in screening for smoking, alcohol and weight delivered by the practice nurse as part of the management of long term conditions, for example high blood pressure or heart disease, or weight may be checked as part of family planning/contraception clinic or diabetes management; the government pays for this service. However, times are changing, unhealthy behaviour is a pandemic and traditional practice needs to change; there needs to be more opportunities for health promotion even for clients who are not considering behaviour change.

In general, GP service delivery is not enough to provide health promotion. For example, time scheduled with a GP, on average 8-10 minutes (DH, 2014b), leaves little room to discuss health promotion if that was not the purpose of a GP visit. The appointment includes the presenting problem, examination and management of the problem. This appointment time may leave little room to ask a client about smoking, weight or alcohol and management of these, unless it is linked to the presenting problem. These services have been centered around a medical model of curative services based on reactive rather than proactive mechanisms and rewards for providing services (Ampt, Amorroso, Harris, McKenzie, et al. 2009). This is supported by an inquiry led by the King’s Trust Organisation (2010:2) which concluded that “research continues to find that the relationship between public health and general practice in England focuses mainly on secondary services”.

Further, contact with the GP service for preventive and promotive health care services such as immunisation stops at 18 years. There is no further input for males until the age of 40-47 years for the “well man” check or NHS check. For women, GPs recall them at the age of 25 years for cervical screening (NHS England, 2015b).
Thus, there is very little provision for health promotion services at the crucial age (18-40 years) that young people start practicing unhealthy behaviour. GP services are not the focus of this study, however, GP practices are the first point of contact for primary health care (WHO, 2008). A gap has been identified in the traditional GP services and the current increase in unhealthy behaviours. More opportunities are needed to address unhealthy behaviour, opportunities to prevent the uptake of unhealthy behaviour and opportunities to reduce the rate of unhealthy behaviour, more so among young adults. This age group would not routinely attend a GP surgery. More access to health promotion services is necessary

1.6. Development of Walk in Centres, Minor Injury and Minor Illness Units and Urgent Care Centres
Walk in Centres (WIC) and Minor Injury/Illness Units (MIU/MIAM/MIIU) were set up in 2000 as a complementary service to General Practice (GP) and Emergency Departments (ED), to provide treatment for minor ailments (injuries or/and illnesses) with extended opening hours including weekends and bank holidays, proposed by the Department of Health to modernise the NHS by responding to modern lifestyles (DH, 1999b). They were opened to meet current busy lifestyle trends, easier public access, to increase accessibility to primary health care services, offer more patient choice and to maximise the role of primary health care nurses to make better use of their skills (Monitor, 2014).

Table 1.2 below presents clear guidelines circulated for the application process for starting a walk in centre (DH, 1999b:2).
Table 1.2: Key features of walk in centres set by Department of Health

<table>
<thead>
<tr>
<th>Feature</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>A patient/population needs assessment which supports the development of an innovative primary care centre and is sensitive to age, culture and lifestyle of patients</em></td>
</tr>
<tr>
<td><em>One of 2 accredited NHS Direct decision support protocols for patient management and a clear commitment to provide a service consistent to national standards.</em></td>
</tr>
<tr>
<td><em>Effective management systems to predict and manage patient demand.</em></td>
</tr>
<tr>
<td><em>Skill mix which maximises the skills and experience of nurses and meets patient needs in the most cost-effective way</em></td>
</tr>
<tr>
<td><em>Provision of a range of high quality minor ailment/treatment services (and possibly medical minor injuries services) to all patients</em></td>
</tr>
<tr>
<td><em>Provision of information about NHS, Social Services and other local statutory and voluntary services.</em></td>
</tr>
<tr>
<td><em>Provision of advice about self-care and information and advice about healthy lifestyles, e.g. smoking, diet, which should be met by pilot sites</em></td>
</tr>
</tbody>
</table>

Walk in centres were piloted in 2000. At the end of the six months pilot period in 2000, commissioning of the walk in centres was handed over to General Practice co-operatives and Primary Care Trusts (PCT) now CCG (Clinical Commissioning Group) to commission services according to the needs of the local communities in each city (DH, 1999a). According to an NHS England report (2015c) over 230 of these centres have served around seven million patients per year.

As mentioned earlier they are generally led by nurses, they are open every day and are situated in convenient locations for easier client access.

There has been a lack of clarity on some aspects of these centres. For example, there is no consistency in the name; they are concurrently referred to as Minor Injury/injuries Unit (MIU), Minor Injury and Minor Illness Unit (MIU/MIAMI/MIIU), Walk in Centre (WIC), and Illness walk in centre and recently Urgent Care Centre (UCC) and Urgent Care Treatment Centre (UTC).

There is also no clarity on the roles and services provided. As opposed to general practice which has limited consultation time, there is no clarity on consultation time in these units. Opening times differ with some closing at 6pm, some at 8pm and some at 10pm despite recommendations by the Department of Health to close at 10pm. It is stated that these units can treat various “minor” illness and injury, however, again this appears to be a grey area with no consistency (Anderson, Pope, Manku-Scott and Salisbury, 2002).
Conditions that have been included on particular walk in centre websites include coughs, ear, nose throat infections, skin conditions, sprains, fractures, lacerations and eye conditions. According to Monitor (2014) injuries and illness can vary and also vary based on the decisions of the stakeholders of the local commissioning group of the city, which might explain the lack of clarity of what constitutes “minor”. Settings, sites and services are different, all dependent on the Clinical Commissioning Group (Jackson, Dixon-Woods & Hsu, 2005, Monitor, 2014), which also influences the “minor” injury or illness that are treated. Lack of clarity has also been blamed on the pace with which WIC’s were proposed and opened (Chalder, Sharp, Moore and Salisbury, 2003). However, some of these issues may be seen as positive as this allows flexibility to operate based on the local needs and capacity of the centre.

Nurses in these walk in centres and minor injury/illness units have been observed to have different professional backgrounds, mainly orthopaedics, wards, emergency departments and primary health care as former practice nurses. The role title is also not clear. They have different titles ranging from commonly used Emergency Nurse Practitioner (ENP), Nurse Practitioner (NP) and Advanced Nurse Practitioner (ANP) and now recently Advanced Clinical Practitioner (ACP). Uncertainties could be associated with the lack of the role definition, skills required or post registration requirements, and to this day the title of “practitioner” remains unregistered by the Nursing and Midwifery Council (Srivastata et al, 2008 and NMC, 2015). Regardless, there is evidence that nurse practitioner clinics improve quality of care by offering further patient psychological support and information as well as dealing with the physical presentations of patients (Loftus and Weston, 2001 and Lewis and Hendry, 2009). Forrest and Parker (2012), conclude that there is a paucity of evidence about nurse practitioner led units, and clearer evidence is needed to adapt to nursing education that will ensure adequately prepared nursing staff. It is suggested that there is a need for branding and comprehensive care to optimise overall primary health care performance which might help in the clarification of walk in centre roles, services, nursing practitioner skills and education requirements (Kringos, Boerma, Hutchinson, van der Zee & Groenewegen, 2010).

1.6.1. Accessibility and client satisfaction
Access challenges to health care services in England were partly resolved by the Department of Health opening walk in centres in 2000 (Chapman, Zachel, Carter & Abbott, 2004). Three hundred and thirty six (336) walk in centres and minor injuries units (MIU) have been opened in England between 2000 and 2012.
There has been an increase in the number of consultations from three million people (DH, 2012) to seven million during 2000 and 2015 (NHS England, 2015c). Clients attend walk in centres for various reasons including convenience, non-availability of GP appointments, minor nature of illness or injury, dissatisfaction with GP, extended hours, shorter waiting times and various other reasons (Chalder et al., 2003 and Salisbury, 2003). Maheswaran et al. (2007) did not find any evidence of shortened waiting times to access compared to emergency department or general practice. Similar observations were also made by Salisbury and Munro (2003) and Chapman et al. (2004). Nonetheless, Salisbury et al. (2002) assert that walk in centres appear to be successful as there is an increase in the numbers of consultations. It is also reported that nurses provide more information and there is confidence among clients in the services provided by nurses (Jones, 2000). Clients also reported satisfaction because they felt that there were longer consultation times, and they stated that they had not been made to feel that they had wasted time (Hoskins, 2011, Chalder, et al.2003 and Anderson, 2002). Jackson et al. (2005) affirms that clients felt that the nurse practitioners had listened to them and there was anonymity.

Walk in centres are highly regarded for their services by most of the patients who utilise them and by other health care providers (Pope, Chalder, Moore et al, 2005). Hoskins, (2011) and Desborough, Forrest and Parker (2012) conclude that walk in centres have proven to increase accessibility and are successful; they are successfully managed by nurse practitioners, providing high quality of care.

1.7. Study site: The local Walk in Urgent Treatment Centre for Minor Injury and Illness Unit in Portsmouth

In this study, client as opposed to patient is referred to. With innovations in health and science, clarity for the right term is increasing with new terms being used including consumer, service user and customer, in addition to patient and client. Client is referred to as a recipient of professional service as opposed to patient who is referred to as a sufferer (McLaughlin, 2008, and Merriam-Webster n.d.).

The present study was carried out in an urgent walk in treatment centre for minor injury and illness Unit in Portsmouth, also known as a Walk in Centre within St Mary’s NHS Treatment Centre (Fig 1.6). It is located within St Mary’s NHS Hospital complex, a community hospital. The centre is run by Care UK, a private independent company. Services at the Walk in St Mary’s NHS Treatment Centre are commissioned by Portsmouth Clinical Commissioning Group (CCG, 2016).
The centre was opened in December 2005 and is managed by a hospital director. This is the only walk in centre in the city.

The urgent walk in treatment care centre for Minor Injury and Illness Unit (UTC/MIU/MIU) in St Mary’s NHS Treatment Centre in Portsmouth is open to the public daily from 07:30 in the week and 08:00 weekends and bank holidays to 22:00. On average 4000-5000 clients per month attend the centre. Clients attend the centre for various health issues. There is a higher presentation of limb injuries (30%), perhaps due to x-ray services being available or because generally injuries do not present at GP surgeries. Other presentations include cuts, head injuries, eye conditions, minor skin conditions, urinary tract infections, viral infections, requests for the morning after pill, chest infections and abdominal conditions, among the more common presentations (Care UK. 2016). Emergencies for example chest pains present despite information to attend the local emergency department.

The urgent walk in treatment centre for minor injury and illness is managed by a lead nurse and supported by twelve nurse practitioners (NP’s) and recently paramedic practitioners. The team has a wide range of clinical backgrounds with only one nurse practitioner from a primary health care background. A primary health care nurse will have training and experience of health promotion delivery.
1.7.1. Presentation and process to nurse practitioner consultation: an opportunity

Clients report to the reception staff on arrival. Clients are given a mandatory booking-in form to fill out their personal data and reason for presentation. Reception staff capture this data onto ADASTRA, the software used in health care (Care UK, 2015).

The client is called by a nurse practitioner for initial assessment within 20 minutes (requirements of the Clinical Commissioning Group contract) to assess if the client should be an urgent, redirected, or wait for a full consultation, and to ensure safety while a client waits. If a full consultation is required the client is asked to sit in the waiting area. The waiting time varies from less than an hour in weekday early mornings, busier over the weekend to up to and over four hours at times. The average waiting time in this urgent treatment walk in centre is two to two and a half hours. During the period that a client waits for a full consultation, they usually sit in the waiting room watching the television although some have been witnessed to use their electronic devices or reading material. During a full consultation a nurse practitioner will ask about medical, surgical, and medication history, allergies and presenting complaint. Contrary to the stipulation by the Department of Health, unhealthy lifestyle behaviour advice has not previously been a feature in this local urgent treatment walk in centre for minor injury and illness. There is an opportunity to use the waiting time and current consultation to introduce health promotion on smoking, alcohol and weight. The overall aim of this study is to examine the feasibility of introducing health promotion interventions to address the problems of smoking, obesity and alcohol overuse in Portsmouth.

Summary and conclusion.

Premature non-accidental deaths and high rates of long term conditions are strongly attributed to preventable avoidable unhealthy behaviour, specifically smoking, alcohol overuse, overweight and obesity. The overall health status of people in Portsmouth is poorer than the England average. Portsmouth has lower life expectancy, higher rates of premature non-accidental deaths and long-terms conditions, mainly cardiovascular disease and cancers, compared to England. Innovations within the NHS were met with the development of walk in centres and/or minor injury and illness units to manage minor illness, injury and offer lifestyle advice and information. These centres/units are popular and widely used by the public although there are significant variations in the remit of services, operating hours, and nurse practitioner qualifications, experience and professional background.
As such, there is an opportunity to introduce health promotion interventions in the walk in centres because:

(1) Clients walk in for minor injury and illness without booking an appointment. This means more people can access these services than those needing appointments.

(2) There is more than two hours of waiting time in walk in centres for a full consultation; the waiting time could potentially be used to promote health promotion.

(3) Most of the clients who present to walk in centres are adults who usually avoid GP surgeries, thus reaching out to hard to access population.

(4) There is no time limit with a nurse practitioner consultation.

There is an opportunity to discuss health promotion.
CHAPTER TWO
CRITICAL REVIEW OF LITERATURE ON FEASIBILITY AND EFFECTIVENESS OF BRIEF HEALTH PROMOTION AND ACCEPTANCE BY CLIENTS AND STAFF IN WALK IN CENTRES AND MINOR INJURY/ILLNESS UNITS

The aim of this chapter is to review current feasible, effective health promotion interventions and attitudes to health promotion interventions in walk in centres, minor injury units and minor injury and illness units. However, because of a lack of literature, the review was also conducted on similar units, specifically emergency departments, as they also see one off walk in clients with four hour government targets.

The chapter concludes with the gap in knowledge, emanating research questions and study outline.

2.1. Justification of review
Lifestyle advice was stipulated to be a feature for any organisation submitting a proposal to run an NHS Walk in Centre in England (Department of Health, 1999b). However, the local walk in centre that has been operational for over 11 years had not previously been involved in health promotion interventions. An opportunity was identified to implement brief health promotion (smoking cessation, weight management and alcohol intervention) due to the significant number of clients presenting between the ages of 16 and 75 and the high rates of unhealthy behaviour in the city. More recently Public Health England (2016) has introduced Making Every Contact Count (MECC), a mandatory form of health promotion. Walk in centres/ minor injuries/ minor injuries/ illness units should also adhere to the MECC mandate.

Questions to be addressed include:

- What is the feasibility of health promotion interventions in minor injuries and illness walk in centres?
- What effective health promotion methods are used in these units?
- What are the attitudes and acceptability of health promotion by service users/ clients/ patients and service providers/ nurse practitioners?
2.2. Review method

A systematic search of literature between 2000 and 2018 was conducted as walk in centres were opened in 2000. Concise and careful documentation was carried out as it is fundamental to keep an audit trail which allows the study to be replicated by other researchers (Margarey, 2001). Using the acronym, PICO (Population/Problem, Intervention, Comparison and Outcome) developed in Evidence Based Practice (Hek, 2000, Sackett, Richardson, Rosenberg & Hayes, 1997) helps to formulate a research question. It helps to facilitate more precise search results and to improve specificity and clarity (Xiaoli, Jimmy, Demmer-Fushman, 2006). PICO was found helpful in developing a research question and consequently it was easier to conduct a systematic approach using relevant search terms, illustrated in table 2.1.

**P** (population/perspective): service users and service providers who make use of walk in centres/minor injuries units and minor injuries/illness units.

**I** (intervention): any type of health promotion intervention that included smoking, alcohol, and weight management.

**C** (comparison, comparator or context): for any trials, studies, context available on these organisations.

**O** (outcome): was for any measurements, improvements, treatment effects for health promotion, acceptability in these settings.

Terms in the table had to be used with truncations for various reasons including American and English spelling, use of words and different meanings of the words namely nurse/nursing/nurses.

*Table 2.1 Summary of search terms and research question*

<table>
<thead>
<tr>
<th></th>
<th><strong>P- Population/perspective:</strong> Primary health care, nurse-led, nurse practitioner, patient, client, service user, emergency nurse practitioner.</th>
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<tbody>
<tr>
<td></td>
<td><strong>I- Intervention/issue:</strong> Health education, smoking, alcohol, obesity health promotion, brief intervention, lifestyle, behavior? prevent, public health, health program?, smok*, weight*, lifestyle modification, role, service*, modif*, opportunistic.</td>
</tr>
<tr>
<td></td>
<td><strong>C- Context/comparison:</strong> MIU, ED, Emergency Department, casualty, Accident and Emergency walk in cent? NHS centre, minor injur*, minor ill*, treatment centre, urgent care, polyclinic, health centre, health facility, community practice, clinic, community health centre, population.</td>
</tr>
<tr>
<td></td>
<td><strong>O- Outcome:</strong> service, provision, outcome, implement, Behavi*, lifestyle modification, attitude*</td>
</tr>
</tbody>
</table>
2.3. Search Approach

Search was initially undertaken in 2011 at the early stages of the doctorate programme and it was subsequently updated in 2018 with a view to generate a comprehensive list of primary studies. The focus of the search was conducted separately around walk in centres, minor injuries and minor injury/illness unit and health promotion from the year 2000 when walk in centres were first opened.

Appropriate search terms and contexts were included in the search as government websites, databases, journals, theses, google and google scholar to ensure any relevant information regarding feasibility, effectiveness, smoking, alcohol and weight and acceptability of opportunistic health promotion could be gained, illustrated as a summary in table 2.2.

Table 2.2 Summary of searched databases, journals, and websites

<table>
<thead>
<tr>
<th>Search Strategy</th>
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<tbody>
<tr>
<td><strong>Sites Searched:</strong> WHO, DH, NICE, PCT, CCG, Public Health England, Gov.org, NHS Choices</td>
</tr>
<tr>
<td><strong>Database:</strong> Cochrane Library, CINAHL, PubMed, Medline, EMBASE, PROSPERO, PopLine, LILACS, BNI and MHIC via ANTHENS, SAGE, Trip/Tripro, Ebsco Host, EPPI, Global Health via Raven, Scopus, Web of Science, SocIndex, Science Direct, AMED, DoPHer., ProQuest, British Nursing Index.</td>
</tr>
<tr>
<td><strong>Other:</strong> free Google text and Google Scholar, grey literature, ResearchGate.</td>
</tr>
</tbody>
</table>

**Choice of databases**

- **Cochrane Library** - a collection of databases that contain independent medical evidence on which to base clinical decisions. It provides critical analysis of a number of research papers and reports on findings, focusing on a variety of research fields.

- **MEDLINE/ PubMed** - a service of the national library of medicine providing access to over 12 million MEDLINE citations including life sciences and links to other sites

- **LILACS** - LILACS was searched because of the comprehensive index of scientific and medical literature. However it focuses on Latin American and Caribbean literature with over 300000 articles and over 80 indexed journals.

- **Trip/Tri Pro** - a clinical database that can be used to find high quality research evidence as it emphasises on evidence based medicine and clinical guidelines and allows support for clinical practice and care and clinicians to search through other content type for quality clinical research evidence. It also searches evidence based sources of systematic reviews, practice guidelines clinical queries and patient information.

- **PopLine** - mostly focuses on family planning, population and reproduction health. It was hoped there may be some journals on unhealthy behaviour if it features on population as well.

- **Global Source via Haven** - is a great source for public health literature.
Ebsco - provides over 375 full text databases on a various medical and variety of subjects. It provides research for medical institutions, academic and other libraries, thousands of libraries and other institutions.

EPPI – used to be referred to as TroPHO was chosen because of the uniqueness of the coverage of health promotion randomised controlled trials with a cover of over 7750 trials.

EMBASE - an abstract and indexing database in biomedicine with over 15 million records worldwide. It was hoped it would provide pharmaceutical research on smoking and weight management. It is a good alternative to PubMed especially in strong international research and drug disease coverage.

CINAHL - the cumulative index to nursing and allied health database provides authorities coverage of literature related to nursing and other allied health not only for professionals but for educators, researchers, students with access to worldwide cover of citations.

Google and Google Scholar - helped with open access to search engines while Google Scholar provides a broad search of scholarly literature across different disciplines.

Medical thesaurus was used on some databases including MeSH and subject terms on Ebsohost MEDLINE, PubMed and Cinahl using mostly: Health Promotion, Nurse Practitioner, Minor Injury/Illness Units.

**Boolean operators:** And, OR, were mostly used. NOT was used for terms in exclusion criteria

**Wildcard and truncations:** (*), (?), (” ”)

**Filters: Inclusion:** patient/client/service user,
   nurse led, nurses, nurse practitioner
   2000-2017
   English language walk in centre, minor injury/illness unit,
   Emergency department,
   Urgent care centre

**Exclusion:** disease related interventions,
   school based projects,
   paediatrics
   recreational drug related services
   secondary health care services
   mental health (inclusive)

### 2.4. Choice of databases

While all the above databases were searched, the following were identified as the most useful to search for potential articles.

**Cochrane Library** was searched on health promotion in walk in centres and minor injury/illness units. Systematic reviews were the first choice because they provide a summary of carefully designed studies, using a meta-analyses process to provide high levels of evidence of effectiveness, providing collective current evidence, benefits, harm and recommendations on healthcare studies (Crombi, 1996).
It is also a central source of controlled trials collated by the Cochrane Collaboration team. However, it did not yield positive results.

**Ebsco**, the leading host for databases, was used as it helps to search a wide range of international research databases with over 375 online full text databases for multiple libraries, academic and medical institutions, and military services, on a variety of subjects and databases.

**PubMed and MEDLINE** were used as the second choice of database due to the wide range of national and international science including life science topics with approximately twelve million international biomedical journals.

**Cumulative Index to nursing and allied health literature (CINAHL)** database was searched because of the worldwide index. It is not only for nursing but for allied health professionals, researchers, students and educators.

**NICE** is an online library for effectiveness, while NHS Choices and WHO provide summaries and evidence that can be used by professionals and the public.

**Google and Google Scholar** report on technical reports, discussion papers, dissertations and other literature formats that are not indexed and thus difficult to search. However, this free text search helped to use text and search words freely; this helped to identify scholarly papers, theses and abstracts that had not been available on the databases. Conference papers were also attempted to no avail, so was grey literature as some reports and papers are not indexed in major databases. Local public health department was also contacted to explore if they had any unpublished studies.

Search terms were based mainly on PICO, searching for Minor Injury/Illness Unit, Walk in Centre, Health Promotion and Nurse Practitioner. Due to limited literature, specific health promotion terms, smoking, weight and alcohol, were used using Boolean operators **AND**, **OR**. Boolean operators (NOT) were further found useful to exclude other health promotion interventions including sexual health, specific health promotion units, community pharmacies, planned booked health promotion interventions, secondary health based interventions, recreational drug and substance misuse and paediatric.

NOT again was used for terms in exclusion criteria namely cancer and mental ill-health. Medical subheadings (MeSH) terms in PubMed and Medline helped to include medical terms that may ordinarily be missed combining subject terms walk in centre, minor injury, illness unit, emergency nurse practitioner and other nurse practitioner titles.
MeSH is a comprehensive controlled vocabulary for the purpose of indexing journal articles and books in life sciences. It helps to facilitate searching, serving as a thesaurus which is also used by the National Library of Medicine and Clinical Trials Gov. registry. In 2009 it had over 300000 subject headings and a list of entry terms.

Truncation was used to reduce missing terms that may have a different meaning or spelling, namely injury/injuries/injured/injur*, unit?s, Health Promot*, nurs* minor injur*/Ill*. A summary of hits, search words, combinations, exclusions, and search trail has been included as an appendix.

2.5. Synthesis

Original search was between 2011 and 2013. Three major steps were followed from the CASP checklist:

- Is the study valid?
- What are the results?
- Are the results useful?

There were millions of citations when health promotion and nurse were used separately. Health promotion on its own had 203640 hits while nurse had 737320 and nurse practitioner had 44819. When health promotion was combined with nurse it produced 12841 hits while health promotion and nurse practitioner produced 1210 hits. Walk in centre and minor injuries units produced 21822 hits; when combined with health promotion it produced 6837 hits and when further combined with nurse 2398. Following a combination of terms, sifting, exclusion and use of MeSH and other medical terminology, the initial search resulted in 30 relevant papers. Sixteen papers were duplicates and three papers were further excluded as they were in general practice. Nine papers on walk in centres were reviewed of which six further papers were excluded as they were reviewing accessibility and acceptability of walk in centres. Anderson (2002) refers to the key features of walk in centres including lifestyle advice, however, concludes that there are a lot of variations as some centres employ health advisors who provide additional services such as counselling, social services advice and health promotion. Walk in centres have a role in health promotion; some run courses to support people wanting to give up smoking or lose weight, (Salisbury, 2003), there is no further input.

There is no additional evidence as to the practice or further discussion apart from Salisbury, Chalder, Manku-Scott and Pope (2002) who list the key set features in the introduction of their study, however, there is no further reference to health promotion.
These three papers were further excluded. Unfortunately, there was no single electronic search comprehensive enough to record all publications from all medical journals across the range of databases. An initial preliminary search suggested a dearth of evidence between 2011 and 2013. Sacket et al. (1997), recommend that, if the yield is poor, the second most likely resource must be selected, redesign the search strategy and summarise evidence.

Literature search was broadened to include other organisations with similar settings to walk in centres, specifically accident and emergency or emergency department (A&E/ED). The terms used in the initial search were used including emergency department on the same databases. Free text, phrases and MeSH terms which defined the search were used with Boolean operators to link words and join search terms with the help of two medical librarians in the initial search and the more recent search in 2018. Identifying synonyms, spelling variants and subject headings associated with each aspect of the question also ensured maximum recall and sensitivity. Using searching strategies that incorporated a high level of sensitivity provided the best opportunity to identify all relevant topics on a given topic to minimise omissions, yet were likely to reveal a high level of irrelevant articles. (Dewey, 2018). Due to the limited literature in this field it was planned to retrieve all potential studies regardless of study design. However, once full articles had been retrieved it was planned that these would be sorted into likely trials, definite trials, reviews, qualitative and others. Search strategy was broadened and included terms: brief, unplanned, opportunistic interventions on smoking, weight management, alcohol intervention, nurses or clients brief health promotion and attitudes on the same databases.

2.6. Search Strategy

Major search terms searched are summarised in table 2.3, searched across the databases. After each individual term was searched, terms were combined, attached in appendix 14.

<table>
<thead>
<tr>
<th>1. Nurse practitioner</th>
<th>2. Health promotion</th>
</tr>
</thead>
<tbody>
<tr>
<td>5. Minor injuries Unit</td>
<td>6. Minor injuries and illness Unit</td>
</tr>
<tr>
<td>7. Smoking</td>
<td>8. Weight</td>
</tr>
<tr>
<td>9. Alcohol</td>
<td>10. Attitudes</td>
</tr>
<tr>
<td>11. Emergency department</td>
<td>12. Combined search with other terms e.g. 1+2, 1+4, 1+4+5</td>
</tr>
</tbody>
</table>

The new search yielded forty eight papers, a combination of reviews, qualitative and quantitative research, of which twenty eight papers were duplicates.
Two papers were excluded as they were on mental health, five papers were excluded as they were on secondary services and two further papers were excluded as they were on paediatrics, summary shown in table 2.4. Six further papers were excluded as they were in general practice and one was an understanding of health promotion. There was no paper found on weight management. The broader search that included Emergency Department left five papers that were relevant. Some read papers within the exclusion criteria were found useful and transferable to the proposed study and a subsequent summary of them is made at the end of the review. A general practice based research paper was most significant and fundamental to this study, despite exclusion criteria. The study explored all aspects of the proposed study - feasibility, effectiveness, efficacy, acceptability, opportunistic brief intervention and smoking when clients had presented for cervical screening, so this paper had to be included and summarised.

An updated search in 2016 revealed one study in a minor injury unit; a pilot study on hazardous drinking in a minor injuries and illness unit in the UK by Patton and Vohra (2013). Studies were included if there was discussion on brief, opportunistic, smoking, alcohol, nurse, health promotion, client, nurse, and views on opportunistic health promotion. After exclusion, six papers were available for review.

Table 2.4 Summary and elimination of papers on health promotion in walk in centres and emergency departments

<table>
<thead>
<tr>
<th>Identified studies across databases</th>
<th>48</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duplicates</td>
<td>28</td>
</tr>
<tr>
<td>Potential studies</td>
<td>20</td>
</tr>
<tr>
<td>Exclusions</td>
<td>2 - mental health</td>
</tr>
<tr>
<td></td>
<td>5 - secondary health</td>
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<tr>
<td></td>
<td>2 - paediatrics</td>
</tr>
<tr>
<td></td>
<td>5 - General Practice</td>
</tr>
<tr>
<td>Papers for review</td>
<td>6</td>
</tr>
</tbody>
</table>
### Table 2.5 Summary of reviewed papers of different research designs

<table>
<thead>
<tr>
<th>No</th>
<th>Author, year country</th>
<th>Aims</th>
<th>Method</th>
<th>Participants</th>
<th>Setting</th>
<th>Strengths &amp; weaknesses</th>
<th>Findings</th>
</tr>
</thead>
</table>
| 1  | Patton & Vohra (2013), UK | To report the prevalence of hazardous drinkers presenting to a Minor injuries units To explore the attitudes of the ENPs towards alcohol intervention and brief advice | Pilot Study Questionnaires by patients Questionnaire by nurses Leaflet given to sample | 192 patients And 4 Emergency nurse practitioners | Minor injury unit | **Strengths:**  
  - Some transferable aspects  
  - Setting and sample well described  
  - Validated tool used  
  - Fair completion rate (61%)  
  - Acceptability by patients and staff  

**Weakness:**  
- No information about the researcher  
- Lack of clarity on sampling framework  
- Selection bias  
- Clients were waiting for ambulance for referral to hospital.  
- Participants had to admit to overusing alcohol  
- More male participants to female = skewed results  
- Data analysis methods not described | Opportunity for alcohol intervention in minor injury unit.  
Tool and leaflet is feasible and acceptable to clients.  
Patients did not associate injury or presentation with their drinking  
MIU should be considered alongside EDs as an appropriate location to identify and intervene for patients whose drinking places them at risk of future harm  
Nurses mentioned barriers in time, setting and patient choice. |
<table>
<thead>
<tr>
<th></th>
<th>Bernstein, Bijur, Cooperman, Jearld (2011), U.S.A.</th>
<th>To determine the efficacy of an emergency department (ED)-based smoking cessation intervention</th>
<th>RCT Smoking cessation brochure and ED care VS Brochure, motivational interview, nicotine patches, phone call at 3 days and 3 months</th>
<th>338 patients</th>
<th>Emergency Department</th>
<th><strong>Strengths:</strong> Clear title, objectives, findings. Compare smoking intervention to standard usual ED care intervention. Many transferable aspects. Participants were from a lower socio economic group and hospital within a deprived area- not easy to reach population however may also be classed as selection bias. <strong>Weakness:</strong> Selection bias: Fewer representation from other economic groups. Participants were in contemplation stages to quit. Participants presented with smoking related conditions. Participants ED visit was tobacco-related. More smoking cessation uptake in the control group. Participants were more likely to quit because of tobacco related illness. Even low-intensity screening and referral may prompt substantial quitting rates.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td><strong>Bernstein, Bijur, Cooperman, Jearld (2011), U.S.A.</strong></td>
<td><strong>To determine the efficacy of an emergency department (ED)-based smoking cessation intervention</strong></td>
<td><strong>RCT Smoking cessation brochure and ED care VS Brochure, motivational interview, nicotine patches, phone call at 3 days and 3 months</strong></td>
<td><strong>338 patients</strong></td>
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<td><strong>Strengths:</strong> Clear title, objectives, findings. Compare smoking intervention to standard usual ED care intervention. Many transferable aspects. Participants were from a lower socio economic group and hospital within a deprived area- not easy to reach population however may also be classed as selection bias. <strong>Weakness:</strong> Selection bias: Fewer representation from other economic groups. Participants were in contemplation stages to quit. Participants presented with smoking related conditions. Participants ED visit was tobacco-related. More smoking cessation uptake in the control group. Participants were more likely to quit because of tobacco related illness. Even low-intensity screening and referral may prompt substantial quitting rates.</td>
</tr>
<tr>
<td>3</td>
<td>Bensberg, Kennedy, Bennetts</td>
<td>To describe the opportunities for health promotion in emergency</td>
<td>Focus groups= 7 Interviews</td>
<td>76 nurses 140 nurses</td>
<td>Emergency department</td>
<td><strong>Strengths:</strong> Study addresses its objectives. Shift from medical model is required. Numerous opportunities to enhance health promotion in EDs.</td>
</tr>
<tr>
<td>Year</td>
<td>Country</td>
<td>Setting</td>
<td>Methodology</td>
<td>Sample Size</td>
<td>Strengths</td>
<td>Weakness</td>
</tr>
<tr>
<td>------</td>
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<td>---------------------------------------------------------------------------</td>
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</tr>
<tr>
<td>2003</td>
<td>Australia</td>
<td>departments (EDs).</td>
<td></td>
<td></td>
<td>Large inclusive sample</td>
<td><strong>Weakness:</strong> Combining focus groups and interviews</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Weak transferability as little description is provided on nurses</td>
<td>No supplied interview schedule or description of interview and focus group schedule.</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>No supplied interview schedule or description of interview and focus group schedule.</td>
<td>Barriers: time, cost, patient choice, understanding of HP, setting in ED</td>
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<td></td>
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<td></td>
<td></td>
<td>ED staff are not educated on health promotion.</td>
</tr>
<tr>
<td>2005</td>
<td>U.K.</td>
<td>To explore Accident and Emergency nurses' attitudes towards health promotion</td>
<td>Qualitative</td>
<td>11 nurses</td>
<td><strong>Strengths:</strong> Clear research aims, setting, data collection and analysis. Methodology and choice of method discussed.</td>
<td><strong>Weakness:</strong> Not possible to generalize the findings due to small sample however it is about the richness of the data collected. Researcher bias not discussed.</td>
</tr>
<tr>
<td>Study</td>
<td>Authors</td>
<td>Objective</td>
<td>Study Design</td>
<td>Patient Sample</td>
<td>Strengths</td>
<td>Weaknesses</td>
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<tr>
<td>5</td>
<td>Rega, Roberts, Khuder, et al. (2012), U.S.A.</td>
<td>To introduce a public health promotion specialist in emergency department to provide a brief health promotion intervention to patients, and to determine the effect of the initiative on patient satisfaction.</td>
<td>RCT 5- to 10-minute presentation about exercise, heart health, healthy eating on a budget, or weight control vs Standard ED care.</td>
<td>135 patients</td>
<td>Patients are happy to discuss health promotion. It is feasible to use “teachable moments” in Emergency Dep. Patients felt safe, satisfied, confident, listened to. Health promotion interventions carried out by a specialist can improve patient satisfaction.</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Woolard, Cherpitel, Thompson (2011)</td>
<td>To review studies and current practices of brief motivational intervention in Emergency Department</td>
<td>Qualitative patients and clear setting and sample description.</td>
<td>Large patient sample in 14 centres. More research is needed to explore delivery strategies and to identify the most effective and economic method of intervention.</td>
<td>Patients are happy to discuss health promotion. It is feasible to use “teachable moments” in Emergency Dep. Patients felt safe, satisfied, confident, listened to. Health promotion interventions carried out by a specialist can improve patient satisfaction.</td>
<td></td>
</tr>
</tbody>
</table>
| U.S.A. | the emergency department | Nurse Practitioners = 9 | **Weakness:**
Interventions are provided by trained counsellors.
Screening, recruitment, and randomisation of participants is not provided.
FRAMES model takes 20-30 minutes.
Feasibility unlikely transferable. | Research to determine factors responsible for current improvements in interventions
Telephone follow up by ED staff or specialist
It is feasible to offer alcohol intervention in ED
Progress is being made in the ED to meet public health goals of reducing alcohol misuse and its consequences.
Barriers in time and workload. |
2.7. Discussion

Crombi (1996), encourages an appraisal to find strengths in a paper and not criticize it, thus, the critical appraisal skills programme CASP tool (2003) was chosen to guide the review of literature, more so the randomised controlled trials, as it has been observed that guidelines presented by the tool are best practice with little use of jargon (Trealor, Champness, Simpson and Higginbotham, 2000).

Three areas to the research enquiry are discussed based of the available reviews:

- Alcohol prevalence in a minor injury unit.
- Smoking intervention in emergency department.
- Attitudes, opportunities for effective health promotion interventions.

2.7.1. Alcohol intervention in emergency department and minor injuries unit

The only relevant UK minor injuries unit paper that was found is that of Patton and Vohra (2013), titled *Hazardous Drinking in Patients Attending a Minor Injuries Unit*. The researchers conducted a pilot study in a minor injury unit (MIU) with both clients and emergency nurse practitioners with the aim to report the prevalence of hazardous drinkers presenting to a MIU and explore if a MIU could be used for alcohol interventions. They observed that of the 70% clients that present to emergency department with hazardous drinking, (20%) were classified as minor injuries, more appropriate to be seen in a minor injury unit by emergency nurse practitioners who are more likely than doctors to offer health related advice and information. Participants were included in the study if they attended the minor injuries unit near a major London hospital, if they were over 16, English speaking, and consumed at least double the daily recommended units of alcohol. Data were collected over 4 weeks on age, gender, reason for attendance and previous attendance to ED. After approaching 1000 clients that presented during the study period, 315 clients were invited and 192 consented to taking part in the study. The Paddington Alcohol Test that can be completed within 20 seconds was completed by patients. It is a tool to help ED staff quickly identify hazardous drinkers, to treat the underlying cause, and offer brief advice to reduce the impact of alcohol for the patient. Participating clients were receptive to the intervention, although very few took up the offer of referral to alcohol intervention services as they did not link the injury or illness to alcohol use.

Four of twenty five emergency nurse practitioners completed a questionnaire examining their attitudes towards alcohol intervention, brief advice and implementation of the intervention in minor injury unit.
The findings were that nurses did not think that MIU was appropriate for brief advice, nurses felt that the location was not appropriate, there was lack of time for such activity and patients would likely respond negatively to being asked about their alcohol use. The pilot study concluded that minor injuries units should be considered to host alcohol intervention.

Using the CASP tool although this is a pilot study, the heading is slightly misleading as it states the prevalence of alcohol consumption. However, it further discusses the use of minor injuries units and attitudes of nurses and clients. Background of the study is provided and indicated making it a worthwhile read. The objective was to address brief health promotion intervention for hazardous drinkers using the Paddington tool in a MIU. The population is well defined, however, it is clients who were awaiting transport to the hospital, indicating that they should not have been in a minor injuries unit and was it the right timing to address or invite to the study. It could be questioned that there is researcher selection bias as it was not all MIU clients as per heading. Additionally, while it states that 1000 clients were approached, it is not clear if it was 1000 clients within the inclusion criteria or if 1000 was the overall number of clients that presented in four weeks of data collection. It appears that it is only the ones that were awaiting transport of all the other adult clients in the minor injuries unit. The intervention is defined, clients completed a Paddington tool, received a brief assessment and offer of referral to behaviour services. There does not appear to be a comparator. It is not clear if the emergency nurse practitioners screened and delivered the intervention to the patients or if it was the researchers themselves. The sample is skewed with more male than female (114:78) and it is inevitable that the credibility of the results will be questioned.

It is also not clear if the emergency nurse practitioners were aware of acceptability from the patients before they responded to screening. The authors reported that the sample of nurses was very small (4/25) however, there was no discussion on the questionnaire, questions addressed and the barriers that the emergency nurse practitioners referred to or reason for a small sample of respondents and questionnaire content. It is perceived that the pilot study met some of the objectives, the heading does not follow the rest of the content and it is not clear as the prevalence rates do not provide an inclusive result of presenting clients. The second objective has been met. The study strength is the feasibility of screening for alcohol intervention and the acceptability from the patients to engage in the screening, healthy conversation and offer of referral. It is observed that some aspects of the findings including screening, piloting and interviewing nurse practitioners through questionnaires could be translatable in the local unit to assess acceptability of nurses to health promotion in the local environment.
An American based study by Woolard, Cherpitel and Thompson (2011) titled “Brief Intervention for Emergency Department Patients with Alcohol Misuse: Implications for Practice” aimed to review current practices of brief motivational intervention and identify factors related to its effectiveness. Data based on ED alcohol related injuries, deaths and dependence underscored the importance of screening and providing brief intervention in the ED. The authors explored the FRAMES model (feedback, responsibility, advice, menu or choice, empathy and self-efficacy) brief negotiation interviewing, more so with young people (18-25) because of the high rate of alcohol related problems (41%) in this age group. This model consists of brief motivational intervention and negotiation interviewing which takes about 20-30 minutes, enabling the client to firstly provide permission to discuss the topic, offered by a trained counsellor. A randomised controlled trial in 14 medical centres, the largest by far, using FRAMES Model demonstrated some effectiveness in reducing alcohol consumption. The control group who got ED care and one session were followed up at two weeks and the intervention group were followed up at three months revealing a reduced amount of consumed alcohol in the intervention group. Within the same study, another randomised controlled trial with 539 participants also had somewhat positive outcomes. One arm received one session of brief intervention while the other arm received two sessions. It was found that after a year there was reduced alcohol intake in the arm that had two sessions. However, a further randomised controlled trial with similar outcomes found that there was no difference between the arm that had one session and the one that had two sessions.

Researchers observe that all these interventions have been provided by qualified specialist trained counsellors instead of ED staff. There was no efficacy in the intervention being offered by a trained counsellor compared to ED staff. They also observed that the outcomes between the control group and the intervention group were similar, however, ED staff wanted trained counsellors to offer the intervention referring to time, lack of resources, confidence, workload and the inability to provide brief intervention as barriers. Staff stated that they preferred a trained counsellor to be employed for alcohol interventions. Researchers observed that the ED was an important setting for initiating brief alcohol intervention and utilising “teachable moments” recommending that alcohol intervention be made part of routine ED care as patients would benefit more so if patients attended with alcohol related injuries.

This study did not follow the CASP tool and thus a few variables are missing. While the setting (ED) is clear, it is not clear how participants were screened, recruited and randomised.
The study does address the opportunities available for brief health promotion in the ED by ED staff, however, it does not elucidate how these can be implemented particularly after the barriers that ED staff referred to. It is not clear if ED staff offered the FRAMES model as well as brief intervention and if the FRAMES model was only provided by the trained counsellor.

The review concluded that the emergency department is an important setting for initiating a teachable moment and for providing brief intervention, however, the time factor utilised in the FRAMES model may be a challenge in the proposed study. The National Institute for Care and Health Excellence (2012) recommend that brief interventions should not take longer than five minutes; the FRAMES model is noted to take 20-30 minutes. It is unlikely that a FRAMES Model would be feasible in the local minor injury and illness unit where the waiting time can be over four hours. The significance from the study was the observation that emergency department staff can be trained to provide brief intervention, however, in this sample staff were still reluctant to implement service.

2.7.2. Opportunistic health promotion on smoking cessation in an Emergency Department
An American Randomised Controlled Trial on multicomponent smoking cessation strategy in Emergency Department by Bernstein, Bijur, Cooperman et al (2011), observed that there were very few published clinical trial interventions on smoking. Data collection that took a year and nine months, aimed to determine the efficacy of smoking cessation intervention. A multicomponent smoking cessation strategy with 338 participants from a low socioeconomic status, medically underserved area who smoked at least 10 cigarettes per day, contemplating to quit smoking was conducted. Intervention comprised of a brochure, motivational intervention 10-15 minute talk, six weeks of nicotine patches and a telephone call two to three days and three months after the presentation. The control group merely received a standard brochure. The inclusion criteria was reported to be participants who had been seen at the ED, who did not require admission. It was a single-hospital randomised trial with blinded assessment. The goal was to maximise the intensity of intervention at ED and smoking cessation by three months. Motivational intervention was delivered by a trained peer educator. There was a mean age of 40 (SD+ 12) with 52% female. There was a higher successful quitting rate in the control group (brochure only), resulting in a negative endpoint because of higher than expected quit rate in the control group (14.6% p = .015 compared to enhanced care (12.5%, p = .03). The study concluded that there was no statistical difference between cases and controls which meant that the hypothesis was rejected.
They concluded that there was feasibility for routine screening, brief intervention, referral and offering printed material to clients presenting at emergency department.

However, emergency department staff required training to utilise teachable moments and to incorporate health promotion services into practice. The study concluded that interventions in an emergency department are feasible suggesting that even minimal intervention is effective thus even “busy clinicians” can ask, advise and refer.

The study title is very clear and so are the objectives. The population, intervention, comparator and outcomes are clearly defined. Randomisation and recruitment process is not clearly defined which is an important aspect in RCT to ensure that every client has an equal opportunity at selection. Research reveals that unhealthy behaviour is higher among the lower socioeconomic class. However, there could be researcher bias here or even a purposive sample as opposed to a probability sample, more so in a randomised controlled trial with regards to their inclusion criteria. Criteria is very specific and thus probably it should have been stated that it is not a probability sample. Baseline data that was collected from both groups is defined. Authors described inclusion and exclusion criteria, however, inclusion criteria excluded all other smokers except those that had presented with a tobacco related illness and were found to be in contemplation or preparation stage. There is some form of selection bias on the part of researchers. About 65% of the participants in this study were pre-contemplating smoking cessation.

All participants were followed up by a blinded researcher to reduce bias and they state that they were able to account for all 338 participants at the end of the study, however, 281 were analysed as others were lost to follow up. Analysis was based on intention to treat. Hollis and Campbell (1999) observe that intention to treat analysis is a randomised controlled trial strategy that aims to analyse sample arms in groups to which they were randomly assigned. While it is often misinterpreted, intention to treat helps to preserve prognostic balance, limit inferences and emphasise greater accountability thus minimising type I error (Ferguson, Aaron, Guyatt and Hebert (2002).

The study has provided a useful aspect that can be transferred and replicated in the proposed study in current setting, including that of time it takes for an intervention, randomising at initial and delayed consultation and training of staff prior to conducting the study and intervention. It is noted that clients in the local walk in urgent treatment centre for minor injury and illness cannot be followed up nor can nicotine replacement therapy be used due to the nature of the service. In a busy centre, an opportunity to ask, advise and refer appears feasible, however, it is not known how feasible 10-15 minutes is after a client has been waiting to be seen by a nurse practitioner if the waiting time is lengthy.
2.7.3. Patient satisfaction in brief health promotion interventions

Rega, Roberts, Boardley, et al. (2012) conducted a randomised controlled trial titled “The Delivery of a Health Promotion Intervention by a public Health Promotion Specialist Improves Patient Satisfaction in the Emergency Department.” Aim of the study was to introduce a public health promotion specialist into ED to provide brief health promotion and to determine effect of the initiative on patient care. As part of their background, authors note that while there is an increase in unhealthy behaviours in ED and they are problematic, at present ED staff are constrained from delivering interventions because of acute responsibilities, limited resources, staff inexperience and patient length of stay in ED. To provide a comprehensive health promotion and preventive medical education, it was decided to conduct a pilot study to determine effectiveness and patient satisfaction by a public health specialist.

A level I trauma ED in the US was used to recruit participants for the randomised controlled trial. ED patients were invited to the study if they were not going to be admitted into a ward and were stable. It is not reported how clients were approached, screened, invited, recruited or randomised, however, the intervention has been described. Of 165 participants that were recruited, they were all accounted for at the end of study with no clients lost to follow up. Participants could choose from any 18 health topics and received a five to ten minute presentation and written material on healthy living (exercise, heart health, healthy diet on a budget and or weight control). The control group did not have any intervention; they received usual emergency department care for presentation problem. Following the intervention, clients participated in a valid, reliable Likert scale questionnaire by health department US. The study found that participants that had the intervention had higher levels of patient satisfaction. Authors report that they found that patients who received the intervention based their decisions of satisfaction on staff listening, being friendly, helpful, privacy and safety, concluding that the intervention group were three times more likely to refer others to emergency department (OR=3.13 CI 1.20-8.17). Patients were not discouraged by health promotion interventions. ED staff were concerned about costs. However, authors allude that the costs would be lowered in future and turned to profit as more patients with unhealthy behaviour who received intervention would be encouraged towards healthy modified health behaviours. The study concluded that while ED is identified as an important venue for brief health promotion.
ED staff referred to barriers stating that there were other factors to be included, namely ageing population, turbulent economy, patient length of stay would be longer, health care reforms costs, costs of a public health specialist in ED and it would shift core ED functions. Authors proposed solutions to all mentioned barriers.

The study was clear and CASP guidelines were followed. Authors provided their background. Background of the specialist was given, however, authors did not describe ethical issues or ethical considerations. There is a sentence referring to “health topics were given to a convenience sample.” It is not clear what this means, more so in a randomised controlled trial where there is a strict protocol to be followed on sampling to enable equal opportunity for selection. Baseline and patient characteristics are available and data analysis methods are well defined.

Replication of parts of the study locally is possible in that written material and a five to ten minute presentation may be feasible with a client. In a minor injury and illness unit that has not been proactively involved in brief health promotion that is commissioned by the local clinical commissioning group, it may not be possible to “employ” a specialist to deliver health promotion interventions. Additionally, continuity and client/nurse rapport may be broken while nurse practitioner refers client to a public health specialist with whom a new rapport may have to be developed. Furthermore, while randomised controlled trials are gold standard in research, there are ethical considerations to be reviewed as all clients that have unhealthy behaviour require support.

2.7.4. Nurses' understanding of health promotion
Australian based mixed methods study in ED “Identifying Opportunities for Health Promotion in Emergency Departments” by Bensberg, Kennedy & Bennetts, (2003) aimed to map potential health promotion strategies that could be feasibly implemented in emergency department. Authors reviewed 140 papers, held 7 focus groups (76 staff) that lasted 2 hours with each of 7 participating emergency departments. Authors reported that nurses felt that they were keen to provide health promotion but were not adequately trained or resourced. Staff related to time as a barrier, similar to previous reviews. Nurses referred to lack of understanding and appropriateness of emergency department delivering health promotion as it may already be too late for health promotion interventions at time of presentation. Costs and patient choice were also brought up by this sample. It was concluded that emergency department nurses had many opportunities to promote health but there is not a lot of literature to support integration into practice. Staff needed training, information, planning, resources and support.
Authors recommended evaluation of services and research to enhance knowledge and progress. Study objectives are clearly presented. It was a big study with clear methodology, methods of data collection and sample. Findings are clear and answer objectives of the study. Ethical considerations are not particularly defined, however; study credibility and triangulation is reported. It is understood that writing for a journal is restricted thus leading to incomplete access to the study. Reduction of narratives to themes is thus not available. The study was informative in understanding views of ED nurses to health promotion. The study had a number of participants and a multi approach to data collection, however, the findings and barriers are similar to those found in reviewed studies. Some parts of the study could be transferable to the proposed study by carrying out focus groups to explore the views of nurse practitioners to health promotion. Focus groups are recommended whereby a group setting can help identify and clarify views Kitzinger (1995).

In contrast, a qualitative study conducted by Cross (2005), on emergency department nurses' attitudes towards health promotion in Ireland, also found that there is very little or "not at all" research on health promotion in nurses that work in these settings. Aim was to explore nurses' attitudes to health promotion. Researchers conducted a Q methodology study with 11 emergency department nurses. Nurses complete Q sort with 33 items developed and they further wrote their personal definition of health promotion. Author acknowledges small number of participants to make generalisations, regardless, it emerged that there were different views about health promotion. Nine of eleven nurses felt positive about health promotion and their role in health promotion in this kind of acute setting. Other nurses referred to barriers and time. The study concluded that nurses in emergency department had positive views on health promotion, however, the author recommended that continued post registration education in health promotion is needed including more research exploring the role of acute setting and hospital nurses in health promotion. It was also recommended that further research was needed to explore perspectives of mentioned barriers to effective health promotion and health promotion interventions.

Using CASP tool for qualitative research, it can be stated that study objectives are clearly presented with a clear methodology, methods of data collection, sample and data analysis. Q method was developed in the 1930’s following a scientific more in-depth focus of participant viewpoints, perspectives and perceptions (Van Excel & Graaf, 2005). Ethical approval is provided. Author explains how utilising factor analysis, themes from Q cards developed. The study was useful in understanding views of ED nurses on health promotion.

The study had a small number of participants with the author alluding to this thus providing some credibility to the study.
Chapter Two

Bias was not discussed, however, Q method utilises aspects of both quantitative and qualitative data which may help to reduce bias. Barriers are similar to all previous reviewed studies.

It is unlikely that this method could be transferable to the proposed study; the chief investigator does not know enough about Q method to attempt to use it for this project, however, literature on views of nurse practitioners to health promotion is valuable.

2.7.5. Summary of other useful literature

There were, however, five useful replicable papers outside inclusion criteria which were helpful to understand health promotion and nurses. These five studies have been summarised to confirm and demonstrate the importance of health promotion and delivery by nurses. On evaluation it was found that their findings could be transferrable and replicable in the local study proposal. The most pertinent study was that of Hall, Reid, Ukoumunne, Weinman and Marteau (2007) assessing potential effectiveness, acceptability and feasibility of a brief smoking cessation intervention delivered as part of a cervical screening appointment. Although this study fits all criteria, the setting was in general practice, hence exclusion. Authors conducted a randomised controlled trial to demonstrate feasibility and proof of principle of an innovative smoking cessation intervention in women that attended for routine cervical screening. Data collection took place over a year, inviting women that smoked at least 1 cigarette a day and understood spoken English language. They compared brief smoking cessation advice and written information in intervention group compared to no advice at all in control group. Sample consisted of 121 participants in each arm who were subsequently followed up at two and ten weeks. Intervention group had higher intention to stop smoking at 2 weeks follow up (mean difference 0.51, CI 0.02-1.03, P=0.06) and at 10 weeks the intention to quit was still high (0.80, CI 0.10-1.50, p= 0.03). Consultations took a mean time of 4.98 minutes (95% CI: 3.69 - 6.27; p <0.001) longer than control arm. Authors report that the intervention took longer than anticipated, however, this was because of interest from participants. All participants were accounted for at end of the study. Authors concluded that participants were not put off by screening and brief intervention when they had only attended for a cervical smear test. Brief smoking cessation advice given by practice nurses as part of cervical screening is acceptable, feasible and potentially effective.

In the reviewer’s opinion, ethical aspects of withholding opportunistic intervention to other smokers who were in the control group are questionable.
Women attend for a cervical screening test at least every three to five years in UK; there may be no other opportunity for health promotion. The study was specifically included despite it being outside inclusion criteria for the reason that it was a feasibility study that involved opportunistic and brief intervention.

An intervention like this is likely to be accepted by management, clients and nurse practitioners. It also took less than five minutes and there were no invasive procedures in this proposed study. Many parts of this study could be replicated in the proposed study by offering opportunistic brief screening and interventions to clients presenting for an injury or illness. The study was found useful for the proposed study in the urgent care walk in treatment centre for minor injury and illness where clients present for one off consultation, a unit where no previous research had been conducted, where the aim was to use opportunistic intervention, to determine feasibility, efficacy, effectiveness and acceptability. A number of aspects fit into the inclusion criteria of the proposed study.

Furthermore, Whitehead (2008) conducted an international Delphi study with a purposive sample of 62 nurses who worked in varying degrees of health promotion policy formation worldwide. The aim was to examine health promotion and health education in practice as well as education and health promotion policy. Nurses were asked to define health promotion and health education in an open ended questionnaire that helped to generate 13 categories and 134 statements following which a five point Likert scale was used for nurses to score their level of agreement or disagreement of health promotion terms from the statements. Author reports that results demonstrated consensus when it comes to defining health promotion, health education and emergence of the role of nurses in health promotion. There was consensus that expanding role of nurses was more health education as opposed to health promotion. Nurses did not demonstrate any reforms in health promotion delivery; difference between health promotion and health education was still not understood, theory and language of general health promotion had yet to be reflected and implemented. Nurses referred to time and staff shortage as barriers. Authors concluded that “the biggest barrier comes down to whether or not nurses understand what health promotion is and what it does” [online]. This paper was fully read as it pertains to the understanding of health promotion by nurses as concurred by NICE that “few nurses are trained in health promotion.”

Lock, Kaner, Lamont and Bond (2002) conducted a UK based qualitative study on “nurses’ attitudes and practices regarding brief alcohol screening and interventions to explore and to understand why alcohol intervention is underexploited”.

Chapter Two
They utilised grounded theory to generate systematic factors that influence alcohol intervention with a combination of convenience and purposive sampling with 24 nurses in primary health care. Nurses had different views about identifying clients that had completed the screening process, they acknowledged that they had many opportunities to engage in alcohol intervention. However, they had received very little preparation to take on the task and reported controversy about patient choice. Nurses referred to barriers in time, skill, training and patient involvement.

Another qualitative study on nurses was that of Whyte, Watson and McIntosh (2006). Authors aimed to “explore nurses’ provision of opportunistic health education with patients in relation to smoking”. Scottish based case study design with 12 nurses working in an acute setting, utilised non participant observation, radio-microphone to record nurse and patient interaction and conducted semi-structured interviews. Authors observed that nurses saw health promotion and health education as an addition to their work load as opposed to integrating it into practice. They found that nurses recognised opportunities to introduce health education and receptiveness of patients, however, interaction was variable with poor communication skills, inadequate knowledge and understanding. Authors recommended that skills, knowledge and guidelines were needed for nurses to integrate opportunistic smoking cessation into practice in acute setting. Authors do not explain introduction of the radio-microphone to indicate if patient or nurses knew about it and if it may have had any influence on the study. It is further observed that use of electronic devices in care has been questioned, raising ethical issues for client, clinician, client/clinician rapport and confidentiality (Polit & Hungler, 2008). Conversely, such electronic devices could be found useful as teaching methods and feedback for nurses on their presentation of health promotion interventions.

An observational case study in Ireland by Casey (2007), on “nurses’ perception and understanding of health promotion” in an acute setting wards using semi-structured one to one interviews, with eight nurses utilising a purposive sample was conducted, using the work of Miles and Huberman for data analysis. Casey found that nurses did not understand the term health promotion, they struggled to describe their understanding of it or that their understanding was limited, thus, strategies to conduct health promotion were narrow and focused on the individual. Their perception was based on traditional health education approach, and health promotion occurred infrequently, being added if they felt they had time. Author recommended that nurses must be trained to understand that health promotion is a broad concept that goes beyond individual lifestyle, to recognise health promoting opportunities in acute setting and to plan to conduct health promotion so that it became an integral part of their practice.
It was further highlighted that nurse managers had an important role in supporting nurses to create a culture for health promotion and sharing power in decision-making processes so that nurses felt valued and empowered.

In 2006 and 2008, Whitehead conducted research on the practice of health promotion by nurses. However, in 2008 it was reported that there had been no difference in the past few years, it was still not well understood and the nurses still did not know the difference between health education and health promotion (Whitehead, 2008a, 2008b). This concurs with NICE who observed that “few nurses are trained in health promotion.” These statements cause major speculation if this is the main reason that nurses refer to so many barriers.

2.7.6. Concluding statements from the review
Brief or opportunistic health promotion interventions in urgent care centres, walk in centres and minor injury/illness units is not well documented. Studies in emergency departments were sought with some useful transferable aspects. Three main themes emanated from the review:

- Clients that participated in research were not deterred from using further health promotion services; they were receptive to opportunistic health promotion interventions.
- It appears to be feasible and acceptable to deliver opportunistic health promotion interventions from feedback from participating patients and nurses in both alcohol, and smoking interventions. There were positive responses from both participants and nurses.
- There were no barriers from clients.
- Nurses acknowledged the need and opportunity for health promotion intervention.
- A very common theme among all the narratives was barriers to health promotion delivery by nurses.

Barriers revealed by nurses were mostly time, training, resources, offending clients, confidence, hiring a specialist instead of using ED staff as nurses were not prepared. Poor communication, staff experience, patient involvement, skills, inadequate knowledge, workload, understanding differences between health promotion and health education were also referred to as barriers.
Studies that utilised a specialist public health practitioner reported that there was no efficacy between ED staff or specialist offering interventions.

Opportunities to integrate health promotion into practice, offer routine screening, brief intervention, referral and offering printed material to clients presenting at emergency department are feasible, suggesting that even minimal intervention is effective thus even “busy clinicians” can ask, advise and refer.

Lessons learnt from the studies is education needed for nurses to understand the difference between health promotion and health education before the study and brief intervention can progress.

There are no effective methods for health promotion in urgent care centres, walk in centres, minor injury units or minor injury/illness units, however, there is consensus that opportunities for health promotion and brief interventions are effective and feasible.

Acceptability of screening and intervention by participating clients was documented and was also reported to be of benefit to clients. Clients were not deterred by screening or brief intervention and reported satisfaction with nurses as they felt they got more advice and were listened to. There were no negative reported responses by clients.

2.8. Gap in knowledge

Modernising the NHS intended to provide services to meet current lifestyles and needs of people by providing increased accessibility to health services namely through walk in centres (DH, 1999a). Walk in centre, urgent care centres, minor injury and illness units are popular with the public, nevertheless lifestyle advice including smoking is a clear feature for any organisation wishing to submit a tender to open a walk in centre but is not clearly defined or has not been reviewed.

Lack of health promotion literature was also an observation made by Cross (2005) and Bernstein et al (2011). There are no consistent methods or literature on effective methods of integration of health promotion in walk in centres, minor injury/illness units, primary health care or emergency departments.

More research is required in this field to inform literature.

Building on theoretical frameworks in the background chapter and findings from this review, a conceptual model was developed to explore implementation of brief health promotion in the local urgent walk in treatment centre for minor injury and illness.
2.9. Research questions and hypothesis

There is an opportunity for health promotion interventions at the local urgent walk in treatment centre for minor injury and illness.

For this project, it was proposed to concentrate on smoking, alcohol overuse, overweight and obesity. These three lifestyle choices have been strongly linked to the top five causes of premature mortality and morbidities including coronary heart disease, cancers, lung disease, liver disease and diabetes in the U.K.

Research questions that evolved were:

- **Is it feasible to engage in health promotion in a unit where people present for an injury or illness by screening for smoking, weight and alcohol?**
- **How many of the presenting clients live with unhealthy behaviour?**
- **Will presenting clients self-report and answer unhealthy behaviour if asked?**
- **In the two clinical consultations, when would be the best suitable and effective time to introduce health promotion?**
- **How long would an acceptable health promotion intervention be in time taken?**
- **Clients sometimes waited for long periods of time to be seen by a nurse for a full consultation; could this time be used somehow for health promotion?**
- **It’s a one stop unit, how can outcomes be measured?**
- **Will presenting clients and nurse practitioners accept brief health promotion?**

2.10. Outline of proposed study

A feasibility study conducted in two sequential phases utilising mixed methodology is proposed to answer evolving research questions.

A summary of the study is illustrated in table 2.6 below
A feasibility study has been described as a study that enquires into effectiveness, "*asks whether something can be done, should we proceed and how*" however it is noted that there is lack of a clear definition (Eldridge et al, 2016: online). Feasibility study is an analysis and evaluation of a proposed project, to determine if a project is technically feasible, cost effective and sustainable (Bowen et al. 2010). It does not necessarily need to include a randomised design or the usual power calculation, merely the evaluation of the outcome of primary interest (Arain, Campbell, Cooper and Lancaster (2010). Bowen et al. (2010), outline eight appropriate areas of focus in feasibility studies specifically:

- acceptability,
- demand,
- implementation,
- adaptation,
- practicality,
- integration,
- expansion and
- limited-efficacy testing.
Authors conclude that feasibility studies are advantageous in that experiments permit random and unbiased intervention conditions and experiments, afford time and cost-effective means of testing whether an intervention could work. The proposed study aims to encompass all of the areas of a feasibility study as recommended by Bowen et al (2010).

Phase I: A profile study

The profile study aims to develop a client profile by exploring whether clients would self-report unhealthy behaviour if asked, specifically smoking, alcohol consumption and weight, and if there was a high risk population in this centre, this was to justify the continuation of the study and proof of concept.

Phase II: A randomised controlled trial, client survey and nurse interviews

Randomised controlled trial aims to determine efficacy through number of referrals made to the Wellbeing service and the best possible and effective time to introduce brief health promotion interventions to presenting clients aged between 16 and 75 between the two standard practitioner consultations (initial on arrival and delayed consultation).

Client questionnaires and nurse interviews aim to explore acceptance by both presenting clients and nurse practitioners.

2.11. Aims of study
To explore feasibility, efficacy, effectiveness and acceptability of implementing new brief health promotion services in the local urgent walk in treatment centre for minor injury and illness.

2.12. Study objectives
*To screen clients between the ages of 16 and 75 for smoking, height, weight and alcohol to develop a client profile to inform phase II of the study.

*To conduct a randomised controlled trial to explore rates of referral, time taken for the intervention and the best possible effective time.
*To explore client/patient attitudes to health promotion when they presented for an injury/illness through questionnaires.

*To conduct one on one semi structured nurse interviews to explore acceptability by nurse practitioners.

2.13. Measurable endpoints:
2.13.1. Primary Outcome:
Rate of clients that would self-report unhealthy behaviour and rate of clients with unhealthy behaviour for proof of concept from Phase I to II

Number of referrals to the Wellbeing service in the randomised controlled trial.

2.13.2. Secondary Outcomes:
Time it takes for practitioner to engage client in a healthy conversation.

Rate of clients that accept intervention in future presentations.

Rate of clients that would use the service in future and inform family, friends and colleagues.
CHAPTER THREE

PHASE I: PROFILE STUDY

The aim of this phase (phase I) was to develop a profile of presenting clients with unhealthy behaviour in the local urgent treatment walk in centre for minor injury and illness.

3.1. Profile study objectives

- To adapt current mandatory client booking in form to enable self-declaration of smoking status, alcohol use per week, weight and height.
- To train nurse practitioners to also screen for smoking, alcohol, weight and height on clients that have not self-declared.
- To collect, collate and analyse data of clients aged 16-75 both self-declared and nurse practitioner promoted for unhealthy behaviour.

3.2. Background

The local urgent treatment walk in centre for minor injury and illness (run by Care UK for over 10 years), has not previously been involved in the provision and delivery of brief health promotion services. Background literature demonstrated that 69% of the population in Portsmouth are aged between 16 and 65 years of whom 70% were stated to live with unhealthy behaviour, specifically smoking, alcohol overuse and obesity (Portsmouth City Council, 2016). Health promotion is needed to reduce the rates of unhealthy behaviour in the city.

Client as opposed to patient is referred to in this study. With innovations in health and science, clarity for the right term is increasing with new terms being used including consumer, service user and customer, in addition to patient and client. Client is referred to as a recipient of professional service as opposed to patient who is referred to as a sufferer (McLaughlin, 2008, and Merriam-Webster n.d.).
3.3. Methodology

The urgent treatment walk in centre for minor injury and illness sees an average of 200 clients (all ages) a day, of whom over two thirds (>70%) are aged between 16 and 75 (Care UK, 2016).

It was not known if there were clients that attended the service who would be willing to self-disclose unhealthy behaviour when asked and/or if there were clients that had unhealthy behaviours. Coincidentally, profiling is a feature by the Department of Health for any company proposing to open a walk in centre was needs assessment (table 3.1).

*Table 3.1 Key features of walk in centres set by the Department of Health*

*A patient/population needs assessment which supports the development of an innovative primary care centre and is sensitive to age, culture and lifestyle of patients*

Profiling which has been in existence since the 20\textsuperscript{th} century has been referred to as health needs assessment, consultation, and audit (Hawtin, Hughes & Percy-Smith, 1994). It has been defined as a perceptual analytical process of selecting, categorising, organising and synthesising data (Coulshed, 1991).

Profiling provides information that can be helpful in determining health and social needs as well as currently provided services, skills and expertise needed to meet future needs. It can help to identify demand, implement and adapt in a practical environment (Blackie, 2000 and Bowen, et al. 2010). Profiling and needs assessment were also addressed in Liberating the Talents (DH, 2002) for nurses to know their population:

- promote principles of knowing their population;
- ensuring accessibility to those with the greatest needs;
- working with multi-disciplinary teams to tackle wider determinants of health;
- taking a public health approach and,
- easier access to health services.

The purpose of this profile encompasses these aspects as the population that utilises the local urgent treatment walk in centre for minor injury and illness has not been previously studied for unhealthy behaviour and also for proof of concept.
3.3.1. Ethical considerations and ethical approval

Ethical principles laid down in the Declaration of Helsinki (World Medical Association, 2013) were considered in the protection and safeguarding of participants including their identifiable data, with care taken to remove any identifiable data. Ethical responsibilities and legal rights have to be considered in all research, namely, protection, confidentiality and ensuring that the study is not traceable back to participants (Cormack, 2000).

Participants have the right to autonomy, human dignity and right to consent (Burns & Grove, 1997) and should ideally be provided with an information leaflet providing them with all the information they need about the study, what it is about, what they can expect, their rights to withdraw and implications should they wish to withdraw (Morse & Field, 2002). Participants were made aware and invited to the study on a displayed electronic board, invitation posters on the doors, reception desks, and verbally. Patient information leaflets were provided with each booking in form with time to read and opportunity to ask questions.

To apply for NHS ethical permission, an Integrated Research Application System (IRAS) form was completed and submitted online in June 2015, together with the required supporting documentation with consequent generation of a REC reference number. The study was deemed lower risk, suitable for Proportionate Review and NHS Ethical approval was granted in June 2015 with three minor changes (appendix 1). Clinical governance was obtained from Care UK as the study site, and the local CCG for Portsmouth, Fareham, Gosport and South Eastern Hampshire Clinical Commissioning Group as the commissioners of the services at St Mary’s NHS Treatment Centre (appendix 2). Phase I only involved adapting the mandatory booking in form to include screening for smoking, alcohol, weight and height (table 3.2); there was no other intervention.

<table>
<thead>
<tr>
<th>Table 3.2 Adapted and added mandatory booking in form</th>
</tr>
</thead>
<tbody>
<tr>
<td>What is your approximate weight?</td>
</tr>
<tr>
<td>Do you smoke?</td>
</tr>
<tr>
<td>No</td>
</tr>
<tr>
<td>What is Your Alcohol Unit intake per week</td>
</tr>
<tr>
<td>We would like to use some of your non identifiable data for research purposes, do you consent?</td>
</tr>
</tbody>
</table>
3.3.2. Setting and population
The local urgent treatment walk in centre for minor injury and illness was described in the background chapter. It is situated in the centre of Portsmouth, easily accessible to the public with no pre-booked appointments is open daily from 07:30 in the week and 08:00 over the weekend and bank holidays and closes at 22:00 attending to presenting clients of all ages. Clients present to the reception desk and are given a mandatory booking in form to complete and return to the receptionist. Collected data in the mandatory booking in form includes client demography, registered GP surgery, mode of transport, reason for attendance, medical history, medication history and allergies.

Booking in data is transferred onto ADASTRA medical software by reception staff, after which they are called by a nurse practitioner for consultation.

Mandatory booking in form was adapted as illustrated in table 3.2 above by adding health promotion screening questions at the bottom of the back of the form for all clients aged 16 and above (appendix 4 for full booking in form).

3.3.3. Training of staff
This was the first research project in this centre. Training sessions were conducted by the chief investigator with each member of staff. Research process was presented which took about 10-15 minutes and staff were also handed a flow chart and a hard copy of the power point presentation.

Reception staff were asked to attach the research information leaflet to all adult mandatory booking in forms and just let clients know that it was about a research project that the nurse practitioners were conducting. All staff members were shown the research paperwork and the collection boxes specifically for data collection period. Nurse practitioners were asked to screen clients that had not completed the booking in form, after which all paperwork was to be stored in the research forms collection box.

3.3.4. Sampling framework and sample
Adapted booking in form was handed out to every presenting client aged 16 years and over, however the sample of interest was aged between 16 and 75 years. Decision to choose a minimum of 16 years of age was based on a lifestyle survey conducted in 2011 that revealed that 40% of adult smokers had started smoking on a regular basis by the time they turned 16 (Office of National Statistics, 2013).
In addition, while the study focuses on non-accidental premature deaths (before the age of 65), the age range was extended to 75 as it was felt that some 75 year olds are still very active and can still modify their lifestyle (DH, 2014a).

3.3.5. Eligibility Criteria
3.3.5.1. Inclusion criteria:
   a. Adults aged 16 to 75 with full capacity to consent.
   b. English speaking clients due to limited access to interpreter services for a self-funded project, who would be able to complete their mandatory booking in form.

3.3.5.2. Exclusion criteria:
   a. Children and young people under the age of 16.
   b. Adults with learning disabilities and people with mental health conditions under the mental capacity act of 2005 as they may not have full capacity.
   c. Emergencies namely cardiac related presentations.
   d. Holiday makers.
   e. Non-English reading clients due to limited access to interpreter services.
   f. Adults over 75.

3.3.6. Recruitment
All clients over the age of 16 were handed the mandatory booking in form and a participant information leaflet on arrival. On completion, clients returned the booking in form to reception desk. There was no other intervention or active recruitment. Routine consultation took place.

3.3.7. Data Collection
Data collection commenced on the 1st July until 31st July 2015 for Phase I of the study. Following registration on ADASTRA, a client is called in for initial consultation by a nurse practitioner. It is mandatory for nurse practitioners to ask about allergies, medical and medication history as part of both consultations. The difference was the three additional health promotion screening questions.
Additionally, a template was created by IT with approval from the service manager to include health promotion screening on ADAstra (table 3.3). Nurses were expected to input the smoking status, weight, height and alcohol intake into ADAstra separate to the booking in form.

This was also to aid input of data for clients that had not self-declared. Nurse practitioners had to verbally ask the three questions to input into ADAstra. Questions on the computer ADAstra CQUIN template read:

<table>
<thead>
<tr>
<th>Table 3.3 ADAstra CQUIN installed template on the computer</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Do you smoke</strong></td>
</tr>
<tr>
<td>advice offered</td>
</tr>
<tr>
<td>advice accepted</td>
</tr>
<tr>
<td>referral offered</td>
</tr>
<tr>
<td>referral made</td>
</tr>
<tr>
<td><strong>Alcohol intake per day</strong></td>
</tr>
<tr>
<td>advice offered</td>
</tr>
<tr>
<td>advice accepted</td>
</tr>
<tr>
<td>referral offered</td>
</tr>
<tr>
<td>referral made</td>
</tr>
<tr>
<td><strong>Weight, Height</strong></td>
</tr>
<tr>
<td><strong>BMI is automatically calculated</strong></td>
</tr>
<tr>
<td>advice offered</td>
</tr>
<tr>
<td>advice accepted</td>
</tr>
<tr>
<td>referral offered</td>
</tr>
<tr>
<td>referral made</td>
</tr>
</tbody>
</table>

All data collection occurred daily as part of client presentation and consultation by a nurse practitioner. Chief investigator took full responsibility of overall data management and data handling. In absentia of the chief investigator, nurses in charge were given clear guidelines on safe handling of data by keeping all paperwork in the available research box and locked in an allocated cabinet in the manager’s office at the end of the shift. Chief investigator was available daily for the four weeks to collect all the forms, sift through and exclude booking in forms of under 16 and over 75 age group, after which all 16-75 year old booking in forms were used to collect research data.
Relevant research data were extracted from the booking in form and entered in an excel spreadsheet for the following variables: age, gender, presenting complaint, height, weight, smoking and number smoked, alcohol intake, self-completion of form and consent to use data for research, illustrated in table 3.4. On completion, the excel spreadsheet was emailed to a secure work email address which could be accessed from home.

At home the spreadsheet was downloaded and saved onto a privately used encrypted laptop. Data were then entered onto IBM SPSS (version 22) for data cleansing, coding and analysis.

**Table 3.4 Summary of research data collection variables**

<table>
<thead>
<tr>
<th>Age</th>
<th>Ethnicity</th>
<th>Gender</th>
<th>Postcode</th>
<th>Presentation</th>
<th>Smoking</th>
<th>Weight</th>
<th>Height</th>
<th>BMI</th>
<th>Alcohol units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Completed form</td>
<td>Incomplete data</td>
<td>Nurse prompted screening</td>
<td>Data use consent</td>
<td>High risk</td>
<td>Reason for Inclusion</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Smoke/Alcohol/BMI</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Smoking/Alcohol/BMI</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>No</td>
<td>No</td>
<td></td>
<td>No</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

BMI was calculated from height and weight, utilising the NHS BMI calculator. This process was completed manually by chief investigator on a daily basis. Some clients did not complete the booking in form. Details of clients that did not complete their booking in form were checked on the ADASTRA system and completed on a separate column on excel as nurse practitioner prompted screening. All other forms remained locked until end of December 2018 as per study protocol and ethical approval.

3.3.8. Data Analysis

Clients were classified as high risk if they were a smoker, consumed alcohol over the recommended units per week (28 units for men and 21 units for women at the time), if the body mass index was calculated to be 25 and more or a combination of these high risk factors. Statistical analysis included descriptive statistics illustrated in tables, figures and in text as numbers, and percentages for categorical data. Mean and standard deviation were reported for continuous data while multivariable logistic regression model and Pearson’s Chi-square test were used to test for inferences and/or associations between categorical data. All data analysis was conducted on IBM SPSS 22 and verified by the university health science senior statistician.
Chapter Three

3.4. Results

A total of 4025 clients of all ages presented during the four weeks of Phase I data collection, of whom 70% (2815) fell within the inclusion criteria (16-75) illustrated in figure 3.1.

On the booking in form 28% (774), marked the box declining for data to be used for research and 15% (420) did not answer the question, 58% (1620) consented to data use. Only 58% of the data could be analysed. A summary of results is illustrated in table 3.5:

![Figure 3.1 Consort diagram and final analysed numbers](image-url)
### Table 3.5 Summary statistics of the study

<table>
<thead>
<tr>
<th>Total presentations 0–90</th>
<th>4025</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analysed as having given consent</td>
<td>1620 (58%)</td>
</tr>
<tr>
<td>Gender</td>
<td>Male</td>
</tr>
<tr>
<td>Ethnicity: White British</td>
<td>1504 (93%)</td>
</tr>
<tr>
<td>White other</td>
<td>64 (4%)</td>
</tr>
<tr>
<td>Form completed</td>
<td>1289 (80%)</td>
</tr>
<tr>
<td>High risk behaviour total:</td>
<td>1225 (76%)</td>
</tr>
<tr>
<td>Smoking</td>
<td>203 (13%)</td>
</tr>
<tr>
<td>Alcohol</td>
<td>22 (1%)</td>
</tr>
<tr>
<td>Obesity</td>
<td>761 (47%)</td>
</tr>
<tr>
<td>Smoking and Alcohol</td>
<td>19 (2%)</td>
</tr>
<tr>
<td>Smoking and Weight</td>
<td>196 (12%)</td>
</tr>
<tr>
<td>Weight and alcohol</td>
<td>23 (1%)</td>
</tr>
<tr>
<td>Smokers</td>
<td>441 (27%)</td>
</tr>
<tr>
<td>Male</td>
<td>251 (57%)</td>
</tr>
<tr>
<td>Alcohol use: 21–25 units</td>
<td>72 (4 %)</td>
</tr>
<tr>
<td>26–30 units</td>
<td>34 (2%)</td>
</tr>
<tr>
<td>BMI- Mean (SD)</td>
<td>26.5 (6.95)</td>
</tr>
<tr>
<td>Overweight BMI 25–29.9</td>
<td>652 (40%)</td>
</tr>
<tr>
<td>Obese BMI 30 and over</td>
<td>354 (22%)</td>
</tr>
</tbody>
</table>

#### 3.4.1. Socioeconomic characteristics

Sixty six percent (1073) of the target age group (16-75) were from PO1-PO6 postcode, mode being PO4 further outlined below in figure 3.2. Importance of the post code is access to the referrals at the Wellbeing service (PO1-PO6). The Wellbeing service will accept clients for health promotion from PO1 to PO6 postcode whereas other clients PO7 onwards need to return to GP for referrals for unhealthy behaviour.
Data could be analysed for 777 males (48%) and 843 females (52%). Mean age was 42 (SD 16.08), interquartile range 59 and mode 31. Age is further compared with gender. Due to uneven distribution, age was grouped as illustrated below in table 3.6.

Table 3.6: Age group distribution

<table>
<thead>
<tr>
<th>AGE</th>
<th>TOTAL</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>16-25</td>
<td>589</td>
<td>20.9%</td>
</tr>
<tr>
<td>26-35</td>
<td>606</td>
<td>21.6%</td>
</tr>
<tr>
<td>36-45</td>
<td>507</td>
<td>18.0%</td>
</tr>
<tr>
<td>46-55</td>
<td>488</td>
<td>17.3%</td>
</tr>
<tr>
<td>56-65</td>
<td>342</td>
<td>11.1%</td>
</tr>
<tr>
<td>66-74</td>
<td>283</td>
<td>11.1%</td>
</tr>
</tbody>
</table>

A further breakdown of the focus age group is seen in figure 3.3 below:
Male gender 48% (777) was outweighed by females by 4% (843) of whom 93% (1504) were White British population, 4% (64) were other White and 3% (52) were a combination of Asian, Black, Chinese and other ethnicities (combined because of small figures), illustrated in figure 3.4 below:

![Figure 3.4 Population ethnicity of presentations](image)

---

**Figure 3.3 Distribution of gender and age**

![Figure 3.3 Gender and age distribution](image)
3.4.2. Summary of presenting illnesses and injuries
Clients presented with a number of different ailments ranging from minor to major, including simple finger lacerations, viral infections and skin conditions, further illustrated in figure 3.5. Cardiac events and other emergencies presented despite advice to attend Emergency Department for non-minor injuries and illnesses (Care UK, 2015). Majority of presentations were upper and lower limb injuries 40% (1122) followed by 9% (246) of respiratory illnesses, viral and bacterial illnesses. Presentations are reported as it is known that GP surgeries are not contracted to manage injuries including lacerations, head injuries and burns (NHS England, 2015b).

![Presenting Complaint grouped](image)

*Figure 3.5 Summary of presenting injuries and illnesses*

3.4.3. Self-declaration of unhealthy behaviour
Eighty percent (1289) of clients completed their subjective unhealthy behaviour (smoking, alcohol and weight/height) questions and of those that did not complete, 16.2% noticeably stated that weight or height was “not known”, weight/height was left blank, or “too much weight”.

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Chi-square test analysis did not illustrate any association between presenting complaint and incomplete form, nor did a logistic regression model reveal any association when it was run with “completed” as a dependent variable, age and gender as covariates to explore association in incomplete forms.

3.4.4. Overall unhealthy behaviour and ethnicity
Seventy six percent (1225) of clients were found to have unhealthy behaviour from either smoking, being overweight/obese or overuse of alcohol, illustrated below in figure 3.6:

![Ethnicity and Unhealthy behaviour](image)

*Figure 3.6 Ethnicity and unhealthy behaviour*

3.4.5. Overall unhealthy behaviour
Chi-Square was run to explore associations between individual unhealthy behaviour (smoking/BMI/alcohol) with age and gender as controlling factors. There was a higher rate of smoking among younger people; conversely, there was no particular correlation between age, gender, alcohol and being overweight/obese illustrated in figure 3.7.
3.4.6. Individual unhealthy behaviour

3.4.6.1. Smoking

About 27% of the clients were smokers. There were more male smokers 57% (251) compared to female smokers 43% (190), 12% of whom were smoking an average of 10-19 cigarettes per day.

Of 27% of clients that declared themselves as smokers, 28% smoked on a regular basis, 4% (56) were occasional smokers and less than 1% (7) were e-cigarette smokers. Smoking of tobacco was further grouped into age groups and quantity smoked, however, the study did not concentrate on the quantity of smoking, merely smoker and non smoker (table 3.7):
Table 3.7 Age and quantity of cigarettes smoked per day.

<table>
<thead>
<tr>
<th>AGE ANDQUANTITY SMOKED</th>
<th>1-9</th>
<th>10-19</th>
<th>20-29</th>
<th>30-49</th>
<th>+40</th>
<th>OCCASSIONAL</th>
<th>E-CIG</th>
</tr>
</thead>
<tbody>
<tr>
<td>16-25</td>
<td>68  (2.4%)</td>
<td>85  (2.8%)</td>
<td>16  (0.4%)</td>
<td>1  (&lt;0.0%)</td>
<td>3  (0.1%)</td>
<td>26  (0.9%)</td>
<td>1  (&lt;0.0%)</td>
</tr>
<tr>
<td>26-35</td>
<td>47  (1.5%)</td>
<td>93  (3.3%)</td>
<td>30  (1.0%)</td>
<td>3  (&lt;0.0%)</td>
<td>2  (&lt;0.0%)</td>
<td>41  (1.2%)</td>
<td>6  (0.1%)</td>
</tr>
<tr>
<td>36-45</td>
<td>34  (1.2%)</td>
<td>65  (1.2%)</td>
<td>25  (1.0%)</td>
<td>1  (&lt;0.0%)</td>
<td>2  (&lt;0.0%)</td>
<td>20  (0.7%)</td>
<td>3  (&lt;0.0%)</td>
</tr>
<tr>
<td>46-55</td>
<td>16  (0.5%)</td>
<td>61  (2.1%)</td>
<td>34  (1.1%)</td>
<td>3  (&lt;0.0%)</td>
<td>0  (&lt;0.0%)</td>
<td>16  (0.5%)</td>
<td>2  (&lt;0.0%)</td>
</tr>
<tr>
<td>56-65</td>
<td>10  (0.4%)</td>
<td>16  (0.5%)</td>
<td>16  (0.5%)</td>
<td>0  (&lt;0.0%)</td>
<td>0  (&lt;0.0%)</td>
<td>10  (0.4%)</td>
<td>0  (&lt;0.0%)</td>
</tr>
<tr>
<td>66-75</td>
<td>6   (&lt;0.0%)</td>
<td>11  (0.3%)</td>
<td>2   (&lt;0.0%)</td>
<td>0  (&lt;0.0%)</td>
<td>0  (&lt;0.0%)</td>
<td>7   (0.1%)</td>
<td>0  (&lt;0.0%)</td>
</tr>
</tbody>
</table>

There was a decline in numbers of smoking as age increased, illustrated in figure 3.8 below with a correlation co-efficient of 0.61, illustrating a somewhat moderate negative correlation. Compared with non-smokers, smokers had 27% increased odds of high risk behaviour [OR: 28.86, 95% CI (13.51 to 62.63).
3.4.6.2. Overweight and obesity

BMI was chosen in this centre as it is less invasive, more self reported, quick and easy to use. WHO BMI guidelines (25 to 29.9 observed as overweight, 30 and above regarded as obese) were used to make inferences. Mean weight, height and BMI were tested.

Results revealed that in this population, mean weight was 77.63 kg (SD 20.25), mean height 1.72 m (SD 1.53) and mean BMI 26.51 (SD 6.95), indicating that the average local research study population is overweight, 40% had a BMI of 25-29.9, of whom 46% were male and 36% female. There was a difference in gender with wider spread obesity among female from the BMI of 30 and above compared to male. Thirteen percent (214) had a BMI between 30 and 35, with 13% being male and 15% female, 6% (92) had a BMI between 36 and 40, with 5% male and female 7%, while 2% (31) had a BMI between 41 and 45. BMI above 46 was 1% (17), higher among female from Chi Square analysis. Odds ratio for having a higher BMI for male compared to female were 1.11 (CI .839-1.51) indicating that the odds of having a high BMI are the same for both male and female illustrated in figure 3.9:

![Figure 3.9 Gender and body mass index](image_url)

Chi-square was run to test if there is any relationship between age and BMI. There was no statistically significant association between age and BMI, Chi- Square 30.99, p =.662. BMI by age group is presented in figure 3.10 below:
3.4.6.3. Alcohol intake

Alcohol figures were much more challenging to collect as a lot of the clients and nurse practitioners did not understand the units and question was ambiguous (what is your weekly alcohol intake 0, 1-5, 6-10, 11-20, 21+) and on the ADASTRA computer system it was worded as daily units. Calculation of units was based on NICE and Department of Health calculators that recommended less than 21 units for women and 28 units for men per week at the time.

It was found that 47% (761) consumed between 1-5 units of alcohol per week, alcohol intake between 6 and 10 units were consumed by 3% (54), 5% (82) consumed between 11 and 15 units, while 3% (46) consumed over 16-20 units and 10% (159) consumed 21 to over 30 units of alcohol per week. An increased alcohol unit intake was associated with increased odds of unhealthy behaviour. Age group and alcohol intake is illustrated in figure 3.11 below:
Gender and alcohol intake was further compared as illustrated below in figure 3.12. There is a slightly higher alcohol intake among males compared to females. Fifty two males (3.2%) consumed between 11 and 15 units compared to 30 females (1.9%), while 31 males (1.9%) consumed between 16-20 units per week compared to 15 females (0.9%). Males 47 (2.9%) continued to have higher alcohol consumption between 21-25 units compared to females 25 (1.6%) while 64 males (4.0%) consumed 26 units or more compared to 21 females (1.3%) with as many as 39 males (2.4%) compared to 12 females (0.7%) consuming over 30 units of alcohol per week.
3.4.7. Combined unhealthy behaviour

Analysis run on SPSS revealed that some clients had more than one of the three unhealthy behaviours. Further analysis was run to combine and compare these combined behaviours. Just over 12% were found to be both smokers and overweight or obese and 2% were smokers that also overused alcohol. A further 1% of those that were overweight/obese also overused alcohol, illustrated in figure 3.13. Males outweighed females in unhealthy behaviour.

![High risk behaviour and gender](image)

*Figure 3.13 All unhealthy behaviour and gender*

Logistic regression models were run to explore associations between unhealthy behaviour, ethnicity, age and gender. There was no association found between ethnicity and unhealthy behaviour. Regardless, it would have been an unbiased calculation as 93% of the population were white British. After adjusting for age and gender, analysis suggests that smoking is a factor significantly associated with unhealthy behaviour. Analysis suggests that the male gender is associated with an increased odds of high risk behaviour compared to females ($p= 0.037$). There were more male smokers (57%) compared to female smokers (43%), 12% males consumed alcohol over the recommended units compared to 4% females and 46% more overweight males compared to females (36%). There were 9 male (0.6%) smokers who overused alcohol compared to 3 females (0.2%) and 13 male (6.4%) smokers who are also overweight compared to 9 females (4.9%).

Chi Square was run to explore the association between gender, age and each of the high risk behaviours. Results suggested that there is a decline in smoking as age increases.
There was no strong association found between age, gender and alcohol intake. It was found that the odds of having a high risk behaviour reduced by gender ($p < 0.001$), females exhibited a 66% reduction of having a higher risk lifestyle compared to males ($p < .001$). However, there was a positive correlation between the increase in age and being overweight or obese despite not being statistically significant. Of 16-25 years age group, 29 had unhealthy behaviour compared to 249 between 26 and 35 years. There were 216 with unhealthy behaviour between ages 36 and 45 while 246 had unhealthy behaviour between 46 and 55 years of age. In the 56-65 years age group, 166 had unhealthy behaviour compared to 120 from the age of 66 to 75 years. Smoking is an unhealthy behaviour associated with younger age and male gender compared to other unhealthy behaviour which is varied although higher alcohol consumption is seen among males.

In summary, Phase I of the study concluded that 70% (2815) of people between 16 and 75 years of age presented to the local urgent treatment walk in centre for minor injury and illness, of whom 47% are at that crucial age (16-40 years) of choosing an unhealthy behaviour. There is a high rate (76%) of presenting clients that have an unhealthy behaviour either from smoking, being overweight or obese, overuse of alcohol or a combination of these behaviours. Portsmouth Wellbeing service report that 70% of the city’s population has unhealthy behaviour, from smoking, overuse of alcohol and obesity (Portsmouth City Council, 2016). Analysis in the sample further confirms this assumption as 76% were found to live with unhealthy behaviour. A comparison of National, Portsmouth and this study population of unhealthy behaviour revealed similar findings in comparison to the state of health of Portsmouth (Portsmouth City Council Joint Strategic Needs Assessment, 2014), illustrated below in figure 3.14.

![Figure 3.14 National, Portsmouth and Walk in centre minor injuries and illness unhealthy behaviour](image-url)
3.5. Discussion

It was found that presenting clients are similar to those that present to GP surgeries and emergency departments (Monitor, 2014) when presenting complaints were analysed. There was a higher rate of injuries compared to illness. Injuries are also less likely to present to GP surgery, as this is not part of general practice contract (NHS England, 2015b), resulting in missed opportunities for health promotion. Injuries would generally present at emergency departments, before walk in centres, minor injury/illness units.

There was a noticeably high percentage (70%) of clients between 16 and 75 years of age and a further 47% that are aged between 16 and 40 years. It is known that healthy young people are routinely called by their GP surgery between the age of 13 and 18 years as part of routine vaccination programmes, with the next routine recall being some 20 years later for over 40 years well man screening or NHS check (Public Health England, 2013).

Mode was included due to skewed data, simultaneously it has been reported that health needs of clients 40 years and over, and those under 40 may differ, as seen in GP surgery recall, NHS checks (40-47 years of age) and over 40 well man checks (NHS England, 2015b). It is well documented that unhealthy behaviour, especially smoking and alcohol intake, is higher from adolescent age (Miller et al, 2007) and in particular higher rates are seen in young males (White & Jackson, 2004). Males have further been evidenced to delay in seeking medical assistance (Murray-Law, 2011). There is a gap in service in promotion of good health and prevention of unhealthy behaviour uptake in young adults between 18 and 40 years of age.

Females have an opportunity to attend for cervical screening from the age of 25 years and also for contraception. However, it has been documented that this is a paid pre-booked service with guidance on questions to be asked as part of screening and management process. Questions about smoking and weight may come up as part of screening for the kind of contraception given rather than a proactive health promotion intervention (NHS England, 2015b).

Male and female population ratio was not that much different. This is in accordance with the population of Portsmouth that has 49.6% male to 50.4% female (Portsmouth Clinical Commissioning Group, 2014a). Over 70% of the city’s population have unhealthy behaviour (Portsmouth City Council, 2016). Analysis in this sample further confirms this assumption as over 76% were found to live with unhealthy behaviour.
Figures may not be equal for Portsmouth. However, figures remain high and from the twenty eight percent (28%) that declined for their data to be used for research, 9% were found to have unhealthy behaviour and could have benefited from a health promotion intervention. This could be due to the tick box option for permission to use data for research that some clients may not have understood.

It is likely that the local urgent treatment walk in centre for minor injury and illness could provide brief health promotion interventions as part of a consultation, an opportunity to engage young people and discourage them from the uptake of an unhealthy behaviour and an opportunity to encourage others to modify their behaviour by providing verbal and written information. These opportunities are otherwise underexploited by GP surgeries and ED.

Conclusion

The aim of Phase I of this feasibility study was to produce a profile of the rate of unhealthy behaviour, clients that would self-report unhealthy behaviours and the need to continue on to phase II of introducing brief health promotion interventions on smoking, being overweight/obese and overuse of alcohol in the local urgent treatment walk in centre for minor injury and illness that in over 10 years has been traditionally treating minor injuries and illnesses. It is concluded that there is a need and a population to proceed to Phase II as over 80% of clients accepted screening by completing the mandatory booking in form and 76% were found to have unhealthy behaviour.
CHAPTER FOUR

PHASE II: PART ONE: RANDOMISED CONTROLLED TRIAL

This chapter aims to conduct a randomised controlled trial (RCT) comparing efficacy of brief health interventions at initial or delayed standard nurse practitioner consultation in the local urgent treatment walk in centre for minor injury and illness following findings that 76% of presenting clients have unhealthy behaviour.

4.1. Aims and Objectives

- To compare efficacy of brief health promotion interventions between initial and delayed nurse practitioner consultations through referrals made to the Wellbeing service.
- To explore average time taken to engage in a health promotion intervention, to determine acceptable time.

4.2. Methodology

Ako (2004), defines a randomised controlled trial (RCT) as a controlled experiment which, when appropriately designed, conducted and reported will represent gold standard in evaluating healthcare interventions and determining causation (Schulz, Altman and Moher (2010). Randomised controlled trials follow a scientific research protocol to ensure safety and a near true reflection of the population. Protocol involves assembling a study cohort, measuring base line information, randomising subjects, applying intervention, measuring outcomes and analysing results (Ako, 2004). Investigator assigns treatment at random to assess safety and efficacy with an adequate sample size, (McGovern, Valori, Summerskill and Levi, 2001), to examine effectiveness and efficacy of an intervention (Stewart, 2007).

Efficacy and effectiveness studies are essential however the designs are not well understood. Efficacy has been defined as effectiveness or performance of an intervention under controlled settings whereas effectiveness helps in exploring social, psychological and ethical acceptability regarding the way people are treated in relation to healthcare in real-world settings (Blackwood, 2009). Flay (1986) in Glasgow, Lichtenstein and Marcus (2003), further define effectiveness as a programme to explore whether a service does more good than harm when delivered under optimum conditions.
These are characterised by strong control, standardized uniform delivery to a heterogenous target audience, making it easier to assess positive or negative outcomes of an intervention being studied. In contrast, efficacy tests interventions that are already available, with an identified homogenous target population, the participants must accept and adhere to the intervention (Singal, Higgins & Waljee, 2014). Effectiveness is highly dependent on acceptability of clients and usual service providers whereas efficacy intervention is offered by highly experienced and trained providers (Bowling, 2009). Intervention is enforced and standardised in efficacy designs, in contrast, intervention is flexible in effectiveness designs.

In this study it was established in Phase I that over 80% of clients accepted the screening process by self-declaring and completing health promotion screening questions in the booking in form. It was elected to utilise a readily available brief health promotion intervention offered to a heterogenous yet target population in a real world local urgent treatment walk in centre for minor injury and illness with self-reported unhealthy behaviour population. Bowen et al. (2010), describe intervention as any program, service policy or product that is intended to influence people’s social, environmental and organisational conditions as well as their choices, attitudes and behaviours.

There is incongruity between increasing demands for evidence-based and behavioural interventions derived from controlled efficacy trials (Green & Glasgow, 2006). In response, Bowen, et al. (2009) recommend that more studies should be conducted with interventions that fit into real-world settings with practitioners and community members involved. This scientific study was conducted in a real-world urgent treatment walk in centre for minor injury and illness with presenting clients and employed nurse practitioners with the intention to influence unhealthy behaviour and attitudes. Efficacy of the intervention will be measured by the number of referrals made to the local Wellbeing service.

The aim was to explore efficacy of brief health promotion intervention, information and leaflet at initial or delayed consultation in an urgent care walk in centre for minor injury and illness that has up to a 4 hour waiting time for consultation with a nurse practitioner (average waiting time is two to two and a half hours). Study design took years to develop as there was not enough literature to replicate an effective and efficient intervention and also in this kind of setting. Knowledge of processes in the study setting and academic support helped to develop a design that would cause less disruption and yet engage all clients with unhealthy behaviour. It was essential to ensure that all clients living with unhealthy behaviour had the chance of being included in the study. Ethical implications by comparing intervention with standard treatment (management of presenting injury/illness only) had to be considered as the epidemic of long term conditions needs to be reduced.
With all these factors taken into consideration, it was made possible to include all adults (16-75) with unhealthy behaviours; the only difference was that it was either at initial or standard consultation.

This was a single study in urgent treatment walk in centre for minor injury and illness, concealed to clinical practitioner and client participant with two parallel study arms, either intervention at initial assessment with comparator as intervention at delayed standard full consultation.

Study arms were equally located. There was no change in the allocation during the study period.

4.2.1. Hypothesis
Theory was based on waiting time in that early brief health promotion intervention and written information leaflet provided at initial consultation within 20 minutes of arrival will have an impact on encouraging behaviour modification while a client was waiting to be called by a nurse practitioner for full consultation (10-240 minutes) as they had time to read, think and process information.

*Null hypothesis* ($H_0$) was that there is no difference in the proportion of participants that seek referral to health promotion organisations between the intervention (initial) and the comparator (delayed) groups.

*Alternative hypothesis* ($H_1$) was that a difference existed between the two groups.

Reason for choosing the alternative hypothesis was due to the belief that the immediate provision of the intervention (talk and leaflet) will aid participants to consider the information and take up the offer of referral to the Wellbeing service. An intention to treat analysis was used in the randomised controlled trial. This was chosen because it provides an unbiased estimate of the intervention effect and reflects much closer what occurs in practice.

4.2.2. Population and Sampling framework
Population for this study was purposively selected from 16 to 75 year old clients that self-reported unhealthy behaviour (smoker, overweight or overuse of alcohol) on their mandatory booking in form who had presented to the local urgent treatment walk in centre for an injury or illness. Sample is a combination of simple random sampling method and quota framework.
It did not conform to traditional random probability sampling as suggested by Morse and Field (2002) sampling should be appropriate and adequate, derived from identifying and utilising participants that will best inform the research question.

4.2.3. Eligibility
4.2.3.1. Inclusion criteria
* Adults aged 16 to 75.
* Self-reporting clients who smoke, overuse alcohol (21-28 units per week) and are overweight or obese (body mass index 25 and over).
* English speaking clients.
* Local clients that could be referred.
* Consenting clients with full capacity.

4.2.3.2. Exclusion criteria
* Adults with learning disabilities and people with mental health conditions under the mental capacity act of 2005 as they may not have full capacity.
* Clients who are already accessing some form of service through GP health promotion services or community pharmacies, Slimming World, Weight Watchers and others.
* Clients that present with chest pains, severe acute illnesses and other emergencies that necessitate immediate transfer to the main local hospital emergency department or speciality, namely surgical, medical and others.
* Adults that are already on secondary health services (pregnancy, long term conditions, rehabilitation and such) as unhealthy behaviour should be addressed in these services.
* Holiday makers, travellers and clients from Europe and outside Hampshire.

4.2.4. Proposed intervention
Arm A - immediate intervention, (healthy conversation about risky lifestyle behaviour), information, assess for readiness to modify behaviour, written leaflet on specific behaviour and offer of referral within 20 minutes at initial consultation.
Arm B - no intervention at initial consultation but intervention (healthy conversation about risky lifestyle behaviour), information, assess for readiness to modify behaviour and written information leaflet on the specific behaviour during full consultation (10 minutes-240 minutes waiting time from initial assessment).

Consistency in intervention was important while taking into consideration individuality of clients and nurse practitioners.

4.2.5. Outcomes:
Primary Outcome: Number of referrals made to the Wellbeing service.

Secondary Outcome: Time taken to engage in healthy conversation.

4.2.6. Screening, recruitment and consent
Selection of participants was based on unhealthy behaviour, self-declared by clients that smoke, over use of alcohol (21 units for female and 28 units for male per week) and Body Mass Index (BMI) of 25 and more. Posters were made available in the waiting room notice boards and electronic display, inviting clients to participate. All clients that were aged 16 and over were provided with a participant information leaflet that they could read while awaiting paperwork (booking in form) to be processed and to be called for initial assessment by a nurse practitioner. Process of booking in clients can take 10 - 30 minutes; it can take up to an hour or more if there are a lot of clients and only one receptionist is available. Receptionists attached a research checklist to booking in forms for all clients that were aged 16 years and over.

A nurse practitioner called the client to do initial assessment (immediate initial consultation) of the presenting complaint, went through client’s self-completed booking in form with client and invited client to take part in the study if they fell within inclusion criteria based on self-reported data. Only when seen for initial consultation by a nurse practitioner were clients verbally screened and invited to take part in the study by the nurse practitioner. Clients that agreed to participate were helped to address any further questions, assurance of anonymity, requested to sign two consent forms (appendix six), a copy for them to keep and a copy for researcher. One copy went into a sealed “data collection box” following which clients were randomised based on the next selected randomly placed sealed white envelope taken out of a box marked randomisation envelopes.
Clients that were unwilling to take part in the study received normal assessment and management of their presenting complaint. Clients were not asked to provide a reason for non-participation. Nurse practitioners were to complete the research checklist for all clients aged between 16 and 75 regardless of health behaviour.

4.2.7. Randomisation and concealment
Randomisation is essential to ensure precision and accuracy (McGovern, et al., 2001) and to remove confounders and bias, in particular selection bias (Stewart, 2007). Randomisation was attempted as much as practically possible but random numbers could not be electronically generated. ADAstra is a shared health care software in the South West of the country that generates a number for all clients that are booked in around the South West for all age groups and all organisations that use it including district services, dental services, out of hours and 111 services.

Randomisation based on ADAstra set up and generated case numbers would not enable identification of only adults (16-75), adults with unhealthy behaviour and or adults in Portsmouth urgent treatment walk in centre for minor injury and illness setting only. Manual letters A, and B, 204 in total, were generated, glued on an A4 sheet, folded in half, inserted in white envelopes, sealed and placed in a box titled “Randomisation Envelopes” in the initial consulting room. Screening, consent and randomisation took place in this room during initial consultation. There was a tray for consent forms, one for participant questionnaires, a box with randomisation envelopes, a box for research checklist and a box for all collected paperwork, all titled. Following signed consent, nurse practitioner took by hand from randomisation box one of 204 randomly placed, sealed envelopes and opened it to randomise client into either Arm A, or B depending on selected envelope. Sealed envelope ensured that participants and clinicians were both concealed to randomisation until an envelope was opened. Participants and nurses were aware of the study but not aware of study arm until an envelope was opened.

If participant was randomised into A they got immediate intervention, assessment of readiness to behaviour change, healthy conversation, offer of referral and written leaflet by attending practitioner. On exiting, participants were requested to complete a questionnaire. If participant had been randomised into Arm B, they were thanked for participation and sent back to the waiting room for a full consultation by a nurse practitioner and they had health promotion intervention during full consultation. All groups had similar parallel interventions at two different consultations.
Nurse practitioner was to attach consent form, completed research checklist on booking in form and also questionnaire if this had been handed back to them to keep forms together. All research paperwork was placed in collection boxes which were situated in three different stations, initial assessment room, exit door and nurses work station.

4.2.8. Sample size and calculation
A feasibility study does not require a specified sample, however a randomised controlled trial (RCT) does. Primary outcome for the randomised controlled trial was the number of referrals made to the local Wellbeing service. It was a challenge calculating the sample size due to lack of literature in this field. Seventy six percent were found to have unhealthy lifestyle choices in Phase I. There were no studies to compare or calculate from based on the primary outcome “Referrals made”. D’Onofrio and Degutis, (2010) reported 30% in their referrals for alcohol and drug intervention in emergency department while Crone, Johnston, Gidlow et al., (2008), reported 33% referrals as end points in their study referring for physical activity in their sample of participants with mental ill-health. These previous studies indicated the level of referral uptake to be less than 40% (30-33%) thus a difference of 20% was wished to be detected in this sample. Estimated minimum sample required was calculated using a level of statistical significance (α) set at 0.05, signifying that a final p<0.05 would be accepted as evidence against the null hypothesis. Power was set at 80%, setting type II error (β) to 20%. Based on set factors, minimum total sample size was calculated to be 190 participants (95 in each arm) to achieve the primary objective, 7% was added to make up for anticipated attrition, increasing sample size to 204, that is 102 in each arm, practical in these setting that sees over 180 adults per day. Sample size calculation was done with the help of a statistician.

4.2.9. Ethical Considerations
Ethical responsibilities and legal rights have to be considered in all research, namely, protection and confidentiality of clients, justice and beneficence, ensuring that the study is not traceable back to participants (Cormack, 2000).

Declaration of Helsinki

Ethical principles laid down in the Declaration of Helsinki as the cornerstone of research ethics were considered in the protection and safeguarding of participants in this study.
Guidelines for good clinical practice

Good clinical practice guidelines were considered as the study involves humans. The study was deemed low risk as the intervention exclusively required self-reported screening, a brief health talk, offering referral and handing out health and well-being written information.

Nurse practitioners were trained by chief investigator on brief health promotion delivery and integration of the intervention into practice. Further training was done on the research process and data handling. Research process was monitored by chief investigator, university supervisors, unit managers and hospital director to ensure that good clinical practice guidelines were adhered to. An online introductory secondary care course was undertaken via NHS ethics website.

Belmont Principles:

Principles of respect, beneficence and justice were of most importance in this study. The desire was to help clients that may not have been aware that there is a potential problem or future problems, accessibility to information and help to access free services that they were not aware of. Beneficence was seen as the core principle in this study.

Participants must be protected from harm and human rights must be protected, the right to autonomy, respect for human dignity, consent and confidentiality must all be considered (Burns & Grove, 1997). Participants should ideally be provided with an information leaflet providing them with all the information they need about the study, what it is about, what they can expect, their rights to withdraw and implications should they wish to withdraw (Morse & Field, 2002). Participants have a right to refuse to participate in research and they have a right to withdraw (Polit & Beck, 2008).

Research principles were taken into consideration throughout the development of the proposal and progress into data collection by safeguarding clients while causing the least disruption and delay to their visit at the local urgent treatment walk in centre for minor injury and illness. Participants were made aware and invited to take part in the study on a displayed electronic board, invitation posters on the doors, reception desk, written participant information leaflet, and verbally. Each adult was handed out a participant information leaflet together with the mandatory booking in form on arrival, regardless of health behaviour. Participant information leaflets were handed out by reception staff, provided on arrival with consideration to take part in the study, time to read and opportunity to ask questions from the consulting nurse practitioner while the client waited to be booked onto the ADASTRA computer system and initial consultation.
A non-judgemental brief health promotion intervention talk and handing out written information was an addition to traditional consultation that each presenting client is expected to have. Beneficence was also evidenced in useful oral and written information. Intervention of brief health promotion was to add to quality of life with no intention to cause any physical or psychological harm. Consent and written consent was voluntary by participants and they were assured of anonymity and confidentiality and that data used would be non-identifiable and non-traceable.

Weight scales in kilograms and height gauge were the only apparatus made available for any client or participant who requested a measurement to be taken. A client that consented to take part had an intervention and management of their presenting problem with the same practitioner, there was continuity.

All data collection occurred at the urgent treatment walk in centre for minor injury and illness which already gets regular safety assessments including unscheduled visits from the CCG (Clinical Commissioning Group), Health Watch, CQC (Care Quality Commission) and management. Only non-identifiable data were extracted from the mandatory booking in form and ADASTRA. Non-participation did not affect the rest of the consultation for presenting injury or illness.

Booking in forms and all other research paperwork, including consent forms, were and remain locked in a filing cabinet in the unit. Ethical application was made to store paperwork for three years, which lapsed in June 2018. Participants that requested referral to the Wellbeing service were advised on personal data that would be used to make the referral (name, date of birth, address, contact number and GP surgery) on a form that was emailed on a secure NHS to NHS webmail address; this was only for referrals made.

A professional doctorate research proposal was successfully peer reviewed at the University of Portsmouth, School of Health Sciences and Social Work. An Integrated Research Application System (IRAS) form was completed and submitted online in June 2015, together with the required supporting documentation with consequent generation of a REC reference number 15/NI/0123. The study was deemed lower risk, suitable for Proportionate Review. NHS Ethical approval was granted in June 2015 with two minor changes, one was the removal of a sentence on the poster and change of date on the consent form. Clinical governance was obtained from Care UK as the employer and study site, and the local CCG for Portsmouth, Fareham, Gosport and South Eastern Hampshire Clinical Commissioning Group as the commissioners of the services of the Treatment centre. Randomised controlled trial was retrospectively registered in July 2017 with Biomedical Central (BMC).
BMC is part of Springer Nature that enables researchers to publish and share research data. Following registration and payment with BMC, the study was registered and published on the ISRCTN website with a generated registration number ISRCTN77954447. ISRCTN registry is a primary clinical registry recognised by WHO and International Committee of Medical Journals Editors (ICMJE) and International Clinical Trials Registry Platform (ICTRP) that accepts and publishes all clinical research studies.

4.2.10. Patient and public Involvement
Patient and public involvement (PPI) in research has been described as research being carried out with or by members of the public rather than to, about or for them. It includes working with research finders to prioritize research and offering advice as members of a project steering group. It also includes commenting on and developing research material, undertaking interviews with research participants (National Institute for Health Research, Involve, 2017). The term public is used to include patients, potential patients, carers, and people who use health and social services as well as people from organisations that represent people who use services. It was learnt that there is an important distinction to be made between perspectives of the public and perspectives of people who have a professional role in health and social services. Patient and public health involvement safeguards interest and protection of patients and public and ensures that research is well managed, meeting high quality and ethical standards (Health Research Authority, 2013). Engage (2015), University of Portsmouth Public and Patient involvement group was approached for their input in the design of the study. Invitation poster, participant information leaflet and participant questionnaire were emailed to them. Suggestions, advice and minor changes were recommended by five members and were addressed on the questionnaire.

INVOLVE, established by National Institute for Health Research in 1996 to support active public involvement in the NHS, public health and social care research, was accessed and the study proposal was submitted online. Their role as an advisory group is to bring together expertise, insight and experience in the field of public involvement in research. (INVOLVE, 2017). Study protocol was registered, approved and published on their website, this was important as part of dissemination and exposure.
4.2.11. Assessment of safety
Continuous daily risk assessments occur in the unit. Every nurse in charge of the shift has a responsibility for patient safety and dealing with complaints. Lead nurse, nurse in charge and unit manager are in the unit daily to ensure safety of clients. In addition, the chief investigator was also present daily to ensure smooth running of the research process and ensure minimal disruption and delays because of the research. Research protocol was made available to management and staff including the local commissioning group (CCG). Protocol was placed in the nurses’ station, initial consulting room and an information island that is frequently used by nurse practitioners for various reasons. A flow chart of the research process was made available in all consultation rooms.

4.2.12. Data handling and management
Chief investigator had overall responsibility for data collection, handling and management of all research related paperwork. At the end of each participant consultation, nurse practitioner paper clipped all forms together and put those in a box named “All collected research forms”. Chief investigator collected all this paperwork. Only chief investigator and two supervisors had access to collected data. Chief investigator had full responsibility of pulling out all data for clients aged 16 to 75 from hard copy booking in forms, extracting relevant research data that was then transferred manually onto electronic documents specifically Microsoft word and Excel. All booking in forms, study protocol, consent forms, referral forms, participant questionnaires, transcripts and all research paperwork remained in a locked cupboard for the next three years (July 2015 to December 2018).

4.2.13. Data Collection
Phase II commenced on the 1st August to the 16th December 2015. Nurse practitioners collected forms as they finished with each participant (consent form, information leaflet, checklist, and questionnaire); they were all attached and put in a sealed labelled box. All adult clients’ booking in forms had a research checklist that each nurse practitioner was supposed to attach and complete for every client between 16 and 75 years of age, with or without unhealthy behaviour. Intervention ended at the end of consultation with the practitioner, with no follow up. Chief investigator collected all paperwork and managed as per protocol; all soft data input was entered on Excel. Excel spreadsheet was emailed from work to home email address enabling it to be downloaded and saved onto a personal encrypted laptop. IBM SPSS version 22 was then used to input data from excel for ease of data cleansing and analysis.
All referrals were emailed by reception staff, using secure NHS emailing site and referral forms were given back to chief investigator for auditing and research.

4.2.14. Statistical methods and data analysis
All data analysis was conducted on IBM SPSS version 22. Analysis was conducted by chief investigator, a report was generated and followed by verification by health studies senior statistician. Descriptive statistics were performed and reported as numbers and percentages for categorical data and as means (SD) for continuous data. Pearson’s Chi-Square test was used for categorical data to determine statistical associations between study characteristics. For continuous data, independent t-test/Mann Whitney tests were run to test statistical associations between groups.

4.3. Results
Around 35402 clients of all ages presented in the 6 months that data collection took place, of whom 70% (21236) were aged between 16 and 75 of age, the study focus. Exclusion of clients is illustrated below in figure 4.1.

---

**Figure 4.1 Consort diagram of client disposition**
Of 21236 clients between ages of 16 and 75 years, 32% (6836) did not have unhealthy behaviour or fall within inclusion criteria, thus they were excluded. Five percent (1040) were discharged at initial consultation stage either with dental problems or redirected, thus not given opportunity to be invited. Less than a third, 18% (3822) of presenting clients did not complete subjective lifestyle questions on the mandatory booking in form (do you smoke, weight/height and alcohol consumption). Seven clients with mental ill-health were excluded while 18 clients were excluded because they were holiday makers.

Nurse practitioners recorded that 259 clients declined to take part. This data were manually checked by chief investigator on the booking in forms and ADASTRA medical software as a number of the research checklist forms were not completed, (appendix 8). Over 38% (8150) are not accounted for as clients were either not invited to the study, were not screened or got traditional consultation. There is no record despite 28% that had unhealthy behaviour on the booking in form. This information is not known as nurse practitioners only recorded on 1104 of the mandatory research checklist forms (appendix 8).

This left 1104 clients whose forms were completed and presented in the table below. From 1104 clients, 82% (900) were excluded for various reasons. Based on completed checklists, 38% (424) clients were “healthy”, thus, excluded from the study, 1% (16) clients were excluded because they were either deaf, blind or there was a language barrier. Two percent (14) were further excluded as they were holiday-makers, eight clients were excluded as emergencies and seven clients were excluded as they had mental ill-health. Nurse practitioners recorded that they overlooked to invite sixty seven clients. Six clients were excluded as they were redirected at the initial consultation stage, 2% (23) were already under secondary care thus within the exclusion criteria. Seventy clients were discharged at initial consultation. A further 7% (259) declined to take part in the study. Feedback from nurse practitioners reported that clients declined to take part because they thought that there was another task they had to perform, somewhere else to go to or return for intervention and they stated that they (nurse practitioners) did not have time to explain to clients that there was no other intervention involved. Fifty nine percent of the 259 clients (154) that declined to participate had unhealthy lifestyle choices on checking the booking in form. One percent (6) were excluded as they had not been given a participant information leaflet by reception staff. This left 204 clients that were successfully recruited to the study.

Exclusions left 18% (204) participants that were successfully recruited to the study with completed paperwork.
All recruited participants completed the randomised controlled trial which ended at end of consultation with a clinician; they were all accounted for at the end of the study. Clients with unhealthy behaviour that were excluded from the study and reasons for exclusion if available from completed check lists are illustrated in table 4.1.

Table 4.1 Clients with high risk behaviour excluded from study on completed checklist

<table>
<thead>
<tr>
<th>Exclusion</th>
<th>N</th>
<th>Smoke</th>
<th>Weight</th>
<th>Alcohol</th>
<th>Weight &amp; Smoke</th>
<th>Smoke &amp; Alcohol</th>
<th>Weight &amp; Alcohol</th>
<th>All 3</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Healthy</td>
<td>424</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>424</td>
</tr>
<tr>
<td>Deaf</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Blind</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Language</td>
<td>14</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>14</td>
</tr>
<tr>
<td>Holidays</td>
<td>14</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>14</td>
</tr>
<tr>
<td>Emergency</td>
<td>8</td>
<td>4</td>
<td></td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>8</td>
</tr>
<tr>
<td>Mental Ill-health</td>
<td>7</td>
<td></td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>7</td>
</tr>
<tr>
<td>No waiting time</td>
<td>6</td>
<td>1</td>
<td></td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Secondary care</td>
<td>23</td>
<td>3</td>
<td>10</td>
<td>2</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td>23</td>
</tr>
<tr>
<td>Initial assessment</td>
<td>70</td>
<td>15</td>
<td>21</td>
<td>1</td>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td>70</td>
</tr>
<tr>
<td>Client declined</td>
<td>259</td>
<td>43</td>
<td>63</td>
<td>5</td>
<td>21</td>
<td>13</td>
<td>4</td>
<td>5</td>
<td>259</td>
</tr>
<tr>
<td>Incomplete form/not invited</td>
<td>67</td>
<td>13</td>
<td>25</td>
<td>2</td>
<td>5</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>67</td>
</tr>
<tr>
<td>PIS not given</td>
<td>6</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Total</td>
<td>900</td>
<td>80</td>
<td>129</td>
<td>10</td>
<td>42</td>
<td>17</td>
<td>5</td>
<td>10</td>
<td>900</td>
</tr>
<tr>
<td>Enrolled to RCT</td>
<td>204</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>204</td>
</tr>
</tbody>
</table>

Of total sum of 204 participants enrolled in the study, 101 (49%) were male and 103 (51%) female illustrated in figure 4.2.
Table 4.2 provides a summary of the randomised controlled trial study variables. Age, gender, unhealthy behaviour and referral analysis in study arms is summarised.
Table 4.2 Summary statistics in study arms

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Male</th>
<th>Female</th>
<th>A (n=102)</th>
<th>B (n=102)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age mean 40 (SD 14.8)</td>
<td>40</td>
<td>40</td>
<td>37 (14.1)</td>
<td>42 (15.3)</td>
<td>204</td>
</tr>
<tr>
<td>Age mode 34</td>
<td>34</td>
<td>34</td>
<td>26</td>
<td>43, 55</td>
<td>204</td>
</tr>
<tr>
<td>Gender male</td>
<td>101</td>
<td>103</td>
<td>51 (50%)</td>
<td>50 (49%)</td>
<td>204</td>
</tr>
<tr>
<td>Gender female</td>
<td></td>
<td></td>
<td>51 (50%)</td>
<td>52 (51%)</td>
<td></td>
</tr>
<tr>
<td>Smoker</td>
<td>31</td>
<td>20</td>
<td>25 (25%)</td>
<td>26 (25%)</td>
<td>51</td>
</tr>
<tr>
<td>BMI</td>
<td>45</td>
<td>44</td>
<td>41 (40%)</td>
<td>48 (47%)</td>
<td>89</td>
</tr>
<tr>
<td>25 to 29.9</td>
<td>30</td>
<td>23</td>
<td>26 (25%)</td>
<td>27 (26%)</td>
<td>53</td>
</tr>
<tr>
<td>30+</td>
<td>15</td>
<td>21</td>
<td>15 (15%)</td>
<td>21 (21%)</td>
<td>36</td>
</tr>
<tr>
<td>Alcohol</td>
<td>3</td>
<td>1</td>
<td>4 (4%)</td>
<td>0 (0%)</td>
<td>4</td>
</tr>
<tr>
<td>Smoker &amp; BMI</td>
<td>9</td>
<td>31</td>
<td>27 (26%)</td>
<td>13 (13%)</td>
<td>40</td>
</tr>
<tr>
<td>Smoker and Alcohol</td>
<td>4</td>
<td>7</td>
<td>2 (2%)</td>
<td>9 (9%)</td>
<td>11</td>
</tr>
<tr>
<td>Weight and Alcohol</td>
<td>1</td>
<td>2</td>
<td>0 (0%)</td>
<td>3 (3%)</td>
<td>3</td>
</tr>
<tr>
<td>All 3 risk behaviours</td>
<td>3</td>
<td>0</td>
<td>3 (3%)</td>
<td>0 (0%)</td>
<td>3</td>
</tr>
<tr>
<td>Risk Not specified</td>
<td>1</td>
<td>2</td>
<td>0 (0%)</td>
<td>3 (3%)</td>
<td>3</td>
</tr>
<tr>
<td>Accepted help</td>
<td>60</td>
<td>69</td>
<td>60 (59%)</td>
<td>70 (69%)</td>
<td>130</td>
</tr>
<tr>
<td>Referral made</td>
<td>9</td>
<td>13</td>
<td>11 (11%)</td>
<td>11 (11%)</td>
<td>22</td>
</tr>
<tr>
<td>16-19</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>20-29</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>30-39</td>
<td>2</td>
<td>4</td>
<td>2</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>40-49</td>
<td>2</td>
<td>5</td>
<td>2</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>50-59</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>60-69</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Referral gender</td>
<td>9</td>
<td>13</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Referred:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Smoking</td>
<td>4</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>Weight</td>
<td>7</td>
<td>5</td>
<td>5</td>
<td>7</td>
<td>12</td>
</tr>
<tr>
<td>Smoking and weight</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Smoking and alcohol</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Smoking/alcohol/weight</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

A histogram with a Gaussian line was used to explore the distribution of age of participants shown in figure 4.3, revealing an uneven distribution age mean of 40 (SD 14.84).
Age distribution was uneven, thus median 39 years, mode 34 years and interquartile range 57 are reported. Youngest recruit was 16 years and the oldest was 73 years of age. A further breakdown of age in each arm is illustrated below in figure 4.4:
A further breakdown of age groups in the study arms is illustrated in figure 4.5 below.

Mean age in each group was tested using independent t-test showing immediate group mean age to be $\bar{x}$ 38 years (SD 14.06), compared to $\bar{x}$ 42 years (SD 15.31) in the delayed group. Mann Whitney was run due to uneven distribution, revealing a p value of 0.12 suggesting that there is a higher mean age in the delayed group. There is no statistical significant difference in median age between the study arms.

As illustrated in figure 4.6, Pearson’s Chi square was run to explore association between gender and unhealthy behaviour. Thirty one percent male (31) smoked compared to 19% (20) female smokers. There was an increase in smoking rates when smoking was combined with high BMI and/or alcohol. There were more females living with unhealthy behaviour, seventy eight percent (31) when smoking was combined with weight.
Three percent male (3) reported to consume alcohol over recommended limits, compared to one percent female (1) illustrated in figure 4.7.
Ten percent of males (9), continued to have higher unhealthy behaviour when alcohol was explored with high BMI and smoking compared to 6% (6) females, illustrated in figure 4.8.
There were fifty two percent (26) overweight participants in Arm A, compared to 51% (27) in Arm B while 42% (15) in Arm A were obese compared to 58% (21) in Arm B, illustrated in figure 4.9.

There was an uneven distribution of weight between study arms (Figure 4.10).
A total of twenty percent (40) were smokers who were also overweight, with 67.5% (27) in Arm A compared to 33 percent (13) in Arm B. Males were found to have a higher rate of unhealthy behaviour including being overweight, with 57% (30) compared to 43% (23) female. However, there was a wider range of obesity among females with 58% (21) found to be obese compared to 42% (15) male. Females continued to have a higher rate of obesity when BMI was combined with smoking and alcohol. Three participants’ unhealthy behaviours (3%) were not specified by nurse practitioner on the checklist form. All three were male participants in Arm A.

Being overweight and/or obese, 44% (89) was a major unhealthy behaviour in this sample. This was excluding 23% (46) overweight/obese combined with other unhealthy behaviours, totalling 65% (135) overweight and obese participants in this sample, illustrated below in figure 4.11.

![Overall high risk lifestyle choice](image)

Figure 4.11 Overall unhealthy behaviour

**Primary Outcome**

Overall, 11% (22) participants were referred to the Wellbeing service, 11 participants in each study arm. Of 102 participants in arm A offered immediate intervention and referral, 11% (11/102) were referred to the Wellbeing service. Arm B, delayed brief health promotion intervention, had a referral rate of 11% (11/102).
Referrals were more noticeable among smokers, high BMI or the combination of those two unhealthy behaviours.

Multiple logistic regression was used to predict the probability of outcome improvement adjusting for effect of age and gender. There was no statistically significant association with age (p=.995) or gender (p=.400) of participants seeking referral. Similarly, when multinomial regression was run, using referrals as an independent variable, study arms as a factor, age and gender as covariates, it was found that there was no statistical significance in age, p=.977 (CI .970 - 1.032) and gender p=.373 (CI .263 - 1.65).

Referrals per age and gender are tabulated below in table 4.3:

<table>
<thead>
<tr>
<th>Referral</th>
<th>Age Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 (1%)</td>
<td>16-19</td>
</tr>
<tr>
<td>2 (1%)</td>
<td>20-29</td>
</tr>
<tr>
<td>6 (27%)</td>
<td>30-39</td>
</tr>
<tr>
<td>7 (32%)</td>
<td>40-49</td>
</tr>
<tr>
<td>3 (14%)</td>
<td>50-59</td>
</tr>
<tr>
<td>2 (1%)</td>
<td>60-69</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Referral</th>
<th>Gender</th>
</tr>
</thead>
<tbody>
<tr>
<td>9 (41%)</td>
<td>Male</td>
</tr>
<tr>
<td>13 (59%)</td>
<td>Female</td>
</tr>
</tbody>
</table>

Contrary to the hypothesis that participants who had been given immediate written and verbal information would accept offer of referral during, results revealed that there was no difference in study arms, the null hypothesis was accepted. There was a higher referral rate (59%) between the ages of 30 and 49. Referred behaviour is further tabulated in table 4.4 below:
Table 4.4 Referrals by unhealthy behaviour

<table>
<thead>
<tr>
<th>Risk and Referral</th>
<th>Arm A</th>
<th>Arm B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smoker</td>
<td>2 (18%)</td>
<td>3 (27%)</td>
</tr>
<tr>
<td>Weight</td>
<td>5 (45%)</td>
<td>7 (64%)</td>
</tr>
<tr>
<td>Smoker &amp; alcohol</td>
<td>1 (9%)</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>Smoker &amp; weight</td>
<td>3 (27%)</td>
<td>1 (9%)</td>
</tr>
<tr>
<td>Total</td>
<td>11 (100%)</td>
<td>11 (100%)</td>
</tr>
</tbody>
</table>

Univariate analysis of variance was run to explore treatment effects using referral as a dependent outcome and arm as a fixed variable with age and gender as covariates, again revealing that there is no correlation, the R= .014 is weak, p=.908. There was no correlation in referrals between immediate and delayed study arms illustrated in figure 4.12.

Figure 4.12 Correlation of age and referrals in study arms

There was no correlation in referrals when gender was added as a covariate p= .377. Chi square was run to explore odds of accepting a referral when offered, OR was 1, (CI .413-2.423), indicating that there is no difference in time of offering referral. Chi square was run to test hypothesis that there would be a treatment effect in study groups, Chi-square with one degree of freedom = 2.0, p = .157 and Fishers Exact test p= .1000 two-sided, indicate that there is no statistically significant relationship between treatment groups.

A secondary outcome aimed to explore how long it took for nurse practitioner and participant to engage in healthy conversation and intervention.
Most nurse practitioners did not complete research check list forms and time they took for intervention, resulting in limited data. Based on times that were recorded, mean time taken to engage in a healthy conversation was 4 minutes (SD 2.85), mode was observed to be 2 minutes. Analysis was run on time waiting to test hypothesis that time waiting will increase uptake of referrals. There were only 22 entries made on time waiting. A summary of available times is illustrated in table 4.5 below. Aim was to compare time waiting and treatment outcome. There was a shorter waiting time in Arm A who had immediate intervention, written information and time to think; however they are observed to have same referrals as the delayed arm B (11= 11 referrals).

Table 4.5 Waiting time and referrals made

<table>
<thead>
<tr>
<th>Time waiting</th>
<th>Arm A</th>
<th>Arm B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean time</td>
<td>93 (SD 72)</td>
<td>105</td>
</tr>
<tr>
<td>Referrals</td>
<td>11</td>
<td>11</td>
</tr>
</tbody>
</table>

Mean waiting time in Arm A, was 93 minutes (SD 71). Arm A had been offered a referral already but were asked again at the full consultation if there were any changes in accepting the offer of referral during the full consultation. Total remained at 11 referrals. In the delayed group the mean waiting time was 105 minutes (SD 67.48) and eleven referrals were made.

4.4. Discussion

Participants were randomised to receive similar interventions (screening for unhealthy behaviour, engagement in healthy conversation, assess for readiness to modify behaviour, offer of referral to Wellbeing behaviour modification services and written leaflets on unhealthy behaviour. It was observed that there was a similar number of referrals among study arms and endpoints did not meet threshold of statistical significance.

Sixty five percent of participants accepted complete intervention (screen, assess for desire to change, engage in healthy conversation, assist in behaviour modification, offer of referral, make referral if requested and provide leaflets). This suggests that it is feasible for brief health promotion intervention, more so for clients that were in contemplation stage and ready for behaviour modification, similar to findings in a randomised controlled trial by Bernstein et al., (2011).
Authors concluded that their endpoints were negative, though minimal intervention was just as effective as enhanced intervention in an emergency department setting, the determinant is the client. Brief health promotion in this sample could be implemented at initial or delayed consultation.

Majority of participants, more so in the delayed intervention despite time waiting, engaged in healthy conversations and accepted offer of help. Findings are similar to Hall, et al., (2007), who conducted a randomised controlled trial studying feasibility, acceptability and effectiveness of offering opportunistic brief smoking cessation advice to women presenting for routine cervical smear tests; they reported positive results. More women were determined to quit smoking and they were not discouraged from attending future cervical smears because of smoking cessation intervention when they had presented for cervical screening. Findings in this sample are contrary to views of emergency nurse practitioners who reported that minor injury units were not the place for health promotion, “patients will respond negatively to being asked about their alcohol intake” (Patton and Vohra, 2013). Participants in this sample accepted screening process, brief health promotion and offer of referral. None of the participants withdrew from the study and none were reported to have responded negatively to the intervention.

Secondary endpoint was generally positive, indicating that brief healthy conversation could take 2-4 minutes to screen, assess, offer information, provide written material and referral to the Wellbeing service, in accordance with NICE guidelines on brief health promotion intervention, brief health promotion intervention should not take longer than five minutes (NICE, 2007), more so in this unit where clients can be waiting up to four hours when it is busy.

Similar number of referrals in this study reaffirms the need for nurse practitioners in urgent treatment walk in centre for minor injury and illness to be reminded of different contemplation stages of behaviour change. A clinician engaging a client in healthy conversation may provide a client additional encouragement to take steps forward towards behaviour change.

There is no difference in brief health promotion being delivered at initial or delayed consultation, the determinant is the client.
Conclusion

Randomised controlled trial sought to explore efficacy and effectiveness of implementing brief health promotion interventions (smoking cessation, weight management and alcohol intervention) to 16-75 year old clients that lived with unhealthy behaviour, presenting for an injury or illness in an urgent treatment walk in centre at initial or delayed consultations with a nurse practitioner. Null hypothesis was accepted, there was no difference in referral uptake between immediate and delayed groups and the intervention took two to four minutes. Participants were not deterred by screening or intervention and 22 referrals were made. Study provided useful data that indicates that clients are open to discussing unhealthy behaviour.

It is recommended that management should take radical approaches to develop guidelines, policies and training to support practitioners in the integration of brief opportunistic health promotion interventions into consultation and make written leaflets available for presenting clients. These findings indicate that there is feasibility, efficacy and effectiveness in integrating brief health promotion into routine consultation in the local urgent treatment walk in centre for minor injury and illness.

On exiting the randomised controlled trial, all participating clients were invited to complete a questionnaire to explore acceptability, advocated by Sanetti, Gritter and Dobey (2011) recommending that numerous perspectives should be used to assess acceptability as this leads to improved treatment outcomes.
CHAPTER FIVE
PHASE II: PART TWO: PARTICIPATING CLIENT QUESTIONNAIRE

On exiting the randomised controlled trial, participants were requested to complete a one paged two sided questionnaire. This chapter aims to report views of client participants on opportunistic brief health promotion when they had attended for an injury of illness.

5.1. Aims of study
To explore acceptability of a brief health promotion intervention in the local urgent treatment walk in centre for minor injury and illness as recommended by Bowen et al. (2009) as it explores how the intended recipients react to an intervention.

5.2. Methodology and study design
Walk in centres and minor injuries/illness units and now urgent care centres were set up for the treatment of minor injury or illness with no follow up of presenting clients. Attending population is not well understood. Trealor, Champness, Simpson, et al. (2000), observe that qualitative methods are best applied in areas involving unexplored issues with difficult to access groups.

A cross sectional survey design using a paper version questionnaire was utilised. Polit, Beck and Hungler (2004) observe that response rate in questionnaires is lower, however, they are of benefit as they are less costly and less time-consuming. They were found to be more achievable in this kind of setting where there is no follow up of patients.

Literature was searched for relevant validated questionnaires, namely that of Stephens, Lowman, Graham, et al. (2013), Department of Health, World Health Organisation, lifestyle questionnaires and others. There was no available questionnaire that encompassed all components of this study (smoking, alcohol, overweight/obese, and walk in centre or minor injury/illness units). In the absence of a validated questionnaire, a specially constructed non-validated questionnaire was developed to obtain views from participants on their self-reported unhealthy behaviour, health modification plans, and their views on brief health promotion in this type of setting.
Thought had to be put into designing a questionnaire that would not be lengthy, that would be simple, quick, easy to complete and non-judgemental while providing useful data that would benefit clients, service providers, policy makers and literature as recommended by Burgess, (2001), Polit, Beck and Hungler (2004) and Trealor, Champness, Simpson, et al. (2000). Less than twenty questions were developed to include lifestyle behaviour in participant terms (weight, smoking and alcohol intake), plans to modify unhealthy behaviour, knowledge of accessible places for lifestyle modification, opinions of brief health promotion intervention in this kind of setting and if they would use the service in future and inform friends, family and colleagues. The questionnaire comprised a mixture of questions, closed and open ended, qualitative and quantitative.

5.2.1. Public and Patient Involvement
ENGAGE, University of Portsmouth Public and Patient Involvement (PPI) group was approached for their input in the questionnaire design. Recommendations were received from three members. One of the members stated that the questionnaire would be easy to complete, one indicated that it was straightforward while one suggested that demographic/characteristic questions could possibly be put at the end of the questionnaire. While PPI suggestions are carefully considered, it was decided not to change the order of the demographic questions to the end as much of questionnaire design literature suggests that demographic questions are an icebreaker and they are easy and quick to complete (Baxter, 2001, Burgess, 2001, Taylor, Bogdan & DeVault, 2015). In addition, developed questionnaire was discussed with the hospital director, academic supervisors and a questionnaire pilot was further run with the service manager and three members of staff.

5.2.2. Data collection
All 204 participants that had taken part in the randomised controlled trial were handed a questionnaire on a clipboard and a pen. On completion, questionnaire was either given to nurse practitioner or placed in a collection box by exit doors. All 204 questionnaires were returned (100%) albeit some that were incomplete. Chief investigator was responsible for collection and management of all questionnaires at the end of each day.

5.2.3. Data analysis plan
Descriptive data were presented as numbers, percentages and figures analysed on IBM SPSS version 22 while open ended questions were thematically analysed.
Sullivan and Artino (2013) recommend that authors need to determine how they will describe and analyse data beforehand but regretfully one to three word responses had not been foreseen during the design of the questionnaire. In order to analyse available data, participants’ verbatim words had to be analysed in categories in some questions.

5.3. Results
All 204 questionnaires that were handed out were returned at the end of the study.

5.3.1. Occupational data
Participants were asked about employment and educational status with choices to tick a box from employment, unemployment, student and retired. Succeeding question asked about type of job as an open-ended question.

![Standard Occupational Classification](image)

*Figure 5.1 Summary of economic status of participants*

Occupational status was based on Office for National Statistics Classification Hierarchy tool of 2010. Economic status varied and a summary is shown in figure 5.1. It was important to ask occupation question as it has been determined that there is a higher prevalence of ill-health in poorer social classes compared to higher social classes (Public Health England, 2016c). Due to wide variations in occupations, occupations were grouped within major groups in the occupational classification tool.
There were a number of participants, 14% (29), that reported that they worked part time while studying, observed to be health care support workers and sales mostly. Most of the participants were in skilled trade positions compared to student, unemployed and management position.

5.3.2. Awareness of available services for unhealthy behaviours
Participants were asked where they would go if they wanted to modify unhealthy behaviour, specifically smoking, alcohol and weight. Responses are illustrated in table 5.1 below.

<table>
<thead>
<tr>
<th>Services that could be accessed for behaviour advice</th>
<th>Response rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>GP surgery</td>
<td>64% (130)</td>
</tr>
<tr>
<td>Pharmacy</td>
<td>2% (5)</td>
</tr>
<tr>
<td>Friends or health promotion clinic</td>
<td>&lt;1% (3)</td>
</tr>
<tr>
<td>Other: Would not see anyone</td>
<td>5% (11)</td>
</tr>
<tr>
<td>Do not know</td>
<td>4% (9)</td>
</tr>
<tr>
<td>Did not respond/ missing data</td>
<td>23% (46)</td>
</tr>
</tbody>
</table>

At least 64% (130) of the participants stated that they would see their own general practitioner, followed by 5% (11) that stated they would not see anyone about such problems. Four percent (9) did not know where they could go and 2% (5) stated that they would attend a community pharmacy. Three participants stated that they would go to friends or a specific health promotion centre.

5.3.3. Self-reported healthy/unhealthy lifestyle behaviour
A summative illustration of participants’ self-declared unhealthy lifestyle behaviour was reported in the randomised clinical trial however has been repeated for ease of reading and as a reminder, in figure 5.2.
5.3.3.1. Smoking

A question was asked about current plans to quit smoking for those that smoked.

Fifty four percent (111) declared themselves as smokers, of whom less than one percent did not answer the question. Ten participants (9%) indicated that they were on a smoking cessation plan specifically e-cigarettes and nine (8%) had set a target date, with the remaining participants providing some responses for mixed intentions to quit smoking, summarised in table 5.2 below:
Table 5.2 Self-declared non-intentions to quit smoking

<table>
<thead>
<tr>
<th>Self-declared smoking</th>
<th>Smoking cessation action</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>No</td>
<td>36% (30)</td>
</tr>
<tr>
<td>65%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Target stopping date</td>
<td>No plans to quit smoking</td>
<td>17% (19)</td>
</tr>
<tr>
<td>27% (30)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E-cigarette 9% (10)</td>
<td>Have tried to quit before</td>
<td>21% (23)</td>
</tr>
<tr>
<td>Thinking about it</td>
<td></td>
<td>10% (11)</td>
</tr>
<tr>
<td>Want to quit but not</td>
<td></td>
<td>8% (9)</td>
</tr>
<tr>
<td>able to</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Occasional smoker</td>
<td></td>
<td>2% (2)</td>
</tr>
<tr>
<td>No reason given/missing data/not answered</td>
<td>5% (5)</td>
<td></td>
</tr>
<tr>
<td>Smoke because of stress</td>
<td></td>
<td>2% (2)</td>
</tr>
</tbody>
</table>

When responding to the question of plans to quit smoking, 27% (30) of participants were either thinking of quitting, or had set a specific date, namely next birthday, beginning of the year, non-smoking month and other dates identifiable to them. Four of the clients stated that they smoked for stress or occasionally, not providing a specific answer to the plans to quit. Twenty one percent, (23) stated that they had tried before and they had not been able to quit, while 17% (19) had no plans to quit smoking and less than one percent stated that they enjoyed smoking. Participants that classed themselves as occasional smokers gave the indication that this implied that they were not smokers.

5.3.3.2. Alcohol
All participants were asked about average weekly intake of alcohol (glasses, pints, shots or units).
Table 5.3 Knowledge of alcohol consumption per week

<table>
<thead>
<tr>
<th>Alcohol Consumption</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Within the limit (1 to 21 units at the time)</td>
<td>52% (106)</td>
</tr>
<tr>
<td>Do not know alcohol intake</td>
<td>25% (50)</td>
</tr>
<tr>
<td>Over the recommended limit</td>
<td>12% (25)</td>
</tr>
<tr>
<td>Response not clear</td>
<td>5% (10)</td>
</tr>
<tr>
<td>None</td>
<td>6% (13)</td>
</tr>
</tbody>
</table>

As viewed in table 5.3, twenty five percent (50) of participants did not know if their intake of alcohol was within the limits or not and 12% (25) revealed that their intake was above recommended limits with a few stating that they “enjoyed their drink”. It was observed that self-declared alcohol rates on the questionnaire were higher compared to recorded units on the booking in form both for profile study and randomised controlled trial. There is a noticeable association between age and knowledge of alcohol intake, with the majority of those that responded to not knowing their alcohol intake were observed to be more men and before the age of 40.

5.3.3.3. Weight
Participants were asked how they rated their weight with four options to choose from: underweight, healthy weight, overweight or obese.

Table 5.4 Self-declared weight and BMI categories

<table>
<thead>
<tr>
<th>Self-declared weight category</th>
<th>Response rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Healthy weight</td>
<td>30% (61)</td>
</tr>
<tr>
<td>Overweight</td>
<td>55% (112)</td>
</tr>
<tr>
<td>Obese</td>
<td>13% (26)</td>
</tr>
<tr>
<td>Underweight and missing data/not completed</td>
<td>2% (5)</td>
</tr>
</tbody>
</table>

Results of self-reported weight revealed that 30% (61) had a healthy BMI below 25.
However, 55% (112) declared themselves as overweight while 13% (26) stated that they were obese. These figures are noticed to be slightly higher compared to the report from Portsmouth Clinical Commissioning Group (52%) illustrated in table 5.4.

A free text open ended question asked if participant had plans to reduce weight if they had declared themselves as overweight or obese. Over 37% (75) of participants responded that they were either on a diet and exercise regime or a weight management programme, a number of whom referred to Slimming World and Weight Watchers. Some stated that they were thinking of diet and exercise or were aware that this is what they needed to do. Three percent (7) of participants answered that they did not have plans to reduce weight while 3% (7) stated that they had unsuccessfully tried before, and there was no further elaboration or other attempts to try again, and 2% (4) wanted to quit smoking or take control of their alcohol intake before managing their weight. Twelve percent (26) stated that they realised and were aware that they had to cut down on unhealthy eating habits with a number of responses specifically quoting:

“eating” “less KFC”,
“less McDonalds”,
“less pizza”.

5.3.3.4. Views on being asked about health behaviours when presenting for an injury or illness

Participants were asked about their experience of being asked about smoking, weight and alcohol when they had presented for an injury or illness as an open ended question.

Table 5.5 Responses on being asked about unhealthy behaviour when presenting for an injury or illness

<table>
<thead>
<tr>
<th>Positive</th>
<th>Negative</th>
<th>Not clear</th>
</tr>
</thead>
<tbody>
<tr>
<td>70%</td>
<td>3%</td>
<td>3%</td>
</tr>
</tbody>
</table>

There were mostly positive views with 70% (143) reporting approval while 3% (7) had more negative views summarised in table 5.5 and further outlined in table 5.6.
Table 5.6 Responses to being asked about health behaviour when presenting for injury or illness:

<table>
<thead>
<tr>
<th>Participant response</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive</td>
<td>70% (143)</td>
</tr>
<tr>
<td>Should be offered after treatment or responded with “n/a”</td>
<td>3% (7)</td>
</tr>
<tr>
<td>Do not know</td>
<td>1% (2)</td>
</tr>
<tr>
<td>Not responded/missing data</td>
<td>25% (50)</td>
</tr>
</tbody>
</table>

Responses were observed to be quick one word answers (good, ok, fine). A few positive verbatim narrative responses from some of the participants are shown in table 5.7:

Table 1.7 Quotes in being asked about health/unhealthy behaviour

- "not a problem being asked"
- "ok", “good”, don’t mind”, “fine”, “expected”, “necessary” and “helpful”
- “good idea to do this while being treated, relevant”
- “good idea, make people aware of the future”
- “because of health issues and weight”
- “it’s a good idea to promote because a lot of people are afraid to talk about their health”,
- “I know I need help”
- “it’s nice to know the available services”,
- “raised awareness”
- “Unexpected but informative”.

Very few participants 1% (2) stated that they

“Do not know”

While 2% (4) felt that they were “embarrassed” being asked but also positive attitudes with some quotes:

“I didn’t mind, a little embarrassed because of being unhappy with my health”

“Bit embarrassed to talk about weight”

“Embarrassed by own insecurities”
Very few participants 3% (7) had negative responses with a few quotes:

“Should be offered after treatment” (2 participants)

“It was not nice (2 participants),

“These personal” (1 participant)

5.3.3.5. Views on how they felt about the study arm they were allocated to:
Participants were asked if they were in the delayed or immediate group. This question was generally left unanswered such that it was not analysed.

5.3.3.6. Views on how they felt about taking part in the brief health intervention research project
Participants were further asked how they felt about taking part in the brief health promotion intervention as an open-ended question. Over 66% of the participants had positive reviews about taking part in the study illustrated in table 5.8.

Table 5.8 Views on taking part in the research project

<table>
<thead>
<tr>
<th>Positive</th>
<th>Negative</th>
<th>Not clear</th>
</tr>
</thead>
<tbody>
<tr>
<td>66%</td>
<td>1%</td>
<td>7%</td>
</tr>
</tbody>
</table>

An attempt has been made to illustrate a summative verbatim of words used in figure 5.3. Similar to previous responses, the answers were very brief one word responses.
5.3.3.7. Views on the brief health promotion intervention

Participants were further asked what they thought about brief health promotion intervention. Over 77% of participants had positive reviews about brief health intervention and 6% provided negative reviews while some did not respond (table 5.9).

Table 5.9 Views on screening, time, healthy conversation, nurse, offer of referral and written leaflet

<table>
<thead>
<tr>
<th>Positive</th>
<th>Negative</th>
<th>Not clear</th>
</tr>
</thead>
<tbody>
<tr>
<td>77%</td>
<td>2%</td>
<td>4%</td>
</tr>
</tbody>
</table>

Participants were asked about thoughts on time it took in addition to the consultation of their presenting complaint, content of the healthy conversation, verbal information with the nurse, offer of referral and information leaflet. Similar to previous open ended questions, participants were observed to provide very brief one to three word answers and further used same word/words for all four questions. Responses were short and similar, resulting in grouping more frequent responses into five major categories, further tabulated in table 5.10 below.
Table 5.10 Views on time taken, setting, healthy conversation and leaflet

<table>
<thead>
<tr>
<th>Response</th>
<th>Good</th>
<th>Ok/fine</th>
<th>Very good</th>
<th>In pain</th>
<th>n/a</th>
<th>Not good</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intervention</td>
<td>27 (13%)</td>
<td>39 (19%)</td>
<td>45 (22%)</td>
<td>3 (1%)</td>
<td>2 (1%)</td>
<td>2 (1%)</td>
</tr>
<tr>
<td>Place</td>
<td>48 (24%)</td>
<td>42 (21%)</td>
<td>16 (8%)</td>
<td>0</td>
<td>1 (&lt;1%)</td>
<td>1 (&lt;1%)</td>
</tr>
<tr>
<td>Nurse</td>
<td>43 (21%)</td>
<td>29 (14%)</td>
<td>31 (15%)</td>
<td>0</td>
<td>1 (&lt;1%)</td>
<td>Do not know 1 (&lt;1%)</td>
</tr>
<tr>
<td>Leaflet</td>
<td>38 (19%)</td>
<td>31 (15%)</td>
<td>26 (13%)</td>
<td>1 (&lt;1%)</td>
<td>0</td>
<td>1 (&lt;1%)</td>
</tr>
</tbody>
</table>

An estimated 54% (111) of participants rated time taken to receive the intervention from “very good” (45) to “good” (27), “ok” and “fine” (39). Fifty two percent (106) of the participants thought that the place was suitable, again utilising brief one to two word answers “very good” (16), “good” (48), “fine”/ “ok” (42), and one participant wrote “n/a”. Participants were asked on their views of the nurse they had the intervention with. Similar very brief responses were given, with 50% (103) of participants rating the nurse from “very good” (31), “good” (43) and “ok/fine” (29). One percent of the participants (3) reported that they were in pain but there was no elaboration if alleviating the pain would have an effect on the intervention, a further 2 (1%) felt that the timing was not right. Some participants did not answer the questions. A few participants provided more narrative data, with a few quotes tabulated in table 5.11.

Table 5.11 Experience of the intervention and leaflet given

<table>
<thead>
<tr>
<th>Intervention</th>
<th>“good to be asked rather than volunteer”, “clear, concise, efficient, open to questions”, “quick enough to intake relevant information”, “it should be after I have been seen” “n/a”</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leaflet</td>
<td>“it told me all I need to know”, “didn’t know this centre deals with these services”, “extra visual support is a good reminder”.</td>
</tr>
</tbody>
</table>

Page 117 of 273
Most participants had been given a specific validated health promotion leaflet on weight, smoking or alcohol. There was also a general health promotion leaflet, designed by chief investigator, on the impact of some lifestyle choices on health and information on access to free local services. Forty seven percent (95) of the participants stated they found the leaflet useful and provided information. Ten percent (21) of the participants reported that they had not been given a leaflet. It was noted that more participants in the delayed group had not been given a leaflet. Nurse practitioners reported that they forgot on a few occasions.

5.3.3.8. Integration of brief health promotion service into future consultations.
Participants were asked if they would take up health promotion services at the urgent treatment walk in centre for minor injury and illness with a free text subsequent question for reasons for their response; 60% (123) participants responded that they would use the service if it was needed in future. A number of the participants 15% (30) stated they were planning to try self-help or were already trying self-help strategies. A few quotes are tabulated in table 5.12.

Table 5.12 Reasons for taking up brief health promotion service: quotes

<table>
<thead>
<tr>
<th>Free text reasons for taking up health promotion service quotes:</th>
</tr>
</thead>
<tbody>
<tr>
<td>“I would like more advice on losing weight”</td>
</tr>
<tr>
<td>“more people need to be educated”,</td>
</tr>
<tr>
<td>“may need help, best to talk to a professional if afraid”,</td>
</tr>
<tr>
<td>“hoping to quit smoking, no plans how to yet”</td>
</tr>
</tbody>
</table>

Those that stated that they would not use the service 10% (20), referred to working hours or the minor injury illness unit being far from home. Less than 1% (3) stated that they were not interested but there was no elaboration on reasons for lack of interest. Less than 1% (3) said they would not use the service. They were quoted to state that they saw weight, alcohol and smoking as “self-inflicted behaviours”. They stated that they were not “entitled” to help and support. Some responses for disinclination to use the service are shown in table 5.13.
### Table 5.13 Quotes on reasons for declining brief health promotion services

<table>
<thead>
<tr>
<th>Reasons for declining health promotion service</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>No response given</td>
<td>6% (11)</td>
</tr>
<tr>
<td>Working hours and distance from own residence</td>
<td>10% (20)</td>
</tr>
<tr>
<td>Trying or already on self-help strategies</td>
<td>15% (30)</td>
</tr>
<tr>
<td>Quotes from two participants who responded that they did not feel entitled to brief health promotion services:</td>
<td>1% (3) 2 quotes</td>
</tr>
<tr>
<td>“nurses have a lot of work for this”,</td>
<td></td>
</tr>
<tr>
<td>“I am embarrassed about my weight”.</td>
<td></td>
</tr>
<tr>
<td>Not interested</td>
<td>1% (3)</td>
</tr>
</tbody>
</table>

5.3.3.9. Would you recommend/inform service to family, friends and colleagues?
Participants were asked if they would recommend and inform their family, colleagues and friends about brief health promotion service. Eighty two percent (174) stated that they would tell their families and colleagues about the health promotion service with one participant quoting:

“May need help, best to talk to a professional”

5.3.3.10. Recommendations, comments
The last question was to ask about any further comments, recommendations and suggestions to improve brief health promotion service in this unit. Very few participants answered this question. Recommendations were made to provide more education, more advertising, advice on healthy eating and smoking cessation and to make it normal practice.

In summary, themes that came up from client questionnaires were:

- Clients accepted brief health promotion intervention,
- Clients “did not mind” the intervention, advice offered, and given material,
- Clients wanted information,
- Clients would use the health promotion service in future and inform family, friends and colleagues.
5.4. Discussion

Findings from this study revealed that the majority of participants were accepting of brief health promotion interventions in this urgent treatment walk in centre for injury and illness. The findings are similar to those reported by Bernstein et al (2011) who conducted a randomised controlled trial on opportunistic smoking cessation in an emergency department. Their study concluded that participants did not report any negativity to being screened for smoking; minimal intervention is just as effective as enhanced intervention in an emergency department setting; the determinant is the client. Similarly, Webster, Stratigos and Grimes (2001), reported that 98% of their participants thought it was “a good idea” to be screened for domestic violence when they presented for routine antenatal care. Less than 1% in this study reported negative views to brief health promotion intervention.

A survey conducted by Monitor (2014) with a mixed sample of 4555, reported that people that attend a walk in centre are more likely to be male, more likely to have education, they will be beyond the age of 18 years, attending for speedy access, convenience, opening hours and lived locally. In this sample of 204 participants, there were one percent more female participants compared to male, over 60% of the participants lived locally and level of education was not addressed. The uniformity of “young” has not been fully defined with literature referring to 41 as the age of youth ending and 55 as onset of “old age”. In this sample, it was found that 53% of the participants were 41 years of age and below, somewhat different to the findings of the study conducted by Chapple, Sibbald, Rogers and Roland (2001) and Monitor (2014) who concluded that most people that would use a walk in centre would be the younger generation. In this sample, the concept of “younger generation” could not be justified as the age ranged from 16 to 73.

Chapple et al. (2001) further reported that clients wanted a wide range of services by both doctors and nurses, male and female clinicians, including diagnosis, prevention and general information. It could be argued that general information and prevention includes health promotion as this may still impact on their health. In this sample, it was observed that over 60% of the participants accepted screening and had positive reviews about healthy conversations and integration of health promotion into presenting consultation. These positive findings and acceptability of the intervention would concur with the findings of Jackson, Dixon-Woods, Hsu and Kurinczuk (2005) who conducted a qualitative study with participants that had used a walk in centre. They acknowledged that there was a lack of clarity on walk in centres, however, clients felt that there was improved access to healthcare, they got more advice from nurses, felt that nurses listened to them and they felt valued.
While very few clients reported negative views to time and place in this sample, most of the participants were positive about the intervention including advice and information given. The findings are similar to those reported by Cropsey, et al. (2013) that there was acceptability when they explored opportunistic smoking cessation with people living with HIV. Acceptability was also reported by Hall, Reid, Ukoumunne, Weinman and Marteau (2007) assessing acceptability of a brief smoking cessation intervention delivered as part of a cervical screening appointment and Webster, Stratigos & Grimes (2001), in screening for domestic violence in women presenting for routine prenatal screening. Ninety eight percent (98%) of their participants believed it was a “good idea”, 96% felt it was “ok”, while 77%, who felt uncomfortable also agreed that it was “a good idea”. Similar responses were obtained from this sample; brief health promotion intervention was acceptable.

Over 60% of this sample stated that they would see their GP for healthy behaviour conversation as they were not aware that urgent treatment walk in centre for minor injury and illness could offer such services. However, it has been established that GPs offer a pre-planned, booked paid service which would be more applicable to clients that have already decided to modify unhealthy behaviour, otherwise other clients await a GP recall which can be over the age of 40 for men.

Most of the participants in this sample showed acceptability to screening and brief health promotion intervention. They were positive about informing family, friends and colleagues about the service.

In conclusion, acceptability from presenting clients reveals that the local urgent treatment walk in centre for minor injury and illness can engage in brief opportunistic health promotion services on smoking, alcohol overuse, overweight and obesity and integrate it into routine consultation.
CHAPTER SIX

PHASE II, PART THREE: NURSE PRACTITIONER INTERVIEWS

At the end of client data collection, nurse practitioners were invited to take part in one to one interviews.

6.1. Aims and objectives
To explore acceptability of brief health promotion interventions in an urgent treatment walk in centre for minor injury and illness. Acceptability is recommended when feasibility studies are conducted (Bowen et al. 2010).

Objectives

- Explore nurse practitioners’ experience of screening clients for unhealthy behaviour,
- Explore nurse practitioners’ experience of recruiting for and delivering a brief health promotion intervention with presenting clients,
- Explore nurse practitioners’ views on integration of brief health promotion into everyday consultation as part of routine practice.

6.2. Methodology
To date, there is a dearth of literature exploring implementation of health promotion within a UK based urgent treatment walk in centre for minor injury and illness. Aim of this part of the study was to explore, describe and understand the meaning of nurse practitioners' experience and perspective after participating in a new brief health promotion intervention within the local urgent treatment walk in centre for minor injury and illness. Qualitative research is recommended when little is known about a topic. It helps to generate knowledge from a relatively small number of people in a natural setting, seeking to understand or explain phenomenon, an interpretivist tradition (Brannen, 2005, Burns and Grove, 1997, Morse & Field, 2002, Practitioner Research and Evaluation Skills Training, 2004).
6.3. Study design

Nurse practitioners who had participated in screening, recruitment and brief health promotion intervention were invited to take part in face to face, one to one semi-structured interviews, decided after careful consideration. One to one interviews were more practical in a setting where logistic problems of staff accessibility and time available may make it challenging to assemble sufficient numbers for focus group discussions. Focus groups were considered as a group setting can help identify and clarify views (Kitzinger, 1995). In contrast, one to one interviews can provide a higher response rate, as well as an opportunity for the researcher to develop more rapport with the individual being interviewed. This can lead to more honesty and co-operation as well as the chance to concur, clarify missed information and to provide better understanding (Leedy & Ormrod, 2010). Whilst one to one interviews can be lengthy and time consuming (Polit & Beck, 2008), nonetheless they provided a pragmatic solution to data collection in this setting. In addition, semi-structured rather than unstructured interviews were conducted. While unstructured interviews can offer more flexibility, (Morse & Field, 2002), Holloway and Wheeler (2010) argue that where predetermined topics are to be explored, semi-structured interviews offer a framework to ensure specific topics are included. Order can still be modified, wording adapted and new questions arising from the interviewer’s preliminary analysis can be added (Kvale, 1996).

6.3.1. Sampling

For qualitative methodology a probabilistic sample size calculation is not appropriate. Instead, a purposive sampling framework based on the researcher’s knowledge of relevant population will better inform and answer the research question (LoBiondo-Wood & Haber, 2006). A purposive sampling framework was applied for selection of nurse practitioners who had both worked in the urgent treatment walk in centre for minor injury and illness for three months or more and had taken part in the research project. Eighteen nurse practitioners were eligible to be invited to take part in one to one interviews.

6.3.2. Recruitment

All staff members were made aware of stages and processes of the research project including the profile study, randomised controlled trial, client questionnaires and nurse practitioner interviews. Frequent updates were made with face to face contact on progress and finalisation of the randomised controlled trial.
All staff were updated, by email, when the randomised controlled trial was completed and informed that nurse practitioner interviews would commence within the following two weeks. All eligible nurse practitioners (n=18) were emailed (via Care UK intrasite web address) and invited to take part in interviews. Email was followed by a personalised envelope containing a formal invitation letter and participant information leaflet. Participant information leaflet provided details about the qualitative study, what taking part would involve, including requirement to be audio recorded, steps to be taken to ensure confidentiality, as well as the fact that they might not all be interviewed, depending on whether previous data collection had provided sufficient information and no further data collection was deemed necessary (data saturation). Some nurse practitioners were concerned about the need to audio-record the interview, however, it was explained that this was for accuracy to ensure a true record of the conversation and that after each interview had been transcribed verbatim, anonymised, and the findings written up, the audio recording would be destroyed. This was likely to be after approximately three years as per study protocol. All nurse practitioners agreed to be interviewed.

6.3.3. Ethical considerations

Ethical permission for qualitative interviews was obtained at the same time as the main study. Nevertheless, Good Clinical Practice guidelines were considered and principles of justice, beneficence and human dignity were still taken into consideration for interviews with nurse practitioners (Polit, Beck& Hungler, 20014). Anonymity, confidentiality and protection of nurse practitioners were maintained at all times by removing names from all interview transcriptions as well as secure storage in a password protected computer with restricted access.

It was explained that informed written consent was necessary as protection of their rights, and as part of the requirement of the NHS ethical approval process, but that all the consent forms would be kept locked with all other research paperwork. All nurse practitioners were advised that, after transcribing, they would be given the transcript to read and verify if they agreed with its content or could alter/delete or add to its content prior to returning, after which their name would be removed and data analysis would continue, with no name association to any interviewee. Nurse practitioners were made aware that relevant quotes from narratives would be used in the write up and future publications, however, they would be anonymised with such quotes attributed to a single letter and number only.
6.3.4. Researcher and participant relationship

Estabrooks, Field and Morse (1994) observe that no research is free from personal perspective and can influence how data collection and analysis is both informed and shaped by the researcher collecting data, including the role of prior assumptions and experiences that can influence enquiries. Nevertheless, I felt it was important to take some time reflecting on my role and influences on my beliefs and values as part of the research process. As chief investigator I have privileged access to the department. I actively collected data in Phase I, profile study. As a nurse practitioner, I have also worked in the department for over 10 years. I have an overview of the working system within the department and clients that present. I conducted background reading. I gave a presentation on implementation of brief health promotion; I am passionate about the importance of health promotion as part of holistic care and benefit of clients. Care had to be taken not to influence nurse practitioners or impose in recruitment of clients for the RCT to reduce selection and researcher bias. Equally, care had to be taken not to influence nurse practitioners or impose my own views, but instead active listening was required.

Whilst an insider researcher has advantages in that there is already a rapport with participants and knowledge of the setting, there are also disadvantages and dissimilarity. It was therefore important to try to disassociate and not influence interviews but merely listen to what the interviewee was saying and concentrate on their views (Jamshed, 2014).

6.3.5. Interview preparation

A semi-structured interview schedule was developed. Semi-structured schedule comprised of five sections.

Section One: - previous health promotion role and background of nurse,

Section Two: - expectations of health promotion when they started current role,

Section Three: - how nurse practitioners might integrate health promotion in a unit for predominantly minor injury and illness presentations,

Section Four: - experience of taking part in the research process and its impact on practice,

Section Five: - study strengths, weaknesses, opportunities and threats of health promotion implementation in this unit in the future and any additional suggestions or recommendations.
6.3.6. Data Collection

Participants within the inclusion criteria were selected based on their availability on duty on interview days (two interviews conducted per week). On the day of the interview, the available nurse practitioner was invited into a private consulting room, the process of the interview was explained and there was an opportunity provided to ask questions. The need for field notes was explained including the use of their name initially on the top page of each field note entry, however, their name would be deleted after transcription of their interview. They were advised that it would be their interview, to feel able to talk freely, and that there were no right or wrong answers, just their views required on topics being discussed. If they were happy to proceed, consent form was signed and a copy returned to participant. Interviews were scheduled for an hour to an hour and a half and recorded on an Olympus VN-711PC Digital voice recorder. Audio recording makes it easier for the researcher to focus on the interview content and verbal prompts and subsequently enabled me to generate a verbatim transcript of the interview as recommended by the National institute for Health Research NHS (2009).

A notebook was used for field notes. Field notes have been recommended in research as they help with reflection and descriptive behaviour including interviewee expressions, behaviour, emergent themes and other clarification that may be needed (Taylor, Bogdan & DeVault, 2015). I jotted down words, phrases and queries for clarification or development of new questions which was difficult to maintain at the same time as trying to concentrate on listening. Reflection occurred after the interview. I tried to consider what went well and what needed to be modified. After the first two interviews, further questions were developed based on themes that emanated from these.

At the end of the interview, when each nurse practitioner felt that there was nothing more to contribute, they were thanked for their participation and advised on the next step which was transcribing, verifying transcripts, deleting audio recording of the interview and removing their name from the transcript. None of the participants had any objections or questions to this process.

Data collection continued until each nurse practitioner felt that they did not have anything new to inform. On listening to interviews, stories shared seemed to be repeating themselves. Final interview did not reveal any new information, therefore data saturation had been reached and after consulting with my supervisor it was decided I would not need to interview remaining four nurse practitioners. I contacted the four nurse practitioners, thanked them for their interest and explained that I would not need to interview them.
This resulted in a total of N=14 audio recorded face to face interviews over two months that took an average of 28 minutes (range:15-41 minutes).

6.3.7. Data Analysis

Qualitative analysis is “a process of fitting data together, making the invisible obvious, linking and attributing consequences to antecedents, it is a process of conjecture and verification, of correction and modification, of suggestion and defence.” (Morse & Field, 1995 cited in Polit et al. 2004, p 383). Swandelowski et al., (2009), concur, postulating that in qualitative studies, quantitative conversion of qualitative data also facilitates pattern recognition, to extract meaning and verify interpretations. To further facilitate development of themes and data analysis, an audit trail is imperative. Greenhalgh and Donald (2000) observe that data collection may be lengthy and discursive as it tells a unique story, it has to be sensible and adequate. Having an audit trail will not only help the writer to review findings, it may help other reviewers to identify developed themes and patterns. Trialor et al., (2000) concurs, asserting that it is vital to provide enough details about analysis procedure, information about coding systems used, refinements and processes of interpretation with Baxter (2001) concluding that the design needs to be concise, to provide sufficient information to replicate or to critically appraise. There is little available literature on health promotion in walk in centres, minor injury /illness units and now urgent care centres. Leaving an audit trail for future researchers will not only be beneficial, it is also essential.

After considering different approaches to qualitative data analysis, it was decided to use thematic analysis approach entering data into the computer software, NVivo version 11. Thematic analysis was first named as an approach to qualitative data analysis in the 1970’s. Originating from the field of psychology, a number of versions have followed from different fields as it permits rich, detailed data analysis, yet is not restrictive (Clarke & Braun, 2013). Thematic analysis was chosen because it offered flexibility to concentrate on the content of the story and its meaning in a non-sequential manner with a step by step process to follow that is appealing to a novice researcher. It has six recommended phases to analysis, presented in the table 6.1 below:
Table 6.1 Phases of thematic analysis

<table>
<thead>
<tr>
<th>Phases of Thematic Analysis</th>
<th>Description</th>
<th>How I achieved each step</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Familiarization</td>
<td>Immersion within data, a recursive process and noting initial analytic observations</td>
<td>I read each transcription alongside listening to the tape, several times</td>
</tr>
<tr>
<td>2. Generate codes</td>
<td>Capture semantic and conceptual data, generate labels relating to research question</td>
<td>I underlined and highlighted what I felt were key words, and made notes of my first thoughts regarding the meaning being expressed.</td>
</tr>
<tr>
<td>3. Identify themes</td>
<td>Identify pattern in data and construct themes</td>
<td>I independently grouped codes with similar meaning into themes on post it notes.</td>
</tr>
<tr>
<td>4. Review themes</td>
<td>Ensure themes relate to data, define theme and relationship between themes</td>
<td>I provided one of my supervisors (AD) with randomly selected transcripts to independently develop initial themes which we later discussed.</td>
</tr>
<tr>
<td>5. Define and name themes</td>
<td>Provide an analysis, essence and name of each theme</td>
<td>I combined themes into key themes and they were cross checked by AD.</td>
</tr>
<tr>
<td>6. Produce a report</td>
<td>Weaving narrative to provide a coherent story</td>
<td>I wrote up the findings with selected quotes from the transcripts which were reviewed by AD.</td>
</tr>
</tbody>
</table>

1. Familiarization:

I was responsible for all data analysis. On returning from a completed interview, each audio recording was transcribed verbatim into Microsoft word as soon as possible, preferably on the day of the interview. Hand written field notes were also typed up onto Microsoft word with notes on any arising queries. After every completed transcript, each audio recording was checked against the transcription to ensure there were no inaccuracies including missing and misheard data. Once typed up and checked, each verbatim transcript was given back to the nurse practitioner interviewee to verify accuracy of the transcript and an opportunity to make changes if required. A number of nurses voiced feeling "embarrassed" and "stupid" when they read their transcripts. There were a number who were surprised by their repetition of “mh/mmh/ah”. We discussed and laughed about these.
I also reassured them that in audio recorded interviews this is often the case as observed by Kvale (2007) elaborating that verbatim transcripts can be a source of embarrassment since oral language, when described, can appear somewhat confusing, rambling and even incoherent and participants may be left feeling that they have performed at a lower level of intellectual functioning. None of the transcripts were returned with any alterations. After each checked transcript was returned, and nurse practitioner was satisfied with the transcript, all identifiable data including names, were removed and coded. Participant names were coded by letter and number, A1 - N14, not in any particular order.

Listening and replaying of the audio helped to capture emanating themes, frequently used words and any developing queries. These initial thoughts were scrabbled on each transcript and note pad to compare across narratives.

2. Generate code
Coding is an analytic process that captures semantic and conceptual reading of data by generating labels of important features that relate to the research question (Clark & Braun, 2013). Transcripts were initially uploaded into qualitative analysis software NVivo version 11. NVivo qualitative software, is noted to be an easy to use software program; it is useful for organising and coding all types of materials and is thought to be a relatively stress-free tool to explore data for many purposes including creating relationships (Ozkan, 2004). However, although NVivo qualitative software was initially used to identify common words, text and frequency, due to my lack of experience in using it and lack of time to become proficient, I decided to discontinue using it. Instead, I found it easier and less time consuming to utilise Microsoft word.

As I became familiar with data, I was able to identify frequently used words, themes, and sentences which I highlighted manually on a notebook. There were so many codes that it led to confusion having to continuously flip pages to compare, contrast and put together. After completion of initial identification of themes on all transcripts, I changed to using A3 posters and post it notes to reduce number of identified common words, themes and sentences. This enabled different coloured post it notes to be used to put similar words under each topic and by using columns it could be visualised more clearly. In this way, large amount of data could be managed. Key words, phrases, terms and similar sentences were handwritten under each topic covered, resulting in over 95 identified “open codes” referred to by Kirby and McKenna (1998) as separating pieces of information that contain meaning.
Care also had to be taken to capture as much of the data whilst also not overly repeating similar codes. Narratives, namely “I am more aware” “the study created awareness”, whilst they looked similar, were coded differently as they did not appear to have the same meaning across interview transcriptions. Emanating codes, written on different coloured post it notes, were stuck on a handwritten row on the A3 poster. I moved them around as further transcripts were read and reread to ensure that no code was missed or unassigned to a potential code. A summarised illustration of the analysis process is provided in figure 6.1.

3. Identify themes
Initial codes which had been manually generated were subsequently pasted under each topic area. Codes were read, reread, moved around and similar worded post it notes were grouped together. A second line/column was drawn on the A3 poster to regroup reviewed similar words, constructs and themes. In line with trying to remain in an electronic version, I then opened a Microsoft word document to cut and paste words, and sentences from transcripts which appeared to help in verifying what was handwritten and to ensure that no data were missed and again checking against handwritten findings to compare and contrast. Cutting, copying, pasting on Microsoft word seemed to help make sense of data, and to an extent, it was a second form of validity and reliability, by ensuring all data were captured and findings were similar. Both manual and electronic Microsoft documents helped my organisation of data to identify themes, group together similar meanings and condensed first stage from some 95 codes to 50 codes. Codes were further reduced by bringing together similar topic areas, namely responsibility of nurses and nurse practitioners in health promotion had been two different questions (all registered nurses and the next question was just nurse practitioners). However, because of similar, repeat and short responses the two questions were combined into one resulting in a further reduction to 30 codes.

In order to develop deductive themes based on identified codes, further reading and rereading was completed for each topic area and further grouping narrowed themes down to 20, taking into account topic areas and objectives. Continual comparison between handwritten post it notes and electronic version occurred to help with verification. Commonly used code was awareness, frequent use of the word brought codes down further. One transcript was repeating itself with narrative that referred to politics and other services within the department that was of little relevance to the research question, research and brief health promotion in this department. Over half of the content in this narrative could not be used.
Epidemic of long term conditions was not well understood or articulated, reducing the codes even further as there was not much input on this theme. Aim was to group themes to manageable themes that would retain meaning and allow a cohesive narrative to begin to form. Braun and Clark (2013) refer to it as the phase to identify themes as identifying a coherent and meaningful pattern in data, with researcher constructing themes, ending the phase by collating all coded data. At this stage my supervisor AD also independently started categorising developed words, themes, phrases and sentences.

4. Review themes
Emerging codes were read against each topic area, reading, moving and rearranging post it notes through the second column of the poster to ensure flow and development of themes. Topic areas were reduced, codes were further grouped and reduced. A third column on the poster resulted in a further narrowing down from twenty to fifteen themes, similarly on the electronic version. This visualisation helped to further move post it notes around, group together and develop a fourth column in both paper and electronic versions with seven further overarching themes. There was very little data that was not used and that which was discarded either had already been captured, included repetition or it was unrelated to topic areas. I would often take a break, and resume later using the electronic version in another attempt to compare findings.

A new electronic Microsoft word file was opened for each development of themes, merging of themes and different phase of analysis. Emerging themes were arranged and rearranged and grouped together within the topic area, resulting in fifteen individual themes which were, once more, reviewed. This stage is referred to as the process of checking that themes work in relation to the dataset, telling a convincing story, beginning to define individual themes and the relationship between themes (Clarke & Braun, 2013). Supervisor (AD) and I, compared our individual findings, added, removed, merged and finally cross-checked to ensure accuracy. A final fifth column was developed on the poster to ensure that there was no missed data, resulting in seven themes for discussion.

5. Define and name themes
Themes were read against original semi scheduled topic areas, together with developing questions. I then looked to find associations between themes, providing explanations for each theme, giving each theme a name relating to topic areas or interview questions posed, as recommended by Clarke and Braun (2013). These were also verified by supervisor (AD).
6. Produce a report
Findings are presented as per named identified main theme with relevant sub-themes which were further discussed in the discussion section with illustrations from nurse practitioner quotations. This is the process of weaving together analytic narrative and data extracts to tell a coherent and persuasive story about data and contextualising it to existing literature (Clarke & Braun 2013:5). I further decided to adopt a realist approach to the write up of these findings where the author is absent from the text, the viewpoints of interviewees are emphasised, and subject statements are transferred to a general level using “experience-distance concepts as recommended by Ritchie, Lewis, McNaughton-Nicholls and Ormston (2013). Seven themes are discussed as follows:

- Theme One: Expectations of opportunistic health promotion intervention when they started working at the urgent treatment walk in centre for minor injury and illness.
- Theme two: Nurse practitioners’ views on the increasing rates of long term conditions due to unhealthy behaviour, role of nurses in health promotion and the role of nurse practitioners in an urgent treatment walk in centre for minor injury and illness.
- Theme three: Experience of taking part in the feasibility research study on health promotion in the local urgent treatment walk in centre for minor injury and illness.
- Theme four: Impact of the research project on current and forward practice.
- Theme five: Opportunities for brief opportunistic health promotion in the urgent treatment walk in centre for minor injury and illness.
- Theme six: Barriers to brief opportunistic health promotion in the urgent treatment walk in centre for minor injury and illness.
- Theme seven: Recommendations for brief health promotion to continue in the urgent treatment walk in centre for minor injury and illness.
Figure 6.1 Development of codes and themes from nurse practitioner participants

- **Codes**
  - Confidence, up to date, awareness, training, leaflet, time, smoking, challenge, time, weight, role, pressure, empower, education, busy, offend, stigma, build up, aggressive, staff shortage, build-up, patient dependent, difficult, time, cost, fitting in, good, easy, access, opportunity, information, angry patients, pressure, knowledge, responsibility, opportunity, engaging, update, quick, links, need, can be done, information, demand, responsibility, not all nurses doing it, links, experience, confident, busy, minutes, role, liaison, reminder, staff shortage, able, ease, place, recordkeeping, place, ability, mandatory, no follow up, time, highlight need, reminder, numbers, not our role, costs of time, training, referral pathway, busy, change name, leaflet, chance, outside department, aware, statistics, wellbeing service, training, limited, link, time, targets.

- **Emerging themes**
  - Confidence, empowerment, awareness, highlight, reminder, opportunity
  - Busy, pressure, time, staff shortage, time in cost, time in negative, time in positive
  - Awareness, opportunity, confidence, need, leaflet
  - Starting conversation, offend, stigma, anger of patients, linking to presentation
  - Training, up to date information, knowledge, available referral pathways

- **Reviewing themes**
  - Time, training, awareness, challenges, role, opportunity, leaflets, empowerment, stigma, patient acceptability, barriers

- **Name & define themes**
  - Background in health promotion
  - Role of nurses in HP
  - SWOT from research
  - Impact on practice
  - Opportunities
  - Barriers
  - Empowerment
6.4. Findings

Introduction and background of nurse practitioners

Fourteen nurse practitioners were interviewed. Participants were asked about their years in employment as a nurse practitioner at the local urgent treatment walk in centre for minor injury and illness. A summary of age and gender is tabulated below in table 6.2. Length of time working within the local urgent treatment walk in centre for minor injury and illness ranged from 18 months to ten years with half of the nurse practitioners having worked in the department for at least two years. Two of the nurse practitioners were not asked about health promotion background as it had been established before the start of data collection that they had been in the unit since it opened and prior to that had worked in emergency department and wards with no participation in health promotion.

<table>
<thead>
<tr>
<th>N</th>
<th>Gender</th>
<th>Age (in years)</th>
<th>Years at MIU</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>Female=13</td>
<td>Mean 46, (range 35-61)</td>
<td>18 months to 10 years</td>
</tr>
<tr>
<td></td>
<td>Male=1</td>
<td></td>
<td>Mean 6 years</td>
</tr>
</tbody>
</table>

Nurse practitioners were asked about their previous nursing roles, and in particular, any experience of, or training in health promotion and practice of health promotion.

Ten nurse practitioners had a background in emergency department and secondary services with very little or no previous brief health promotion involvement. Only six (6/14) of the nurse practitioners confirmed that they had been involved in health promotion interventions in their previous employment in either alcohol intervention or screening for weight and alcohol intake as part of a specific screening process, detailed below.

Recruitment process

Two nurse practitioners (2/14) who referred to health promotion intervention in their previous jobs stated that health promotion was part of conducting a mandated screening process as part of a nurse recruitment process. They reported that this had involved asking questions guided by a computer software template which was required to be completed asking nurses about smoking status, alcohol intake, weight including BMI and advising on weight management (providing information leaflets) if it was needed. Both nurse practitioners did not refer to providing advice on smoking or alcohol intake.
Alcohol Intervention

Two other nurse practitioners, then staff nurses, had been involved in alcohol interventions. One nurse practitioner previously employed in an emergency department as a staff nurse took part in an alcohol intervention set up as part of a multi-disciplinary intervention. Working with the alcohol intervention team, a separate team within the local city council public health department, alongside emergency department staff, they had been involved in referring patients that had been identified with an alcohol related problem when presenting at the emergency department.

The second nurse practitioner had also been involved with health promotion as part of an alcohol intervention and rehabilitation programme as a staff nurse in a ward setting caring for patients that had been admitted for alcohol related complications, namely liver disease, alcoholic liver cirrhosis, encephalopathy, oesophageal varices and pancreatitis.

Smoking, Weight and Alcohol Screening

Two nurse practitioners came from a practice nurse background. Within the practice nurse role they had been involved in screening clients for smoking, alcohol use and weight including taking weight measurements, and, where appropriate offered behaviour modification services, documenting on a medical computer software template. Most screening was part of new patient screening, long term conditions review, attendance at contraception clinics and other clinics, all paid pre-booked services to meet the quality outcomes framework.

Theme One: Expectations of opportunistic health promotion interventions when nurse practitioners started working at the urgent treatment walk in centre for minor injury and illness.

Nurse practitioners were asked about their expectations of delivering preventive health promotion when they joined the urgent treatment walk in centre for minor injury and illness. I did not ask this question of three nurse practitioners (3/14) regarding expectations of delivery of health promotion as they had been working in the department for at least eight to ten years, (since the unit opened) and until this study, there had been no proactive health promotion intervention in this period. Majority of participants that were asked this question, (9/14) did not expect any preventive health promotion role in this setting; participant N14 appeared “shocked”, evident in her facial and body language stating that:

“It was not even discussed at the interview”
Participant C3 further stated that: “I did not even know it existed”. One nurse practitioner, with a background in primary health care working as a practice nurse, stated that she was “expecting it” (B2), however, she did not know how it could be implemented in this kind of setting. She was concerned that she “would lose part of her health promotion skills” she had gained in general practice as she “did not think they could be used in the unit”. However, following this research project in the unit, she stated that it was now a relief to know that health promotion skills gained within a GP surgery were useful and could be incorporated into current role.

Five of nine nurse practitioners (5/14) further stated that they thought that some form of health promotion might be expected or as J10 suggested:

“There is always a bit of health promotion role involved in the nursing profession” J10.

Theme two: Nurse practitioners’ views on the increasing rates of long term conditions due to unhealthy behaviour, role of nurses to health promotion and the role of nurse practitioners in urgent treatment walk in centre for minor injury and illness.

Nurse practitioners were asked about their views on the high rates of long term conditions and premature non accidental deaths, specifically cardiovascular disease, cancers and diabetes and the role of nurses to health promotion. Nurse practitioners (12/14) acknowledged that nurses had a role, responsibility and opportunity to influence clients’ lifestyle choices and reduction in unhealthy behaviour. Participant (F6), an ex practice nurse, went on to express:

“It should be available wherever you go, we can support, or signpost, or give information; it’s beneficial, it might be the only time they get in contact with a health professional”.

While two (2/14) participants related that they could not comment as nursing was developing and not what it used to be.

When asked about the role of nurse practitioner in health promotion in the urgent treatment walk in centre for minor injury and illness, it opened more discourse. Majority of nurse practitioners (13/14) stated that there was an opportunity to offer advice, provide information, and educate. One participant (1/14) stated that she did not know.
One (1/14) nurse practitioner, a former practice nurse, felt that nurses have a role everywhere and there was a place for health promotion in the walk in centre for minor injury and illness emphasising:

“There is a place for health promotion in MIU as well.” G7.

Contrary, one (1/14) nurse practitioner, the other former practice nurse, stated that it was the role of practice nurses, a quote from participant B2, emphasising the point: “Has limited to do with a unit for minor injuries and illnesses”. However, the same nurse practitioner was still observed to be stating that it is a good opportunity for clients “to be given information at least.”

Two (2/4) nurse practitioners suggested that although there was a place for health promotion within this setting, there were concerns that, since clients had not requested support, offering this might not be welcomed and nurse practitioners did not want to “offend” them and they had not been trained in health promotion. Three (3/14) participants shared mixed views, while supporting that health promotion was feasible, simultaneously they were referring to freedom of clients to make their own lifestyle choice. Two of these three participants (2/3) stated that clients came in with preconceived ideas of what was wrong with them and the management they thought they should have. They, the client/s did not have to take advice as they could make their own choices, elaborating that this meant that they (nurse practitioners) did not have to screen and advise because it was patient choice, with participant D4 stating that:

“It’s their choice.”

Two (2/14) of the nurse practitioners repeatedly used the words “link” referring to linking the presenting injury or illness to weight, alcohol or smoking, viewed as health education based on a need basis as opposed to an opportunistic proactive health promotion intervention. Examples include participants C3 and K11 stating:

“If you have a chest infection and you are a smoker, link it to the consultation.”

“Link it with the reason they are here, smoker that comes in with a cough, diabetic with ulcers, wound infection and overweight, weight and knee pain. We are duty bound to see patients holistically.”

Four (4/14) nurse practitioners asserted that if clients were presenting to urgent treatment walk in centres with injuries or illnesses linked to smoking, weight and alcohol, these discussions could be had. Nurse practitioners stated that they felt that clients knew that there was a link.
However, three (3/14) nurse practitioners stated that clients had presented to the walk in centre with preconceived ideas and not for health promotion, therefore, although there was an opportunity, there were also reservations to introduce health promotion. There appeared to be different views between ex curative service and primary care nurses, with ex-primary health care practice nurse (H8) stating that:

“Health promotion should come as a second nature in any consultation, in any health care setting.”

In contrast, ex-curative service nurses who were observed to be the same practitioners that were linking health promotion to a presenting problem with an example from participant (K11), a former emergency department staff nurse continued to emphasise that:

“It’s not impossible but difficult, patients come here with a fixed problem in their mind, for nurses there are constraints, time constraints, fixed government 4 hour targets, it’s a culture of I have to get my job done, I have to hit the targets.”

Despite mixed views of offering opportunistic health promotion or linking it to presenting complaint, 13 of 14 nurse practitioners related positive views to the urgent treatment walk in centre for minor injury and illness being a place for brief health promotion, relating that they had roles, responsibilities to clients and this kind of unit could be used as a place for health promotion with examples from quotes illustrated below (table 6.3):

Table 6.3 Nurse practitioners views on role of nurse practitioners in offering brief health promotion in walk in centres and minor injury/illness units

<table>
<thead>
<tr>
<th>Nurse Practitioner Views</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Good idea” N14</td>
</tr>
<tr>
<td>“Everybody needs education, anyone can be affected, It’s not shameful things to have but can be prevented all together, as clinicians we have a responsibility to our patients to help and educate.” C3</td>
</tr>
<tr>
<td>“We have a responsibility” E5</td>
</tr>
<tr>
<td>“It is our role” H7</td>
</tr>
<tr>
<td>“Opportunity to for advice and giving out information” F6</td>
</tr>
<tr>
<td>“It is possible with constraints” A1</td>
</tr>
<tr>
<td>“There is no place for it here” B2</td>
</tr>
</tbody>
</table>
Theme three: Experience of taking part in the feasibility research study on health promotion.

All participants had taken part in both Phases I and II of the research project. They had screened, recruited clients and delivered brief health promotion interventions. Participants were asked about their views on the research project. They were asked about the process, training undertaken, paperwork used, ease of process of screening, recruitment and delivery of a healthy conversation.

Nurse practitioners were positive about taking part in the study. Almost all participants stated that the research project had “raised awareness”, “increased their confidence”, “had been a good idea”, “they were now aware of services that could be offered to presenting clients” and more confident engaging in healthy conversation.

Training

All nurse practitioners stated that they found training helpful, however, some stated that initially they (3/14) were not confident in their delivery. They stated that the flow chart that was placed in every consulting room helped to remind them of what needed to be completed, together with a copy of the 15-30 minutes power point presentation training that was delivered by the chief investigator before data collection, with participant I9 stating “it helped”.

Paperwork

All participating nurse practitioners stated that the paperwork was simple and straightforward, easy to access with signposting. Participant D4 was noted to quote:

“it was easy.”

Three of the participants (3/14) stated that there were a few confusing questions on the client questionnaire, including reasons to participate in the study, more so the arm that a client was in (immediate or delayed), with participant F6 stating that.

“Patients did not need to know that”

Screening, recruitment and healthy conversation

Participants stated that they had been wary about inviting clients to the study as they envisaged a negative response from clients.
Six of the nurse practitioners (6/14) stated that they had presumptions that clients would be “offended” as stated by participant L12 or “get angry” as postulated by B2 or they would not want to be asked about smoking, weight and alcohol. Nonetheless, despite their reservations, most of the nurse practitioners were encouragingly surprised by the cooperation and openness of clients. Nurse practitioners reported that clients self-declared unhealthy behaviour, enabling them to engage in delivery of brief health promotion interventions and openly talk about it with supporting quotes:

“I was anxious in the beginning about smoke and weight but people will gladly tell you” participant E5 and participants I9 and G7 specifying that:

“Most people, 90% were keen and receptive”.

“Patients were very open, they gladly told you”

One nurse practitioner stated that all clients that they had recruited stayed to the end of the study. A few nurse practitioners also indicated that they felt

“it was a good idea” C3 and “it helped to ask the necessary questions.” M13

Participants D4 and K11 observed that “it was not done by all the nurse practitioners.”

Some nurse practitioners stated that it was a challenge to recruit for the research when it was busy with an example from participant G7 stating that:

“it is busy at initial assessment, it is not the right place when it is busy.”

There were overall positive reviews about data collection. However one (1/14) participant stated there were some aspects she did not understand. The process at the start of phase II and role modelling in the department may have helped before data collection started with clients. Participant K11 stated that “it was extra work”, E5 stated “it was a challenge when it was busy” and C3 “there were time constraints.”

Referrals

Nurse practitioners were particularly enthusiastic about the number of referrals to the Wellbeing service. A number of nurse practitioners appeared enthusiastic in discourse and facial expressions when they were asked about referrals, with participants D4, F6 and I9 stating:
“a number of referrals were made and it identified the magnitude of the unhealthy lifestyle behaviours of presenting clients.”

“we referred a lot.”

“it was a very good idea, some people were very enthusiastic and thought it was a good idea, anybody that was referred in the end was certainly a strength.”

Most of the nurse practitioners were positive about participating in the research project with a few other supporting quotes in table 6.4 below

Table 6.4 Views on the research project in MIU

| “it improved practice”, |
| “raised awareness” |
| “it showed that there is a place and opportunity for health promotion in MIU”, |
| “It did not only highlight health promotion for the nurses but some of the clients thought it was a good idea as well” |
| “it showed that it wasn’t a waste”. |
| “ it highlighted a need” |

Overall none of the nurse practitioners raised any negative views about the introduction of brief health promotion and participation in the research project.

**Theme four: Impact of the research project on current and forward practice.**

Moving forward from the research project, comprehension that opportunistic brief health promotion was possible, participants were asked about their views henceforth, and how the research project had impacted on their current and future practice.

Participants stated that health promotion was important and had to be continued. Over half of the participants (8/14) continued to state that they thought that health promotion forms part of the roles and responsibilities of nursing and subsequently should be included in consultations, with participant G7 going further to state that:

“Should be mandatory, I think it’s a good idea and I think it’s our responsibility.”

Participant J10 further affirmed that:
“It was a good thing, made it easy to explain to patient, it highlighted that we all have to be interested, we can make a difference, it’s a one stop place but we can give leaflets, it helped patients to sit and think.”

Further reinforced by participant F6 who stated that:

“It’s beneficial. It should be available wherever you go. We can support or signpost them, or give them information. Sometimes it might be the only time they get in contact with a health professional”.

It was, however, noted that while most of the nurse practitioners were positive about health promotion, nurse practitioners with a background in emergency department were particularly keen that health promotion should be linked to the reason that clients presented mostly linking weight and injuries, alcohol and injuries, recurring coughs and smoking, participants C3 and K11 quotes are repeated suggesting that:

“Link it with the reason they are here, smoker that comes in with a cough, diabetic with ulcers, wound infection and overweight, weight and knee pain. We are duty bound to see patients holistically”.

“If you have a chest infection and you are a smoker, link it to the consultation”.

However they were still observed to accept that there was an opportunity and possibility for health promotion in this unit. Interestingly, in contrast, views of nurse practitioners with a background in primary health care did not feel strongly that health promotion opportunities should be linked with presenting injury or illness. As one participant H8, a former practice nurse stated:

“Health promotion should come as second nature in any consultation in any health setting”

There were two commonly used words by the majority of nurse practitioners “confidence” and “awareness” in relation to the impact of the research project on current practice. Ten participants (10/14) confirmed that the research project had impacted on their practice as it had raised awareness. It had helped them “ask the right questions” and “gain confidence” to introduce brief health promotion. They reported that the research project helped to “raise co-morbidities”, being “able to link unhealthy behaviour to long term conditions in later life” and be aware of what available information and services to refer on to. Participants B2 and F6 were noted to state:

“I’m more aware, now when I look at a patient I am looking at them slightly differently, I see them as a whole, it’s actually made me more aware of what other things I can do for them.”
“A little bit more aware, it was easy to incorporate, I have got a little more confidence to speak, it’s helped my practice, and I now know where to send people or give them contacts.”

Participant J10 further affirmed that:

“It was a good thing, made it easy to explain to patient, it highlighted that we all have to be interested, we can make a difference, it’s a one stop place but we can give leaflets, it helped patients to sit and think.”

Participants stated that they would continue using newly acquired skills, they would seek advice from chief investigator or the Wellbeing service if they had any further problems or required assistance.

**Theme five: opportunities for brief opportunistic health promotion in the urgent treatment walk in centre for minor injury and illness.**

Most of the participants stated that they thought there was an opportunity to continue with brief health promotion. Participants reaffirmed that the research project had shown that there is a need for health promotion, a problem had been identified as such opportunities had to be extended for clients to be offered help and referral. Leaflets were mentioned a number of times as another alternative to having the conversation at initial consultation. Participants stated that clients could be given leaflets to read while they sat and waited for a practitioner for full consultation, with participant L13 affirming that:

“More leaflets to read while they wait so they can discuss with practitioner.”

**Theme six: barriers to brief opportunistic health promotion in the urgent treatment walk in centre for minor injury and illness.**

Although the majority of nurse practitioners stated that there were opportunities to continue with brief health promotion in the department, some of them (6/14) identified a number of barriers to their ability to engage in healthy conversations. Barriers included having the skills, including the ability to communicate and introduce brief health promotion and finding it difficult to engage in a healthy conversation. They further alluded to time to introduce health promotion in a busy unit (6/14). Participants were asked to elaborate on barriers.
Skill and communication to screen for unhealthy behaviour and engage in healthy conversation

Nurse practitioners indicated that before training, preparation and participation in the research study, they would not have actively engaged in brief health promotion. They further alluded that they gained confidence because of the study as they had not had any previous training or requisite to engage in opportunistic health promotion. The first month (Phase 1) when they only had to verify self-reported unhealthy behaviour helped to prepare them for the next phase of the study and by the time they had to engage in healthy conversations, they were more aware that there was no negativity from clients. As such, eight of the participants (8/14) reported that by the time they had to engage in healthy conversation, they found it easier to talk about smoking. Some stated that it was easier because there was a lot of information on the media about smoking and effects on health; they reported that clients that smoked expected conversations to occur. Participant I9 stated that smoking was easier to talk about because:

“it is easy to address as groundwork has been done.”, however I9 stated that it was not as easy to have that conversation when it came to weight and alcohol.

Participant J10 stated that “patients are expecting it”, however, she would not have asked such questions had it not been for the research project.

Participant N14 also stated that it was easier to talk about smoking “patients were used to talking about it, it is prominent”. Nonetheless it would be a conversation that would have arisen if there had been an indication or presenting complaint that was directly linked to smoking. Two of the participants (2/14) reported that they used their own risky lifestyle behaviour (smoking) to discuss with clients and overcome their own personal issues about their own unhealthy behaviour, while passively having a smoking healthy conversation. Similarly, nurse practitioners stated that this was because of the research study that they participated in. Only participant B2 conveyed that it was easier to talk about weight, elaborating that this was because of own obesity issues, it was easier to relate stating that:

“I think it’s easier because of me being overweight, I could relate to the advice, referral, fears, I could have a banter with them.”

However, ten nurse practitioners (10/14) alluded that they found it more challenging to talk about weight, stating a number of reasons, more commonly “fear of offending” clients, with participant E5 stating that obesity is visible, however, it is not talked about:

“Yet people know that they were overweight”.
In their reflection, nurse practitioners stated they felt “discomfort”, and “sensitivity” discussing weight to even stating that there was “stigma” around weight. Participant A1 further explained that:

“We live in a culture that is complaints driven, patients see you as attacking them, and I have apprehensions with discussing weight, conflicting ideas as a nurse of being a professional and avoiding a complaint”.

Although the majority of nurse practitioners (13/14) reported that they did not experience resistance from clients, they did, however, continue to use words and terms seen in quotes below in table 6.5:

Table 6.5 Fears of asking about unhealthy behaviour

| “Fear of offending”, participant E5 |
| “fear of treading on their toes”, participant F6 |
| “Sensitivity” talking about weight participant L12 |

There were no elaborations as to the reasons that they continued to have these perceptions despite cooperation from presenting clients, more so as the same practitioners had indicated that the clients had been “open” about unhealthy behaviour.

**Time**

Six nurse practitioners (6/14) referred to time as a negative barrier at initial consultation for recruiting clients for research. Nurses further indicated that there was limited time to have a healthy conversation at initial treatment. Based on the Clinical Commissioning Governing body (CCG), every client has to be initially assessed face to face within 20 minutes of booking in on the computer system (otherwise there is monetary penalisation by the CCG). Nurse practitioners reported that they felt they were under a lot of pressure to meet these targets when it was busy and with a number of clients booking in. The research project in addition mandated every participant be screened, consented and recruited at initial consultation. Nurse practitioners expressed that they found it challenging to meet the demands of the CCG and the requirements of the research. Initial consultation was viewed as not the right place to engage in health promotion with participants L12 and G7 stating that:

“Time to see them, and recruit when it was busy”. 
“Difficult at times doing it at initial consultation”.

Time was further mentioned by two nurse practitioners (2/14) in reference to waiting time for clients, stating that extra minutes that were taken up discussing health promotion with one client accumulated, resulting in delays and breaches, based on 4 hour government targets with participant A1 stating:

“If management want health promotion to be implemented, they must enable the time to deliver it, we are not a health promotion clinic, those places take weeks and months, here it’s a short period of time the impact you have made in that short period of time, did it make a difference, probably not, this environment is not conducive, and the patient needs to be followed up. You need to follow them up, in this department we do not follow up, here we are a one stop advisory, only GP can monitor patient.”

Participant K11, with over 20 years also in emergency department shared similar views:

“They need follow up to keep people interested, For them to know that someone cares, Its very important, I will still push it (health promotion) aside if its busy, it needs to be done outside the department.”

It was however observed that nurse practitioners conversely expressed that from their experience of taking part in the research project, it had not taken them long to screen, engage in healthy conversation, offer referral and provide a leaflet.

Time as a subtheme

Following the second interview and mention of time, time was incorporated into interview schedule, asking participants what they meant about time, time being a barrier and how long they thought an opportunistic brief health promotion intervention took. In light of mixed views, nurse practitioners were asked how long they thought brief opportunistic intervention took. Times varied from seconds to 15 minutes, with two (2/14) participants who alluded to 10-15 minutes, participant K10 observing that:

“Depends on the problem. 10-15 minutes for full intervention, screen, advice, referral, someone else might take longer.”

Participant D4 indicating that:

“A person who has all three all three or more problems will take a longer time.”

This was contrary to participants from a primary health care background who alluded that it took seconds to a minute. Nurse practitioners (6/14) with a background in secondary care wards varied between two and five minutes with some examples from participants E5, F6 and B2 quoted to state:
“The time was not too much of an issue.”

“I do not think it takes time, giving information and signposting does not take long, within 5 minutes you can identify an issue, and have a quick chat and signpost.”

“It takes a minute or two and can come into conversation, it does not have to be separate, it forms parcel of the consultation, Time will impact but one has to look further and into the future, it takes seconds to advise and offer help.”

There are some nurse practitioners who did not refer to time and when asked specifically about time as it had been added to the interview schedule, nurse practitioners thought that it did not take time to ask, talk and give information on health promotion or time had not been an issue. Nurse practitioners alluded that they thought that perhaps initial consultation was the right place, to at least provide them with a leaflet to read and think while they were waiting to see a nurse practitioner for a full consultation which was the hypothesis of the randomised controlled study within the feasibility study. They further reported that initial consultation could be identified as an important place though not for engaging in a health promotion conversation. However, it could be an opportunity to provide written information with participants E5, D4, further emphasizing that:

*It’s hard at initial consultation because you have 20 minutes to have seen everyone,*

*“I think even in that time frame we can get something across that’s going to help them.”*

Time was observed to be a barrier, more so because of the recruitment process rather than brief health promotion intervention itself as only two of the participants postulated that brief health promotion can take up to 15 minutes, the same participants who suggested that health promotion took months and follow up.

**Theme seven: Recommendations for brief health promotion to continue in the urgent treatment walk in centre for minor injury and illness.**

Nurse practitioners were asked about any identified training needs, recommendations, and suggestions for continued successful opportunistic brief health promotion interventions. In total, twelve (12/14) nurse practitioners were keen to get more training to gain skills and confidence in delivery of brief health promotion. Many were keen to work closer with the Wellbeing service (the referral organisation) and further stated that they felt that they wanted training to help them to incorporate brief health promotion into practice and to gain confidence with two quotations from participants J10 and I9:

*“Training on latest evidence, figures and facts.”*
“Training might help all nurses to realise it’s part of the role and not a separate long winded thing.”

Apart from initial training, half of the participants (7/14) also suggested that updates would also be useful as guidelines and policies change. There were other suggestions for either more nursing staff to enable health promotion delivery or guaranteed time to be able to deliver brief health promotion intervention. Fewer suggestions were made to change the name:

“Change of name from health promotion to health awareness” as it is only a brief chat and redirecting” (participant N14).

There was also a recommendation to: “making health promotion a separate entity to what they have presented with by providing an information stand in the waiting area” participant J10 and participant K12 recommending: “having a nurse outside the waiting rooms providing advice and leaflets while they wait”.

**Leaflets**

Leaflets were brought up a number of times (13/14) as another alternative to having a healthy conversation at initial consultation. Nurse practitioners concurred that clients could be given leaflets to read while they sat and waited for a practitioner:

“More leaflets to read while they wait so they can discuss with practitioner” (E5).

Eight nurse practitioners (8/14) stated that they wanted to see more leaflets in both waiting areas and consulting rooms. They suggested more posters in waiting areas and consulting rooms and to make health promotion leaflets accessible in consulting rooms.

### 6.5. Discussion

There is very little literature on brief health promotion in walk in centres, minor injury/illness units or urgent care centres, however, these centres are increasingly used by the public, including young people and working adults (Monitor, 2014). Equally there is little literature available on attitudes to health promotion by minor injuries/illness walk in centre nurse practitioners and emergency department nurses. A total of 18 nurse practitioners had been involved in the recruitment and implementation of a brief health promotion intervention of whom 14 were interviewed. Findings in this study provide very positive reviews by nurse practitioners on screening and engaging clients in healthy conversations and offer of referral to the Wellbeing service.
Nurse practitioners confirmed that the majority of presenting clients were open about discussing unhealthy behaviour. In this sample, nurse practitioners expressed that they thought that brief health promotion was a “good idea” for nurse practitioners and for presenting clients, similar to findings by Webster, Stratigos and Grimes (2001). The authors reported that 98% of their client participants thought it was “a good idea” to be screened for domestic violence, an opportunistic intervention, when they presented for routine antenatal care although the authors did not report about staff attitudes.

The issue of skills and communication in brief health promotion was raised. Nurse practitioners presumed that screening and engaging clients in healthy conversations would meet resistance and had raised concerns and fears about screening clients for smoking, weight and alcohol. None of the nurse practitioners reported negativity from screening clients or engaging in healthy conversations. Nurse practitioners in this sample concurred that clients had been receptive however nurse practitioners remained with “fears” to screen clients; it remains unclear where “fears and concerns” of nurse practitioners originate from.

As per literature, a number of studies have suggested a gap in appropriate skills and training; it is disputed if the fears arise from lack of skill, understanding and training. Fears are similar to those found in the pilot study by Patton and Vohra (2013). Their emergency nurse practitioners, who answered a questionnaire, reported that minor injury unit was not appropriate and that patients would likely respond negatively to being asked about their alcohol use. In their study, Lock, Kaner, Lamont and Bond (2002) acknowledged that nurses have many opportunities to engage in alcohol intervention, however, they had received very little preparation to take on the task and reported controversy about patient choice. Similarly in this sample, nurse practitioners acknowledged the opportunity to engage in healthy conversation for smoking cessation, alcohol intervention and weight management, however, they did not feel they were sufficiently trained and fully skilled to do so. Such findings were also reported in a Cochrane systematic review by Anderson, Lauran, Kaner, Wensing et al. (2009). The systematic review concluded that there was difficulty in managing alcohol problems in primary health care, practitioners were found to be less prepared and less effective in advising their patients because of lack of training, skill and understanding. A study by Woodland, Cherpitel and Kathleen (2011) two years later reported similar findings. They concluded that emergency department staff were not educated and trained to participate in effective health promotion. In our sample, following one month of screening for smoking, alcohol and weight, by the time nurse practitioners were actively engaging in delivering healthy conversations, they were more confident in engaging in smoking interventions.
They reported fears specifically about engaging in healthy conversation on alcohol and weight, these were more difficult topics to raise with no background cause for the roots of their fears as they reported positive feedback from participating clients.

Time came up often as both an opportunity to provide brief information and provide a written leaflet, however time was also referred to as a barrier. Time has been well documented as a barrier in literature, specifically in emergency departments. It is not clear how nurse practitioners quantified time as a barrier, however a number of studies have referred to nurses proclaiming that time is a barrier to health promotion (Casey, 2007, Woolard, Cherpetel & Thompson, 2011, Patton & Vohra, 2013). There were also some contrasting attitudes that appeared to be dependent on the background of the nurse, age and number of years working with those with a background in emergency department and longer work experience revealing a more reluctant tone to health promotion. This observation is made as literature revealed that traditionally nurses played a more health education role on a need to basis and if there was time, with services centred on a medicalised model (Ampt, Amorroso, Harris, McKenzie, et al. 2009. Nurses were also not trained in health promotion (Bensberg, Kennedy and Bennetts, 2003), as such there are still very few clinicians that are educated and skilled in the use of brief health promotion interventions (NICE, 2007a). This observation is also evident in the discourse used whereby nurse practitioners were recommending that smoking, weight and alcohol should be linked to the presenting complaint; health education rather than health promotion, albeit health education is an integral part of health promotion (Naidoo & Wills, 2005). Furthermore, it is only in the past twenty years that nurses are developing in autonomy as seen in the development of nurse practitioners, advanced nurse practitioners, and nurse consultants (Srivastata et al, 2008). This was found to be contrary to the younger/novel nurse practitioners, primary health care practitioners who thought and stated that brief health promotion should take, or it took seconds to minutes and could be part of the consultation, recommended by Hall, Reid, Ukoumunne et al (2007) and NICE (2007a) that brief interventions should take less than five minutes. Time, skill and training as a barrier raised in this sample has been raised in literature, however, sources of these barriers do not appear to have been fully explored in literature either. It has been questioned if barriers may be related to lack understanding of health promotion. Cross (2005) asserted that there was a lack of knowledge of health promotion, further observed by Whyte, Watson and McIntosh (2006) who explored nurses’ provision of opportunistic health education with patients in relation to smoking. They observed that nurses saw health promotion and health education as an addition to their work load as opposed to integrating it into practice.
They found that nurses recognised opportunities to introduce health education and receptiveness of patients, however, interaction was variable with poor communication skills, inadequate knowledge and understanding. Casey (2007) reported that nurses struggled to describe their understanding of health promotion, their understanding was limited and strategies to conduct health promotion were narrow. Problems about the understanding of health promotion by nurses were also raised by Whitehead (2008). Two years later lack of understanding of health promotion by nurses was still prominent (Whitehead, 2011).

Nurse practitioners recommended that health promotion leaflets should be placed in consulting rooms and waiting rooms. The principal researcher observed that there was lack of realisation by nurse practitioners that leaflets and posters were in waiting rooms. Additionally, all other leaflets relevant to commonly presenting complaints (illnesses and injuries) are not in consulting rooms but kept on stands in corridors; nurse practitioners have to get up and out of the consulting room to get information leaflets for clients. Nonetheless for health promotion they were observed to recommend that health promotion leaflets be placed in consulting rooms. It was further observed by the chief investigator that health promotion and providing advice was part of the current 2016 Clinical Commissioning Group (CCG) contract with Care UK. However, none of the nurse practitioners brought this up at the interviews, and they did not appear to see health promotion as mandatory or repercussions if CCG key performance indicators are not met. In trying to listen to interviews and not to impose own views, the chief investigator did not explore this further.

In summary, there has been very little training for nurse practitioners to implement brief health promotion. Nonetheless, majority of nurse practitioners in this sample had positive attitudes and enthusiasm to brief health promotion intervention and continued delivery of brief health promotion and integration into routine consultation. Continual role of management in enabling training for implementation or integration of health promotion into practice will be of benefit to nurse practitioners for them to gain knowledge and skills to deliver brief health promotion. It has been well documented that managers have an important role in supporting nurses, creating a culture for health promotion and sharing power in decision-making processes so that nurses feel valued and empowered (Casey, 2007). Management support and development of strategic policies for brief health promotion are recommended to enable training and integration into practice and reduction of barriers that nurse practitioners referred to.
Conclusion

Acceptability from clients presenting for an injury or illness with unhealthy behaviour enabled nurse practitioners to screen, assess, engage in healthy conversation, offer referral to the Wellbeing service and provide written leaflets. Cooperation from presenting clients reinforces the need to utilise opportunities and offer brief health promotion in this urgent treatment walk in centre for minor injury and illness as part of routine consultation. Training, support, management involvement and policies are needed to enable nurse practitioners to integrate brief health promotion into routine consultation to reduce rates of unhealthy behaviour.
Chapter Seven

CHAPTER SEVEN
SUMMARY, DISCUSSION AND STUDY LIMITATIONS

The aim of this study was to explore feasibility, efficacy and effectiveness of introducing brief health promotion intervention on smoking, alcohol, overweight and obesity in an urgent treatment walk in centre for minor injury and illness in Portsmouth. The study also aimed to explore acceptability of brief health promotion intervention by clients presenting with unhealthy behaviour and by nurse practitioners delivering brief health promotion intervention in this urgent treatment walk in centre for minor injury and illness. This chapter summarises background, rationale and choice of study methodology. Main findings are discussed and the chapter concludes with study limitations and recommendations.

7.1. Background and rationale of study
There is a global epidemic of long-term conditions and premature non-accidental deaths. These include heart disease, type 2 diabetes, cancer (namely oral, lung, breast, gastric) some skin conditions, circulatory disease, musculoskeletal disease and respiratory disease, especially chronic obstructive pulmonary disease. Globally there were 56 million deaths in 2016, of those deaths, over 40 million (70%) were premature non-accidental deaths due to long-term conditions (WHO, 2018). Heart disease was the main cause of premature non-accidental deaths in 2016.

In 2016 in the United Kingdom, heart disease accounted for 42% of all deaths followed by cancer (28%) and respiratory disease (24%). In England, there are over 170,000 premature non-accidental deaths every year due to long-term conditions (Office of National Statistics, 2015). In 2015 over 15.4 million people had a long-term condition with over 2.9 million people living with one or more long-term conditions (King’s Fund, 2018). Locally, the health of people in Portsmouth is worse than England average. Similar to global and national indicators, the highest cause of premature non-accidental deaths in Portsmouth is from heart disease (34%), followed by lung cancer (28%), digestive disease (16%) and respiratory disease (14%).

Long-term conditions and premature non-accidental deaths are directly linked to unhealthy behaviour with poor diet, inactivity, smoking, obesity and alcohol as the leading causes.
Globally, smoking is responsible for over 7 million deaths per year. There are an estimated 1.1 billion smokers in the world, the UK alone has 7.6 million smokers. In 2017, 17.2% of the adults in England were smokers compared to 20% in Portsmouth.

Overuse of alcohol causes over 3.3 million deaths each year (WHO, 2018). In 2016, globally, over 240 million people were dependent on alcohol. In the United Kingdom, in 2016, over 29.2 million people consumed alcohol, 8 million of whom were binge drinkers, 4.9 million people consumed alcohol over five days or more per week and 2.4 million people consumed alcohol over the recommended 14 units (Institute of Alcohol Studies, 2017, Office for National Statistics, 2018). Within England over 25.3 million people consumed alcohol above the recommended units in 2017. In Portsmouth, over 52,000 adults were dependent drinkers or consuming alcohol at increasing and higher risks and 24% were binge drinkers (Hampshire City Council, 2013a).

Obesity is responsible for a number of hospital admissions and generally poor health. Globally there were over 2 billion adults (39%) who were overweight and over 650 million people (13%) who were obese in 2016. Nationally in the UK, 45% of the population were found to be overweight and 26% obese. However, in 2018 in England, over 30% are overweight and 26% obese compared to Portsmouth where over 38% are overweight and 25% are classed as obese (Portsmouth Clinical Commissioning Group, 2014b).

In summary, there is an increasingly high rate of unhealthy behaviours globally, nationally and locally. These acquired preventable unhealthy behaviours are a major cause of the burden of health, quality of life, early onset of long-term conditions and non-accidental premature deaths; concerted efforts need to be taken to eradicate unhealthy behaviours.

There are a number of global and national initiatives that are being implemented to tackle rates of avoidable acquired unhealthy behaviours (smoking, alcohol and overweight/obesity). World Health Organisation [WHO] (2008) introduced MPOWER (Monitoring tobacco use, and prevention policies, Protection of people from tobacco smoking, Offering quit smoking help, Warning about the dangers of smoking, Enforcing bans on tobacco advertising, promotion and sponsorship and Raising taxes on tobacco) six strategies to combat smoking. MPOWER strategies have been rolled out in the United Kingdom. However, these strategies have not been sufficient to completely eradicate smoking. In 2010, WHO introduced a global strategy to reduce harmful use of alcohol. The global strategy introduced policies to reduce alcohol consumption, to implement policies around the globe, monitoring and surveillance, leadership, awareness and commitment by leaders, drink driving and alcohol pricing policies.
Reduction of recommended alcohol consumption to 14 units a week is evidence of these policies in the United Kingdom.

A global strategy to address diet, physical inactivity and health was introduced by WHO in 2004 and further updated in 2018. The strategy aims to address cultural, environmental, and individual determinants of inactivity.

In England, the government’s NHS five year forward view of 2014 aims to empower clients to take actions on their health, to “get serious about prevention” and act on implementing WHO strategies such as labelling of foods, tobacco advertising and alcohol warnings. The current Health and Social Care Act of 2014 has also introduced “making every contact count” (MECC) to engage clients in healthy conversations at all available opportunities including libraries, hospital and police stations.

Implementation of global and national policies is being carried out in Portsmouth as observed in the Joint Strategic Needs Assessment Team, local public health initiatives and the introduction of the Wellbeing service in 2015 that offers behaviour change on smoking, weight management and alcohol overuse.

Continued access to health promotion strategies for behaviour modification is needed to reduce unhealthy behaviour. Health promotion, an aspect of public health, aims to positively influence health behaviours of individuals and the public. There are variations of health promotion, however, brief health promotion intervention was chosen to address unhealthy behaviour in walk in centres, minor injury and illness/ailment units, urgent care centres and urgent treatment centres.

In the U.K., Walk in Centres (WIC) and Minor Injuries/Illness Units (MIU/MIAMI/MIIU) were opened in 2000 as a complementary service to General Practice (GP) and Emergency Departments (ED), to provide treatment for minor ailments (injury or/and illness) with extended opening hours including weekends and bank holidays. These centres were set up to modernise the NHS by responding to modern busy lifestyles, for easier public access, to increase accessibility to primary health care services, to offer more patient choice and to maximise the role of primary health care nurses to make better use of their skills (Monitor, 2014). Services in these centres are commissioned by local clinical commissioning groups (CCG) for each city. As such, services (injury, illness), age restrictions, name of the centre or unit and opening times are varied nationwide depending on the location and the clinical commissioning group. Clients walk in for minor injury and illness with no pre-booked appointments for consultation by a nurse practitioner, any day including outside traditional day time office working hours.
One of the key features when walk in centres and minor injury/illness units were proposed by the Department of Health in 1999 was “provision of advice about self-care, advice on healthy lifestyle e.g. smoking, diet and information” (DH, 2009:1). There is however not enough literature on the evaluation of health promotion in walk in centres, minor injury and illness units and urgent care centres. There is a need to utilise opportunities and to evaluate health promotion services, to increase access to health promotion services, to reduce the rates of unhealthy behaviour in walk in centres, minor injury units and minor injury/illness units and urgent care centres.

In Portsmouth, a city with a population of 209,000 of whom 49.6% are male and 69% are between 15 to 65 years of age, there is one urgent treatment walk in centre for minor injury and illness. It is open daily from 07:30 in the week and 08:00 over the weekends and bank holidays to 22:00 with a variation of injury and illness presentations of all age groups. On average 4000–5000 clients attend the local urgent treatment walk in centre for minor injury and illness per month. However, there is a higher percentage of working age group (16-65 years) that present that may otherwise not present at own registered GP practice. As such a feasibility study utilising quantitative and qualitative study methods was developed to study the implementation of brief health promotion intervention.

Aims of study

To explore feasibility, efficacy, effectiveness, and acceptability of implementing brief health promotion intervention on three high risk factors: smoking, alcohol overuse, overweight and obesity in an urgent treatment walk in centre for minor injury and illness. Questions that the study wished to address were:

- Would it be feasible to deliver brief health promotion intervention in an urgent treatment walk in centre for minor injury and illness?
- Is there unhealthy behaviour in the population that present to the local urgent treatment walk in centre for minor injury and illness?
- Would clients presenting for an injury or illness self-disclose unhealthy behaviour if screened?
- When would it be most effective to deliver brief health promotion intervention between two standard consultations?
- Would presenting clients and nurse practitioners accept the delivery of brief health promotion intervention?
Objectives of study

- To screen adult clients for unhealthy behaviour to produce a profile and proof of concept to introduce brief health promotion intervention on smoking, alcohol and weight,
- To conduct a randomised controlled trial to compare brief health promotion intervention at initial consultation (within 20 minutes) and standard consultation (up to 4 hours awaiting time), with a nurse practitioner to compare the best possible time to deliver brief health promotion intervention,
- To explore client acceptance by looking at views and attitudes to brief health promotion when presenting for an injury or an illness through client questionnaires,
- To explore acceptability of delivering brief health promotion intervention by conducting one-on-one nurse practitioner interviews.

7.2. Study methodology

A feasibility study utilising quantitative and qualitative methods was devised for this study. The study had four components: (1) a profile study to explore unhealthy behaviour, (2) a randomised controlled trial to compare efficacy and effectiveness of brief health promotion, (3) client survey and (4) nurse practitioner interviews to explore acceptability of brief health promotion intervention.

NHS ethical approval was granted in June 2015. Clinical governance was obtained from Care UK as the study site, and Portsmouth, Fareham, Gosport and South Eastern Hampshire Clinical Commissioning Group as commissioners of services at St Mary’s NHS Treatment Centre. Randomised Controlled Trial was registered prospectively, registration number ISRCTN77954447.

Data collection commenced 01 July 2015 at Portsmouth St Mary’s NHS Treatment Centre urgent treatment walk in centre for minor injury and illness, the only study site with clients aged between 16 and 75 years of age. All data collection was completed in January 2016.

St Mary’s urgent treatment walk in centre for minor injury and illness was chosen as a study site as it is the only urgent treatment walk in centre in a city where over 70% of the adult population have unhealthy behaviour from smoking, alcohol, overweight or obesity. The author works in the urgent treatment walk in centre for minor injury and illness; to avoid researcher bias and influencing data collection and analysis, rigour of the study was observed by following the study protocol and maintaining high objectivity.
1). Profile study

The aim of the profile study was to develop a profile to inform literature and proof of concept to determine if there was a need to continue to the implementation of brief health promotion interventions. The objective of the profile was to study demographic characteristics and unhealthy behaviour parameters of adult clients (16-75 years) presenting for an injury or illness. Indicators were age, gender, and unhealthy behaviour from smoking, alcohol, overweight and obesity and if presenting clients would self-disclose unhealthy behaviour. Data were collected over four weeks from 1st to 31st July 2015 for the profile.

All clients presenting to the urgent treatment walk in centre for minor injury and illness are given a mandatory booking-in form. The booking-in form was modified for this feasibility study by adding three additional questions of enquiry:

- Do you smoke?
- What is your alcohol intake per week?
- What is your weight and height?

At the bottom of the booking-in form clients were asked if these data could be used for research purposes with a tick box option. Recruitment was based on all adult clients (16-75 years) that presented for an injury or illness. There was no “active” recruitment for the profile study merely collection of data from the mandatory booking-in form with the additional three questions. At the end of the consultation with a nurse practitioner, all booking-in forms were kept in a box for collection by the chief investigator. Total number of all presentations were recorded daily on excel after which booking in forms for clients under 16 years and over 75 years were discarded, saving booking in forms for clients aged 16-75 years.

All data indicators were entered into an excel spreadsheet daily for the four weeks of data collection. Anonymous data were collected from the mandatory booking-in form on age, gender, postcode and reason for presentation. Additional data that was collected was smoking, alcohol intake, height and weight (to calculate the BMI). All daily excel spreadsheets at the work place were emailed to the home address for transferring onto a password protected laptop. On the laptop, all excel data were entered onto IBM SPSS version 22 software for data cleansing and analysis. Clients were classified as high risk if they were a smoker, consumed alcohol over the recommended units per week (28 units for men and 21 units for women at the time), if the body mass index was calculated to be 25 and more and or a combination of these high risk factors.
Statistical analysis included descriptive statistics illustrated in tables, figures and in text as numbers, and percentages for categorical data. Mean and standard deviation were reported for continuous data while multivariable logistic regression model and Pearson’s Chi-square test were used to test for inferences and or associations between categorical data. All data analysis was conducted on IBM SPSS 22 and verified by the university health science senior statistician.

2) Randomised Controlled Trial

A randomised controlled trial was conducted to explore efficacy by comparing the best time to introduce brief health promotion intervention between initial consultation (Arm A within 20 minutes of arrival) or delayed consultation (Arm B up to four hours from arrival). This was a single study between 01 August and 16 December 2015 with two parallel study arms either Arm A at initial consultation or Arm B as a comparator at standard full consultation. Brief health promotion involved:

Arm A- immediate intervention, (healthy conversation about risky lifestyle behaviour), information, assess for readiness to modify behaviour, written leaflet on specific behaviour and offer of referral at initial consultation.

Arm B- intervention at standard consultation (healthy conversation about risky lifestyle behaviour), information, assess for readiness to modify behaviour, written information leaflet on the specific behaviour and offer of referral.

Brief health promotion intervention was chosen as it has been advocated for “busy units”, taking seconds to less than five minutes to deliver with minimal disruption and unnecessary delays to presenting clients as advocated by NICE (2009).

The hypothesis was based on waiting time in that early brief health promotion intervention and written information leaflet provided at initial consultation within 20 minutes of arrival will have an impact on encouraging behaviour modification compared to a client who receives brief health promotion with a nurse practitioner at standard consultation (20- 240 minutes from initial consultation). The reason for choosing the alternative hypothesis was due to the theory that immediate provision of brief health promotion intervention (talk and leaflet) will aid participants to consider information and take up the offer of referral to the Wellbeing service during the standard delayed consultation. It had been anticipated to offer referral again at standard delayed consultation for those that had received immediate brief health promotion, however, this hypothesis could not be tested.
An intention to treat analysis was used in the randomised controlled trial analysis. This was chosen because it provides an unbiased estimate of the intervention effect and reflects much closer what occurs in practice. Population for this study was purposively selected from 16 to 75 years old clients that self-reported unhealthy behaviour (smoker, overweight or overuse of alcohol) on their mandatory booking-in form who had presented to the urgent treatment walk in centre for an injury or illness. The study could only include clients with unhealthy behaviour that could read and write English, able to provide consent, aged 16-75 years, within the PO1 to PO6 postcode as they could be referred to the Wellbeing service.

The primary outcome for the randomised controlled trial was the number of referrals that would be made to the Wellbeing service for further behaviour modification support. The secondary outcome was time it would take to engage in a brief health promotion intervention and healthy conversation. Calculation of the randomised controlled trial sample was based on the only two health promotion studies that had unhealthy behaviour “referrals” as end points. Level of referral from the two studies on alcohol and physical activity were 30% and 33%. Their level of uptake was rounded to 40% for simplicity thus a difference of 20% was wished to be detected in this sample. Power was set at 80%. Minimum total sample size was calculated to be 190 participants (95 in each arm) to achieve the primary objective, 7% was added to make up for anticipated attrition, increasing the sample size to 204, practical in an urgent treatment walk in centre for minor injury and illness that sees over 180 adults per day. All 204 participants would be equally randomised to brief health promotion intervention at initial consultation (Arm A within 20 minutes) and delayed full consultation (Arm B up to four hours waiting time). Complexity of ADASTRA medical software system and manner in which clients are booked in and client inclusion criteria would not enable random generation of numbers. Manual letters A (102) and B (102) were generated, written on an A4 sheet, folded in half, inserted in white envelopes, sealed and placed in a box randomly taken by hand by a nurse practitioner after consent to participate in the study.

Invitation posters were available in the waiting rooms informing clients about the research project. On arrival, all adults aged 16 and above were provided with a participant information leaflet regardless of health behaviour. Recruitment of clients was based on self-declared unhealthy behaviour on the booking-in form. There was no change in the allocation during brief health promotion intervention. At initial consultation, client with unhealthy behaviour was invited to take part in the study by the consulting nurse practitioner. On accepting, they signed a consent form after addressing any questions and assuring them of confidentiality and anonymity. Participants and nurse practitioners were concealed from the study arm until a sealed envelope was opened after signing consent which randomised a participant to either arm A or B.
If the participant was in arm A they got immediate brief health promotion intervention there and then with the nurse practitioner. However, if they were in arm B, they returned to the waiting room and got brief health promotion intervention at full standard consultation with a nurse practitioner. Intervention ended at the end of consultation.

A randomised controlled trial checklist was attached to all booking in forms of clients aged between 16 and 75 years with tick boxes for type of unhealthy behaviour, invitation to study, recruitment, consent and randomisation. Nurse practitioners were expected to complete the checklist for all eligible adults despite health behaviour. At the end of consultation, all forms (booking-in form, check list, consent form) were placed in a collection box for collection by the chief investigator. Chief investigator collected all paperwork and managed as per protocol, anonymous soft data input was entered in excel. Data collection was on these variables: age, gender, unhealthy behaviour, study arm, duration of intervention and referral. Excel spreadsheet was emailed to chief investigator enabling it to be downloaded and saved onto a personal encrypted laptop after which data were entered onto IBM SPSS version 22 for ease of data cleansing and analysis.

For clients that accepted the offer of referral to the Wellbeing service, contact details had to be noted for the referral to be made in which case the participant was informed of shared information (name, address, contact number, and unhealthy behaviour service required). All referrals were emailed by reception staff using the secure NHS emailing site, after which referral forms were given back to chief investigator for auditing and research purposes.

All data analysis was conducted on IBM SPSS version 22. Analysis was conducted by chief investigator, report generated and followed by verification by university health studies senior statistician. Descriptive statistics were performed and reported as numbers and percentages for categorical data and as means (SD) for continuous data. Pearson’s Chi-Square test was used for categorical data to determine statistical associations between study characteristics. For continuous data, independent t-test/Mann Whitney tests were run to test statistical associations between groups.

3). Client brief health promotion views survey

On exiting the randomised controlled trial, all 204 participants were requested to complete a hard copy questionnaire. The aim of the survey was to explore acceptability of brief health promotion when clients had presented for an injury or illness. A non-validated qualitative and quantitative questionnaire with 20 questions was developed specifically for this study.
Questionnaire response rate is lower, however, they are of benefit as they are less costly and less time-consuming and they were found to be more achievable in this kind of setting where there is no follow up of clients. All questionnaires were successfully returned (100%) Participants were asked about their views on unhealthy behaviour, plans to modify unhealthy behaviour, views of being asked about smoking, alcohol and weight when they had presented for an illness or injury and their views of having healthy conversations as part of routine consultation. They were asked about future use of brief health promotion service and if they would inform family, friends and colleagues about brief health promotion intervention and offer of referral service. Questionnaires were handed out with a pen on exiting the randomised controlled trial. Participants placed completed questionnaires in collections boxes that were placed at exit doors and reception desk. All questionnaires were collected by the chief investigator. Quantifiable data were entered into IBM SPSS version 22 and thematic verbatim was entered into Microsoft word for descriptive data. Data were analysed on IBM SPSS version 22 while open ended questions were thematically analysed. Descriptive data were presented as numbers, percentages, words and figures. In order to analyse available data, participants’ verbatim had to be analysed in categories in some questions.

4). Nurse practitioner interviews on health promotion

The aim of interviews was to explore nurse practitioners’ experience and perspective after participating in a new brief health promotion intervention within the local urgent treatment walk in centre for minor injury and illness. At the end of all client data collection, 18 nurse practitioners that had taken part in data collection were invited to interviews. One to one interviews with a purposive sample were more practical in a setting where logistic problems of staff accessibility and time available may make it challenging to assemble sufficient numbers for focus group discussions.

All eligible nurse practitioners (n=18) were invited by a personalised letter and participant information leaflet. On the day of the interview all questions were addressed, participants were reassured of anonymity and a consent form was signed. Enquiry was made on nurse practitioners health promotion background and their expectations to deliver health promotion intervention in the local urgent treatment walk in centre for minor injury and illness. Nurse practitioners were asked to share their views on the epidemic of long-term conditions, premature non-accidental deaths and the role of nurses and urgent care centre/walk in centre/minor injury and illness unit nurse practitioners in the management of the epidemic.
Further enquiry was made on their experience of taking part in the research project, strengths, weaknesses and opportunities for brief health promotion interventions in the urgent treatment walk in centre for minor injury and illness. They were asked about future integration of brief health promotion intervention into consultation.

Fourteen nurse practitioner interviews were conducted and recorded on an Olympus VN-711PC Digital voice recorder. Interviews were stopped after the 14th interview as data saturation was reached and stories shared were repeating themselves. Audiotaped interviews took an average of 20-40 minutes and they were transcribed verbatim. Braun and Clarke’s thematic analysis framework was utilised for data analysis, recommended as it offers flexibility to concentrate on the content of the story and its meaning in a non-sequential manner with a step by step process to follow.

These study methods could be transferrable to other walk in centres, minor injury/illness units and urgent care (treatment) centres.

7.3. Research results
Profile of study population

A total of 4025 clients of all ages presented during the four weeks of data collection, 2815 (70%) were aged between 16 and 75 years of whom 1620 (58%) consented to data being used for research. Data could only be analysed for 777 males (48%) and 843 females (52%).

Of 1620 client booking-in forms, 80% completed health behaviour questions. About 60% of the clients were from PO1-PO6 city centre of Portsmouth postcode. Over 40% of presentations were limb related injuries.

Mean age of clients was 42 years (SD 16.08), interquartile range 59 and mode was 31 years. Over 42.5% of this population was aged between 16 and 35 years followed by 18% aged 36 to 45 years, 17% aged 46 to 55 years and 22% aged 56 to 75 years.

Of 1620 clients who consented to data use, 76% reported unhealthy behaviour. Unhealthy behaviour varied across age groups and gender.

About 27% of the clients were self-declared smokers, 12% of whom were smoking an average of 10-19 cigarettes per day. There were more male smokers (57%) compared to female smokers (43%) with 7.1% smokers between the ages of 26 and 35 years compared to 6.6% for ages 16 to 25 years.
Smoking uptake reduced after the age of 36 with 4.1% smokers between 36 and 45 years, 4.2% smokers between 46 and 55 years, 1.8% smokers between 56 and 65 years and 0.4% smokers between 66 and 75 years. Smoking decreased with age with a negative correlation coefficient of 0.61 indicating that there was less smoking as people got older in years.

Just over 10% overused alcohol. Over 5% (82) consumed between 11 and 15 units, while 3% (46) consumed 16-20 units and 10% (159) consumed 21 to over 30 units of alcohol per week. Over 12% males consumed alcohol over recommended units compared to 4% females with as much as 2.4% males consuming over 30 units per week compared to 1% females.

Average BMI in this population is 26.51 (SD 6.95) indicating that the average population in Portsmouth is overweight. There were 40% who were overweight and 22% were obese. There are more overweight males (46%) compared to females (36%), however, there is a wider spread of obesity among females across the age groups. Odds ratio was 1.11 (CI 0.839-1.51) indicating that the odds of having a high BMI are the same for males and females. There was no statistically significant association between a high BMI and age (Chi-square 30.99, p=.662).

Further analysis revealed that some clients had more than one of the three unhealthy behaviours. Analysis was run to combine and compare these combined behaviours. There were 13% that smoke only, 7% were alcohol over consumption only and 47% had a BMI over 25. About 2% were both smokers and alcohol over-use, 12% were both smokers and had BMI of 25 and more, and 1% both over used alcohol and had a BMI of 25 and above.

Chi-square did not reveal any significant association between unhealthy behaviour, age and gender. There was no statistical significance when logistic regression models were run to explore associations between unhealthy behaviour, ethnicity, age and gender, however analysis suggested that male gender is associated with an increased odds of unhealthy behaviour compared to females (p= 0.037). There were more male smokers (57%) compared to female smokers (43%), 12% males consumed alcohol over the recommended units compared to 4% females. There were 46% more overweight males compared to females (36%). There were 0.6% male smokers who overused alcohol compared to 0.2% females. There were 6.4% male smokers who are also overweight compared to 4.9% females. Unhealthy behaviour varies in this population with ages 26-55 revealing a higher rate of different unhealthy behaviour compared to other age groups. Smoking is an unhealthy behaviour associated with younger age group and male gender compared to other unhealthy behaviour which is varied although there was higher alcohol consumption among males.
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In conclusion, there is a high rate (76%) of unhealthy behaviour from smoking, alcohol overuse, overweight and obesity among adult clients aged between 16 and 75 years that present to the local urgent treatment walk in centre for minor injury and illness.

1). Phase ii Randomised Controlled Trial

A total of 204 participants were enrolled and they were accounted for at the end of the study. There were 102 participants in each study arm with a mean age of 40 years (SD 14.8). Demographic and clinical variables were comparable between Arm A and B. Independent t-test showed that Arm A had a mean age of \( \bar{x} 38 \) (SD14.06), compared to Arm B \( \bar{x} 42 \) (SD 15.31) indicating a somewhat higher mean age in Arm A compared to Arm B.

There were 101 males and 103 females aged between 16 and 73 years. There were 51 males and 51 females in Arm A compared to Arm B that had 50 males and 52 females.

Of 204 participants, 51 (25%) were smokers, 31 males and 20 females, 4 (2%) overused alcohol, that is 3 males and 1 female and 3 males (1%) had all three risk behaviours. Eighty nine (44%) participants had a BMI of 25 and above, 30 males and 23 females were overweight while 15 males and 21 females were obese.

There were 57 (28%) participants who had a combination of two unhealthy behaviours, 40 (20%) smokers and high BMI, 11 (5%) smokers and alcohol, and 3 (1%) had high BMI and alcohol overuse.

In arm A there were 25 smokers compared to one more in Arm B (26). However, there were 41 (40%) participants with a high BMI compared to 48 (47%) in Arm B. Arm A also had 4 participants that overused alcohol. There were 27 smokers who had a high BMI in Arm A compared to 13 in Arm B. There were 2 participants in Arm A who smoked and overused alcohol compared to 9 in Arm B. Arm B also had 3 participants that had a high BMI and overused alcohol while Arm A had 3 participants who had all 3 high risk behaviours. Being overweight and or obese, 44% (89) continued to be a major unhealthy behaviour in this sample.

Over 64% of the participants accepted the offer of referral in future, 59% in Arm A and 69% in Arm B.

There were 22 (11%) referrals made to the Wellbeing service, mostly on smoking and weight. Overall 11% that were referred to the Wellbeing service were equal in both study arms (11 vs 11). The primary outcome did not meet statistical significance.
Referrals were mostly for weight management (55%) compared to smoking (23%) and a combination of unhealthy behaviours; for smoking, weight and all three behaviours (5%).

Secondary outcome was time taken to engage in healthy conversation. Mean time taken to engage in a healthy conversation was 4 minutes (SD 2.85), mode was observed to be 2 minutes. It was not possible to compare if waiting time for Arm A had changed the offer of referral as this hypothesis was not explored.

Primary outcome did not reach statistical significance as an equal number of referrals were made between the study arms indicating that brief health promotion intervention is not determined by time, timing at initial or delayed consultation, however, it is determined by the recipient of unhealthy behaviour. Equal numbers of clients in study arms (11) that were referred lead to the conclusion that behaviour change is dependent on individuals, therefore, asking and offering services at that “right” moment, could help a contemplating client who needed that encouragement to take the step forward. Participants who are in contemplation stages are more likely to accept referral to the Wellbeing service; opportunities for brief health promotion need to be utilised by health care professionals. In addition, brief health promotion does not cause delays as it was found to take an average of 2-4 minutes.

Further analysis was run to explore association between referrals, gender and age. Over half of the referrals (13) were between the ages of 30 and 49 years. There were more females (59%) referred compared to males (41%), however, there was one male referred between 50-69 years. Multiple logistic regression was run to predict the probability of outcome improvement adjusting for the effect of age and gender. There was no statistically significant association with age (p=.995) or gender (p=.400) of participants seeking referral. Similarly, when multinomial regression was run, using referrals as an independent variable, study arms as a factor, age and gender as covariates, it was found that there was no statistical significance in age, p= .9.77 (CI .970-1.032) and gender p= .373 (CI .263-1.65).

2). Client brief health promotion views survey

On exiting the randomised controlled trial, all 204 participants completed and returned questionnaires. Sociodemographic characteristics were similar to those of the randomised controlled trial, however, an additional economic status enquiry was made. Six percent of participants were unemployed, 8% were students and 4% were retired. Employment classification for the rest of the sample (76%) ranged from technical, administration, trade, sales, operatives, care and elementary.
Just over 9\% of this sample were in managerial and professional occupations compared to 21\% in skilled trade and 46\% other positions.

As this is an implementation of a new service, it was found useful to enquire about knowledge of health modification services and plans to modify unhealthy behaviour. Over 64\% of the clients would have attended their GP surgery for the management of unhealthy behaviour while 5\% would not have seen anyone as they felt it was “self-inflicted” behaviour and 2\% would have gone to a pharmacy.

Enquiry was made on unhealthy behaviour and modification of unhealthy behaviour. Over 27\% of the smokers had set a significant date to quit smoking, namely the next birthday, beginning of the year and non-smoking month. Twenty one percent, (23) stated that they had tried before and they had not been able to quit while, 17\% (19) had no plans to quit smoking and less than one percent stated that they enjoyed smoking.

There were more clients who overused alcohol (12\%) compared to the results in the profile study and the randomised controlled trial and 25\% who did not know what their alcohol intake was, and there were three more smokers, 12\% (25) revealed that their alcohol consumption was above the recommended limits with a few stating that they “enjoyed their drink”. There is a noticeable association between age and knowledge of alcohol intake, with the majority of those that responded to not knowing their alcohol intake observed to be men and before the age of 40 years.

Over 136 (68\%) of the participants self-declared overweight and obesity with 37\% declaring they were on a weight management or exercise regime. Three percent (7) of the participants answered that they did not have plans to reduce weight while 3\% (7) stated that they had unsuccessfully tried before, there was no further elaboration or other attempts to try again, and 2\% (4) wanted to quit smoking or take control of their alcohol intake before managing their weight. Some stated that they were thinking of diet and exercise or aware that this is what they needed to do, with 12\% (26) stating that they realised and were aware that they had to cut down on unhealthy eating habits.

Participants were asked about their experience of being asked about smoking, weight and alcohol by a nurse practitioner when they had presented for an injury or illness as an open-ended question and the duration of the healthy conversation. Participants did not complete open ended questions as anticipated, merely short answers namely “ok”, “very good”, and “good”. Regardless, general response was positive. Participants (70\%) thought that it was a good idea to be screened for healthy/unhealthy behaviour compared to 3\% who felt that brief intervention should be offered after treatment or “n/a”.

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There were a few narratives with quotes used in chapter five for example “good idea” “I know I need help” and “unexpected but informative”.

Brief health promotion intervention took two to four minutes in addition to the presenting injury or illness. Over 66% of the clients had positive views about length, time, place and nurse practitioner healthy conversation with only 1% stating that they were in pain or it was not applicable and 1% stating it was not good. Again participants used short words specifically good, ok, fine and very good. A few participants (1%) with negative views referred to “pain”, “embarrassed” and “after treatment”. However, when participants were asked about their views on brief health promotion itself, over 77% had positive views compared to 2% that had negative views. Over half of the participants thought that the intervention, place and nurse were “very good to ok”. Again, of the other 2%, response was “pain”, “not good” and “do not know”. Written leaflet had positive reviews.

Survey was concluded by enquiring about future use of brief health promotion service and any recommendations. Over 60% stated that they would use the brief health promotion service if needed in future, over 15% stated that they were trying self-help strategies and 37% conveyed that they were on a programme (mostly gym, Slimming World and Weight Watchers) at the time of the survey.

Participants (82%) would recommend and inform their family, colleagues and friends about the brief health promotion service in the urgent treatment walk in centre for minor injury and illness with one participant stating they “may need help”. Participants recommended more education, advertising, advice on healthy eating and smoking cessation and to make health promotion normal practice.

4). Nurse practitioner interviews on health promotion

Sociodemographic data of nurse practitioners revealed that most of the participants were female with a mean age of 46 years (range 35-61). Six of fourteen nurse practitioners had previous experience of health promotion. Two nurse practitioners worked in recruitment of nurses for military and abroad; they followed a template asking about weight, smoking and alcohol intake. One nurse practitioner participated in an alcohol intervention team referral trial in an emergency department where they referred alcohol related problems to the alcohol intervention team based within emergency department. One nurse practitioner worked in a ward that admitted patients with alcohol related disease.
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Two of the other nurse practitioners were former practice nurses in a GP surgery, again following a template on the computer as part of the quality outcomes framework (a reward system paid to GP’s for services provided).

**Expectations of delivering preventive health promotion when they joined the minor injury and illness unit.**

Nine nurse practitioners (9/14) had not expected a health promotion role in an urgent treatment walk in centre for minor injury and illness, with 4/14 nurse practitioners stating they did not even know about health promotion. Five nurse practitioners further stated that they thought that some form of health promotion might be expected. One former practice nurse stated that she had experience of health promotion, she was concerned that acquired skills would not be used and did not know how or if acquired skills could be implemented in this kind of setting. She was concerned that she “would lose part of her health promotion skills” she had gained in general practice as she “did not think they could be used in the unit”.

**Views on increasing rates of long-term conditions due to unhealthy behaviour, role of nurses to health promotion and role of nurse practitioners in walk-in centres, minor injury/illness unit and urgent care centres**

Nurse practitioners (12/14) acknowledged that nurses in general had a role, responsibility and opportunity “to influence” clients’ lifestyle choices. When enquiring about the role of nurse practitioners working in walk in centres and minor injury/illness units, majority of nurse practitioners (12/14) stated that there was an opportunity to offer advice, provide information, educate and signpost clients. One participant (1/14) stated that she did not know. One former practice nurse expressed that it was the role of the practice nurses in GP surgeries as opposed to the other former practice nurse who thought that health promotion, support and signposting should be available at all patient and client contacts with one quote stating: “it should be available wherever you go”.

Despite general acknowledgement that brief health promotion was feasible, two nurse practitioners expressed reservations that clients had not presented for health promotion, they would not accept brief health promotion intervention and they also did not want “to offend” presenting clients.
Three (3/14) participants shared mixed views, whilst supporting that health promotion was feasible in the urgent treatment walk in centre for minor injury and illness, simultaneously they were referring to freedom of clients to make their own lifestyle choice. Two of these three participants (2/3) stated that clients came in with preconceived ideas of what was wrong with them and management they thought they should have, they, the client/s did not have to take advice as they could make their own choices, elaborating that this meant that nurse practitioners did not have to screen and advise because it was patient choice. Two nurse practitioners (2/14) thought that there was an opportunity by linking health promotion to their presenting injury or illness, for example a client who had knee pain or diabetic leg ulcers and was obese or a client who is a smoker and came in with a chest infection. A few of the nurse practitioners (3/14) stated that they could not elaborate as they did not have enough health promotion experience or knowledge.

Experience of taking part in the feasibility research study and continued brief health promotion

Over a third of nurse practitioners reported that feasibility study on brief health promotion study had raised awareness (12/14), it had helped them to gain confidence in discussing smoking, weight and alcohol and it had been a good idea. Nurse practitioners mostly revealed positive attitudes to brief health promotion, asserting that it took two to five minutes to engage clients and give out information leaflets. There had been reservations and presumptions (6/14), however, “patients were open, will gladly tell you and co-operative”. One participant stated that it was a challenge recruiting clients when it was busy in initial consultation.

Nurse practitioners were positive and appeared excited because of the number of referrals that had been made and positive reception by clients. They thought it was a good opportunity and needs to continue, however, some nurses mentioned barriers, specifically time (2/14) and training (10/14).

Time came up a number of times during interviews, however, it was noted that it was the challenge of recruiting that they felt took time at initial assessment (6/14) otherwise nurse practitioners stated that it did not take time to engage in healthy conversations (8/14). As the word “time” came up frequently during interviews, nurse practitioners were asked how long they believed it took to deliver brief health promotion intervention. Times varied with 2/14 nurse practitioners alluding to 15 minutes while 6/14 referred to two to five minutes and those from a GP practice nurse background (2/14) referred to seconds to a minute.
Nonetheless none of the nurse practitioners essentially stated that brief health promotion brief intervention had caused delays or had taken long.

Majority of nurse practitioners found it easier to engage in smoking conversations, however, they were reluctant to discuss weight, again referring to offending, and fear of complaints. Despite a positive response from presenting clients, nurse practitioners continued to have reservations discussing weight related intervention. Only one participant conveyed that it was easier to talk about weight, elaborating that this was because of own obesity issues.

When nurse practitioners had nothing further to add, they were asked about any recommendations for brief health promotion intervention to continue in the urgent treatment walk in centre for minor injury and illness. Recommendations made were to get training to gain confidence and skill and to work closer with the Wellbeing service. There were also recommendations to get regular updates on health promotion as guidelines and polices change. There were recommendations to have more leaflets in the consulting rooms to hand out to presenting clients. One nurse practitioner expressed that she thought it should be delivered in the waiting room outside the presenting injury or illness and another thought that a nurse practitioner could offer advice and hand out leaflets in the waiting room while clients waited for full consultation. Nurse practitioners reported that they felt the study had raised the need for brief health promotion in the local urgent treatment walk in centre for minor injury and illness.

7.4. Discussion
The feasibility study sought to 1). examine unhealthy behaviour among adults 16-75 years of age presenting to a local urgent treatment walk in centre for minor injury and illness and if attending clients would self-report unhealthy behaviour, 2). compare the most effective time to implement brief health promotion intervention between initial consultation (within 20 minutes of arrival) and standard consultation (up to 240 minutes) and time it took to engage in brief health promotion intervention and 3) explore acceptability of brief health promotion through client survey and nurse practitioner interviews.

7.4.1. Unhealthy behaviour, implications and opportunities for brief health promotion
The profile study revealed that over 80% of adult clients (16-75 years) would self-disclose status on smoking, alcohol used and weight.
The study revealed that 76% of adults that present to the local urgent treatment walk in centre for minor injury and illness have unhealthy behaviour from either smoking, alcohol overuse, overweight, obesity and or a combination of these high risk factors. These figures are similar to the report from the Portsmouth Joint Strategic Needs Assessment (2016) that revealed that 70% of adults in Portsmouth have one or more of these three unhealthy behaviours.

It was also established that there is a higher than average student population in Portsmouth (12.6% vs 6% England average). In this sample, 16% declared that they were students. Some students have recently left their homes for university, they interact with other students away from home, they influence each other to take up unhealthy behaviour (smoking, binge drinking and poor diet); these are students who would not essentially visit a GP surgery for advice on the uptake of unhealthy behaviour. Whether it is local students or students that have left home to attend university, it is established that there is a gap in access to preventive health services for young people who are not injured or ill. The extended programme of immunisation GP recall is before the age of 18 years for school leaving boosters. The next routine GP recall is over the age of 40 years for the well man screening and NHS check (Public Health England, 2013), resulting in over 22 years of missed health promotion opportunities. It is well documented that unhealthy behaviour, more so smoking and alcohol intake, is higher from the adolescent age (Miller et al, 2007) and in particular higher rates are seen in young males as early as the age of 14 years (White & Jackson, 2004).

Following school leaving boosters, females get a GP recall at the age of 25 years, for their first cervical smear (Public Health England, 2013), again resulting in missed opportunities to prevent unhealthy lifestyle uptake at the crucial ages of 14 years and above. Both male and female teenagers and young adults do not have a GP recall for health education or health promotion, at the crucial age of making unhealthy lifestyle choices. There is a wide gap of missed opportunities to educate, prevent high risk uptake and to promote healthy lifestyle choices from the age of 16 years, more so among men who are evidenced to delay in seeking medical assistance (Murray-Law, 2011).

Furthermore, a routine GP appointment is 10-15 minutes (NHS England, 2015b); this time may leave little room for health promotion and unhealthy behaviour modification if that was not the reason for a GP appointment. Studies to extend GP opening times and extension of consultation times have been documented, however it refers to dealing with patient complex medical issues and not to the inclusion of health promotion during consultation (Oxtoby, 2015, NICE, 2018).
Also, health promotion in GP surgeries is a paid, pre-booked appointment and offered as part of quality outcomes framework and management of long term conditions, family planning/contraceptive clinics, new patient screen and other outcomes based screening (DH, 2004); there is limited opportunistic health promotion intervention in GP surgeries.

It was further revealed that over 70% in this sample work in skilled and non-skilled trade. There is evidence that there are more non-accidental premature deaths, long term conditions and co-morbidities from people that live in more deprived areas (60%) compared to 30% in less deprived areas (Office for National Statistics, 2016). Early onset of long-term conditions and premature non-accidental deaths linked to unhealthy behaviour lead to at least 23 years lost from poor health (Office for National Statistics, 2016).

The profile also revealed that over 40% of clients were presenting for injuries. Injuries do not routinely present to GP surgeries resulting in more people with unhealthy behaviour who may not necessarily get brief health promotion intervention if they presented at their own GP surgery as they may not even present to a GP surgery if they do not have an illness. General practice contract does not actively fund the management of injuries (NHS England, 2015b). It is known that it is mostly males that sustain injuries, it is males that work in more manual and physical jobs, it is males that delay seeking medical attention, it is males that are known to take higher risks including smoking and alcohol use and it is males that have alarming rates of premature non-accidental deaths due to heart disease (Nguyen et al, 2014). It is known that high blood pressure/hypertension the “silent killer” increases risks of heart disease and stroke. It is perhaps for this reason that men have a higher rate of heart related morbidity and mortality.

Modernising the NHS has provided more opportunities for nurses to maximise the role of expert fields, develop more nurse autonomy, skills and expertise (DH, 1999, Monitor, 2014). However, it is observed that traditionally in this country, training and placement of nurses has mostly been within curative services and secondary care in hospitals with very little health promotion training. For example, registered hospital nurses have very little health promotion training as there are specific public health nurses who would have undertaken specialist health promotion training and practice (NMC, 2015). Curriculum of adult nursing in this country in the first year includes foundations of nursing practice and knowledge, anatomy and physiology, nursing assessment skills and person centred practice. In the second year curriculum focuses on developing nursing knowledge, acute care across care settings, engaging service improvement, evidence based decision making and nursing adults with long term conditions.
In the last year the curriculum focuses on complexities of adult nursing, safe and effective care, professional nursing practice and a service improvement project. It is with nursing adults with long term conditions in the second year that nursing students get a health promotion lecture. Asking about smoking, alcohol and weight has to be mentioned or asked as part of pre operation assessment in the objective structured clinical examination (OSCE). There is no further health promotion training for general adult nurses. Post registration nursing for advanced nurse practitioners also included history taking skills, contemporary issues, non-medical prescribing, decision making and leadership. Health promotion is a speciality for nurses interested in public health nursing (Royal College of Nursing, nd).

Lack of training and skill in health promotion was evident in reservations of nurse practitioners to engage in brief health promotion intervention in the local urgent treatment walk in centre for minor injury and illness. Nurse practitioners were positive about delivery of brief health promotion intervention. However, less than 15% of nurse practitioners referred to time and offending clients as barriers to health promotion. The view that it would take time can be speculated to be because of lack of understanding and training to deliver brief health promotion intervention. It is observed that lifestyle advice was a feature for walk in centres and minor injury/illness units, however, there is very little literature on health promotion interventions or lifestyle advice in walk in centres and minor injury/illness units (Monitor, 2014). It is agreed that there are opportunities for health promotion by nurses and nurses are also keen to deliver brief health promotion, however, they require support and training (Whitehead, 2008, Patton & Vohra, 2013).

Screening for smoking, alcohol and weight is not only useful to learn about the population in walk in centres, minor injury units, minor injury/illness units and urgent care/treatment centres, these three indicators are also used for public health profiles. In this study, it would be the local Portsmouth Clinical Commissioning Group and Portsmouth City Council Joint Strategic Needs Assessment that require these data. To date, these figures and indicators have not been collected in the local urgent treatment walk in centre for minor injury and illness. Statistics on these health indicators help to identify health problems and to prioritize health resources (WHO, 2014). Health statistics are not only relevant at local level, they are relevant nationally and internationally. Figures potentially assist policy makers and governing Clinical Commissioning Group to plan future local health promotion services and specifically walk in centres, minor injury and illness units and urgent care centres in the context of this study, more so as there is not enough literature on health promotion interventions in walk in centres, minor injury units, minor injury/illness units and urgent care/treatment centres, the data is essential.
There is a gradual increase of presentations in walk in centres and minor injury/illness units/urgent care centres (Monitor, 2014). There is a greater demand for walk in centres, urgent treatment/care centres and minor injury/illness units not only by the public. There is a publicised reduction in GP surgery appointments and increased pressure and attendances at emergency departments, 111 services redirections, thus redirecting clients to walk in centres and minor injury/illness units (NICE, 2018). Similarly, the local urgent treatment walk in centre for minor injury and illness has been seeing a gradual increase in the number of presentations, more so employed working adults, as it is open until 22:00. NHS England, (2015c) affirm that walk in centres, minor injury units, minor injury and illness units have increased accessibility and are increasingly being used by the public as around seven million patients present per year.

To sum up, over 70% of the population in this feasibility study were adults aged between 16 and 75 years, of whom 80% self-disclosed healthy/unhealthy behaviour and over 76% had unhealthy behaviour. Within the adults, over 16% declared themselves to be university students, over 50% were under 40 years of age, 40% were injury presentations and over 70% who work in skilled and non-skilled occupations. These groups are known not to routinely attend GP surgeries. Results in this sample are contrary to the findings of Salisbury (2003) who observed that such walk in centres would attract affluent and more male.

There is a need to increase access to health promotion services, more so to young, male adults. Walk in centres, minor injury units, minor injury/illness units, urgent care centres and urgent treatment centres are open outside office/work hours, they are a walk in service with no pre-booked appointments, emergency departments and GP surgeries are redirecting clients to them and the government is supporting their increased use (NICE, 2018). There is not only an opportunity to offer brief health promotion to prevent the uptake and reduce the rates of unhealthy behaviour, there is also a need.

7.4.2. Efficacy of brief health promotion intervention.
Out of 204 participants, 22 referrals were made. Brief health promotion intervention took 2-4 minutes. There were equal numbers of referrals between each study arms. Participants who accepted referral to the Wellbeing service did not appear to have been influenced by an initial or delayed intervention. These findings suggest that it is feasible to screen, engage in healthy conversations, provide leaflets and refer clients that are ready for behaviour modification.
The findings are similar to those in a randomised controlled trial by Bernstein et al (2011). The authors delivered smoking cessation advice and support to smokers who were contemplating quitting in an emergency department. Their participants were given patches, leaflets and follow up telephone calls. The study concluded that the endpoints were negative, but minimal intervention was just as effective as enhanced intervention in an emergency department setting, the determinant is the client.

Similar number of referrals made in two study arms in this sample, reaffirms the need for nurse practitioners to be reminded of different contemplation stages of behaviour change. Initial and delayed interventions may not have played a part in the decision making process of the client, nonetheless, screening and intervention may have given a contemplating client the encouragement to take the step forward. As advocated by Prochaska, Norcross and DeClemente, (1994), nurse practitioner has to establish the stage of behaviour change to be able to support presenting clients. Public Healthy, (2011) encourage that one client referred for behaviour change will make a difference in the burden of disease in the UK.

There can be long waiting times from initial consultation to full consultation, there is an opportunity to engage clients, provide health promotion information and leaflets to help them “consider their health” while they wait for a full consultation. The ideal opportunity to introduce brief health promotion is at the initial assessment within 20 minutes of clients being booked on the system. However, only one nurse practitioner at a time does initial consultations and there may be a number of clients waiting to be initially assessed and thus there are time restrictions in initial assessment consultations. Clients wait in the waiting room for an average of two to two and a half hours. It was important to engage presenting clients in this time that they waited, however, it was not clear how health promotion could be introduced. The theory of utilising time waiting could not be explored. To explore time waiting would have required a third arm that would have had brief intervention at initial assessment and review of offer of referral during full consultation, however, this could not be achieved. It remains to be explored if verbal and written information provided on arrival (initial consultation) could have positive outcomes on the number of referrals made as clients would have time to think and reflect while they waited for a nurse practitioner for full consultation, an average of two to two and a half hours.

In the desire to include health promotion intervention in two different standard consultations and also ethical considerations of withholding health promotion intervention to clients who needed it, it was decided to conduct a randomised control trial. There were 204 participants in the randomised controlled trial with similar ages and gender ratio.
Contrary to the study by Salisbury (2003) that walk in centres attract males, from less deprived areas, there was no association found between age, gender, social status and unhealthy behaviour in this study. Chapple, Sibbald, Rogers and Roland (2001) also concluded that walk in centres would be more attractive to the younger generation. The sample in this study was 16 to 75 years of age. There were, however, more injury presentations. It has been reported that injuries would not normally present to a GP surgery, more men are at higher risk and in manual jobs in the city and it is the males that have a higher rate of unhealthy behaviour compared to their female counterparts. There were more males who smoked and overused alcohol in the study sample. There is a lot of available literature of higher rates of men and risk taking. Nguyen, Rahman, Emerson et al. (2012), refer to smoking and alcohol as “male phenomena”. They further observe that changes in lifestyle, social alienation, insecure employment, poor working conditions and social stressors are linked to risky health behaviour and the urge to engage in such behaviour. While there were slightly more males than females and more people working in skilled and trade jobs, there was no association between gender, age and social status between this sample and literature contrary to the findings of Chapple, Sibbald, Rogers and Roland (2001) and Salisbury (2003).

Brief health promotion intervention took an average of two to five minutes. NHS Glasgow and Clyde (2015) recommend that brief health promotion intervention is not only better than no intervention but it has been found to be better than more extensive interventions and should not take long, further concurred by Rockville (1999) who observe that the length of a session is five minutes and can be delivered by a wide range of professionals. There were no participants that withdrew from the study or expressed negative views about an extended period of consultation. General positive response from this sample is similar to those reported by Hall, Reid, Ukoumunne et al. (2007), from their participants attending for routine cervical test. Participants received a brief opportunistic smoking cessation intervention when they presented for cervical screening. Researchers reported that, instead, intervention took longer than anticipated because of questions from the women about smoking cessation; the women wanted more information. Women were not deterred from attending for future smears. Jackson, Dixon-Woods, Hsu and Kurinczuk (2005), conducted a qualitative study with participants who had used a walk in centre. Their participants reported that they got more advice from nurses, they felt that nurses had listened to them and they felt valued. A study by Anderson et al (2002), concluded that patients felt that they had longer consultation time, more information and thus greater confidence with nurses in walk in centres.
Additionally, Webster, Stratigos and Grimes (2001), reported that 98% of their participants thought it was “a good idea” to be screened for domestic violence when they presented for routine antenatal care. The sample in this study had similar responses; participants thought it was a “good idea” for brief health promotion, it was needed and it was good to know that it was available at the local urgent treatment walk in centre for minor injury and illness. Statistical significance may not have been met in this randomised controlled trial, however, it was a small study to make generalisation; regardless there were still 22 referrals made with over 80% who accepted the offer of referral. Brief health promotion intervention can be implemented at either initial or standard consultation, it is effective, however, the determinant is the client who is contemplating to modify unhealthy behaviour. It is essential to take into consideration the contemplation stages of Prochaska, Norcoss and DeClemente, (1994) with all consultations.

7.4.3. Acceptability of brief health promotion intervention by clients and by nurse practitioners
Over 80% of adult clients presenting to the local urgent treatment walk in centre for minor injury and illness accepted screening, brief health promotion intervention and offer of referral. The opportunity for the urgent treatment walk in centre for minor injury and illness to provide brief health promotion intervention is very relevant. The local urgent treatment walk in centre for minor injury and illness has not previously been involved in opportunistic brief health promotion interventions in over 11 years that it has been operational. It was not known if there was unhealthy behaviour or whether presenting clients would be receptive to screening for smoking, alcohol and weight. However, less than 1% of presenting clients had negative views to brief health promotion intervention. Acceptability of health promotion interventions has been explored on smoking and alcohol, more so in emergency department. There is consensus that clients and patients are receptive to health promotion and are not deterred from attending for future services (Jackson et al, 2005, Hall, et al, 2007, Cropsey, et al. 2013). Webster, Stratigos and Grimes (2001) reported that nurses were positive about health promotion. However, in this sample of 14 nurse practitioners there had been some reservations that presenting clients would not be receptive to health promotion and they did not want to offend presenting clients. These findings were similar to those reported by Patton and Vohra, (2013) in that emergency nurse practitioners thought that the minor injuries unit was not suitable, and they did not want to offend their patients by asking them alcohol related questions. A few nurse practitioners also cited time to implement brief health promotion as a barrier.
Barriers to health promotion have been discussed by nurses as reported by Casey, (2007), Woolard, Cherpetel & Thompson, (2011), Patton and Vohra, (2013), however the meaning and discourse of time as a barrier has not yet been studied and defined. Despite very few who referred to barriers, nurse practitioners accepted that brief health promotion was feasible with more support and training. Lock, Kaner, Lamont and Bond (2002) reported that nurses acknowledged opportunities to engage in alcohol intervention, however, they had received very little preparation to take on the task and reported controversy about patient choice, as was found in these 14 nurse practitioner interviews. Anderson et al. (2009), Woodland, et al. (2011), Bensberg et al. (2003) and NICE (2007a) report that there are opportunities for health promotion, nurses accept and are willing to provide health promotion, however, there are still very few clinicians that are educated and skilled in the use of brief health promotion interventions. Over 90% of nurse practitioners also accepted delivery of brief health promotion intervention, however, requested more training and support. Training is needed to support nurse practitioners.

In conclusion, public health is everybody’s business (DH, 2018). It is time that new autonomous practitioner roles include health promotion in their consultations. There is a need to shift from traditional nursing practices. It is not only an opportunity, it is a need if WHO strategies, national targets and local public health targets are to be met, however, it requires a shift in traditional practice of “looking after a patient”. Advances in autonomous nursing practice are seen in the advanced nurse practitioner role/community matron/nurse consultants/nurse practitioners and advance clinical practitioner. However, these roles should not only focus on the area of nursing expertise, but a holistic approach that includes brief health promotion to reduce unhealthy behaviours. Unhealthy behaviour can be eradicated, and it requires nurse practitioners at primary health care level to make these conversations integral to consultations. Young people need support and information on risks of unhealthy behaviour, nurse practitioners in primary health care positions have the opportunity to invest in the future of the health of the nation; 2-5 minutes taken to discuss health promotion will increase healthy years of life by at least 23 years (Office for National Statistics, 2016).

The local urgent treatment walk in centre for minor injury and illness has an opportunity that might otherwise be missed to engage young people from the age of 16 that present for an injury or illness. There is an opportunity to engage all adults in healthy conversations. However, Bensberg, Kennedy and Bennetts (2003), observe that there is little literature on how to integrate health promotion into organisations.
Cross (2005), asserts that there is not enough literature and knowledge on health promotion. Nationally, England NHS five year forward view and Public Health England have prioritised tackling obesity, smoking and harmful drinking by supporting behaviour change (NHS England, 2014b), with clear strategies that can be utilised. Public Health England (2016) further recommends Making Every Contact Count (MECC) approach, making it the duty of every professional to engage. MECC aims to promote healthy lifestyle conversations by engaging every client that comes into contact with health or civil services, providing information, brief intervention, signposting and or referring for behaviour change (NHS England, 2014b). MECC “make every contact count” encourages that the intervention should form part of a consultation. Following NICE (2007) guidelines of 4 A’s of Asking about risk behaviour, Advising on risks, Assessing for readiness to change behaviour and Arranging by giving information or referring to appropriate services (brief health promotion intervention) takes less than one minute.

Management need to develop pragmatic, sustainable policies to help and support nurse practitioners and paramedic practitioners to offer brief health promotion interventions. Tones (2002) encourages healthy public policies to ensure health promotion through health education, so does the World Health Organisation (2018). Glasgow, Lichtenstein and Marcus (2003: 1261) observe that although prevention and health promotion interventions have been successful in well controlled research, few of the interventions are consistently implemented in applied settings, a gap that has been documented by many scholars and subsequently insufficient evidence to make recommendations. More research is required on effective applied methods to deliver brief health promotion in real environments. Nonetheless, brief health promotion has been found effective. Opportunities for health promotion need to be utilised to prevent the uptake of unhealthy behaviour and reduce the rates of unhealthy behaviour.

Brief health promotion intervention is feasible, effective and acceptable by clients and nurse practitioners in the urgent treatment walk in centre for minor injury and illness.
STUDY LIMITATIONS

General overview

The project was successful as it was the first research project in over 11 years that the urgent treatment walk in centre for minor injury and illness has conducted since its opening and only one of eighteen nurse practitioners had ever taken part in a research project. It was further successful as it was a brief health promotion intervention that had not been part of the services for over 11 years. It was acceptable to both presenting clients and nurse practitioners with very limited disruption and delays; there was efficacy, it was effective, it was feasible and it was acceptable.

Profile study

Some of the mandatory booking-in forms were not completed by presenting clients. It is very common for presenting clients not to complete the back part of the mandatory booking-in form and the newly introduced health promotion questions were in the bottom of the back page. This resulted in non-reporting of self-declared data. Another limitation of the study was related to clients’ permission to use data for research. A tick box asking for permission to use data for research purposes may have led to confusion. Some clients either ticked no or left the box blank. Clients who did not tick the box or ticked no led to incomplete data on unhealthy behaviour as this data could not be included in the analysis. In hindsight it continues to be debatable if the question should have been included or not as there was no intervention, merely collection of profile data which is of significance to public health data, statistical analysis and planning of public health and health services. Perhaps the question should not have been included for the profile study, particularly as it was anonymous data collection.

Alcohol figures were much more challenging to collect. Alcohol consumption question was poorly designed and as a result it is speculated that data were not correctly captured and values were underestimated. In addition, some clients and clinicians did not understand the units system of alcohol calculation. In future, scratch cards or alcohol glass pictures on the booking-in forms could be used for clients to self-report. More accurate data were available on client questionnaires revealing a higher number of people that overused alcohol and some who did not even know if their alcohol intake was within the recommended units or not.
Some clinicians did not confirm information with clients, more so the clients that did not complete booking-in form, or data input in computer notes did not reflect what the client had filled out on the booking-in form, resulting in outliers and incorrect data (1%) analysed as missing. Some clients would state that they are smokers, however, in the computer, nurse practitioner would type that client was neither a smoker nor a drinker, or body mass index of 0.

**Phase II: randomised controlled trial, client survey and nurse practitioner interviews**

Very few participant information leaflets were forgotten by reception staff and a few clients could not be invited to the study as they had not been given the opportunity to read about the research project. Some clients presented with clear unhealthy behaviour specifically smoking and obesity, however if they presented as an emergency including chest pain, they had to be excluded from the study as part of the exclusion criteria. However, some of them were stable and not transferred immediately to the emergency department so they could have been engaged in a healthy conversation as most of them had unhealthy behaviour mainly through smoking or being overweight or obese.

Client participants did not elaborate on open ended questions as was anticipated, Likert scale surveys might be suggested in future studies for more in-depth understanding of client views.

All booking-in forms of clients that were between the ages of 16 and 75 years had a research checklist form attached to each form, despite healthy or unhealthy behaviour. Practitioners had been requested to complete the form despite unhealthy behaviour or recruitment into the randomised controlled trial. Only 1104 of ± 21236 of the required research checklist forms were completed. It is thus not clear how many of the presenting clients had unhealthy behaviour. Nurse practitioners mostly concentrated on the 204 participants that were required for the randomised controlled trial and participant questionnaires. Also, time taken to engage in a healthy conversation with a client was not always recorded on the same checklist form, resulting in incomplete and imprecise data to make accurate pragmatic conclusions on acceptable time for healthy conversations.

The study enabled the identification of the need for training in this unit. Nurse practitioners showed enthusiasm for the study, however, before and after nurse practitioner interviews could have provided a view of the knowledge of brief health promotion.
Three of the very enthusiastic nurse practitioners resigned and left within one to three months of each other, the decline in recruitment and completion of research forms was clearly visible when they left. Not all the clinicians were committed, resulting in lost opportunities for clients and this practice still continues despite a mandatory health promotion template on ADASTRA software system. The template does not enable client notes to be completed unless the three questions have been completed (smoking, alcohol and BMI). Unfortunately, this data continues to be inaccurate at times indicating that clients are not engaged in healthy conversations by nurse or paramedic practitioners despite continuous training.

Interviews were scheduled and management supported the study, yet it was difficult for the interviewer and interviewee to relax when there was a long list of clients waiting for consultation resulting in disruption of the interview flow. Nurse participants waited to be asked questions, it was challenging getting them to talk freely and openly. Questions had to be further developed to make up for lack of openness. Rich data that may have been helpful was missed due to lack of openness. If anything, the study highlighted the need for further training and support. In current developing autonomous roles of nurse and paramedic practitioners, there is a need to encourage practitioners to utilise a more scientific approach, evidence based clinical decisions and active interest in research, health promotion and holistic care. The study identified the need for further training in brief health promotion for staff to gain necessary skills and confidence to engage in healthy conversations. There is an urgent need for management to take an active role to support, train and develop strategic, pragmatic policies to support staff to deliver brief health promotion interventions including MECC, for the benefit of the people in the city of Portsmouth. Enthusiasm and positive attitudes of staff provides encouragement that continued practice and training of brief health promotion interventions can gradually form part and parcel of daily consultation and ultimately have positive results for presenting clients and health of the people in the city.

**RECOMMENDATIONS**

It is feasible, efficacious, effective and acceptable to implement brief health promotion in walk in centres, minor injury and illness units. It is recommended that brief health promotion be rolled out to walk in centres, minor injury units, minor injury/illness units and urgent care/treatment centres with particular focus on:
Integration of brief health promotion into consultation

Brief health promotion needs to form part of routine consultation and holistic care. Prevention of disease and promotion of health as part of a consultation may help to prevent and prolong early onset of long term conditions, morbidity, co-morbidities and mortality and improve the health of the people in the city. One client referred for behaviour modification will make a difference; smoking, alcohol, diet, obesity and exercise contribute considerably to the burden of disease in the UK, (Public Healthy, 2011).

Nurse practitioners require support and training to remind them of the importance of integrating brief health promotion into practice and the relationship between unhealthy behaviour and medical conditions precipitated by unhealthy behaviour. Clients/patients/service users best health interest and disease prevention need to precede national and local set targets and nurse practitioner self-interests. Brief health promotion needs to be a routine part of a consultation regardless of outcome.

More access is required to health promotion leaflets in waiting rooms for presenting clients to be aware of services and also engage in brief health promotion with nurse practitioners.

Management need to develop pragmatic, sustainable policies to help and support practitioners to integrate brief interventions.

Training of nurses in brief health promotion

There is a need for training of brief health promotion. Literature revealed that there are few nurses that are trained in health promotion (NICE, 2007). As such for brief health promotion to be integrated into nurse and paramedic consultations and for it to be effective, extensive training is recommended. Management are encouraged to develop pragmatic policies to enable integration of brief health promotion and training of nurse and paramedic practitioners, recommended to support nurse and paramedic practitioners to integrate brief and very brief health promotion into consultation.

NICE (2015b) have for years encouraged brief health promotion by utilising the 4 A’s of Ask, Advise, Assess and Assist which takes less than five minutes. Making Every Contact Count (MECC) has also recently been implemented following the current government five year forward plan (NHS England, 2014). MECC is an approach to behaviour change that utilises day to day patient interactions with professionals to encourage changes in behaviour that will have a positive effect on the health and wellbeing of individuals, communities and populations.
MECC enables opportunistic delivery of consistent and concise healthy lifestyle information and enables individuals to engage in the healthy conversation which takes minutes and is not intended to add to the busy workload of health care workforce. There is evidence that the adoption of MECC could potentially have a significant positive impact on the health of individuals (Public Health England, 2016b). MECC further mandates every professional to engage every client in healthy conversations, it is recommended that urgent care centres, walk in centres, minor injury/illness units and urgent treatment centres adapt to these reforms. Currently, the Health and Social Act (2014) mandates Clinical Commissioning Groups to take a more radical approach to ensure MECC is implemented as they have a statutory responsibility for public health. The local urgent treatment walk in centre for minor injury and illness is commissioned by the clinical commissioning group and strategies to MECC may need to be demonstrated.

- **Research, monitoring and evaluation of brief health promotion strategies**

More research is required on effective methods to deliver brief health promotion. Nonetheless, brief health promotion has been found to be effective. A pilot study in a walk in centre for minor injury and illness is recommended as it will explore the larger view of unhealthy behaviour of adults that present and the effective use of brief health promotion opportunities.

An active health promotion lead is needed to help with audits, identify problems, training, support and networking. The lead health promotion nurse would liaise with the public health clinical commissioning group for planning of services. A health promotion lead nurse can liaise on:

1). Findings of the study need to be shared and discussed with CCG (the commissioning body) to make the integration user friendly for both clients and practitioners. Figures on unhealthy behaviour and time may be helpful to management and Clinical Commissioning Group in the future planning and provision of local services, in particular the mandatory making every contact count (MECC) public health initiative.

2). Collect unhealthy behaviour data. Unhealthy behaviour figures and attendances due to unhealthy behaviour are not actively collected from the local walk in centre leading to a query if the public health figures for Portsmouth are accurate as they are not inclusive, for example, alcohol related injuries that are part of recorded statistics or rates of smoking in the city.
Collecting unhealthy behaviour data from the local minor injury and illness walk in centre may help the public health and clinical commissioning group in future planning of services.

Nursing education/training needs a modified curriculum to include health promotion at pre-registration stages. Make recommendations and links with the Royal College of Nursing to address this need with the Nursing and Midwifery Council.

Brief health promotion intervention on smoking cessation, alcohol overuse and weight management for clients between the ages of 16 and 75 years that present to an urgent treatment walk in centre for minor injury and illness is feasible, effective and acceptable by presenting clients and nurse practitioners.
CHAPTER EIGHT

REFLECTION

This chapter aims to provide an overview of my journey through Professional Doctorate in Nursing, as a part time candidate, full time worker, a parent, a colleague and as an individual with long standing ambitions to complete a doctorate.

It is partly written in first person. According to Hamill, (1999), writing in the first person is necessary as it helps to develop analytical skills and self-awareness. Reflection is a process of internally examining and exploring an issue, triggered by an experience (Smith, 2004 & Smith 2011), a process of drawing out learning from own experiences to enable one to distil useful learning points that will guide future practice from current activities (Thompson & Thompson, 2008). I had the opportunity to practice the use of different models of reflection in stage one of the doctorate programme including those of John’s, Gibbs, Kolb and Borton’s, more so I as I have a role in mentoring other nursing and paramedic practitioners. I used Borton’s developmental framework model, a simple developmental model that is suitable for use even by a novice practitioner (Rolfe, Freshwater & Jasper, 2001), reflection is based on three questions: What, so what and now what, illustrated in figure 8.1 below.

![Figure 8.1 Borton’s developmental framework](image-url)

8.1. Reflection utilising Borton’s development framework.

On using this model, I found that it is quick, clear, straightforward and easy to use.
8.1.1. What: allows for a descriptive detail of events.
For over 30 years I have known that I wanted to complete doctoral studies, after all my middle name is University. The area of health promotion came about as an opportunity during a Master’s programme in Public Health. It was not a topic of choice for a doctorate, it was about an opportunity to contribute to health of the city and to try to raise awareness of needs in the local urgent care walk in treatment centre which I felt were overlooked; it was needed and it was necessary.

While undertaking a second undergraduate BSc degree in England, I decided to compare management of human immunodeficiency virus (HIV) in Primary Health Care in England and South Africa. Learning about HIV revealed stigma to be more of a problem compared to the virus itself. The interest in the discourse of stigma in HIV and AIDS was an eye opener as part of my dissertations both at undergraduate and post graduate levels. As I did more reading on HIV, I wanted to understand the source of stigma in HIV. Instead, I got to understand stigma, social dynamics, culture, inequalities, social interactions, information and knowledge to be issues associated with most disease and ill-health. I felt that education was needed. We did not want to change people’s culture and norms, but in their own terms, their level of understanding. We could still educate to improve the life and health of communities. Everyone deserves a good, long healthy life.

It appeared to me that prevention of disease, promotion of health and health information was the foundation. We needed to start there in order to prevent disease. As I read more, it appeared that in the UK, although public health has been in existence, focus was more on curative services. I could not understand why there were not a lot more approaches to prevention and promotion as there are in secondary services. I thought of HIV, I thought of the MMR article causing a drop in vaccination of children and mental ill-health. I thought of breastfeeding and a number of health related issues that seemed to be affected by lack of understanding and information. More health promotion and information is needed.

For the Master of Public Health (MPH) I focused on the discourse analysis of stigma in HIV, however, the sociology module required two assignments on a public health related topic. I chose to explore the use of tobacco products, specifically smoking. I had not realised there were so many social, personal and environmental facets that influenced some people to take up smoking. Second sociology assignment required one to develop a policy on the chosen topic. I developed a “pragmatic smoking policy” that was going to protect people from tobacco use, and those that had to smoke would get tobacco products only via a medical/GP prescription. Needless to say, the lecturer thought it was against human rights.
On undertaking MSc in Public Health, principles and practice of a public health unit required a proposal to implement change. This of course took me back to my work place, a minor injury and illness walk in urgent treatment centre that is open every day. Over the ten years that I had been working in the department, I came across obese clients who did not know what to do with themselves, felt sad and sorry for smokers who could not pay for their prescriptions because they had no money, and other clients that in conversation, one got the sense of struggle yet no available services for preventable illnesses and injuries. I experienced young people who were taking risks with smoking, drugs and alcohol, with little provision for any education or support. I saw these aspects, clients, and their health as important. I wanted to raise awareness, I wanted it to be a public health problem so they could get support, I wanted St Mary’s to be recognised as another unit with a high rate of unhealthy behaviours and not just figures from GP surgeries and QA hospital. Someone needed to pay attention to our figures as well to enable health promotion to be a priority. It was further important to me for multidisciplinary links with organisations that clients did not have to pay for. Not every person has the financial choice of paying for the gym, popular organisations like Slimming World or current smoking reduction devices. I needed to be able to refer clients to places that would be free of charge yet just as effective, for them to get the necessary support to modify their unhealthy behaviour and improve their health. As the end of the MSc drew closer and I started applying to continue on to a doctorate programme, health promotion and the need to want to make a difference took a priority as opposed to the attitudes of primary health care nurses and clients to HIV that I had wanted to continue with. I did not have a research or academic question or even methodology before applying for the doctorate, I merely had an idea and observed a need.

8.1.2. So what
So what, enables development of a personal theory (Jasper, 2003). This section reflects on the academic and professional journey. I had three universities of choice, however, the two others were eliminated as they were not appealing to a full time worker.

8.1.2.1. Academic Reflection
I visited University of Portsmouth website where there were PhD, Professional Doctorate and the new route doctoral pathways; it was all confusing, I only knew of a traditional PhD. Emails were sent to available email address though replies and feedback were not encouraging.
Feedback/reply was meant for a candidate who already had a research proposal or question and methodology in mind. I did not give up, I emailed a lecturer whose name caught my eye and she responded. Although Ann seemed to be more involved in the professional doctorate, she still gave me a lot of information, explained and seemed interested in my ideas.

I did a bit more reading. Taylor (2007) defined professional doctorate and Doctor of Philosophy as one producing a researching professional while the other produced a professional researcher, which was the least helpful at the time. I did not particularly want to undertake a professional doctorate, just a traditional PhD, to do a research project and complete studies, “get it over and done with” as part of my dream to complete a PhD. Adult learning (andragogy) is stated to be based on self-directed, specific learning needs, a partnership between learner and teacher and learner’s utilisation of their own experience (Cheetam& Chivers, 2001). I did not want to be interacting with others, nor did I want to undertake group work, I merely wanted a doctorate. I work better alone, however, as I compared and deliberated based on the University of Portsmouth Professional Doctorate in Nursing structure, all boxes that I was ticking seemed to be leaning strongly toward the Professional Doctorate pathway. I have never looked back. It turned out to be exactly what I needed, more support, more learning and new knowledge! There is so much I did not know! I had thought that the traditional PhD was the programme of choice, however, the Prof Doc has been the best decision for me. The programme is summarised in table 8.1 below.

**Table 8.1 University of Portsmouth Professional Doctorate in Nursing programme**

<table>
<thead>
<tr>
<th>Unit</th>
<th>Highlights for me</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional Development I and II</td>
<td>Reflection, reflection models, adult learning, mind maps, learning styles, and learning theories</td>
</tr>
<tr>
<td>Advanced research methods</td>
<td>• Quantitative study methods</td>
</tr>
<tr>
<td></td>
<td>• Statistical tests and analysis, use of IBM SPSS</td>
</tr>
<tr>
<td></td>
<td>• Quantitative research methods</td>
</tr>
<tr>
<td>Publication and Dissemination</td>
<td>Journal ranking, writing for a journal, publication</td>
</tr>
<tr>
<td></td>
<td>Resulting in publication of my work</td>
</tr>
<tr>
<td>Proposal for professional research and development</td>
<td>Refining the research project, ethics, methods</td>
</tr>
<tr>
<td>Practice based research– Stage Two</td>
<td>Maturity, independence, researcher, presentations</td>
</tr>
</tbody>
</table>
Chapter Eight

The programme started with the professional development unit in two parts, one being an oral presentation and two portfolios. Professional development unit did not seem to fit into the academic aspect of the programme. It would become clearer in a few months. I learnt about reflective models, learning theories and styles. At the time, I remember two months into the programme, Ann informed us what was expected at the end of the unit; however, what were learning theories? I did not know where to start, so I did what I do best, I watched television. One day I had “a light bulb moment”, I felt the enthusiasm, and the courage to continue, I was not doing it for anyone else but myself, all of it was my own learning.

It did not help that I would wake up ready to get started on academic work yet I would not settle until about 2-3 pm, in which case I would then stay up all night until I completed what needed doing. It all came together, a few weeks into the professional development unit about learning theories, typologies of learning and reflection, it became clearer. I found my learning style, I understood who I was, how and when I learn best. Following this realisation, I was able to proceed. I could learn, enjoy the learning, manage my time, work and learning process more effectively; I am not a morning person, I work better from the afternoon onwards and I embraced it with very positive results. UKCLE- United Kingdom Centre for Legal Education (2010), observe that learning is a feature of constructivism whereby the learner builds their own understanding from various sources, making the learning process a personal construct; it occurs when and where it is best situated. It is therefore beneficial that the student understands their own learning styles to enhance the learning process. I have now been able to use these learning styles for myself and also for colleagues at my workplace who are studying and friends who are doing their post graduate studies.

Advanced research methods module was challenging, it was hard work but it was worth it. Guidance on searching for literature, audit trail, databases, learning different methods of research were all valuable lessons that one can pass on to others. I would return from work at 10pm and stay up the whole night learning statistical methods, searching papers and a lot of reading that was involved and I came out of the module a better skilled person. I have a better understanding on the kind of statistical tests to use for quantitative questions, testing the hypothesis and variables. Dr Ogollah taught statistics in such a manner that it was easy to follow, understand, enjoy and actually do the calculations myself instead of the fear I had for statistics when I was reading for the Master of Public Health. I enjoyed using SPSS so much, I wanted to try all different tests for my phase I profile study and phase II randomised controlled trial. Now I feel I can even do basic teaching of statistics, there is no fear. Advanced research methods module further helped me to realise that I would like to specialise in qualitative research, the more I learn and read, the more I realise that there is a lot that can be gained from qualitative research.
Consequently, I listened attentively during sessions and read a lot as I wanted to absorb as much as I could yet it was also daunting to realise that as much as I thought I knew, there is actually so much more to be learnt.

I did not know about mixed methods and evaluation research, had never heard of them, and it helped as I gained more skill on the different qualitative methods and how qualitative and quantitative can be triangulated to shape my proposed research question and get ideas on methodology for my project. Consequently, while the project changed from evaluation research to a feasibility study, I was fortunate to get an understanding of other research methodologies. My skills in analysing qualitative research have improved and so have my skills in using search engines to search for literature. I got to learn and practice both qualitative and quantitative methods. I have also been fortunate to conduct a mixed methods study that enabled me to gain practical experience and skills; how lucky am I!

Continued enthusiasm, support and guidance from my supervisory team has helped in shaping and clarity of a thesis that was complicated as it had to draw from so many specialities and in a setting that has not been widely researched.

Publication and dissemination module followed. I started with excitement and enthusiasm but fear as I realised that I was getting closer to the end of the programme, am I ready? Regardless, the module enlightened me about publication, and journal ranking, it created an interest of actually getting my work published. I gained skills in producing a journal article; these are invaluable skills to the extent that I made enquiries about publishing one of the assignments, a literature review, which was accepted, to my greatest surprise. It took a year and a number of editions before publication, but it strengthened my skills in the difference between journal and assignment writing. The second paper submitted for publication did not take as long to be approved, my writing skills were much better clearly and the editions fewer! A third paper has been published and a fourth is still under editor evaluation.

The last unit was the proposal for professional research and development. In hindsight, or if I were to be given the opportunity to provide feedback, I would recommend that the research proposal unit was taken alongside other units so that by the end of stage I or rather the end of the publication and dissemination unit, the proposal is ready as well. The proposal was more independent, there was no longer a cohort meeting at least twice a month and the focus was more with the supervisory team. I was fortunate to have a very enthusiastic team of doctoral supervisors who took an interest in the subject area, albeit the lack of clarity.
Changes in the nursing structure at the work place also caused a delay as the proposal had to be redone to incorporate changes at work. As the new proposal was shaping up, I transferred from using the university proposal template to IRAS, integrated research application system and started using the template on that site. This gave me a boost as following changes at the work place, I felt the project was stalling and I was just not moving forward, I had to question my ability to continue.

It was exciting being able to register the study on INVOLVE, a website available in the public domain; the study was becoming real. After three weeks of submitting the proposal via IRAS, while still awaiting somebody to phone and ask me further questions, instead I received an email stating that I had a favourable opinion with three minor changes - date on the consent forms, version number on participant information letter and removal of one sentence on the client invitation poster. I sat in front of my computer not believing my eyes and I cried, within two weeks the research project went live at my work place.

I am pleased I am on the Prof Doc pathway where I am still able to get formal lectures that are helping me to grow in knowledge and skill. Support from the faculty, post graduate school workshops, ASK, library, IT have been helpful, even simple use of Microsoft word skills; I do not believe I could have achieved this at other universities.

8.1.2.2. Professional Reflection

I have been fortunate to have the support of the hospital director at my work place, a broad minded lady who, when approached about implementing health promotion, was very open to ideas. She did not put me down or discourage, instead she provided me with the name of a person I could contact at Portsmouth City Council to make enquiries. Without the support of Penny, the research may not have been a success.

While rewriting the proposal, I also had to start the non-medical prescribing course with three examinations and a portfolio; it was a challenge and it paid off.

I felt that I had planned and organised a pragmatic protocol that was easy to understand and follow, which I took pride in and it showed in the smooth running of data collection process. Planning process, writing up of research protocol, teaching of staff members, development of all paperwork, went very well because in hindsight, I think I was in control. Willig, (2001), suggests that personal reflexivity involves reflecting upon ways in which our own values, experiences, interests, beliefs, political commitments, wider aims in life and social identities have shaped the research.
It also involves thinking about how research may have affected and possibly changed us, as people and as researchers. I think I feel better when I know my tasks have been done by me, the way I want them and completed or at least if it is out of my control, I require feedback that a task has been successfully completed to my standard. When the research project was implemented at work, data collection was for the first time very overwhelming because I had no control, I had to rely on my colleagues to collect data for me and I was determined not to actively collect data to try and reduce bias.

Reception staff had to hand out patient information leaflets, thus providing a brief introduction to clients that nurses were conducting a research study. Participant information leaflets had to be attached to booking in forms and sometimes this got forgotten, leading me to go back to them to remind them to hand out participant information leaflets and attach the checklist. I do not know how they felt being recipients of my anxiety, because all I could see was one possible lost participant if they had not been provided with a participant information leaflet as the research was an addition to their own duties they had to perform. Were they doing this for Cindy the senior colleague, Cindy their colleague, or as they were told by management, or did they understand the importance of scientific research, I wondered at the time, but data collection and success of the project was more important, I had to be “selfish” and think only about the research.

Phase I enabled me to enter self-reported data by patient/client and by nurse, thus I still felt like I was in control and was coping. Being an insider researcher made it easier for me to access all patient records for anonymous data input. Similarly, it was frustrating where nurses had not completed data on ADASTRA or merely used 0 for weight, height and BMI, more so when clients had written on the booking in form that they had unhealthy behaviour. It is about the client; I wanted to reinforce that it was doable.

My colleagues are not very academic and it was a struggle trying to get them to understand academic and scientific importance of the project. Some referred to it as “Cindy’s study” resulting in partial cooperation from colleagues and to a certain extent, in my opinion, it felt like nurse practitioners forgot that the intervention was for the benefit of the client not Cindy or nurse practitioners. By the end of the third month, recruitment levels had dropped and I had to start taking an active part in recruitment and with this, it encouraged a few more nurses to recruit clients. I would go into work on my days off and manage clients that self-reported healthy behaviour on their mandatory booking in form; if any client had a self-reported unhealthy behaviour, I would put it through for nurse practitioners to further screen and invite to study. This way I felt that I was taking pressure off nurse practitioners, so research data collection could continue without my active participation in recruitment.
By the sixth month we had managed to recruit the required 204 clients. As an insider, it was challenging to comprehend reasons for failure to recruit as it did not take long and clients were very receptive as soon as they understood that there was no other intervention, merely part of consultation. I had to control myself and wait for nurse interviews to explore these barriers. It was also interesting to see similar responses namely “not interested”, “none of your business”, from one nurse practitioner, on the research checklist forms. I made me wonder if the nurse practitioner had engaged clients at all, at the same time it was frustrating as I felt that we were not using opportunities for benefit of our clients, this project was not about Cindy or the nurses, it was about patient/client care. There were thus mixed views to having privileged access. Mason (2002) encourages researchers to be reflexive, not only as a means of thinking about and justifying what they are doing but also as a means of confronting and challenging their own assumptions and recognising the extent to which their thoughts, actions and decisions shape what they research. The research could have gone better with cooperation from all nurse practitioners; I did however manage to keep my views to myself.

Finlay and Gough (2003) suggest that, in a qualitative study, the researcher should always examine how his or her inter-subjective elements can impact on and transform the research. When it came to interviews, some nurse practitioners had volunteered and understood the research question, or rather stated that they understood. However, during interviews, they did not seem to talk as freely as I had envisaged. I had to ask questions, and when they felt that they had answered they looked at me, waited for me to talk or ask the next question. Novices should not take interviews lightly, emphasised by Morse and Field (2002); this is very true. Further questions had to be developed. I felt that nurses were not forthcoming despite assurances that the interviews were academic, would be destroyed after transcribing, and some verbally stated that they were not “keen” on the recording. I could not enforce my views on them and had to allow them to share their experience while I held back my views. Dwyer and Buckle (2009) argue that insider research has the added advantage that participants feel that the researcher is one of them and will open up because they know the researcher, I found this not to be applicable, my colleagues waited for me to ask the questions. Rich data could have been attained from nurse practitioners to get a good overview which could be addressed for future success and team effort of health promotion integration into practice for better client care.

I do hope that at least the project had a positive influence on some practitioners for them to want to continue supporting clients who wish to modify their unhealthy behaviour.
I successfully arranged for external health behaviour modification training for the whole treatment centre including minor injury/illness unit, outpatient department and theatres. I have developed in confidence, academic and professional skills. I presented the integration of health promotion into practice to all work colleagues, old and new, this is from a person who does not like public speaking or presentations. I have attended two conferences and in 2018.

8.1.3. Now what
Now what encourages one to plan and think of a way forward (Jasper, 2003).

It was only in March 2017, following a traumatic work related incident that affected me as a nurse practitioner, that I realised that it is education and academia that I wanted to go into, where I could continue educating, teaching aspects of health promotion and get involved in the contribution of disease prevention and health promotion. Now equipped with knowledge, science, evidence and skills, I would like to continue with these doctrines with our nursing students and other health care professionals.

At the end of March, I approached the hospital director to make enquiries about taking a few hours off my 37.5 hours per week to do teaching to help me gain confidence in teaching and academia. I have been blessed with Penny, who over the years has had a lot to deal with to keep me at work and yet again, she continues to support in a role that will be new in the treatment centre. I now have 12.5 hours a week as a clinical educator and supervisor. This will help as I plan to apply to go into academia when I complete the doctorate. I continue to support associate practitioners, independent prescribers and new employees in the unit, supporting undergraduate and post graduate candidates in particular with their literature reviews, assignment writing, research proposals and research methods. Tappen (2001) and Daft (2000) affirm that team collaboration helps to formulate vision, growth, commitment, accountability, problem solving and support.

I am still in the process of arranging for Making Every Contact Count (MECC) training. With more confidence in public speaking, I am sure that training and implementation of programmes will have some positive effects. This year I embark on two academic units. One is the training of trainer accredited module that will help me train others on Making Every Contact Count, a health promotion strategy, so my work at St Mary’s continues and will be rolled out to the other walk in centres owned by Care UK. That is a great achievement for work that at some point I felt was undervalued and overlooked.
Chapter Eight

It may not make sense to the reader but my professional and academic behaviour has developed and it is obvious in the way I present myself, my confidence, the support that I am offering others and the boldness to conduct teaching sessions in the work place. I have embraced the role of mentorship, whereas a few years ago, I was withdrawn, with my own plans and ambitions. It has been eight years of growth, development and a new found purpose, I have a duty to teach and educate, to contribute to the role of prevention of disease and promotion of health. It took me a few more years than planned, for good reasons perhaps because I now have insight. As soon as I complete this programme, I am going to search for jobs in clinical supervision and academia.

I kept a daily professional and academic journal since the day I started the Prof Doc programme. I hope to write a practical guide for students, based on my professional and academic journal to help other prospective students not to give up on their dreams and studies. I intend to use a few personal experiences but also provide practical examples of what is required, when a proposal is needed, what does that entail, what does a body of a thesis or dissertation look like, practical guidance on academic writing. I still have two papers that I hope to publish and have actually thought that an opportunity to be a research fellow will be welcomed. I will have to look into this and apply as part of continuity in my role as a researching professional. I have more opportunities, however, currently the priority is completing the doctorate programme. It has been a long enjoyable journey, and I feel like I have come full circle. Now I can relax and embrace my passion for health promotion and not “patient care” as extracted from this quote by Sydney Smith (1953):

“\There is no such thing as a diseased organ in isolation, there are no diseases to treat, but only diseased men. Do not forget that you are dealing with the whole man, -not only the body, -not only the mind, but the man himself...You must remember that many patients come to you not only suffering from damaged bodies, but with bruised minds, lacerated consciences and broken heart...\”
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Bibliography


APPENDICES

APPENDIX ONE: NHS ETHICAL APPROVAL

18 June 2015

Ms Cindy, U.C. Mannie
Emergency Nurse Practitioner / Professional Doctorate candidate
Care UK
St Mary’s NHS Treatment Centre, Minor injuries/illness Unit
Milton Road
Portsmouth
PO3 6DW

Dear Ms Mannie

Study title: Implementation of new health promotion services (smoking cessation, weight management and alcohol intervention) in an NHS Walk in Centre for Minor Injuries and Illnesses in Portsmouth: a feasibility study

REC reference: 15/NI/0123
IRAS project ID: 155853

The Proportionate Review Sub-committee of the HSC REC B reviewed the above application on 17 June 2015.

We plan to publish your research summary wording for the above study on the HRA website, together with your contact details. Publication will be no earlier than three months from the date of this favourable opinion letter. The expectation is that this information will be published for all studies that receive an ethical opinion but should you wish to provide a substitute contact point, wish to make a request to defer, or require further information, please contact the REC Manager, Katrina Greer, recb@hsni.net. Under very limited circumstances (e.g. for student research which has received an unfavourable opinion), it may be possible to grant an exemption to the publication of the study.

Ethical opinion

On behalf of the Committee, the sub-committee gave a favourable ethical opinion of the above research on the basis described in the application form, protocol and supporting documentation subject to:

Condition: We are pleased to welcome researchers and R&D staff at our training days – see details at http://www.hra.nhs.uk/hra-training/

15/NI/0123 Please quote this number on all correspondence

Yours sincerely

Dr Siobhan McGrath
Head of the ORECNI

Email: recb@hsni.net

Copy to: Mrs Denise Teasdale
Mrs Penny Daniels, CareUK
Appendices

The favourable opinion is subject to the following conditions being met prior to the start of the study.

1. The Client/consent form and nurses consent form needs the date changed on point 1.1 from May to applicable month.

Providing Support to Health and Social Care

2. The Participant Invitation Poster should omit the sentence "Should you be willing to take part in the study you will either get ...........the study is to explore the best possible time for us to introduce health promotion as part of a whole service". This is to avoid confusion with how it reads with particular reference to "...initial assessment OR you will get delayed health promotion...."

You should notify the REC in writing once all conditions have been met (except for site approvals from host organisations) and provide copies of any revised documentation with updated version numbers. The REC will acknowledge receipt and provide a final list of the approved documentation for the study, which can be made available to host organisations to facilitate their permission for the study. Failure to provide the final versions to the REC may cause delay in obtaining permissions.

Management permission or approval must be obtained from each host organisation prior to the start of the study at the site concerned.

Management permission ("R&D approval") should be sought from all NHS organisations involved in the study in accordance with NHS research governance arrangements.

Guidance on applying for NHS permission for research is available in the Integrated Research Application System or at http://www.rdforum.nhs.uk.

Where a NHS organisation’s role in the study is limited to identifying and referring potential participants to research sites ("participant identification centre"), guidance should be sought from the R&D office on the information it requires to give permission for this activity.
Appendices

For non-NHS sites, site management permission should be obtained in accordance with the procedures of the relevant host organisation.

Sponsors are not required to notify the Committee of approvals from host organisations.

Registration of Clinical Trials

All clinical trials (defined as the first four categories on the IRAS filter page) must be registered on a publicly accessible database. This should be before the first participant is recruited but no later than 6 weeks after recruitment of the first participant.

There is no requirement to separately notify the REC but you should do so at the earliest opportunity e.g. when submitting an amendment. We will audit the registration details as part of the annual progress reporting process.

To ensure transparency in research, we strongly recommend that all research is registered but for non-clinical trials this is not currently mandatory.

If a sponsor wishes to request a deferral for study registration within the required timeframe, they should contact hra.studyregistration@nhs.net. The expectation is that all clinical trials will be registered, however, in exceptional circumstances non-registration may be permissible with prior agreement from NRES. Guidance on where to register is provided on the HRA website.

It is the responsibility of the sponsor to ensure that all the conditions are complied with before the start of the study or its initiation at a particular site (as applicable).

Ethical review of research sites

The favourable opinion applies to all NHS sites taking part in the study, subject to management permission being obtained from the NHS/HSC R&D office prior to the start of the study (see “Conditions of the favourable opinion”).
Summary of discussion at the meeting

The PR Sub-Committee confirmed the study raised no material ethical issues under the following headings:

- **Social or scientific value; scientific design and conduct of the study**
- **Recruitment arrangements and access to health information, and fair participant selection**
- **Favourable risk benefit ratio; anticipated benefit/risks for research participants (present and future)**
- **Care and protection of research participants; respect for potential and enrolled participants’ welfare and dignity**
- **Informed consent process and the adequacy and completeness of participant information**
- **Suitability of the applicant and supporting staff**
- **Independent review**
- **Suitability of supporting information**
- **Other general comments**
- **Suitability of research summary**

<table>
<thead>
<tr>
<th>Other [Curriculum Vitae of Dr Pallikadavath]</th>
<th></th>
<th>01 June 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other [CCG clinical governance confirmation]</td>
<td></td>
<td>01 June 2015</td>
</tr>
<tr>
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<td></td>
<td>27 April 2015</td>
</tr>
<tr>
<td>Other [Public Patient Involvement II]</td>
<td></td>
<td>27 April 2015</td>
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<td>Other [Public database registration]</td>
<td></td>
<td>29 April 2015</td>
</tr>
<tr>
<td>Other [Royal College of Nursing Indemnity]</td>
<td></td>
<td>01 August 2014</td>
</tr>
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<td></td>
<td>01 June 2015</td>
</tr>
<tr>
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<td></td>
<td>01 June 2015</td>
</tr>
<tr>
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<td></td>
<td>11 June 2015</td>
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<tr>
<td>Referee’s report or other scientific critique report [Annual Progress decision]</td>
<td></td>
<td>12 April 2015</td>
</tr>
<tr>
<td>Research protocol or project proposal [Research Protocol]</td>
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<td>01 June 2015</td>
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<td></td>
<td>01 June 2015</td>
</tr>
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<td>01 June 2015</td>
</tr>
<tr>
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<td>01 June 2015</td>
</tr>
<tr>
<td>Summary, synopsis or diagram (flowchart) of protocol in non technical language [Study flowchart]</td>
<td></td>
<td>01 June 2015</td>
</tr>
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</table>
Appendices

Ethical issues raised, noted and resolved in discussion:

- **Informed consent process and the adequacy and completeness of participant information**
  It was noted that the Client/consent form and nurses consent form needs the date changed on point 1.1 from May to applicable month.

It was agreed that the Participant Invitation Poster should omit the sentence “Should you be willing to take part in the study you will either get ………the study is to explore the best possible time for us to introduce health promotion as part of a whole service”. This is to avoid confusion with how it reads with particular reference to “…initial assessment OR you will get delayed health promotion…”

Approved documents

The documents reviewed and approved were:

<table>
<thead>
<tr>
<th>Document</th>
<th>Version</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Copies of advertisement materials for research participants</td>
<td>I</td>
<td>01 June 2015</td>
</tr>
<tr>
<td>[Participant invitation poster]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evidence of Sponsor insurance or indemnity (non NHS Sponsors only) [Insurance form]</td>
<td>1</td>
<td>05 June 2015</td>
</tr>
<tr>
<td>Interview schedules or topic guides for participants [Qualitative study interview schedule]</td>
<td>I</td>
<td>01 June 2015</td>
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<td>Other [Adult booking-in Form]</td>
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</tr>
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<td>Other [Professional registration]</td>
<td>I</td>
<td>01 June 2015</td>
</tr>
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</table>

Membership of the Proportionate Review Sub-Committee

The members of the Sub-Committee who took part in the review are listed on the attached sheet.

No declarations of interest were noted for this study.

Statement of compliance

The Committee is constituted in accordance with the Governance Arrangements for Research Ethics Committees and complies fully with the Standard Operating Procedures for Research Ethics Committees in the UK.

After ethical review

Reporting requirements

The attached document “After ethical review – guidance for researchers” gives detailed guidance on reporting requirements for studies with a favourable opinion, including:

- Notifying substantial amendments
- Adding new sites and investigators
- Notification of serious breaches of the protocol
- Progress and safety reports
- Notifying the end of the study

The HRA website also provides guidance on these topics, which is updated in the light of changes in reporting requirements or procedures.

User Feedback
procedure. If you wish to make your views known please use the feedback form available on the HRA website: http://www.hra.nhs.uk/about-the-hra/governance/quality-assurance/

HRA Training

We are pleased to welcome researchers and R&D staff at our training days – see details at http://www.hra.nhs.uk/hra-training/

With the Committee’s best wishes for the success of this project.

Yours sincerely

Kathryn Taylor

pp Ms Sue Trouton
Alternate Vice-Chair – Chair of the meeting
Email: reeb@hscni.net

Enclosures: List of names and professions of members who took part in the review

“After ethical review – guidance for researchers”

Copy to: Mrs Denise Teasdale, University of Portsmouth
         Mrs Penny Daniels, CareUK
Dear Cindy,

Thank you for your application for clinical governance approval for your study, Implementing new health promotion services (smoking cessation, weight management and alcohol intervention) in an NHS Walk in Centre for Minor Injuries and Illnesses in Portsmouth: a feasibility study which you have confirmed as:

- Not including children
- Not including those who lack capacity
- Will not involve ionising radiation OR
- Will not involve any use of human tissue samples

You have confirmed that patient identifiable information will not be used and that it is a questionnaire based study with signed consent and no disruption to the normal consultation period. We understand that ethical approval is being sought and you have the support of your academic supervisors.

On the basis of all the above information, we are delighted to support your application for clinical governance approval and ask that you follow the guidance in managing information found in the relevant Care UK Policies. Please confirm via email to Dr Rob Loveland and myself that ethical approval has been awarded before you commence your study.

We wish you the very best of luck with your study.

Kindest regards

[Signatures]

Emily Montgomery
Director of Nursing and Quality
Secondary Care

Rob Loveland
Medical Director
Secondary Care
Good afternoon Cindy

I can confirm that Portsmouth, South Eastern Hampshire and Fareham & Gosport CCG do not have any issue with your application to conduct research at St Mary’s NHS Treatment Centre providing it is complete by the end of the Care UK contract (5 January 2016).

Can I confirm that you are aware that Health Education discussions are part of the current service specification (see below);

**Advice and Information for patients attending MIU and integrated fracture service**

- Patients should be provided with a printed summary of their episode of care that summarises their presenting injury and the treatment that was provided. Staff should also give patients a verbal explanation of their injury and treatment.
- Following any treatment, patients will be given both oral and printed information regarding follow up care where appropriate.
- If patients are referred onwards to other service providers they will be given both oral and printed information.
- Patients should also be given appropriate printed materials relating to their condition.
- Health Education discussions will be documented in all patient notes

Can I finally confirm that this work will not impact on the service delivery and will not be subject to any additional cost to the CCG’s.

Kind regards

**Tracy Davies | Senior Commissioning Officer – Unscheduled Care**

Portsmouth, Fareham and Gosport and South Eastern Hampshire Clinical Commissioning Groups

CommCen Building, Fort Southwick, James Callaghan Drive, Fareham, PO17 6AR.
T  023 9228 2078
M  07767 311772
E  tracy.davies4@nhs.net

Do it quicker online: is your family new to Portsmouth? Register children for school admissions [here](#);
APPENDIX THREE: INVITATION POSTERS IN WAITING ROOMS

INVITATION TO TAKE PART IN A NEW HEALTH PROMOTION RESEARCH PROJECT AT MIU,
SUPPORTING TOWARDS A HEALTHIER POMPEY COMMUNITY.

The walk in centre wishes to implement health promotion services in addition to the services we provide. If you are thinking of quitting smoking, you are not sure if you are within your limit of alcohol or you think you might want to do something about your weight, or any other healthy living related issue, have a chat with a member of staff who will be able to advise, discuss and or refer to services which are free of charge in and around Portsmouth and Hampshire. Also see our information leaflet for further information.

To ensure that the new health promotion service is effective, we invite you to take part in a research project that will not affect your care in MIU. Should you be willing to take part in the study you will either get immediate health promotion intervention with the nurse in charge during your initial assessment OR you will get delayed health promotion intervention with the nurse practitioner during your consultation; the study is to explore the best possible time for us to introduce health promotion as part of a whole service.

We would also like to request you to fill out a questionnaire that will only take about 5-10minutes. The questionnaire is to enable you to share your views and thoughts of the new service. Your name is NOT NEEDED; you do not have to worry about being identified, all data is anonymous. While your participation will be greatly appreciated, your care at the treatment centre will not be compromised in any way. Any questions please ask a member of staff who will provide you with any other information you may need.

Thanking you in anticipation.
APPENDIX FOUR: ADAPTED MANDATORY BOOKING IN FORM

HIGHLIGHTED IN YELLOW IS THE NEW HEALTH PROMOTION SCREENING INFORMATION.

St Mary’s Treatment Centre – Minor Injuries/Minor Ailment Unit

TO BE COMPLETED BY UNIT STAFF

<table>
<thead>
<tr>
<th>Case Number</th>
<th>ENP/Time Notified by Receptionist</th>
<th>Receptionist Initials</th>
<th>S &amp; T Initials</th>
<th>PAIN SCORE</th>
<th>TIME ANALGESIA GIVEN</th>
<th>TIME ANALGESIA REFUSED</th>
<th>ENP Initials</th>
<th>PAIN SCORE AFTER ANALGESIA</th>
<th>HCA Initials</th>
</tr>
</thead>
</table>

Please use BLOCK letters when completing this form. If you wish to discuss your reason for attendance in private please inform a Receptionist. If you require a chaperone please ask reception. If you require help completing this form please ask reception for assistance.

<table>
<thead>
<tr>
<th>First Name</th>
<th>Today’s date</th>
<th>Time entered dept</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Surname</th>
<th>Previous Surnames (if any)</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Date of Birth</th>
<th>Age</th>
<th>Please Indicate: Male or Female</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Home Address</th>
<th>Temp/Holiday Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>Postcode</td>
<td>Postcode</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Country of Permanent Residence</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Home telephone number</th>
<th>Mobile telephone number</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Your Doctor or Surgery Name</th>
<th>Checked</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Ethnicity – Are You?</th>
</tr>
</thead>
<tbody>
<tr>
<td>White British</td>
</tr>
<tr>
<td>Mix White/Asian</td>
</tr>
<tr>
<td>Asian/Asian British Bangladeshi</td>
</tr>
<tr>
<td>Other/Black Background</td>
</tr>
</tbody>
</table>

Tell us very briefly why you have come to the MIU today and how long you have had this illness/injury?

<table>
<thead>
<tr>
<th>How did you get here (please circle)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foot</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Where did the injury / illness occur (please circle)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Home</td>
</tr>
</tbody>
</table>

PLEASE TURN OVER THE PAGE AND COMPLETE REVERSE OF FORM
Appendices

Patient Group - please circle the box that relates to why you are here

<table>
<thead>
<tr>
<th>Road Traffic Accident</th>
<th>Assault</th>
<th>Deliberate Self Harm</th>
<th>Sports Injury</th>
<th>Firework Injury</th>
<th>Other Accident</th>
<th>Other Illness</th>
</tr>
</thead>
</table>

Source of Referral – please circle who advised you to come to MIU

<table>
<thead>
<tr>
<th>GP</th>
<th>111/NHS Direct</th>
<th>Education Establishment</th>
<th>Other (e.g. Pharmacist)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self</td>
<td>A &amp; E</td>
<td>Police</td>
<td>Dentist</td>
</tr>
<tr>
<td>Local Authority</td>
<td>Emergency Services</td>
<td>Paramedic</td>
<td>Dental Service</td>
</tr>
<tr>
<td>Social Services</td>
<td>Work</td>
<td>Health Care Provider</td>
<td></td>
</tr>
</tbody>
</table>

How did you hear about the Minor Injuries Unit? (circle below)

<table>
<thead>
<tr>
<th>Media</th>
<th>Friend/Family</th>
<th>Leaflet</th>
<th>Used Before</th>
<th>Word of Mouth</th>
<th>Other</th>
</tr>
</thead>
</table>

Where would you have gone if the MIU wasn’t here? (circle below)

<table>
<thead>
<tr>
<th>A&amp;E</th>
<th>GP</th>
<th>Pharmacy</th>
<th>Another MIU</th>
<th>Other</th>
</tr>
</thead>
</table>

Would you describe yourself as (please circle)

| injured | ill | Require Morning After Pill |

Have you tried to see or have you seen a doctor about this

| Yes | No |

Are you exempt from prescription charges? YES/NO (please circle)

If YES please tell us why?

Please give us the details of somebody we can contact in an emergency

<table>
<thead>
<tr>
<th>Name</th>
<th>Telephone Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relationship to you</td>
<td></td>
</tr>
</tbody>
</table>

Please provide as much medical information about yourself as possible as we do not have access to your GP Notes

Please state Medical History

Please state Medication you take regularly

Please state any relevant/recent operation

Please state any allergies

<table>
<thead>
<tr>
<th>What is your approximate weight?</th>
<th>What is your approximate height?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do you smoke?</td>
<td>No</td>
</tr>
<tr>
<td>How many do you smoke?</td>
<td>Per day</td>
</tr>
<tr>
<td>What is Your Alcohol Unit intake per week (Special Occasions ONLY)</td>
<td>(1-5)</td>
</tr>
</tbody>
</table>

The Nurse Practitioner is available to discuss any of the following during your consultation (please circle)

| None | Smoking | Depression | Drug Use | Domestic Violence | Obesity | Alcohol Use | Contraception | Other |

Please be aware that the information you have provided may be shared with other relevant healthcare professionals such as your GP, Out of Hours and the CCG. Care UK in continually improving its services to the public.

Please help us by completing Patient Experience Survey given to you by Reception.
STUDY TITLE

FEASIBILITY STUDY INTO THE IMPLEMENTATION OF HEALTH PROMOTION SERVICES AT ST MARY’S NHS TREATMENT CENTRE.

You are invited to take part in a research study. Before you decide to partake, it is important for you to understand why the research is being done and what it will involve. Please take the time to read the following information carefully and ask if unsure.

1.1. BACKGROUND OF THE STUDY

England has a high rate of premature deaths; 1 in 6 people died before the age of 65 in 2007 due to circulatory disease, cancers and respiratory diseases and over 15.4 million people in this country live with these same disease which have been linked to unhealthy lifestyle choices, primarily poor diet, inactivity, smoking, obesity and alcohol; all avertable lifestyle choices. Britain has the worst rate of obesity in Europe while the Department of Health (2010b) reveal that smoking is killing about 80 000 per year in England only.

The health of people of Portsmouth is worse than England averages, unhealthy eating habits, obesity, overuse of alcohol and smoking rates are high. In response, the walk in centre is introducing the implementing of health promotion services focusing on smoking cessation, alcohol intervention and weight management.

1.2. PURPOSE AND RATIONALE OF THE RESEARCH

The study aims to study the effectiveness of the new services and the best possible time to introduce health education in the department. We value your views of this service and your suggestions will make the new service a success. The aim is to provide a service that will be acceptable to clients and families that visit the centre.

1.3. WHAT WILL HAPPEN TO ME IF I TAKE PART?

Nothing will happen to you. As part of your assessment the nurse practitioner will ask you about lifestyle behaviour, provide you with a brief talk, ask you about your readiness to modify your behaviour and offer you referral to services that are free of charge around Portsmouth. All you need to do is engage in the consultation with the nurse. You will either get health promotion intervention with the nurse in charge when you first get seen or the nurse practitioner during your full consultation. It will only be an extra few minutes (1-20 minutes) of the usual consultation time. The nurse in charge will answer any questions if unclear.
Appendices

We also request that you fill out a questionnaire taking 5 to 10 minutes on your experiences of this new service.

If you are in a hurry, we will give you the questionnaire and an envelope to post back. Your name will not be used anywhere in the study and the information that you provide will be held confidentially as part of your consultation record only.

1.4. **What are the possible benefits of taking part?**
We aim to provide a service that is acceptable and effective for you, our clients that present to the unit, refer you to services that are free of charge and contribute to health improvement in Portsmouth.

1.5. **Do I have to take part?**
No.

If you decide to take part, you will be asked to sign a consent form, which is a research ethics requirement to ensure protection of your rights. You can withdraw at any time without giving any reason, this will not affect your care in the unit.

1.6. **What will happen to the results of the research study?**
Results will be made available in the waiting room, patient newsletter and our website. No personal information about you will be published.

1.7. **Who has reviewed the study?**
The University of Portsmouth, the hospital director and the patient group forum have reviewed the proposal. The Clinical Commissioning Group and Care UK have also approved the study.

1.8. **Contact for further information.**
*CINDY.CHACHA@CAREUK.COM* OR 02392858429 CINDY
In addition you may contact the university or the hospital director Penny Daniels on 02392858442.

**THANK YOU FOR YOUR PARTICIPATION**
CONSENT FORM

TITLE OF PROJECT: CLIENT PERCEPTIONS AND EXPERIENCES OF HEALTH PROMOTION SERVICES IN AN NHS WALK IN CENTRE.

1.1. I CONFIRM THAT I HAVE READ AND UNDERSTAND THE INFORMATION SHEET DATED TBC 2013 FOR THE ABOVE STUDY AND HAVE HAD THE OPPORTUNITY TO ASK QUESTIONS

1.2. I UNDERSTAND THAT MY PARTICIPATION IS VOLUNTARY AND I AM FREE TO WITHDRAW AT ANY TIME, WITHOUT GIVING ANY REASON

1.3. I UNDERSTAND THAT MY INTERVIEW WILL BE AUDIO-RECORDED AND I AGREE TO THAT

1.4. I AGREE TO TAKE PART IN THE ABOVE STUDY

NAME …………………………………………………………………………………

SIGNATURE ………………………………………………………………………

DATE ……………………………………………………………………………

NAME OF RESEARCHER: CINDY CHACHA MANNIE

Signature ………………………………………………………………………

DATE ……………………………………………………………………………

(2 copies, for me and participant)

PLEASE TICK ALL BOXES AS AGREED AND UNDERSTOOD
APPENDIX SEVEN: CLIENT PARTICIPANT QUESTIONNAIRE

**THIS QUESTIONNAIRE IS STRICTLY ANONYMOUS AND ONLY FOR RESEARCH PURPOSES.**

1. What is your age?
2. Are you: Male Female (please circle)
3. What is your postcode? ......................
4. Are you: Employed Unemployed Student Retired (please circle)
5. What is your job/ study?

............................................................

6. Where would you go to discuss general health concerns like smoking, alcohol and weight?

............................................................

7. Do you smoke? YES NO If yes, please give details of any current plans to quit:

........................................................................................................

8. What is your average weekly alcohol intake (glasses, pints, shots or units?)

......................

Is it within the recommended limit?

YES NO I DON’T KNOW

If yes, any plans of doing anything about it? YES NO

If no, why not?..............................

9. How would you rate your weight? Weight..........Height............

UNDERWEIGHT HEALTHY OVERWEIGHT

OBESE

If overweight/obese, what plans if any do you have to change this?

........................................................................................................

10. Were you aware that the treatment centre offers free advice and referrals to free health promotion services in and around Portsmouth?  

YES NO

11. Would you take up the health promotion service at the walk in centre?  

YES NO
Reason for decision: ………………………………………………………………………

12. Would you recommend the services to family, friends and colleagues?

YES  NO

Reason for decision ………………………………………………………………………

13. Why did you decide to take part in the trial?

………………………………………………………………………………………………

14. What has been the most difficult for you?

………………………………………………………………………………………………

15. Were you in the immediate or delayed health intervention?

IMMEDIATE  DELAYED

16. How did you feel about that? ………………………………………………………

17. Did you find the information leaflet useful?  YES  NO

Please explain why/why not

………………………………………………………………………………………………

18. What did you think of the brief health promotion intervention?

Timing…………………………..Place………………………………

Nurse……………………………The talk itself…………………………

Any other comments?

………………………………………………………………………………………………

20. In view of your presenting complaint (injury or illness) at the treatment centre,
what did you think about being asked about weight, smoking and height and the
intervention that followed?

………………………………………………………………………………………………

21. Please add any other suggested means to improve the health promotion services

………………………………………………………………………………………………

THANK YOU, YOUR PARTICIPATION IS GREATLY APPRECIATED.
### APPENDIX EIGHT: RANDOMISED CONTROLLED TRIAL CHECKLIST

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Dear Colleague

Re: Invitation to participate in a qualitative study

I would hereby wish to cordially invite you to participate in nurse interviews to share your thoughts, experiences and feelings of the health promotion service that was recently implemented at MIU.

I have devised an information leaflet which is attached, please take the time to read it.

I would appreciate if you could contact me within 2 weeks of receiving this email to arrange for a suitable time to do the interview which will be conducted in the unit.

I am available to be phoned anytime if you have any questions or if you would like to discuss the project or the interview.

Thanking you in anticipation.
Yours Sincerely
Cindy Chacha Mannie
cindy.chacha@careuk.com or Gimmyjaycaddy@aol.com or 07743530768
1.1. STUDY TITLE
NURSES PERSPECTIVES AND EXPERIENCES OF IMPLEMENTING HEALTH PROMOTION SERVICES IN AN NHS WALK IN CENTRE

You are invited to take part in a research study which is part of my study programme at the University of Portsmouth, U.K. Before you decide to partake, please take the time to read the following information carefully and discuss with friends, relatives and colleagues if unsure. You can call me to discuss anything that you are not clear about or if there is more information that you need. Interviews will take place in (September 2015). I would appreciate if you could respond to the invitation within 2 weeks so that we can have ample time to arrange for the interview.

1.1. BACKGROUND OF THE STUDY
England has a high rate of premature deaths; 1:6 people died before the age of 65 in 2007 specifically due to circulatory disease, cancers and respiratory diseases, accounting for 75% all of deaths in 2007. Over 15.4 million people in this country live with Long Term Conditions, explicitly heart disease including strokes and high blood pressure, also diabetes, cancers, skin conditions and respiratory disease. All these conditions have been linked to unhealthy lifestyle choices, primarily poor diet, inactivity, smoking, obesity and alcohol; all avertable lifestyle choices. Department of health confirm that many of the diseases now suffered in Britain are linked to lifestyle choices, with WHO postulating that Britain has the worst rate of obesity in Europe while the Department of Health reveal that smoking is killing about 80 000 per year in England only. Portsmouth is stated to be worse than England averages; deprivation is stated to be higher, so are unhealthy eating habits and tobacco consumption. Consequently, focus of care is shifting from the medical model to primary care, engaging individuals in their health and providing them with information to make informed decisions that lead to healthier longer lives. I am proposing to implement new health promotion services in MIU as it appears that there is an opportunity for it. We will be concentrating on smoking cessation, alcohol intervention and weight management, targeting ages 16-75 for the research project however the services will be accessible to everyone.

1.2. PURPOSE AND RATIONALE OF THE RESEARCH
The study aims to explore your perceptions and experiences of the implementation of health promotion here at MIU as part of a feasibility study.

1.3. WHAT ARE THE POSSIBLE BENEFITS OF TAKING PART?
Potential benefits are to improve health promotion services and to help staff in implementing the services as we contribute to the improvement of health in Portsmouth. To help management in service delivery from lessons learnt in the RCT.

1.4. DO I HAVE TO TAKE PART?
No.
Appendices

It is up to you whether to take part. If you decide to take part, you will be asked to sign a consent form, which is research ethics and data protection requirements to ensure protection of your rights. If you decided to take part, you will still be able to withdraw at any time without giving any reason. There will be 2 consent forms to sign, you will keep one copy and the other one will be kept by me under the university’s code of ethics.

1.5. WHAT WILL HAPPEN TO ME IF I TAKE PART?

Nothing. Anonymous results will be collated as a research project and theses. A report will be sent to our employer, CCG and published in peer review journals.

1.6. WHAT DO I HAVE TO DO?

All that is needed is your availability for an hour to an hour and a half, to carry out the interview. I will interview nurses until I reach data saturation whereby there is no new emanating data that has not been already shared by our peers. You are free to talk, as there is no wrong and right answer. I will record the interview, which will allow me to transcribe at a later stage. The tape recording will only be used by myself to transcribe oral data to readable material. Following these, all tape recordings will be deleted. Your name and organisation name will not be used anywhere in the study, and will not be traceable back to you either. Numbers will replace names. Your employer will not be informed of any personal information.

I am not allowed to pay you for volunteering however, I can make a cup of tea and bring in some biscuits for the team to share. During the interview I may jot down some notes as I look at emanating themes and perhaps anything I may need to clarify. When the data has been transcribed, I may call upon you again to verify, this is simply to ensure it is your views and you agree with the transcript.

1.7. WHO HAS REVIEWED THE STUDY?

The University of Portsmouth and the hospital director have reviewed the proposal. These are the impartial individuals you can contact for any queries.

1.9. CONTACT FOR FURTHER INFORMATION.

CINDY.CHACHA@CAREUK.COM OR 07743530768

In addition you may contact the general manager, our lead and the university.

THANKING YOU IN ANTICIPATION FOR YOUR PARTICIPATION
CONSENT FORM

TITLE OF PROJECT: PERCEPTIONS AND EXPERIENCES OF IMPLEMENTING HEALTH PROMOTION SERVICES IN AN NHS WALK IN CENTRE.

1.1. I CONFIRM THAT I HAVE READ AND UNDERSTAND THE INFORMATION SHEET DATED MAY 2015 FOR THE ABOVE STUDY AND HAVE HAD THE OPPORTUNITY TO ASK QUESTIONS [ ]

1.2. I UNDERSTAND THAT MY PARTICIPATION IS VOLUNTARY AND I AM FREE TO WITHDRAW AT ANY TIME, WITHOUT GIVING ANY REASON [ ]

1.3. I UNDERSTAND THAT MY INTERVIEW WILL BE AUDIO-RECORDED [ ]

1.4. I AGREE TO TAKE PART IN THE ABOVE STUDY [ ]

NAME………………………………………………………………………

SIGNATURE …………………………………………………………………

DATE ………………………………………………………………………

NAME OF RESEARCHER: CINDY CHACHA MANNIE

Signature …………………………………………………………………

DATE ………………………………………………………………………

PLEASE TICK ALL BOXES AS AGREED AND UNDERSTOOD
APPENDIX TWELVE: NURSE PRACTITIONER INTERVIEW SCHEDULE

INTERVIEW SCHEDULE

Project Title: A Qualitative Study to Explore Nurses’ experience and perspective of the implementation of Health Promotion screening and intervention in the local Unit for Minor Injuries and Illnesses

| Time of Interview, Date:                        | YES | NO |
| Place:                                          |     |    |
| Verbal explanation of project & process:        | YES | NO |
| Written information given:                     | YES | NO |
| Consent Form signed:                           | YES | NO |

This is a brief overview of the topic areas to be considered. It is likely that the content of the interview schedule will develop and may incorporate other areas as the researcher reflects upon each interview as it takes place. It is therefore anticipated that at least a week will lapse between one interview taking place and the next one in order to give the interviewer time to reflect upon the data being gathered and emerging themes. The prompts/explore sections in italics will be raised only if not covered spontaneously by participants.

QUESTION ONE What are your thoughts on the growing epidemic of Long Term Conditions and premature deaths

QUESTION TWO Do nurse practitioners in MIU have a role in prolonging the onset of LTC

QUESTION THREE: Do you think that MIU nurse practitioners have a role to play in health promotion? If yes please share your views If no please share your views (Prompt/Explore)

QUESTION FOUR How has the new service impacted on your practice? (Prompt/Explore)

QUESTION FIVE: What strengths and weaknesses have you experienced in research study?

QUESTION SIX: TOPIC AREA How can we improve the Health Promotion services in MIU?

QUESTION SEVEN: Is there anything else that you would like to say around this topic

Test recording equipment.
Briefly describe the project again before starting interview.
Check interviewee ready to start interview.

Thank individual for participating in the interview.
Assure him/her of confidentiality of responses

SWITCH OFF TAPE RECORDER
FORM UPR16
Research Ethics Review Checklist

Please include this completed form as an appendix to your thesis (see the Postgraduate Research Student Handbook for more information).

<table>
<thead>
<tr>
<th>Postgraduate Research Student (PGRS) Information</th>
<th>Student ID: 635635</th>
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</thead>
<tbody>
<tr>
<td>PGRS Name: CINDY UNIVERSITY CHACHA MANNIE</td>
<td></td>
</tr>
<tr>
<td>Department: SHSSW</td>
<td></td>
</tr>
<tr>
<td>First Supervisor: DR ANN DEWEY</td>
<td></td>
</tr>
<tr>
<td>Start Date: OCTOBER 2013</td>
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| Title of Thesis:                                | The Implementation of New Health Promotion Services (Smoking Cessation, Weight Management and Alcohol Intervention) in an NHS Walk in Treatment Centre for Minor Injuries and Illnesses: a feasibility study using mixed methods |
| Thesis Word Count: (excluding ancillary data)  | 51000             |

If you are unsure about any of the following, please contact the local representative on your Faculty Ethics Committee for advice. Please note that it is your responsibility to follow the University’s Ethics Policy and any relevant University, academic or professional guidelines in the conduct of your study.

Although the Ethics Committee may have given your study a favourable opinion, the final responsibility for the ethical conduct of this work lies with the researcher(s).

**UKRIO Finished Research Checklist:**
(If you would like to know more about the checklist, please see your Faculty or Departmental Ethics Committee rep or see the online version of the full checklist at: [http://www.ukrio.org/what-are-the-guidelines-for-research/](http://www.ukrio.org/what-are-the-guidelines-for-research/))

- a) Have all of your research and findings been reported accurately, honestly and within a reasonable time frame? YES NO
- b) Have all contributions to knowledge been acknowledged? YES NO
- c) Have you complied with all agreements relating to intellectual property, publication and authorship? YES NO
- d) Has your research data been retained in a secure and accessible form and will it remain so for the required duration? YES NO
- e) Does your research comply with all legal, ethical, and contractual requirements? YES NO

**Candidate Statement:**
I have considered the ethical dimensions of the above named research project, and have successfully obtained the necessary ethical approval(s)

Ethical review number(s) from Faculty Ethics Committee (or from NRES/SCREC):
NHS REC Form: 155853/903169/1/424

If you have not submitted your work for ethical review, and/or you have answered “No” to one or more of questions a) to e), please explain below why this is so:

UPR16 – August 2015
Signed (PGRS): Chacho
Date: [Blank]
## APPENDIX FOURTEEN: EXAMPLE OF SEARCH STRATEGY

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<td>Search Screen - Advanced Search Database - MEDLINE</td>
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<td>S3</td>
<td>minor AND (injur* or illness) AND (unit or clinic or centre)</td>
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<td>S2</td>
<td>(walk-in or &quot;walk in&quot;) AND (centre or clinic)</td>
<td>Search modes - Boolean/Phrase</td>
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