Manchester Healthy Living Programme – a case study

‘Dissertation submitted in accordance with the requirements of University of

Chester for the degree of Master of Science’

December 2007
Acknowledgements

I wish to acknowledge the support and guidance offered to me by the University of Chester. Especially Dr Stephen Fallows my research supervisor, for his help, advice, encouragement and patience during this research project.

My gratitude is extended to all the willing participants in the study, and the support from CSV (Community Service Volunteers).
Abstract

This paper reviews: health promotion initiatives; the evidence highlighting the need for such initiatives; and evaluates one health promotion initiative, the ‘Manchester Healthy Living Programme’. This paper is separated in to two separate sections.

Study 1. Evaluation of the Manchester Healthy Living Project.

The evaluation involved a self-assessment questionnaire during the 10-week healthy living course. The questionnaire assessed the participants’ knowledge, attitudes, and behaviour before and after the project. The 15 questions related to diet, exercise and lifestyle. 9 adults and 10 young people participated (n=19). The findings showed that all participants increased their self-assessed scores after the project when compared to before. The biggest increase was seen in the questions relating to knowledge. The findings lead onto the second study, which investigated the effectiveness of health initiatives in changing behaviour.

Study 2. Health Promotion Initiatives and Behaviour Change.

The second study addressed the findings from the Healthy Living Programme and reviewed evidence from similar health promotion initiatives, which assessed the effectiveness of health promotion. The findings showed that the methods for evaluation such as, interviews and long-term follow up studies show the greatest behaviour change, and that health promotion is more effective in relation to behaviour change when carried out on a one-one basis.
Manchester Healthy Living Programme – a case study

Declaration

‘This Work is Original and has not been submitted previously in support of a degree qualification or other course.’

Name: Andrew Ellison

Signed: 

Date:
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1. Introduction

This research paper has been divided up into two separate studies. Study one will focus on the current need for Health promotion initiatives, followed by an evaluation of the Manchester Healthy Living Programme, using self-assessment questionnaires. For details on the project please see; Section 2.2.

The questionnaires ask the participants to rate their knowledge, attitudes and behaviour relating to healthy lifestyles. The questionnaire included questions on diet and activity levels, motivation and knowledge of both diet and exercise principles.

The results from the self-assessment questionnaires are discussed in detail. The key findings from the research are presented, both in tables and graphically. Leading onto the second part of the research paper.

The second study relates the key finding from the Healthy Living Project to other health initiatives in the form of a literature review. This aims to address the issue and draw conclusions in relation to other initiatives. This evidence is presented in a table form to allow ease of reference. From this conclusions and recommendations can be made for future projects and initiatives.
2. Study 1 - Evaluation of the Manchester Healthy Living Project

2.1. Literature Review

This study is built around the 'Manchester Healthy Living Programme, (MHLPP) which was developed due to the current decline in health statistics. These statistics are not only relevant to Manchester but the British nation as a whole. Evidence is presented below, along with a review of research that has focussed on health education programmes and initiatives.

In the review of the literature, the growing concerns with obesity, diet and exercise amongst children, adults and ethnic minorities are discussed on a national scale. This is followed by an outline of government and regional initiatives that aim to tackle the above problems.

The motives behind the MHLPP will then be discussed. This includes, reasons for evaluations and development of health promotion programmes to which ensures that information is relevant and the desired goals are achieved.
2.1.1. Obesity

Obesity is a condition in which the natural energy reserve, stored in the fatty tissue of humans is increased to a point where it is associated with certain health conditions such as heart disease, stroke and diabetes or increased mortality (Friedman, 2000). It is the result of being in a sustained state of positive energy balance. It is likely that changes in lifestyle, in particular increased consumption of energy dense food and the decline in physical activity, are the major influences. (Warren, Henry, Lightowler, Bradshaw & Perwaiz 2003) Studies in the UK and US suggest that childhood obesity appears to account for 33% of adult obesity (Dietz 1998).

Although obesity is an individual clinical condition, it is increasingly viewed as a serious and growing public health problem. Excessive body weight has been shown to predispose to various diseases, particularly cardiovascular diseases, diabetes mellitus type 2, sleep apnoea, and osteoarthritis. (Freidman, 2000).

Figure 1 is a flow diagram to highlight the drivers and trends linked with obesity. Factors include; environmental, social, economic, political, technological and emerging issues. The diagram shows that obesity causes are mutifactoral however, the main causes appear to be the development of the modern lifestyle. For example, lack of physical activity and unhealthy
diets. This includes: access to energy dense foods 24 hours a day; a reduction in school and team sports; a growth of functional foods; and the advertising market (Foresight, 2007).

Figure 1. Obesity drivers and trends. (Foresight, 2007)

The obesity epidemic is escalating in Western civilization and especially in America and the United Kingdom among black and minority ethnic (BME) groups (Yancey et al 2004). Research has shown that BME groups have a higher percentage of overweight and obese levels. Also, BME groups have
experienced a faster increase in overweight during the past decade compared with white populations (Flegal, Carroll, Ogden, & Johnson, 2002) and are linked to reduced physical activity and unhealthy eating patterns (Yancey et al 2004).

Freidman (2000) states that obesity has increased at an alarming rate in recent years and is now a worldwide public health problem. In addition to suffering poor health and an increased risk of illness such as hypertension and heart disease, obese people are stigmatised socially.

Major advances have been made in identifying the components of the homeostatic system that regulates body weight, including several of the genes responsible for animal and human obesity. A key element of the physiological system is the hormone leptin, which acts on nerve cells in the brain to regulate food intake and body weight (Freidman, 2000).

In general, obesity genes encode the molecular components of the physiological system that regulates body weight. Leptin is the key hormone of this system. Leptin is produced by fat tissue and reports nutritional information to regulatory centres in the hypothalamus. A decrease in body fat leads to a decreased level of this hormone, which in turn stimulates food intake. Increased body fat is associated with increased levels of leptin, which act to reduce food intake. This mechanism maintains weight. This has lead to the
belief that leptin deficiency is associated with obesity in humans (Freidman, 2000).

Cross sectional and epidemiological studies provide estimates of the population impact of small changes in body mass index (BMI), dietary intake, and energy expenditure. For example the US Department of Health and Human Services. (1999) found that population decreases in dietary fat of 1% to 3% could lower first-time heart attack rates by 25%.

James et al (1998) carried out a study of working class African Americans and found that the risk of Type 2 diabetes was 50% lower among individuals who were physically active at any level and two thirds lower among those who were at least moderately active

A six year observation of the Nurses' Health study cohort by Hu, Li, Colditz, Willett and Manson (2003), revealed that 30% of new cases of obesity and 43% of new cases of diabetes could be averted by adopting a relatively healthy lifestyle.

Few intervention studies, however have demonstrated sustained effectiveness in preventing or controlling overweight or obesity. Most studies have involved selected samples from community groups that are engaged in costly, individually targeted, educational or behavioural interventions. Also,
predominately white populations have been used in research, making the studies very difficult to generalise to population based public health.

The failures with intervention studies have been attributed to a modern obesogenic environment that promotes physical inactivity and excessive food consumption (French, Story, & Jeffery 2001; Swinburn, Egger, & Raza 1999). This appears to be especially concentrated in BME groups (Sloane et al, 2003).

Yancey et al (2003) conducted a review of 23 population-based interventions in America. This involved engaging BME groups in healthy eating and active living and was implemented between the years 1972 and 2000. The results showed that state and/or local health departments funded only 2 out of 23 projects. This demonstrates the importance of leadership within local government and within BME groups to set priorities and direct local resources toward chronic disease reduction.

Table 1 (below) summarises different environmental factors relating to unhealthy lifestyles within BME groups (Wadden & Stunkard 2002), most of which can be generalised to the UK population. It must be highlighted that the data was aimed at a predominantly black, US population. Therefore, some factors many not be easily translated to states of deprivation in the UK.
<table>
<thead>
<tr>
<th>Physical Environment</th>
<th>Food</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Targeted marketing</td>
<td>- Distance to private fitness facilities</td>
<td></td>
</tr>
<tr>
<td>- Excess fast food outlets</td>
<td>- Few worksite fitness opportunities</td>
<td></td>
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<tr>
<td>- Few supermarkets</td>
<td>- Few or deteriorating neighbourhood recreation facilities</td>
<td></td>
</tr>
<tr>
<td>- Limited shelf choices in fruit and vegetables</td>
<td>- High neighbourhood crime rates</td>
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</tr>
<tr>
<td>- Availability of high-fat food (home, church)</td>
<td>- Less private transportation</td>
<td></td>
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<tr>
<td>- Less private transportation</td>
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<td></td>
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<tr>
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<th>Food</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Low neighbourhood demand for low cal/low fat foods</td>
<td>- Limited investment in parks/recreation facilities</td>
<td></td>
</tr>
<tr>
<td>- Low family incomes and cash flow</td>
<td>- Cost of exercise equipment</td>
<td></td>
</tr>
<tr>
<td>- Other household expenses</td>
<td>- Less stable employment patterns</td>
<td></td>
</tr>
<tr>
<td>- Little home-grown food</td>
<td>- Fewer trained school physical education (PE) instructors/large PE classes</td>
<td></td>
</tr>
<tr>
<td>Financial incentives offered to under-resources schools by commercial cafeteria</td>
<td>- Poorly equipped school facilities/fewer PE options</td>
<td></td>
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<tr>
<td>Less ability of parent/adult volunteers to assist school staff in after-school sports recreation programmes</td>
<td></td>
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<table>
<thead>
<tr>
<th>Sociocultural Environment</th>
<th>Food</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
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<td>- Cultural attitudes about physical activity and importance of rest</td>
<td></td>
</tr>
<tr>
<td>- Fasting-feasting</td>
<td>- Activity lifestyles</td>
<td></td>
</tr>
<tr>
<td>- Extant food insecurity</td>
<td>- Fears about safety</td>
<td></td>
</tr>
<tr>
<td>- Prevalent obesity</td>
<td>- Cultural reverence for cars, particularly among males</td>
<td></td>
</tr>
<tr>
<td>- Body image</td>
<td>- Over-reliance on TV for engaging children after school hours</td>
<td></td>
</tr>
<tr>
<td>- Female roles</td>
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</tbody>
</table>

Recent studies examining the current epidemic of obesity and sedentariness in the United States demonstrates worsening trends, with nearly two thirds of Americans categorised as overweight, nearly one third as obese, and about 40% as extremely sedentary (Flegal, Carroll, Ogden, & Johnson, 2002; Ogden, Flegal, Carroll, & Johnson 2000)
Cooper et al (2001) state that there are increasingly apparent health disparities associated with socio-economic and ethnic marginalisation. This is the subject of increasing national attention from policy makers.

Stamatakis et al (2005) studied obesity trends from 1974 to 2003 in the UK (see figure 2 below). Data was collected from 28,601 school children over the 29 year period (1974-2003). The results showed that there was an increase in boys from 1.2% of the population being obese in 1984 to 6% in 2003. In girls obesity increased from 1.8% in 1984 to 6.6% in 2003.

![Graph showing obesity prevalence trends](image)

**Figure 2.** Obesity prevalence trends from 1997 to 2002–03 by income category and sex. Lower income: bottom 50% of income distribution of each individual year; higher income: top 50% of income distribution of each individual year. (Stamatakis, Primatesta, Chinn, Rona & Falaschetti 2005).
This shows that the population classified as obese is accelerating rapidly and Figure 2 shows that children from lower socioeconomic backgrounds show higher increases in obesity.

In summary, obesity is clearly increasing in both adult and young people. The MHLG aims to target this urgent need in order to prevent further increases in obesity among young people and adults. Figure 3 (below) shows a predicted chart for the rising obesity levels in the UK adult population and shows that 33% of men and 29% of women are predicted to be obese if current trends continue by 2010.

**Figure 3.** Increasing obesity among adults (Health Survey of England Human Nutrition Research, 2004)
2.1.2. Nutrition

Nutrition and healthy eating is another major influence in reducing many risk factors to health such as, cardiovascular disease and obesity. Therefore it is important to look at some of the factors contributing to uptake of healthy diets.

Nutritious eating and regular physical activity are all well accepted in the prevention of chronic medical conditions, especially diabetes, cardiovascular diseases and cancers. Haskell et al (1994) state that these behaviours can alleviate the effects of significant co-morbid conditions that increase the risk for poorer outcomes such as, obesity and hyperlipideamia.

Allender, Peto, Scarborough, Boxer and Rayner (2006) state that it is now recognised that a diet which is high in fat, salt and free sugars and low in complex carbohydrates, fruit and vegetables increases the risk of chronic diseases particularly heart disease and cancer.

Consuming food is something every human being must do to survive. It is the amounts and types of foods that affect the health status of the population. One simple method to describe the link between diet and health is the energy balance equation.
Humans get their energy from food and the body stores excess energy in the most economic way; which is in the form of fat. Therefore energy intake (EI) must equal energy output (EO) to maintain body weight. Energy output is expended through physical activity (McArdle, Katch & Katch, 2006).

For health promotion to be successful, it must address the needs and aspirations of the target audience and take into consideration their current knowledge, attitudes and behaviour patterns. Buttriss (1997) states that higher occupational status is generally associated with food choices that are more in line with national healthy eating guidelines. For example, upper socio-economic groups tend to consume more whole grain cereals, low-fat milk, fruits and vegetables, and fewer meat products and refined cereal foods.

Morris, Donkin, Wonderling, Wilkinson and Dowler (2000) researched the minimum income for healthy living. The study came about by the innovation in the UK of a statutory minimum wage, and during the preliminary discussion there was no reference to health needs that such an income should be capable of meeting. Morris et al’s (2000) study aimed to rectify this as a contribution to public health.

Cade, Upmeier, Calvert and Greenwood (1999) have shown that there is increasing public knowledge about what constitutes a healthy diet. On the other hand, they stated that problems concerning healthy eating have been
identified. Findings from their sample of the general population include beliefs that the tastiest foods are the ones that are bad for you, that eating healthy food is expensive and that healthy eating is just another fashion. Other general beliefs are that people with low incomes are least likely to eat healthy diets.

Cade et al (1999) states that the potentially higher direct costs of eating a healthy diet is often discussed but the indirect costs might also be considerable. This could include additional shopping time for fresh produce and longer cooking and preparation times. Even though these costs are considered a barrier towards eating a healthier diet, Cade et al (1999) state that not much research exists to state what extent the costs of a healthy diet really differ from those of an unhealthy one.

Cade et al (1999) aimed to investigate the marginal cost differences between healthy and unhealthy diets. Their sample included 35,000 women aged 35-69 with a large proportion of vegetarians. The detailed dietary information was obtained using an adapted 217-item food frequency questionnaire (FFQ).

A healthy diet indicator (HDI) was developed based on the World Health Organisation (WHO, 1991) recommendations for the prevention of chronic disease. 15,191 subjects responded to the questionnaire. Direct costs were calculated for the whole sample by multiplying the amount of food consumed
from the FFQ for an individual with average national prices taken from the 1995 national food survey and the 1997 Tesco supermarket home shopping catalogue.

The results showed that in general women were most likely to eat the recommended amounts of fruits and vegetables and to stay within the recommended range of polyunsaturated fat. Total energy intake increased and BMI decreased with increasing HDI group. Women with the healthiest diet ate about 1000kcal more per day and had the lowest BMI at 22.9kg.m$^{-2}$. The lower HDI groups had a mean food cost lower than average and the higher HDI groups had a mean cost higher than average.

The tie between the resource environment and health has begun to receive attention as part of an effort to improve eating and physical activity behaviours. Individuals and families rely on a variety of sources for their food, including markets and restaurants. The food options available at these locations almost certainly influence people's choices of what they consume on a day-to-day basis (French, Story, & Jeffery 2001).

The potential for environmental variations in pricing and food availability has recently led to legislative efforts to limit access to 'empty calories' in school nutrition programmes (Jeffery, French, Raether, & Baxter, 1994). This has led to policy initiatives to create healthier nutrition environments (Wadden,
Brownell & Foster, 2002). There are programmes in the UK such as, 'Jamie’s school dinners' (created by celebrity chef, Jamie Oliver). However, this now seeing a reverse effect as more and more children are bringing packed lunches to school to avoid eating the healthy school dinners.

Sloane et al (2003) set out to assess the nutritional resource environment in targeted African American areas of Los Angeles, and to contrast the findings to a predominantly white area that was presumed to have a fuller resource environment. The study looked at how community development programmes facilitated neighbourhood assessments to improve the quality and availability of healthy foods in local markets, restaurants and schools.

The design of the study was a community-based inventory process and was intended to describe in more detail the nutritional resource environment to increase community action against gaps and inadequacies. The data was taken from the United States Census Bureau web site (2000), which provided social, economic, and housing data.

Findings showed that in an area where 47% of the population was African American there were approximately 6,000 people per fruit and vegetable shop, when compared to an area where 8% of the population were African American, there are under 4,000 people per fruit and vegetable shop. This shows that fresh fruit and vegetables may be more readily available in certain
communities. However, this does not provide information on the services offered by these shops.

A ‘Shopping List’ survey was performed in 331 shops and was rated on cleanliness and service. Fruits and vegetables, non-fat milk and low-fat snacks were less often available in the target areas compared to the contrast areas. Less than three quarters of markets in the target areas sold fresh fruit or vegetables compared to over 90% of shops in the contrast area (70.4% vs 93.8%, P<.05). In addition the target areas only had about half the selection of fruits and vegetables (13 types of fruits vs 26, P<.05; 21 types of vegetables vs 38, P<.05).

Snack foods such as, biscuits and crisps were sold at nearly all shops surveyed (98.5%). However, shops in the target areas were less likely to sell, low-sugar, low-fat and low salt variations. This study is an example of the evidence that less affluent areas such as, the target areas discussed in this study do not have equal nutritional resources.

This study was based in America and therefore difficult to relate the findings to the UK and Manchester. It does however illustrate those areas of low socio-economic status often has less access to healthy foods, which needs to be addressed. This evidence supports Stomatakos et al’s (2005) research, and
the finding that obesity was increasing at higher rates in the lower social classes.

A study by Buttriss (1997) assessed food and nutrition: attitudes, beliefs, and knowledge in the United Kingdom. This research used data from 1992 of 1,700 members of the UK general public. Face-to-face interviews were conducted involving factors that contributed to a healthy diet.

The aim of the research was to assess awareness, adoption, and understanding of nutrition messages. It looked at who people trust and where they get their information from. It also looked at, whether social class or available income affected nutritional knowledge.

Buttriss’ (1997) research aimed to help people apply various healthy eating messages to their own lifestyles in a comprehensive way. Further research was conducted 1 year, 2 years and 4 years after the initial study in 1992 and some comparative data was incorporated into the study. The final part of the study looked at how the findings could be used in nutrition education activities.

The data collected helped confirm the importance of specific training for nutrition educators, which is now being addressed by the UK Government along with the appropriate health professional bodies. Perhaps the most
important factor is the need to make the information relevant and realistic for the individuals targeted.

Buttriss (1997) also found that the nutritional knowledge base of most of the health professionals (who received little or no formal training in nutrition) is wholly inadequate if they are expected to offer satisfactory dietary advice. Although it is not always necessary for GPs to provide nutrition guidance to patients, it is essential that the importance of nutrition receive their endorsement, as the research findings showed that GPs are the most trusted source of such information.

In summary, the MHLP has been designed to increase nutritional knowledge so that participants can become healthy lifestyle advisors (volunteers) in their community and have obtained a solid base of nutritional knowledge to help and advise others.

The MHLP aims to incorporate Buttriss (1997) findings on the promotion of good nutrition. For example, implementing good communication, which means it, is important to target messages carefully. At the same time, it is essential to keep the message simple, without distorting the facts and, above all, to make it relevant, realistic, meaningful, and practical for the individual. It is recognised that the approach must start where the individuals are in terms of
attitudes, knowledge, and behaviour, and build on the strengths of their current practices.

2.1.3. Physical Activity

Physical activity is defined as,

‘...bodily movement that is produced by contraction of the skeletal muscles, and that substantially increases energy expenditure and raises resting heart rate’ (American College of Sports Medicine, 2006, p. 3).

Exercise is a type of physical activity and is

‘...planned, structured and repetitive bodily movement done to improve or maintain one or more components of physical activity’ (American College of Sports Medicine, 2006, p. 3).

Physical fitness is;

‘...a concept that has been described as a set of attributes that people possess or achieve that relates to the ability to perform a physical activity’ (American College of Sports Medicine, 2006, p. 3).
Health-related components of fitness include cardiovascular endurance, muscular strength and endurance, flexibility, and body composition. We engage in physical activity for fitness benefits in order to improve some components of physical fitness (cardiorespiratory endurance, muscle strength, muscle endurance, flexibility, and body composition).

Allender et al (2006) have suggested that people who are physically active have a lower risk of heart disease. This highlights the importance of physical inactivity as a major risk factor for heart disease. The WHO (2002) estimates that around 3% of all disease burden in developed countries is caused by physical inactivity, and that over 20% of heart disease and 10% of stroke in developed countries, is due to physical inactivity (less than 2.5 hours per week moderate intensity activity or 1 hour per week vigorous activity) (WHO, 2002).

Allender et al (2006) states that people who are physically active have a lower risk of coronary heart disease (CHD). To get the maximum benefit the activity should be aerobic and regular.

Public health targets, regarding physical activity, have been in place in the UK since 1996. The UK Government recommends that adults should engage in physical activity for at least 30 minutes of moderate intensity (brisk walking,
cycling, climbing stairs) on five or more days of the week (Allender et al, 2006).

A target for physical activity in England was proposed in 2002, by the Government’s Strategy Unit, to increase the proportion of the adult population who participate in 30 minutes of moderate physical activity five or more times a week to 70% by 2020. This requires the participation levels in England to more than double in 15 years. It was also stated that the proportion of children who spend a minimum of two hours per week on high quality sport should increase from 25% in 2002 to 75% by 2006 and 85% by 2008 (Allender et al, 2006).

The Scottish Health Executive set a target that by 2022, 50% of the adult population should participate in 30 minutes of moderate activity on five or more occasions each week. The target set for children is to increase the number of children taking at least one hour a day of moderate activity on five or more days a week to 80% by 2022. There are no physical activity targets set for Wales and Northern Ireland (Allender et al, 2006).

Physical activity levels are low in the UK. Data produced in 2003 by the Health Survey for England (Allender et al, 2006), showed that 37% of men and 24% of woman met the current physical activity guidelines suggested by the
Government. In 2003 over one third of English adults were inactive, meaning that they participated in less than one occasion of 30 minutes activity a week.

There are also sex and age differences, as physical activity declines rapidly with age for both men and women. For women this decline does not occur until mid-forties. In England 53% of men and 30% of women aged 16-24 undertook the recommended levels of physical activity, compared to 17% of men and 13% of women aged 65-74 (Allender et al, 2006).

Between 1997 and 2004, the Health Survey for England reported that the overall proportion of adults meeting the recommended level of physical activity increased from 32% to 37% in men and from 21% to 25% in women.

At present, it is recommended that all children and young people aged 5-18 participate in physical activity of moderate intensity for one hour a day. In 2002 in England, 70% of boys and 61% of girls aged 2-15 were active for at least an hour a day. However participation rates declined with girls after the age of 10. By the age of 15, only 50% of girls reached the recommended level of activity (Allender et al, 2006).

Allender et al’s (2006) Physical Activity Report, found that along with national differences in physical activity levels, there were also regional differences. Men were more likely to meet the physical activity recommendations in the
South West (42%), West Midlands (41%), North East (40%) and North West (40%). Women were more likely to meet the physical activity guidelines in the South West (27%), South East (27%), the North East (26%) and London (26%).

Socio-economic differences in physical activity exist and show that among English men in 2003, 32% of men in managerial or professional jobs met the recommended levels of physical activity compared to 49% of small employers and own account workers (Allender et al, 2006).

The pattern of socio-economic differences in physical activity in women was reversed. 34% of women with managerial and professional jobs met the physical activity guidelines, compared to between 24% and 29% of women from other socio-economic groups (Allender et al, 2006).

The factors contributing to the uptake of physical activity have been highlighted by the Time Use Survey (2005). The survey showed that there has been a decrease in the proportion of time spent on daily activities. This includes some element of physical activity. For example, sport and other outdoor activities reduced from 15% (14 minutes on average) in 2000 to 10% (10 minutes on average) in 2005.
Health and related issues are on the top of agendas for most Governments of the developed countries (WHO 2002). In particular issues about diet consumed by and physical activity taken by the public have been given special attention by health professionals and has the immediate attention of the government.

The WHO (2002), reported that 17 million people worldwide die prematurely each year as a result of global epidemic of chronic disease. The most prevalent of these are; heart disease, stroke, cancer and diabetes. The WHO report proposed reducing the trend of chronic disease death rates by 2% each year, until 2015. This would mean prevention of 36 million premature deaths.

The WHO (2002) further reported that a significant majority of chronic diseases are caused by three known and preventable factors:

- Unhealthy diet
- Physical inactivity
- Tobacco use

Modern lifestyle has been recognised as the major cause of these factors. One billion people globally are over-weight or obese. The WHO (2002) predicts this will rise to 1.5 billion by 2015 without immediate action.

Health statistics show that health in the UK is poor. According to the 'Health Survey for England,' conducted by The Department of Health (DoH, 1999): 46% of men in England and 32% of women are overweight and an additional
17% of men and 21% of women are obese. Meaning that more than half of British adults are over-weight and therefore, have at least one key preventable risk factor present in their lifestyle.

On a more local level, statistics related to health are also poor. The 2001-2003 Primary Care Trust (PCT) Survey showed that average life expectancy for men in England and Wales is 76.1 years and in Manchester it is only 71.8 years. A similar pattern was also found for women: average life expectancy is 77.8 years in Manchester compared to 80.7 years in England and Wales.

The statistics from the PCT Survey (2001-2003) also compare weekly mortality rate due to two biggest killers in UK; cancers and CHD. The average rate for cancers in England and Wales is 124 compared to 170.8 in Manchester. The same for CHD gives even greater contrast 102.8 average rate as opposed to 168.7 in Manchester per 100,000.

It is due to the state of health that the DoH put great emphasis on issues concerning nutrition and physical activity. This has resulted in the production of a White Paper known as "Choosing Health: Making Healthy Choices Easier" (2005). This paper was a result of nation-wide research in the health habits and their consequences. In its conclusion key principles are proposed on which to focus and which to implement in society as a whole. In short these are;
• To support informed health related, such as diet and exercise, choices for the nation. To personalise that support to the individual in order to facilitate healthy choices

• To work in partnership, not only will health related organisations but for all organisations and community to be involved, thus making health everybody’s business.

All of these themes concentrate on individuals and how to reverse unhealthy lifestyles and support healthy ones for the benefit of the whole nation, in accordance to DoH’s Priority 5 – Health improvement and disease prevention.

In summary, need for education in nutrition and physical activity and the need for individuals to be provided with working, scientifically based knowledge of the same subject is of up-most importance. It can be proposed that there is an equal need for training and education, not only to further individual understanding of healthy living but to also train people to promote the message to people in their communities who need it most.

The MHLP was developed to offer solutions to the above national problems and issues. The project aims to train and accredit the knowledge of people already active in their communities. It aims to give them an opportunity to operate in those communities via focus groups concerned with healthy living. This will give them to opportunity to improve the health and the quality of life
for members of their own communities, and with this it is hoped to contribute to an improvement of health of the nation as a whole.

2.1.3. Health Initiatives

'Health Promotion' is concerned with improving the health status of populations. Health promotion research is primarily concerned with the assessment of both the results of interventions and the relative effectiveness of the means used to achieve these results.

Macdonald, Veen and Tones (1996) argue that although health promotion has a history of research and evaluation concerned with effectiveness, it has been poor in reviewing its approach to evaluation. This is now of critical importance as practitioners, policy makers and fund holders aim to make resources available for programmes and approaches which have been shown to be effective.

There are many health initiatives up and running now in the UK due to the incidence of overweight and obesity among adults and children, which is increasing (Stamatakis et al, 2005; Chinn & Rona 2001; Rudolf, Shahota, Barth & Walker, 2001; Reilly & Dorosty, 1999).
The 'International Obesity Taskforce' (IOTF) concluded that the prevention of weight gain is easier, less expensive and more effective than treating obesity after it has fully developed (Basdevant, Boute & Borys 1999). The MHLP aims to raise awareness of these issues and aims to allow disadvantaged communities to learn how to lead a healthier lifestyle.

Sloane et al (2003) concentrated on community-based participatory research (CBPR). This is a concept that states:

“...health promotion research should be conducted in a manner that allows community members to influence and control decisions that affect them and their community” (Sloane et al, 2003, p. 568).

This reinforces the decision to design the MHLP as a training tool for active community members.

In contrast, Zwiauer (2000) and Harrell, Gansky, McMurray, Bangdiwala, Frauman and Bradley (1998) state that a general population approach has been considered more economical and feasible than a targeted approach in successfully managing and tackling obesity. This is because the factors that lead to obesity have yet to be fully clarified. Therefore, a population approach seems most effective.
Sloane et al (2003) state that, if instituted properly, CBPR can elicit the trust of residents by responding to perceived community needs. Researchers and community members can develop a true partnership that builds community capacity by training residents in research skills. Therefore CBPR responds to the community needs and culture rather than imposing a preconceived idea of what would help the community (Tanjasiri, Kagawa-Singer, Nguyen & Foo 2002; Levine et al 1992).

Story (1999) states that schools are the ideal vehicle for the delivery of interventions for childhood obesity. Warren et al (2003) developed, implemented and evaluated both school and family based intervention to prevent obesity. Different interventions were compared, with a sample of 213 children aged 5-7 years. The intervention groups were:

1. Nutrition group (concepts of health were explored and linked to food).
2. Physical activity group (promotion of activity in daily life)
3. Combined nutrition and physical activity group (half and half of the above)
4. Control group (included for comparisons).

The interventions were in the form of lunchtime clubs, where an interactive nutrition and/or physical activity curriculum was delivered. The intervention lasted 20 weeks. The young persons growth, nutrition knowledge, diet and physical activity were assessed at baseline and at the end of the intervention.
The three interventions were based on the Social Learning Theory (Bandura 1986) and involved the following elements:

- Raising the value of the desired behaviour, including the short-term benefits, which are most likely to appeal to young people.
- Providing the opportunity to taste healthy foods and undertake non-competitive physical activity.
- Providing incentives to reinforce messages, for example verbal praise and small prizes.
- Developing practical skills and thus self-confidence in the desired behaviour.
- Working with parents (as far as possible) to overcome barriers to the desired health behaviour.

Assessments were carried out at baseline and then at the end of the intervention. Including:

- Body composition measurements were taken (height, weight, BMI, skinfold etc). Campbell, Waters, O’Meara and Summerbell (2001) state that the short time frame of the intervention is the reason why no significant changes were observed.
- Nutrition knowledge was assessed using a questionnaire developed and validated by Calfas, Sallis and Nader (1991) for young people.
aged 4-8. It involved a series of eight matched photographs of food and they were asked to select the healthiest.

- Physical activity was assessed by asking young people basic questions about their school day, including mode of transport, activities at break time. Also parents completed a questionnaire based on the Baecke Activity Questionnaire (Baeke, Burema, & Frieters 1982), and the Leisure Time Questionnaire (Godin & Shephard 1985) about their child's attendance of after school clubs, outdoor play, television viewing and computer usage, along with weekend activities.

- Young peoples diets were assessed using questionnaires completed by parents, a 24hour recall questionnaire and a food frequency questionnaire. The parental questionnaires provided medical history dietary assessment and physical activity assessment as discussed above.

The results showed that nutrition knowledge scores improved in all young people between baseline and final stage, particularly in the nutrition group and the combined group. The mean values at the final stage were significantly higher than those at the initial stage.

The mean scores for nutrition knowledge (scored out of 8) in the nutrition group were initially 6.4 and the final score was 7.7 (p<0.001). The mean
scores for the combined group were initially 6.2 and the final score was 7.4 (p<0.001).

The physical activity results showed that initially 32-50% of young people on the programmes reported travelling to school by car. At the final stage there were small increases in the number of young people walking to and from school in all groups. There was also an increase in activity reported in the playground during break times in all intervention groups, although not significant initially the average percentage of children in all groups who reported having active morning breaks was 72% and the final percentage was 89%. The initial percentage for all children having an active lunch break compared to after only showed a small increase 63% and 65% respectively.

The findings also showed that there was no increase in physical activity outside school after the intervention. However, Welk, Corbin and Dale (2000) state that the measurement of physical activity is problematic, especially in young people.

The data discussed above shows that health initiatives work and show improvements in participants' behaviour and knowledge. The MHLP aims to include both exercise and nutrition elements, therefore the intervention will increase knowledge, attitudes and behaviour towards healthy living.
The study by Warren et al (2003) was a pilot study aimed at a younger audience. However, it shares many similarities with the MHL. Warren et al's (2003) study showed that the school setting was a suitable setting for the promotion of healthy living, although a clear intervention programme effect was not apparent. However, the delivery of a health promotion programme within a school setting, by non-school staff is likely to be expensive and unsustainable.

Schools have been identified as a key setting for health promotion in the UK Government's report on public health. A 'healthy' school or a 'health promoting' school provides a broad setting to approach health promotion in schools. Denman (1999) states that the health promoting school approach is effective in influencing outcomes related to health and education.

The healthy school award scheme was launched in 1999 to help schools work towards enhancing the health of children and adults in the setting of school. Schools present a very large captive audience of young people taught by skilled professionals over a sustained period of time.

Denman (1999) states that such teaching can successfully raise self-esteem and knowledge levels, and develop attitudes, values and skills. Fletcher, Stewart-Brown and Barlow (1997) state that health education has been less
effective in determining health related behaviours and sustaining these behaviours in the long-term.

Denman (1999) suggests that programmes that are ineffective tend to concentrate on knowledge gain or a change in attitude. Emphasis is also placed on the long-term consequences of behaviour. Successful programmes, which show positive changes relating to health and education tend be shorter duration, include a range of social influences and involve skills training and self-learning.

As stated earlier as a criticism of the Warren et al (2003) study, health education requires a large number of resources from planning, delivery, training and teaching. This puts strain on schools budgets and has lead to other approaches and strategies for health promotion.

Community approaches places schools as one component in a broad based community programme, and places schools in a contributing rather than leadership role. The health education curriculum extends to health promotion in the community such as; youth work, media settings, and further education. In this model schools can provide a link for young people to the services they need. Fletcher et al (1997) state that this approach holds the most potential for success in changing health behaviours.
One such example of a community health promotion initiative is highlighted in a research paper by Howe and Wheeler (1999), who looked at urban food growing in Leeds and Bradford.

Urban food growing offers communities the opportunity to grow their own sustainable produce, while also learning basic nutrition principles, as the western diet contains too few fruits and vegetables.

Also increasing physical activity levels in urban environments, by increasing the amount of moderate regular exercise, which can increase the health status of individuals.

Howe and Wheeler (1999) state that urban food growing can help with urban regeneration, reduce crime rates, provide training opportunities and are valuable as educational resources. This supports the statement from Fletcher et al (1997) that providing a link with schools and communities to help change health related behaviours has the most potential for success.

The evidence presented in this literature review emphases the need for effective health promotion strategies. Not only for individuals at risk, but also to reduce medical costs associated with diseases linked to lifestyle.
2.1.5. Aims of the Study

The MHLP aims to promote health in inner city Manchester. The full details of the project are presented in Section 2.2. The aims of the study are to assess the effectiveness of this project, by evaluating the change in participants' knowledge, attitudes and behaviour relating to healthy lifestyles.
2.2. The Manchester Healthy Living Project

2.2.1. Introduction

The Healthy Living Project was set up by Community Service Volunteers (CSV) Training and Enterprise North. CSV is a registered charity, and the organisation's statement is 'Make a difference'. The Healthy Living Project overall aim was to introduce principles of healthy nutrition and exercise, as well as their benefits for health, to adults in Manchester.

There were two major reasons for this:
Firstly the project aimed to tackle poor nutritional and exercise habits in general, as these lead to a significant risk of developing a range of lifestyle-related diseases such as diabetes type II, heart disease and some forms of cancer. These three lifestyle-related diseases have been proven to be on a significant increase in the UK.

Secondly, the project aimed to provide healthy lifestyle advisors for community groups in Manchester, providing first hand experience and an understanding of potential boundaries people might face in trying to lead a healthy lifestyle.
Below is a breakdown of each of the Healthy Living Projects. Both the Adult and the Young Peoples Programmes are broken down in detail, including: Project Development, Promotion, Marketing and Recruitment, Project Review and Accreditation.

2.2.2. The Adult Healthy Living Project

Project Development

The aim of the adult project was to provide qualified, volunteer lifestyle advisors for community groups within Manchester. A series of 10 Workshops covering the subject were designed. The Workshops were designed to be informative and practical. Each workshop covered a different theme relating to healthy living:

- Workshop 1 – Introduction to Nutrition
- Workshop 2 – Building a Healthy Diet
- Workshop 3 – Anatomy and Physiology
- Workshop 4 – Health Assessment and Body Composition
- Workshop 5 – Analysing Food and Exercise Diaries
- Workshop 6 – Designing a Weight Control Programme
- Workshop 7 – Exercise Nutrition and Health
- Workshop 8 – Practical Gym Session
- Workshop 9 – Putting it all Together
- Workshop 10 – Preparing Healthy Living Advisors
Even though the Workshops were designed to be semi-formal, the subject matter presented was based on the latest research in the field of Nutrition and Exercise Science and was delivered by a postgraduate in the field.

**Partnerships**

The Adult Healthy Living Project was delivered in partnership between two organisations; Awards for All and CSV.

CSV submitted a funding bid to run the project and received an Awards for All lottery grant of £5000.

- Awards for All commissioned the project and accepted a bid for funding so the project could go ahead and granted CSV £5000 to deliver the project.
- CSV, a registered charity, fully developed all the programme's materials and delivered then evaluated the programme.
The Promotion, Marketing and Recruitment

The programme was promoted through teamwork between CSV and CHIEF (Community Health Involvement Empowerment Forum).

CHIEF is a Social Enterprise in Health & Social care, registered in the U.K with Community-Interest Company Status.

Promotional posters and flyers were sent out to large database of contacts of local organisations, which have an interest in community health. CSVs contact details were displayed on the promotional materials so that any interested adults could sign up for the course see Appendix 3 – Additional Materials.

A database was created to record any interested adults. As a direct result of the above approach, nine adults signed up to take part in the full project and all embarked on and completed the programme. There was initial interest from around 20 adults but there was only up to ten places available on the programme.

As the programme was a pilot programme, the information about the concept and what was taking place was sent to only a few selected media channels.
An article about the programmes success along with photos appeared in CSV National News Bulletin.

Finally, there was an expression of interest by the Department of Health in the programme as a whole. Public Health Minister Caroline Flint has expressed an interest in visiting the programme. This is likely to happen on the next occasion of running the programme.

10 Weeks of the Project – Review

This section will concentrate on specific activities and summarize each workshop briefly. The Adult Healthy Living workshops took place in Manchester City centre in varied locations. This was due to ease of access for the adults travelling in from different areas. Some of the workshops took place in the CSV training room and others were all in close proximity to the office for ease and familiarity.

- Workshop 1 ‘Introduction to Nutrition’ – This Workshop was treated as an introduction to nutrition. The participants were also asked to fill in target-setting and self-evaluation questionnaires and ‘ice breaker’ activities. This Workshop involved discussions of the changing human diet and some health statistics, followed by group exercises summarizing the food pyramid and the digestive system. The
workshop concluded with the DVD ‘Super Size me’ which served as a good introduction to the problems we face in our society in regards to healthy living.

- **Workshop 2 ‘Building a Healthy Diet’** – This workshop was designed to cover all aspects of a healthy diet, so the food groups were discussed in detail, followed by looking at case studies and making recommendations. Choosing healthy options at different meal times and when eating out was discussed along with the importance of eating regularly. Fad diets were then broken down and evaluated and a group discussion about food labels took place. A homework assignment was to choose two different groups and compare the diet of each group.

- **Workshop 3 ‘Anatomy and Physiology’** – This workshop was designed to cover all the aspects of basic anatomy and physiology and involved group exercises summarising and discussing the main systems including; muscles, skeleton, heart and lungs. The next part of the workshop involved defining physical activity and exercise and looking at methods to increase awareness of the benefits of leading an active lifestyle.
• **Workshop 4 'Health Assessment and Body Composition'** – This workshop was practical based and involved various techniques to collect body composition data such as; height, weight, waist, heart rate, percentage body fat and metabolic rate. The workshop then involved group exercises discussing health and safety issues to consider when exercising and designing warm ups and cool downs for various activities. Food and exercise diaries were then discussed and participants were asked to complete a three-day diary of exercise and food eaten for the next workshop.

• **Workshop 5 'Analysing Food and Activity Diaries'** – This workshop involved the participants becoming familiar with dietary analysis software (NutriCalc) and each participant inputted the data from their food diaries. Also participants learned how to analyse activity diaries, these techniques are vital in designing diet or exercise programmes. The group then discussed the findings in relation the energy balance equation.

• **Workshop 6 'Designing a Weight Control Programme'** – This workshop involved designing weight control programmes from the data extracted from food and exercise diaries. Methods to calculate lean body mass and ideal body weight in relation to previous body composition data were used and a safe and effective weight control programme was
designed using energy balance and safe methods of weight control involving both exercise and diet.

- **Workshop 7 'Exercise, Nutrition and Health'** – This workshop involved group exercises discussing and summarising the links between healthy lifestyles and reduced disease risks, including diabetes, obesity, heart disease, osteoporosis and cancer. Also group exercises discussing eating disorders and the symptoms, effects and treatment of anorexia, bulimia and over eating. The final part of the workshop involved designing a warm up routine, which can be used for home-based exercise.

- **Workshop 8 'Practical Gym Session'** – This workshop was carried out at a martial arts gym and was taken by a qualified personal trainer and martial arts instructor. It involved a warm-up of the participants design and each stretch was discussed and described by the group. The group then took part in an exercise class incorporating home-based exercise activities followed by a cool down and evaluation.

- **Workshop 9 'Putting it all Together'** – This workshop was designed to be a group quiz summarising all the topics covered it involved a number of questions and activities in relation to Healthy Living Studies.
The final part of the workshop involved planning healthy and nutritious meals for different occasions in preparation for the final workshop.

- **Workshop 10 'Preparing Healthy Living Advisors'** – This final workshop was a celebration and recognition of achievement along with a tasting and discussion about the healthy meals, which were prepared for the workshop. Also the actual learning part of the programme had finished so the participants were taken through the Healthy Living Advice Packs designed by CSV and how to advertise themselves, so they could become community healthy lifestyle advisors. Finally an evaluation and feed back session took place (see Appendix 2) along with the self-assessment questionnaires.

Accreditation

CSV Manchester is an approved and registered Open College Network (OCN) centre. This means that CSV Manchester can deliver OCN approved and nationally recognised Progression Units.

The Facilitator of this programme used the curriculum template for the four OCN Progression Level 2 Units: 'Understanding Nutrition and Weight Management', 'Developing a Personal Exercise Programme', 'Understanding
Eating Disorders' and 'Planning and Cooking for a Healthy Lifestyle' to create the 'Healthy Living Studies' course that the participants undertook.

In order to complete this course successfully the participants had to complete a number of practical and writing-based assessments. This assessment evidence was then passed; as reaching Level 2 'Healthy Living Studies' by the Facilitator. Next, the External Moderator examined the participants' work as well as the moderation of the same done by the Facilitator. All 9 adults gained Level 2 accreditation.

Future Implications

The Adult Healthy Living Project aims to provide community based healthy lifestyle advisors. The Project is ongoing and the real test of the programme will be the number of clients from the community each of the newly qualified participants assist and advise about healthy living.

This will be monitored by the facilitator and CSV. Acting in a supporting role and collecting evaluation forms from each client who has been advised by the healthy lifestyle advisors. CSV will keep in contact with all of the volunteer advisors on a regular basis.
2.2.3. The Young Peoples Healthy Living Project

Similar to the Adult Healthy Living Project the overall aim of the project was to introduce principles of healthy nutrition and exercise, as well as their benefits for health, to young people in Manchester. There is a great lack (in Manchester and further) of training programmes aimed at young people, no longer attending school, learning about healthy diet and exercise.

Each of the Young Peoples workshops covered a different theme relating to healthy living:

<table>
<thead>
<tr>
<th>Workshop</th>
<th>Topic</th>
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<tbody>
<tr>
<td>Workshop 1</td>
<td>Introduction to why eat healthy</td>
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<tr>
<td>Workshop 2</td>
<td>Introduction to why exercise</td>
</tr>
<tr>
<td>Workshop 3</td>
<td>Food groups and vitamins - what benefits (or harm) do they have</td>
</tr>
<tr>
<td>Workshop 4</td>
<td>How does the body work?</td>
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<td>Workshop 5</td>
<td>How to write a healthy diet plan</td>
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<tr>
<td>Workshop 6</td>
<td>Raising healthy lifestyle awareness and designing a personal exercise plan</td>
</tr>
<tr>
<td>Workshop 7</td>
<td>Practical gym session</td>
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<tr>
<td>Workshop 8</td>
<td>How to use the Internet for Healthy Living</td>
</tr>
<tr>
<td>Workshop 9</td>
<td>Bringing it all together</td>
</tr>
<tr>
<td>Workshop 10</td>
<td>Recognition of Achievement</td>
</tr>
</tbody>
</table>
Partnerships

The Young People’s Healthy Living Project was delivered in partnership between three organisations; Connexions Manchester, CSV and Manchester City FC’s community arm: City in the Community.

CSV received the funding for the Young Peoples Healthy Living Project from Connexions Manchester. CSV received £4100 to design, deliver and evaluate the project.

The partnership was as follows:

- Connexions Manchester have commissioned the project as part of the new Activity Allowance initiative. Connexions Personal Assistants referred suitable young people to the programme and then closely monitored their progress.
- CSV, a registered charity, fully developed all the programme’s materials and delivered then evaluated the programme. CSV representative worked closely with Connexions Manchester in monitoring the individual and group progress.
- City in the Community contributed the premises at the City of Manchester Stadium. This included the usage of the Press Room, Computer Room and the Warm-Up Room at the stadium.
as well as the Gymnasium at the training ground. City in the Community have also contributed incentive awards for the young people; match tickets.

The weekly procedure involved CSV representative reporting attendance and general happenings at the programme to the Connexions Manchester representative. City in the Community were informed of the number of the attendees on weekly bases as well.

_Promotion, Marketing and Recruitment_

The programme was promoted through teamwork between CSV and Connexions Manchester.

As mentioned previously Connexions Manchester promoted the programme to their clients and referred the suitable clients to the programme. For this purpose they used the proposal containing more information about the programme as well as the promotional flyer designed by CSV.

The Connexions advisors were briefed at team meetings by the Healthy Living project worker. This ensured that the main details of the project were transferred and the information could be passed on to any interested young people.
The next step in promoting the programme to young people was organising the Taster Sessions on two dates where those interested could get a feel for what to expect from the programme.

During these taster sessions, which took part at the Manchester City FC’s Press Room, young people were given a presentation about the programme and its aims. Next the potential candidates were taken onto a tour of the stadium, which culminated with a lunch at the stadium café. Finally those interested were asked to sign up for the full programme. Over 30 young people, showed interest in the sessions. However, only eight young people attended these two sessions (two Connexions advisors attended on behalf of their clients).

As a direct result of the above approach, all young people who attended the taster session signed up to take part in the full project and out of those ten young people embarked on the programme.

As the programme was a pilot programme, the information about the concept and what is taking place was sent to only a few selected media channels.

Therefore the article about the programme appeared in CSV national News Bulletin. In addition to this the article featuring the programme appeared in Manchester Joint Health Unit’s (Manchester City Council) Monthly Newsletter.
This Newsletter is circulated to all individuals and organisations seen as stakeholder in Manchester's health issues.

The future programmes should establish a contact with regional newspapers and television channels in order to invite them to feature the programme.

10 Weeks of the Project – Review

This section will concentrate on specific activities and summarize each workshop briefly. The Young Peoples Healthy Living workshops took place in The City of Manchester Stadium, using the pressrooms, players' lounges, executive boxes, warm up room and gymnasium.

- Workshop 1 - 'Introduction to Why Eat Healthy' – This Workshop was treated as an introduction to the field of healthy nutrition. The participants were also asked to fill in target-setting and self-evaluation questionnaires. This Workshop involved plenty of participant involvement and everyone was encouraged to join in the group exercises, which were designed to be interesting and informative. The group were also shown how to keep a food diary and were asked to record their own.
- **Workshop 2 - 'Introduction to Why Exercise'** - The overall aim of this Workshop was to introduce the participants to the principles of exercise and enable them to start building up an understanding of the subject needed in order to create an individualized exercise plan. The practical part of the Workshop introduced the participants to specific fitness tests. A majority of the participants took part in the fitness tests, whereas the rest helped with the time recording and the measurements. The group also watched part of a documentary on healthy lifestyles.

- **Workshop 3 - 'Food Groups and Vitamins. What Benefits (or Harm) do they Have?'** - This Workshop concentrated on defining the participants' own diet goals, then looking at food groups and food components that can help achieve those goals. Food groups, vitamins and minerals were broken down in detail, then group activity involved evaluating and designing diet plans for other people taking into account lifestyle and government recommendations.

- **Workshop 4 - 'How Does the Body Work?'** - This Workshop aimed to combine the exercise theory with practice. This was achieved by learning about human physiology and anatomy, especially in regards to major muscles and bones. The participants then took part in performing warm up and cool down exercises that target each
particular muscle group. Having tried the exercises, the learners then
designed and evaluated warm ups and cool downs for different
activities.

- **Workshop 5 - ‘How to Write a Healthy Diet Plan’** - This Workshop took
the participants’ nutrition knowledge a step further as it concentrated
on writing an individualised diet. The Workshop also explored the
issues of how over-weight and under-weight happens and the role of
calories in this. The issues of the eating disorders and the fad diets
were also explored. Finally the participants learned more about
designing personal diet plans.

- **Workshop 6 - ‘Raising Healthy Lifestyle Awareness and Designing a
Personal Exercise Plan’** - On this occasion, the participants were
asked to demonstrate their knowledge of both exercise and diet
principles by designing a poster aimed at young people. This was
either a poster to increase awareness of the benefits of healthy diets or
the importance of exercise. The second part of the workbook involved
evaluating personal exercise plans and making detailed
recommendations. This was in preparation for the practical session.

- **Workshop 7 - ‘Practical gym session’** - Towards the end of the
programme, the learners were taken for a practical Workshop, which
involved planning and then carrying out their own workout programme for the gym. To this end all of the participants took part in a supervised gym session, using the plan that was devised in the previous workshop. Unfortunately no young people attended this session.

- **Workshop 8 - 'How to use the Internet for Healthy Living'** – The main objective of this Workshop was to introduce the participants to the Internet as a useful tool in healthy living. However a great emphasis was also placed on differentiating websites that promote ‘fad’ health messages to the ones that keep to scientifically correct information. The participants tried their hand on a number of nutritional and fitness assessment web tools as well as the online free personal trainer benefits.

- **Workshop 9 - 'Bringing it All Together'** - This session was designed to test the learners knowledge of exercise and nutrition principles learned during the workshops. This involved a quiz, which the learners completed during the workshop. The final part of the programme was to evaluate and gather feedback from the learners. This is summarized in the next section and is a vital exercise if the programme is to grow and develop.

- **Workshop 10 - 'Recognition of Achievement'** – This Workshop was designed to be an award as well as celebration event. All the
participants were invited to bring along a family member or a friend. The first part of the Workshop was designed to recognise the participants' achievement. The participants themselves voted for their peers whom they thought deserved an award in one of eight categories.

Accreditation

CSV Manchester is an approved and registered Open College Network (OCN) centre. This means that CSV Manchester can deliver OCN approved and nationally recognised Progression Units.

The Facilitator of this programme used the curriculum template for the two OCN Progression Level 2 Units: 'Understanding Nutrition and Weight Management' and 'Developing a Personal Exercise Programme' to create the 'Introduction to Healthy Living' course that the participants undertook.

In order to complete this course successfully the participants had to complete a number of practical and writing-based assessments. This assessment evidence was then passed; as reaching Level 2 'Introduction to Healthy Living' by the Facilitator. Next, the External Moderator examined the participants' work as well as the moderation of the same done by the Facilitator.
All the work was deemed to satisfy the criteria, and therefore all the 10 participants have achieved their accreditation.

Future Implications

The Young Peoples Healthy Living Project aimed to raise health awareness in NEET groups (not in education, employment or training). The project achieved this through workshop-based activities, involving both practical and theoretical aspects of healthy living.

It resulted in a unique insight in the connection between learning about healthy lifestyle and putting it into practice, in young people.

Finally, this programme illustrated the requirement to cater for a real need and interest that the young people of Manchester have in the healthy living subject.

Additional Information

For more details on the project such as; the summary of the group evaluations refer to Appendix 2 – Additional results. Also the promotional materials are presented in Appendix 3 – Additional Materials.
2.3. Method

The details of the study are explained below and separated into different sections to ensure that all details are explained clearly and easily. The sections are Subjects, Design, Materials, Procedures and Statistical Analysis.

2.3.1. Subjects

The total number of participants in the MHLP was 19. Nine adults (n=9), aged 26-48 (mean age 36); and 10 young people (n=10), aged 16-19 years (mean age 17).

The participants in the adult programme were 6 females and 3 males. The participants in the young person programme were 6 females and 4 males. In total there were 12 females and 7 males.

The participants were an opportunity sample. They were recruited by contacting many charity organisations in the Manchester area that had an interest in public health promotion. The promotional materials (Appendix 3 – Additional Materials) and details of the course and timetable were sent along with contact details. This resulted in 12 adults showing interest and signing up to take part in the MHLP. However, due to changing circumstances nine adults in total completed the course.
All adults completing the MHLP signed the participant information sheet (see Appendix 3 – Additional Materials) and gave consent to take part in the study.

The young people were recruited from a training provider in Manchester for young people who are not in education, employment and training (NEET). An initial recruitment drive involved presentations to young peoples advisors. This included sending promotional materials to advertise two taster sessions (see Appendix 3 – Additional Materials). The interest generated from this was reflected in the two taster sessions on two separate occasions. This allowed the young people a brief summary of what the course entails.

This resulted in 10 young people attending the full MHLP and all 10 participants signed the participant consent form to take part in the study (see Appendix 3 – Additional Materials).

The sample was an opportunity sample and was not a true reflection of the City of Manchester as a whole. However, the participants taking part in the study were the groups that are identified as ‘at risk’ such as, ethnic minority groups and young people from disadvantaged backgrounds.

The ethical approval to assess the effectiveness of this study was granted by the University of Chester Research Ethics Committee. All participants completed a consent form and met the requirements set by the committee.
(see Appendix 3 – Additional Materials). As stated above all participants in the study were already participating in the MHLP and gave additional consent to be part of this research.

2.3.2. Design

The design of the case study was based around a self-assessment questionnaire, relating to exercise and nutrition knowledge. The questionnaire was administered at the beginning of the 10-week programme and again in the final workshop. This used a repeated measures design as the same test was administered at the start and at the end of the programme.

The dependant variable of this study was the self-assessment questionnaire. This was the method to test the participants self-perceived knowledge in exercise and nutrition principles. The questionnaire contain MHLP. For a copy of the questionnaires refer to Appendix 1 – Additional Methodology.
The independent variable was the materials and workshops delivered to the participants containing relevant exercise and nutrition information/activities. The workshops were designed to follow specific module outlines, these were:

- Developing a personal exercise programme
- Understanding nutrition and weight management
- Understanding eating disorders
- Planning and cooking for a healthy lifestyle.

There was no control method used therefore, the participants background knowledge of exercise and nutrition was unknown. This means that the results may not be reliable and/or valid. Also, some participants may have re-read the material covered in the workshops thus furthering their knowledge, which could not be controlled.

2.3.3. Materials

No special equipment or apparatus was used in the assessment of the MHLP. The only materials needed to carry out this research were the self-assessment questionnaire. This was designed by the researcher and contained 15 questions regarding exercise and nutrition knowledge, attitudes and behaviour. The questionnaire was developed specifically for this project. This means that there is no data available to confirm the reliability or validity of the questionnaire.
The questionnaires were designed to be simple and easy to fill in. The answers to each question were closed. For example, each question had a selection of four answers. The answers were rated on a scale of one to four.

The possible answers varied for different questions these were

- Excellent, Good, Fair, Poor
- Easy and Enjoyable, Comfortable Most of the Time, Difficult, Impossible
- Very Strong, Quite Strong, Basic, Beginner.

See ratings on self-assessment questionnaire (Appendix 1 – Additional Methodology).

A total score was obtained by multiplying the question score by the number of responses. The scores were then added together to form the group ‘total score’. For example,

A total score was obtained by:

\[ \text{Question score} \times \text{number of responses}. \]

Then all scores were added together to form the group total score.

Since the questionnaires were administered at the beginning and end of the MHLP, there was a 10-week period between the initial questionnaire and the exit questionnaire.
2.3.4. Procedures

The procedure took place alongside the delivery of the MHLP and participants were informed of the study and asked to read, fill in and sign participant information sheets (see Appendix 3 - Additional Materials). Clear verbal instructions were given at the start of the very first workshop. It was made clear that participation was optional and withdrawal at any time would not affect the course in any way. If withdrawal was requested any data collected would not be used. This was also stated in the participant information (see Appendix 3 - Additional Materials).

All information about the research project was uniform for both the young people and the adults. Thus ensuring that all participants were provided with the same information. There was no pilot study performed, as the research project in itself is a pilot study.

The facilitator of the MHLP administered all instructions and questionnaires. Once completed the questionnaires were filed in a separate filing system and kept separate from any other MHLP materials. The participants were assigned reference numbers to protect subject confidentiality, thus ensuring no bias results.
2.3.5. Analysis

The evaluation of the MHLP was analysed using basic descriptive statistics, as the data is quantitative and subjective. The self-assessed knowledge, attitudes and behaviour towards exercise, nutrition and lifestyle of the participants will be assessed via questionnaires. This was carried out before and after the 10-week programme.

The scores recorded from the self-assessment questionnaires fall into the ordinal level of measurement as they possess one feature of the real number series; order (Cohen & Holliday, 1996). As the data is ordinal in nature certain assumptions like normal distribution do not have to be met (Field, 2005).

In order to determine the differences, the mode of each score must be consulted in the descriptive statistics. This is because it is ordinal data and normal distribution is not assumed (Thomas, Nelson & Silverman 2005). Due to the small sample and nature of the self-assessment questionnaires the mode score for each question was used to assess the most common value for each of the 15 questions.
2.3.6. Additional Information

The main focus of the evaluation of the MHLP is centred on the self-assessment questionnaires before and after the programme. However, an initial course content questionnaire was designed and sent out to Manchester-based organisations, which had an interest in the health of the community. The questionnaire contained 15 questions relating to health knowledge, attitudes and behaviour. The questions aimed to establish the risk condition of inner city Manchester. For an example questionnaire see Appendix 1 – Additional Methodology.

The data was not used in the evaluation or in the design of materials for the MHLP. This is because the response rate was poor. For details on the findings see Appendix 2 – Additional Results.

Due to the time spent with the individuals on the MHLP and the need for feedback regarding other aspects of the programme a group discussion/evaluation session was carried in the final session of both the adult and the young person’s course. This provided useful information for the development of future programmes and allowed the collection of more detailed feedback relating to the effectiveness of the programme.
This data was not used as part of this study; however, a summary of the main points highlighted in the evaluation sessions is presented in Appendix 2 – Additional Results.
2.4. Results

The findings from the self-assessment questionnaire completed by the participants before and after the MHLP are shown below. The questionnaires contained 15 questions all-relating to healthy living.

The questions were scored on a scale of 1-4 (1 = poor or similar variable and 4 = excellent or similar variable), the graphs for each questionnaire presented below showing the total scores for each question before and after the MHLP. The combined sample was n=19 (12 females and 7 males)

The findings are presented in Table 2 and Table 3, then graphically for each question thereafter, showing the total scores for each question.

Each individual question is labelled on the x-axis of each graph, along with the scores 1-4. The total scores for the group are on the y-axis. The legend is presented on the left hand side of each graph showing the groups scores before and after the project.

The combined data for both the adult and the young people’s projects are presented first then the groups are separated to see if any differences lie between the different groups.
2.4.1. Combined Self-Assessment Data

Table 2. Combined data from the self-assessment questionnaire, showing total score and mode score for each question before the project

<table>
<thead>
<tr>
<th>Score</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>Total</th>
<th>Total score</th>
<th>Mode score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before</td>
<td>Poor</td>
<td>Fair</td>
<td>Good</td>
<td>Excellent</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. My diet at present is</td>
<td>2</td>
<td>11</td>
<td>6</td>
<td>0</td>
<td>19</td>
<td>42</td>
<td>2</td>
</tr>
<tr>
<td>2. My current day to day activity levels are</td>
<td>2</td>
<td>11</td>
<td>6</td>
<td>0</td>
<td>19</td>
<td>42</td>
<td>2</td>
</tr>
<tr>
<td>3. My cooking and food preparation knowledge is</td>
<td>2</td>
<td>8</td>
<td>6</td>
<td>3</td>
<td>19</td>
<td>40</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Impossible</td>
<td>Difficult</td>
<td>Comfortable most of the time</td>
<td>Easy and Enjoyable</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. I find light exercise to be</td>
<td>2</td>
<td>2</td>
<td>10</td>
<td>5</td>
<td>19</td>
<td>56</td>
<td>3</td>
</tr>
<tr>
<td>5. Fitting exercise into daily routines is</td>
<td>0</td>
<td>9</td>
<td>5</td>
<td>5</td>
<td>19</td>
<td>53</td>
<td>2</td>
</tr>
<tr>
<td>6. Finding time to prepare/eat healthy and nutritious meals is</td>
<td>0</td>
<td>11</td>
<td>6</td>
<td>2</td>
<td>19</td>
<td>48</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Poor</td>
<td>Fair</td>
<td>Good</td>
<td>Excellent</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Currently available resources, guidelines and information about exercise is</td>
<td>2</td>
<td>13</td>
<td>3</td>
<td>1</td>
<td>19</td>
<td>41</td>
<td>2</td>
</tr>
<tr>
<td>8. Currently available resources, guidelines and information about diet is</td>
<td>2</td>
<td>9</td>
<td>7</td>
<td>1</td>
<td>19</td>
<td>45</td>
<td>2</td>
</tr>
<tr>
<td>9. My knowledge of disease linked to unhealthy lifestyle is</td>
<td>2</td>
<td>5</td>
<td>6</td>
<td>6</td>
<td>19</td>
<td>54</td>
<td>3 &amp; 4</td>
</tr>
<tr>
<td>10. My motivation towards leading a healthy life is</td>
<td>3</td>
<td>6</td>
<td>9</td>
<td>1</td>
<td>19</td>
<td>46</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Beginner</td>
<td>Basic</td>
<td>Quite strong</td>
<td>Very strong</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. My knowledge of nutrition principles is</td>
<td>3</td>
<td>9</td>
<td>7</td>
<td>0</td>
<td>19</td>
<td>42</td>
<td>2</td>
</tr>
<tr>
<td>12. My knowledge of exercise principles is</td>
<td>2</td>
<td>11</td>
<td>6</td>
<td>0</td>
<td>19</td>
<td>42</td>
<td>2</td>
</tr>
<tr>
<td>13. My knowledge of keeping diet and exercise diaries is</td>
<td>7</td>
<td>4</td>
<td>7</td>
<td>1</td>
<td>19</td>
<td>40</td>
<td>1 &amp; 3</td>
</tr>
<tr>
<td>14. My ability to create diet and exercise programmes is</td>
<td>7</td>
<td>9</td>
<td>2</td>
<td>1</td>
<td>19</td>
<td>35</td>
<td>2</td>
</tr>
<tr>
<td>15. My ability to advise on exercise and nutrition is</td>
<td>7</td>
<td>5</td>
<td>7</td>
<td>0</td>
<td>19</td>
<td>38</td>
<td>1 &amp; 3</td>
</tr>
</tbody>
</table>
Table 3. Combined data from the self-assessment questionnaire, showing total score and mode score for each question after the project

<table>
<thead>
<tr>
<th>Score</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>Excellent</th>
<th>Total</th>
<th>Total score</th>
<th>Mode score</th>
</tr>
</thead>
<tbody>
<tr>
<td>After</td>
<td>Poor</td>
<td>Fair</td>
<td>Good</td>
<td>12</td>
<td>2</td>
<td>19</td>
<td>53</td>
<td>3</td>
</tr>
<tr>
<td>1. My diet at present is</td>
<td>1</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. My current day to day activity levels are</td>
<td>1</td>
<td>8</td>
<td>9</td>
<td></td>
<td>1</td>
<td>19</td>
<td>48</td>
<td>3</td>
</tr>
<tr>
<td>3. My cooking and food preparation knowledge is</td>
<td>0</td>
<td>5</td>
<td>8</td>
<td></td>
<td>6</td>
<td>19</td>
<td>58</td>
<td>3</td>
</tr>
<tr>
<td>4. I find light exercise to be</td>
<td>Impossible</td>
<td>Difficult</td>
<td>Comfortable most of the time</td>
<td>Easy and Enjoyable</td>
<td>0</td>
<td>0</td>
<td>8</td>
<td>11</td>
</tr>
<tr>
<td>5. Fitting exercise into daily routines is</td>
<td>0</td>
<td>5</td>
<td>10</td>
<td></td>
<td>4</td>
<td>19</td>
<td>56</td>
<td>3</td>
</tr>
<tr>
<td>6. Finding time to prepare/eat healthy and nutritious meals is</td>
<td>0</td>
<td>7</td>
<td>6</td>
<td>6</td>
<td>19</td>
<td>56</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>7. Currently available resources, guidelines and information about exercise is</td>
<td>Poor</td>
<td>Fair</td>
<td>Good</td>
<td>Excellent</td>
<td>2</td>
<td>3</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>8. Currently available resources, guidelines and information about diet is</td>
<td>1</td>
<td>2</td>
<td>9</td>
<td>7</td>
<td>19</td>
<td>60</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>9. My knowledge of disease linked to unhealthy lifestyle is</td>
<td>1</td>
<td>0</td>
<td>10</td>
<td>8</td>
<td>19</td>
<td>63</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>10. My motivation towards leading a healthy life is</td>
<td>0</td>
<td>0</td>
<td>9</td>
<td>10</td>
<td>19</td>
<td>67</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>11. My knowledge of nutrition principles is</td>
<td>Beginner</td>
<td>Basic</td>
<td>Quite strong</td>
<td>Very strong</td>
<td>0</td>
<td>1</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>12. My knowledge of exercise principles is</td>
<td>0</td>
<td>2</td>
<td>11</td>
<td>6</td>
<td>19</td>
<td>61</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>13. My knowledge of keeping diet and exercise diaries is</td>
<td>1</td>
<td>3</td>
<td>9</td>
<td>6</td>
<td>19</td>
<td>58</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>14. My ability to create diet and exercise programmes is</td>
<td>0</td>
<td>3</td>
<td>11</td>
<td>5</td>
<td>19</td>
<td>59</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>15. My ability to advise on exercise and nutrition is</td>
<td>0</td>
<td>6</td>
<td>6</td>
<td>7</td>
<td>19</td>
<td>58</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

68
Table 2-3 show the combined score for the self-assessment questionnaires before and after the MHLP. The tables show improvement in the mean score for every question after the project when compared to before. To see this more clearly the total scores from each of the 15 questions from the self-assessment questionnaires are presented on the following pages.

![Bar chart showing total scores for different diets.](Image)

**Figure 4.** Question 1 combined scores from the self-assessment questionnaire (1= Poor, 2= Fair, 3= Good, 4=Excellent)

Figure 4 shows that after the project a greater number of participants rated their diet at present as 'good' when compared to before; 12 and 6 respectively. Two participants rated their diet as 'excellent' after the project compared to 0 before. The mode score before was 2 (fair) compared to 3 (good) after.
Figure 5. Question 2 combined scores from the self-assessment questionnaire (1= Poor, 2= Fair, 3= Good, 4=Excellent)

Figure 5 shows that the participants showed an improvement in their self-perceived day-to-day activity levels the mode score increased from 2 before the project to 3 after the project.

Figure 6. Question 3 combined scores from the self-assessment questionnaire (1= Poor, 2= Fair, 3= Good, 4=Excellent)

Figure 6 shows an improvement in the participants' self-perceived cooking and food preparation diet the mode score increased from 2 to 3 an average rating changing from 'fair' to 'good' before and after the project.
Figure 7. Question 4 combined scores from the self-assessment questionnaire (1= Impossible, 2= Difficult, 3= Comfortable most of the time, 4= Easy and enjoyable)

Figure 7 shows that the group's combined rating of how they perceive light exercise showed improvement as before the project five participants stated that light exercise was easy and enjoyable compared to 11 participants after the project. The average rating before was 'comfortable most of the time' (mode score 3) compared to 'easy and enjoyable' (mode score 4) after the project.

Figure 8. Question 5 combined scores from the self-assessment questionnaire (1= Impossible, 2= Difficult, 3= Comfortable most of the time, 4= Easy and enjoyable)
Figure 8 shows that the group showed improvement in their self-assessed ability to fit exercise into daily routines. The mode scores (2 before and 3 after) suggest that there was an improvement.

![Figure 8](image)

**Figure 9.** Question 6 combined scores from the self-assessment questionnaire (1= Impossible, 2= Difficult, 3= Comfortable most of the time, 4= Easy and enjoyable)

Figure 9 shows little improvement in the participants' self-assessment of their ability to find time to cook healthy and nutritious meals the mode score before was 2 and after it was 2 meaning that both before and after the participants average rating was 'difficult'.

![Figure 9](image)

**Figure 10.** Question 7 combined scores from the self-assessment questionnaire (1= Poor, 2= Fair, 3= Good, 4=Excellent)
Figure 10 shows how the group rated the available resources, guidelines and information about exercise. Before the programme the mode score was 2, which means an average rating of 'fair'. After the programme the mode score was 3 & 4, which shows an improvement of the average rating from 'fair' to 'good' and 'excellent'.

![Bar chart showing scores before and after the programme for available resources and guidelines.]

**Figure 11.** Question 8 combined scores from the self-assessment questionnaire (1= Poor, 2= Fair, 3= Good, 4=Excellent)

Figure 11 shows the combined data for the groups changed as the mode score for currently available resources, guidelines and information about diet changed from 2 (fair) before to 3 (good).

![Bar chart showing scores before and after the programme for disease knowledge.]

**Figure 12.** Question 9 combined scores from the self-assessment questionnaire (1= Poor, 2= Fair, 3= Good, 4=Excellent)
Figure 12 shows that the self assessed knowledge of diseases linked to unhealthy lifestyles changed from a mode score of 3 & 4 (good and excellent) to 3 (good), before and after the programme respectively. The change was evident as 18 of the 19 participants rated their knowledge as 'good' or 'excellent' after the programme compared to only 12 of the 19 before.

![Graph showing change in knowledge scores before and after the programme](image)

**Figure 13.** Question 10 combined scores from the self-assessment questionnaire (1= Poor, 2= Fair, 3= Good, 4=Excellent)

Figure 13 shows the motivation towards leading a healthy life scores from the self-assessment questionnaires changed from an average 3 (good) before to 4 (excellent) after the programme. One participant rated their motivation as excellent and nine participants rated their motivation as 'good' before the programme compared to all participants after the programme rated their motivation towards leading a healthy life as either 'good' or 'excellent'.
Figure 14. Question 11 combined scores from the self-assessment questionnaire (1= Basic, 2= Beginner, 3= Quite strong, 4= Very strong)

Figure 14 shows the self-assessed knowledge of nutrition principles changed from a mode score of 2 (basic) before to 3 (quite strong) after. The results show that no participants rated their knowledge as 'very strong' before the programme and only 7 rated their knowledge as 'quite strong'. After the programme however 18 of the 19 participants rated their knowledge as either 'quite strong' or 'very strong'.

Figure 15. Question 12 combined scores from the self-assessment questionnaire (1= Basic, 2= Beginner, 3= Quite strong, 4= Very strong)
Figure 15 shows the combined groups self assessed knowledge of exercise principals. The average rating again changed from a 'basic' rating before to 'quite strong' after the programme. The mode score changed from 2 to 3 respectively. 17 of the 19 participants rated their knowledge of exercise principals as either 'quite strong' or 'very strong' after the programme compared to only 6 participants rating their knowledge as 'quite strong' and 0 'very strong' before the programme.

![Bar Chart: Total Scores](chart.png)

My knowledge of keeping diet and exercise diaries

**Figure 16.** Question 13 combined scores from the self-assessment questionnaire (1= Basic, 2= Beginner, 3= Quite strong, 4= Very strong)

Figure 16 shows the combined groups self-assessed knowledge of keeping diet and exercise diaries. The findings show that the average rating changed from 'basic' and 'quite strong' before the programme (mode score 1 & 3) to 'quite strong' after the programme (mode score 3).
Figure 17. Question 14 combined scores from the self-assessment questionnaire (1= Basic, 2= Beginner, 3= Quite strong, 4= Very strong)

Figure 17 is the combined groups self assessed ability to create diet and exercise programmes. The results show that the mean score changed from 2 (basic) before to 3 (quite strong) after. Three participants rated their ability as quite strong or very strong before the programme compared to 16 after.

Figure 18. Question 15 combined scores from the self-assessment questionnaire (1= Basic, 2= Beginner, 3= Quite strong, 4= Very strong)
Figure 18 shows the combined groups self-assessed ability to advise on exercise and nutrition. The results show the groups average rating changed from ‘beginner’ and ‘quite strong’ before the programme (mode score 1 & 3) to ‘very strong’ after the programme (mode score 4). Before the programme, seven participants rated their ability as ‘beginner’ and 0 ‘very strong’. After the programme, 0 participants rated their ability as ‘beginner’ and 7 ‘very strong.’ This shows a large improvement in the groups self-assessed ability to advise on exercise and nutrition.

The results were then analysed in more detail. The adult group (n=9) and the young persons group (n=10) were separated. This allowed for a more in depth analysis and made it possible to look at any differences between the groups. The results are presented in Tables 4-8 and graphically there after for each question.
### 2.4.2. Adult and Young People’s Self-Assessment Data

Table 4. Adult data from the self-assessment questionnaire, showing total score and mode score for each question before the project

<table>
<thead>
<tr>
<th>Score</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before</td>
<td>Poor</td>
<td>Fair</td>
<td>Good</td>
<td>Excellent</td>
</tr>
<tr>
<td>1. My diet at present is</td>
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<td>4</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>2. My current day to day activity levels are</td>
<td>1</td>
<td>3</td>
<td>5</td>
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</tr>
<tr>
<td>3. My cooking and food preparation knowledge is</td>
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<table>
<thead>
<tr>
<th></th>
<th>Impossible</th>
<th>Difficult</th>
<th>Comfortable most of the time</th>
<th>Easy and Enjoyable</th>
</tr>
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<tbody>
<tr>
<td>4. I find light exercise to be</td>
<td>0</td>
<td>2</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>5. Fitting exercise into daily routines is</td>
<td>0</td>
<td>4</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>6. Finding time to prepare/eat healthy and nutritious meals is</td>
<td>0</td>
<td>3</td>
<td>6</td>
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<table>
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<th>Good</th>
<th>Excellent</th>
</tr>
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<td>1</td>
</tr>
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<td>8. Currently available resources, guidelines and information about diet is</td>
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<td>0</td>
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<tr>
<td>10. My motivation towards leading a healthy life is</td>
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</table>

<table>
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<tbody>
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<td>11. My knowledge of nutrition principles is</td>
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<td>2</td>
<td>7</td>
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<tr>
<td>12. My knowledge of exercise principles is</td>
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<td>13. My knowledge of keeping diet and exercise diaries is</td>
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<tr>
<td>14. My ability to create diet and exercise programmes is</td>
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<td>1</td>
</tr>
<tr>
<td>15. My ability to advise on exercise and nutrition is</td>
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<td>6</td>
</tr>
<tr>
<td>Score</td>
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<td>Good</td>
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<td>Impossible</td>
<td>Difficult</td>
<td>Comfortable most of the time</td>
<td>Easy and Enjoyable</td>
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<td>4. I find light exercise to be</td>
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<tr>
<td>5. Fitting exercise into daily routines is</td>
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<td>6. Finding time to prepare/eat healthy and nutritious meals is</td>
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<td>10. My motivation towards leading a healthy life is</td>
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<td>Very strong</td>
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<td>1</td>
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<tr>
<td>15. My ability to advise on exercise and nutrition is</td>
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Table 6. Adult data from the self-assessment questionnaire, showing total score and mode score for each question after the project

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<td>31</td>
<td>3</td>
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<tr>
<td>4. I find light exercise to be</td>
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<td>Comfortable most of the time</td>
<td>Easy and Enjoyable</td>
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<td>3</td>
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<td>Quite strong</td>
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<tr>
<td>12. My knowledge of exercise principles is</td>
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<tr>
<td>14. My ability to create diet and exercise programmes is</td>
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<td>9</td>
<td>31</td>
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<tr>
<td>15. My ability to advise on exercise and nutrition is</td>
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Table 7. Young People’s data from the self-assessment questionnaire, showing total score and mode score for each question after the project

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<td>Fair</td>
<td>Good</td>
<td>Excellent</td>
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<td>2. My current day to day activity levels are</td>
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<tr>
<td>3. My cooking and food preparation knowledge is</td>
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<td>3</td>
<td>2</td>
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<td>4. I find light exercise to be</td>
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</tr>
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<td>5. Fitting exercise into daily routines is</td>
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</tr>
<tr>
<td>6. Finding time to prepare/ eat healthy and nutritious meals is</td>
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<th>Fair</th>
<th>Good</th>
<th>Excellent</th>
</tr>
</thead>
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<td>7. Currently available resources, guidelines and information about exercise is</td>
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<td>2</td>
<td>4</td>
</tr>
<tr>
<td>8. Currently available resources, guidelines and information about diet is</td>
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<td>6</td>
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<tr>
<td>9. My knowledge of disease linked to unhealthy lifestyle is</td>
<td>1</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td>10. My motivation towards leading a healthy life is</td>
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<td>0</td>
<td>8</td>
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<th>Basic</th>
<th>Quite strong</th>
<th>Very strong</th>
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<tr>
<td>11. My knowledge of nutrition principles is</td>
<td>1</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>12. My knowledge of exercise principles is</td>
<td>0</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>13. My knowledge of keeping diet and exercise diaries is</td>
<td>1</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>14. My ability to create diet and exercise programmes is</td>
<td>0</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>15. My ability to advise on exercise and nutrition is</td>
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<td>6</td>
<td>4</td>
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</table>

82
Figure 19. Question 1 adult (left) and young people’s (right) scores from the self-assessment questionnaire (1= Poor, 2= Fair, 3= Good, 4=Excellent)

Figure 19 shows that the young people showed the largest improvement in self-assessed diet status, moving from an average rating of ‘fair’ before (mode score 2) to ‘good’ after (mode score 3). The adult data shows an average rating of ‘good’ before and after the project (mode score 3).

Figure 20. Question 2 adult (left) and young people’s (right) scores from the self-assessment questionnaire (1= Poor, 2= Fair, 3= Good, 4=Excellent)
Figure 20 shows that there is a difference between the adult data and the young people's data. Both the adults and the young people showed improvement in self-assessed activity levels. The adults' mode score was 3 before and after the project (average rating of good) and the young peoples mode score was 2 (average rating of fair).

Figure 21. Question 3 adult (left) and young people's (right) scores from the self-assessment questionnaire (1= Poor, 2= Fair, 3= Good, 4=Excellent)

Figure 21 shows that there is a difference between the adult data and the young people's data. Both the adults and the young people showed improvement in self-assessed activity levels. The adults' mode score was 3 before and after the project (average rating of good) and the young peoples mode score was 2 (average rating of fair).
Figure 22. Question 4 adult (left) and young people’s (right) scores from the self-assessment questionnaire (1= Impossible, 2= Difficult, 3= Comfortable most of the time, 4= Easy and enjoyable)

Figure 22 shows that there is a difference between the adult data and the young people’s data. The young people showed no difference in their self perceptions regarding exercise. The average rating of ‘comfortable most of the time’ before (mode score 3) stayed the same after (mode score 3). The adults data showed improvement. For example, an average rating of comfortable most of the time’ before the project (mean score 3) increased after the project to an average rating of ‘easy and enjoyable’ (mean score 4).
Figure 23. Question 5 adult (left) and young people’s (right) scores from the self-assessment questionnaire (1= Impossible, 2= Difficult, 3= Comfortable most of the time, 4= Easy and enjoyable)

Figure 23 shows that the adults showed the largest improvement in self-assessed ability to fit exercise into daily routines, moving from an average rating of ‘difficult’ before (mode score 2) to ‘comfortable most of the time’ after (mode score 3). The young people’s data shows an average rating of ‘difficult’ before and after the project (mode score 2).

Figure 24. Question 6 adult (left) and young people’s (right) scores from the self-assessment questionnaire (1= Impossible, 2= Difficult, 3= Comfortable most of the time, 4= Easy and enjoyable)
Figure 24 shows that there is a difference between the adult data and the young people’s data. The adults showed the largest improvement in self assessed ability to prepare/eat nutritious meals, moving from an average rating of ‘comfortable most of the time’ before (mode score 3) to ‘easy and enjoyable’ after (mode score 4). The young people’s data shows an average rating of ‘difficult’ before and after the project (mode score 2).

Figure 25. Question 7 adult (left) and young people’s (right) scores from the self-assessment questionnaire (1= Poor, 2= Fair, 3= Good, 4=Excellent)

Figure 25 shows that there is a difference between the adult data and the young people’s data. The adults showed the largest improvement in currently available information about exercise, moving from an average rating of ‘fair’ before (mode score 2) to ‘excellent’ after (mode score 4). The young people’s data shows an average rating of ‘fair’ before the project (mode score 2) showing a smaller change after the project, average rating of ‘good’ (mode score 3).
**Figure 26.** Question 8 adult (left) and young people’s (right) scores from the self-assessment questionnaire (1= Poor, 2= Fair, 3= Good, 4=Excellent)

Figure 26 shows that both the adults and the young people showed improvement in currently available information about diet. The adults moved from an average rating of ‘good’ before (mode score 3) to ‘excellent’ after (mode score 4). The young people’s data shows an average rating of ‘fair’ before the project (mode score 2) changing to ‘good’ after the project, (mode score 3).

**Figure 27.** Question 9 adult (left) and young people’s (right) scores from the self-assessment questionnaire (1= Poor, 2= Fair, 3= Good, 4=Excellent)
Figure 27 shows that there is a difference between the adult data and the young people’s data. The young people showed the largest improvement in self-assessed knowledge of diseases, moving from an average rating of ‘fair’ before (mode score 2) to ‘good’ after (mode score 3). The adults’ data shows an average rating of ‘excellent’ before and after the project (mode score 4).

![Graphs showing changes in motivation](image)

**Figure 28.** Question 10 adult (left) and young people’s (right) scores from the self-assessment questionnaire (1= Poor, 2= Fair, 3= Good, 4=Excellent)

Figure 28 shows that both the adults and young people showed improvement in self-assessed motivation, the adults moved from an average rating of ‘good’ before (mode score 3) to ‘excellent’ after (mode score 4). The young people’s data shows an average rating of ‘fair’ before the project (mode score 2) changing after the project to an average rating of ‘good’ (mean score 3).
Figure 29. Question 11 adult (left) and young people's (right) scores from the self-assessment questionnaire (1 = Basic, 2 = Beginner, 3 = Quite strong, 4 = Very strong)

Figure 29 shows that the adults moved from an average rating of 'quite strong' before (mode score 3) to 'very strong' after (mode score 4). The young people's data shows an average rating of 'basic' before the project (mode score 2) compared to after the project, average rating of 'quite strong' (mode score 3).

Figure 30. Question 12 adult (left) and young people's (right) scores from the self-assessment questionnaire (1 = Basic, 2 = Beginner, 3 = Quite strong, 4 = Very strong)
Figure 30 shows that both the adults and young people showed improvement in self-assessed exercise knowledge. The adults moved from an average rating of 'quite strong' before (mode score 3) to 'very strong' after (mode score 4). The young people's data shows an average rating of 'basic' before the project (mode score 2) compared to after the project, average rating of 'quite strong' (mode score 3).

![Graph showing improvement in knowledge of diet and exercise diaries](image)

**Figure 31.** Question 13 adult (left) and young people's (right) scores from the self-assessment questionnaire (1= Basic, 2= Beginner, 3= Quite strong, 4= Very strong)

Figure 31 shows that there is a difference between the adult data and the young people's data. The young people showed the greatest improvement in self-assessed ability at keeping exercise and food diaries, they moved from an average rating of 'beginner' before (mode score 1) to 'good' after (mode score 3). The adult data shows an average rating of 'quite strong' before the
project (mode score 3) compared to after the project of an average rating of 'very strong' (mode score 4).

![Graphs showing self-assessment scores before and after project](image_url)

**Figure 32.** Question 14 adult (left) and young people's (right) scores from the self-assessment questionnaire (1= Basic, 2= Beginner, 3= Quite strong, 4= Very strong)

Figure 32 shows that there is a difference between the adult data and the young people's data. The young people showed the greatest improvement in self-assessed ability to create diet and exercise programmes, they moved from an average rating of 'beginner' before (mode score 1) to 'quite strong' after (mode score 3). The adult data shows an average rating of 'basic' before the project (mode score 2) compared to after the project of an average rating of 'quite strong' (mode score 3).
Figure 33. Question 15 adult (left) and young people's (right) scores from the self-assessment questionnaire (1= Basic, 2= Beginner, 3= Quite strong, 4= Very strong)

Figure 33 shows that there is a difference between the adult data and the young people's data. Both the adults and young people showed improvement in self-assessed ability to advise on exercise and nutrition, the adults moved from an average rating of 'quite strong' before (mode score 3) to 'very strong' after (mode score 4). The young people's data shows an average rating of 'beginner' before the project (mode score 1) compared to after the project of an average rating of 'basic' (mean score 2).

The data from the self-assessment questionnaires showed positive results in the participant's self-assessed knowledge, attitudes and behaviour relating to exercise, nutrition and healthy lifestyles. These findings will now be discussed and compared to existing evidence on health promotion initiatives to see whether the findings can be related to other initiatives.
2.5. Discussion

The findings from the self-assessment questionnaires before and after the MHLPP show that participants self assessed knowledge, attitudes and behaviour relating to exercise, diet and healthy lifestyles showed improvement or stayed the same in all of the 15 questions.

The main findings were:

- An increase in the participants' self-assessed knowledge relating to diet and exercise principles
- The successful ability to create and advise others on diet and exercise programmes (this was the main aim of the MHLPP).

For more information about the MHLPP see Section 2.2.

When the data from the adult and the young people's Healthy Living Project was separated the results showed that although both groups showed improvement, the adult group started from a higher average rating on the self-assessment questionnaires, and showed less improvement, when compared to the young people. This was clearly shown in the knowledge based questions such as;
Question 9. My knowledge of disease linked to unhealthy lifestyle is;

1= 'Poor', 2= 'Fair', 3= 'Good', 4= 'Excellent'

Adult mode score before; 'Excellent' or a score of 4
Adult mode score after; 'Excellent' or a score of 4

Yong people's mode score before; 'Fair' or a score of 2
Yong people's mode score before; 'Good' or a score of 3

Question 11. My knowledge of nutrition principles is;

1= 'Beginner', 2= 'Basic', 3= 'Quite Strong', 4= 'Very Strong'

Adult mode score before; 'Quite Strong' or a score of 3
Adult mode score after; 'Very Strong' or a score of 4

Yong people's mode score before; 'Basic' or a score of 2
Yong people's mode score before; 'Quite Strong' or a score of 3

This observation is also clear with other questions on the self-assessment questionnaires. All of the 15 questions before the project, in the adult group, had either a higher mode score or the same when compared to the young people's group. This may have occurred because the adult group had a larger knowledge base, from life experience, and could possibly draw from more personal experiences. Also, the participants for the adult course were recruited from other organisations with an interest in health and pursued a
keen interest in the subject. Whereas, the young people were recruited through a training provider and may not have had any previous knowledge or experience in the topics covered (e.g. nutrition, health and diseases). This could be why the young people showed a bigger increase in self-assessed knowledge before and after the project.

This finding supports research by Story (1999) that states that schools are the ideal vehicle for the delivery of a healthy living message. This is because young people were found to be a more receptive audience. Also, the earlier the knowledge can be delivered, the more chance of preventing healthy lifestyle habits will be in place. Thus, the MHLP can aim to prevent rather than cure.

When the data was separated into adults and young people the results for lifestyle related questions shows that the young people showed the least change before and after the programme. For example:

Question 5. Fitting exercise into daily routines is;
1= 'Impossible', 2= 'Difficult', 3= 'Comfortable most of the time', 4= 'Easy and enjoyable'

Adult mode score before; 'Difficult' or a score of 2
Adult mode score after; 'Comfortable most of the time' or a score of 3
Yong people’s mode score before; ‘Difficult’ or a score of 2
Yong people’s mode score after; ‘Difficult’ or a score of 2

This relates to adults having more control over their lifestyle choice, whereas young people’s parents or guardians may still govern diet and lifestyles.

Another key finding includes the comparison of data between the groups in relation to motivation.

Question 10. My motivation towards leading a healthy life is;
1= ‘Poor’, 2=’Fair’, 3=’Good’, 4=’Excellent’

Adult mode score before; ‘Good’ or a score of 3
Adult mode score after; ‘Excellent’ or a score of 4

Yong people’s mode score before; ‘Fair’ or a score of 2
Yong people’s mode score before; ‘Good’ or a score of 3

The results show that motivation towards leading a healthy life increased in both groups after the project when compared to before. However, the mode rating is higher in the adult group when compared to young people. This may be because the health message is more difficult to apply to young people. For example, the young people may not consider the long-term health effects and risk factors, such as inactivity and unhealthy diet.
The main findings from the self-assessment questionnaires before and after the project, when comparing the adult and the young people’s data have been discussed above. The following section will discuss the main findings from the data when the groups were combined.

When the data from the questionnaires from both groups (adults and young people) was combined, the results showed that there was improvement in the average self-assessment rating for all 15 questions. This supports Howe and Wheeler (1999), who looked at urban food growing in Leeds and Bradford.

Howe and Wheeler (1999) state that urban food growing can help with urban regeneration, reduce crime rates, provide training opportunities and are valuable as educational resources. This supports the statement from Fletcher et al (1997) who stated that providing a link with schools and communities, to help change health related behaviours, has the most potential for success. Fletcher et al (1997) also state that health promotion within inner city communities have a positive effect.

A key finding of this case study, was that the questions relating to current lifestyle habits showed improvement. However, there was less change after the programme compared to before. This may be due to the timescale of the
project and the participants may have not been able to alter their lifestyles during the projects.

Below are two questions from the self-assessment questionnaire. Question 14 is a knowledge-based question and question 6 relates to lifestyle or behaviour.

Question 6. Finding time to prepare/eat healthy and nutritious meals is;
1= ‘Impossible’, 2=’Difficult’, 3=’Comfortable most of the time’, 4=’Easy and enjoyable’

Combined mode score before; ‘Difficult’ or a score of 2
Combined mode score after; ‘Difficult’ or a score of 2

Question 14. My ability to create diet and exercise diaries is;
1= ‘Beginner’, 2=’Basic’, 3=’Quite Strong’, 4=’Very Strong’

Combined mode score before; ‘Basic’ or a score of 2
Combined mode score after; ‘Quite strong’ or a score of 3

The above findings relate to Cade et al’s (1999) research which states that the potentially higher direct costs of eating a healthy diet is often obvious however, the indirect costs might such as, preparation time and more frequent shopping are often overlooked. These indirect costs are often considered a barrier towards eating a healthier diet.
An interesting finding was the change in mean score before and after the project in question 4 on the self-assessment questionnaire.

Question 4. I find light exercise to be;

1= ‘Impossible’, 2= ‘Difficult’, 3= ‘Comfortable most of the time’ 4= ‘Easy and enjoyable’.

Combined mode score before; ‘Comfortable most of the time’ or a score of 3
Combined mode score after; ‘Easy and enjoyable’ or a score of 4

This may not have been due to any increased levels of physical activity but clarification of both exercise and physical activity. This relates to the major finding from the MHLP, which is that the project has shown a clear increase in self-assessed knowledge in exercise, nutrition and health related issues in both adults and young people.

The MHLP addressed these definitions of ‘physical activity’ and ‘exercise.’ However, the participants may have not classed daily activities such as, walking, shopping and gardening as physical activity. It is these everyday activities that have been shown to increase health and decrease the risks of
health related diseases such as; heart disease and stroke (Allender et al 2006).

However Welk, Corbin and Dale (2000) state that the measurement of physical activity is problematic, especially in young people, which relates directly with behaviour change. Therefore the evaluation of the MHLP may not have used the correct tools to measure behaviour change (if any) after the project.

This relates directly with the main finding from the self-assessment questionnaire, which suggests that self-assessed knowledge shows a greater improvement than lifestyle or behaviour related questions. This leads on to study 2, which reviews evidence relating to health promotion to assess whether this is a common finding from health initiatives.

Fletcher, Stewart-Brown and Barlow (1997) state that health education has been less effective in determining health related behaviours and sustaining these behaviours in the long-term. Denman (1999) suggests that programmes that are ineffective tend to concentrate on knowledge gain or a change in attitude. Emphasis is also placed on the long-term consequences of behaviour. Successful programmes, which show positive changes relating to health and education tend be shorter duration, include a range of social influences and involve skills training and self-learning.
The MHL was short duration (10-weeks) and has shown positive changes relating to health education, however, in support of Fletcher et al (1997) a long-term follow up may show less positive results.

The second study will look at evidence from existing health promotion initiatives to see if they showed similar findings, which is; a positive increase in knowledge with less impact on behaviour change. Findings will then be discussed along with conclusions and recommendations for future projects.

Before the second study is presented the final section of the Healthy Living Project case study is the criticisms of the study and data collection methods, which may help future research projects in this area.
2.5.1. Implications

The findings from the MHLP self-assessment questionnaires showed positive changes after the project, when compared to before. However the method of data collection can be criticised for a number of reasons;

One criticism of this study is the questionnaire itself and whether or not it was a good tool to evaluate the MHLP. There are many issues with questionnaires, which are discussed in detail below.

Questionnaires are easy to analyse and are good for statistical analysis. However, the findings from this study would not have benefited from statistical analysis. This was mainly due to sample size.

Questionnaires are cost effective when compared to face-to-face interviews. This is mostly because of the costs associated with travel time and use of resources. Due to the timescale of the MHLP, the final session was an evaluation session (i.e. non-teaching) (Appendix 2 – additional Results). This involved guided questions and group discussion and feedback.

Berdie, Anderson, and Niebuhr (1986) state that questionnaires are familiar to most people. For example, most people have had some experience
completing questionnaires and they generally do not make people apprehensive. Questionnaires are less intrusive than telephone or face-to-face surveys.

On the other hand, questionnaires are simply not suited for some people. For example, a written survey to a group of poorly educated people might not work because of reading skill problems. More frequently, some people are turned off by written questionnaires because of misuse. This may have been a factor with the young people who took part in the MHLP. The young people were recruited from NEET groups (not in education, employment or training) and may not have adequate literacy skills.

A common criticism of mail surveys is that they often have low response rates. While response rates vary widely from one questionnaire to another, well-designed studies consistently produce high response rates. The course content questionnaire (Appendix 1 – Additional Methodology) was sent out to over 30 organisations with an interest in health, before the MHLP began. The response rate was quite good as 13 responses were received. However these responses did not benefit the study or the project. A report on the findings is presented in Appendix 2 – Additional Results.
Another key criticism relates to the reliability of the data. The questionnaires asked the participant to rate their own knowledge, attitudes and behaviours relating to healthy living. This may have resulted in socially desirable responses to the questions relating to behaviour i.e participants may answer in a way that they think they should to fit in, not choosing to answer honestly.

Other factors which may have an effect on the questionnaire data is; general layout, question choice, question wording and response choices. In addition to this, various other variables may have impacted on the research findings such as, experimenter effects and environmental conditions, to name but a few.

All of the above factors may have affected the data collected for the MHLP evaluation, as the questionnaire was designed specifically for this project. The use of a validated, reliable questionnaire such as, the HDI, based on the WHO recommendations for the prevention of chronic diseases (WHO 1991), may have increased the reliability and validity of the results.
2.5.2. Conclusion

Overall the MHLP was a success in terms of the positive effect it had the participants' self-assessed knowledge, attitudes and behaviour. However, the impact of this project on the wider community may be minimal. A more in depth data collection method may have been more applicable for this sample size. Interviews and one to one feedback may have been more effective.

The positive feedback received from the project, from the group evaluations, indicates that there is a need for health initiatives for both adults and young people, for different reasons. This supports Sloane et al's (2003) statement that health promotion research should be carried out in a way that permits community members to take control of the decisions that affect them and their community. This links well to the findings from the MHLP as the adults who already had a good knowledge and awareness of healthy lifestyle issues wanted to make positive changes to their own and other people's lifestyle, and the young people who can increase their knowledge to help reduce the risks of unhealthy lifestyles in the future.
3. Study 2 – Health Promotion Initiatives and Behaviour Change

3.1. Introduction

This section aims to address the main findings from the MHLP self-assessment questionnaires, which was that the self-assessed knowledge of the participants increased over the 10-week period after the project when compared to before the project.

The results showed that knowledge showed a bigger increase than behaviour relating to healthy living. A review of existing literature will be presented showing whether or not this finding is common with health promotion initiatives.

The literature will be presented in table form to make it easily accessible. The literature will then be expanded on within the text and the key findings along with future implications will be discussed.

From the literature review a conclusion and summary of both studies will be presented and recommendations for further research and future health promotion initiatives will be presented.
3.2. Literature Review

The main finding from the evaluation of the MHLP was the improvement in knowledge of the participants around healthy lifestyles and the lack of recorded positive change in health behaviour. This review will highlight other health initiatives and discuss the findings of the present research, to see if there is a common theme relating to health behaviour.

A POSTnote paper published by the Parliamentary Office of Science and Technology (2007) discussed ‘health behaviour’ such as, stopping smoking, moderation of alcohol intake, healthy eating and physical activity. All of these health behaviours can help reduce the risks of developing serious illness such as, cancer, heart disease and type 2 diabetes. However, promoting the uptake of healthier behaviour presents challenges, both at individual and population levels.

Noar and Zimmerman (2005) state that the health behaviour theory helps develop a better understanding of health behaviour. They discuss a basis upon which interventions can improve the health of individuals and that communities can be developed and evaluated. In the past, health policy has centred on services to meet the needs of those who are ill. More recently there has been a growing interest in preventing illness and promoting good health as treatment of behaviour related diseases. For example, cancer is expensive to treat and success rates vary whereas, the cost of behaviour
change intervention is low and more successful. A further example is that for each Quality Adjusted Life Year (QALY) gained from a brief smoking cessation intervention costs £500 compared with £30,000-£40,000 per QALY for treating patients with advanced cancer (Parliamentary Office of Science and Technology, 2007).

While people may aspire towards a healthier lifestyle, the initiation and maintenance of health behaviours result from an interaction of social, psychological, biological, and environmental factors. The developments of health behaviour interventions using health psychology centre on a belief of self-efficacy (the belief that one has the psychological resources to undertake the desired behaviour) and tend to use self-regulatory strategies (the ability of the individual's ability habitually monitor their behaviour) (Noar & Zimmerman 2005).

Psychological interventions are enhanced by legislation to makes healthy choices easier. For example, the smoking ban enforced in Scotland just over a year ago has seen an 18% decrease in of medical treatments related to smoking. This suggests that the smoking ban is having a positive effect over a short period of time.

Tables 8 and 9 display other research into health promotion and its effects on behaviour. From this, conclusions in relation to the findings from the MHLP will be discussed and future recommendations for other projects will be made.
<table>
<thead>
<tr>
<th>Authors</th>
<th>Year</th>
<th>Title</th>
<th>Sample</th>
<th>Aims</th>
<th>Methods</th>
<th>Findings</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Backett</td>
<td>1992</td>
<td>The construction of health knowledge in middle class families</td>
<td>28 couples each with 2 young people 56 adults 56 children (n=112)</td>
<td>The examination of health related behaviours, and the interaction of health-relevant knowledge, beliefs and behaviours in everyday life</td>
<td>3 rounds of interviews with adults and young people over a 2 year period</td>
<td>The knowledge that both adults and children showed relating to healthy lifestyles was not translated into behavioural practices, even in a health promoting environment</td>
<td></td>
</tr>
<tr>
<td>Young, Haskell, Taylor and Fortmann</td>
<td>1996</td>
<td>Effect of Community Health Education on Physical Activity Knowledge, Attitudes and Behaviour</td>
<td>408 men and 499 women aged between 18-74</td>
<td>To see if community wide health education is effective in 2 treatment cities compared to 2 control cities</td>
<td>From 1979-1980 the sample was assessed every 2 years for 8 years using questionnaires to assess knowledge, attitudes and behaviour towards physical activity</td>
<td>Physical activity knowledge increased in the treatment cities compared to control cities (p=0.013). Physical activity behaviour indicated that there was not a significant difference in levels of physical activity in the treatment cities compared to control when compared to global estimates of physical activity</td>
<td></td>
</tr>
<tr>
<td>Ashenden, Silagy and Weller</td>
<td>1997</td>
<td>A systematic review of the effectiveness of promoting lifestyle change in general</td>
<td>N/A</td>
<td>To examine how effective lifestyle advice provided by GP's is in changing patient behaviour</td>
<td>A review of 37 reports which investigated the effectiveness of lifestyle advice, including smoking, alcohol, diet and exercise</td>
<td>Many of the general practice based lifestyle interventions showed promise in effecting small change in behaviour, none appear to produce substantial changes</td>
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Table 8. Summary of initiatives and their impact on health behaviour
<table>
<thead>
<tr>
<th>Authors</th>
<th>Year</th>
<th>Title</th>
<th>Sample</th>
<th>Aims</th>
<th>Methods</th>
<th>Findings</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>McAvoy, Kaner, Lock, Heather and Gilvary</td>
<td>1999</td>
<td>Our Healthier Nation: are general practitioners willing and able to deliver? A survey of attitudes to and involvement in health promotion and lifestyle counselling</td>
<td>279 GP's</td>
<td>To describe GP's current attitudes to and involvement in health promotion and lifestyle counselling</td>
<td>132 item self-administered Questionnaires were sent to 430 random GP's 279 responded. The questionnaire examined attitudes, perceived skills and current practices relating to preventative medicine</td>
<td>GP's rated their effectiveness in helping change patients lifestyle behaviour, both potentially and currently. Potential effectiveness was deemed greater than current effectiveness</td>
<td>GP's identified that current practices should offer more support, information and training to help change patients lifestyle behaviours. At present routine enquiry about lifestyle behaviour has increased but the GP's confidence to in their ability to influence behaviour remains low</td>
</tr>
<tr>
<td>Swerissen and Crisp</td>
<td>2004</td>
<td>The sustainability of health promotion interventions for different levels of social organisation</td>
<td>N/A</td>
<td>To provide some guidance for the development of sustainability for health promotion interventions</td>
<td>To identify risk factors and risk conditions and to identify which is most effective for which level through a review of existing literature</td>
<td>The most effective interventions address behavioural risk factors through education and social marketing to change knowledge, attitudes and beliefs that are the precursors to behaviour change</td>
<td>Risk factor interventions are aimed at the individual level; typically they focus on behaviours such as smoking, eating and physical activity. Risk condition interventions such as social cohesion and support, income security and access to social, educational and health services are aimed at the organisational or community level of social organisation. Health promotion is more likely to be sustainable if they address the appropriate levels of social organisation</td>
</tr>
<tr>
<td>Saksvig, Gittelsohn, Harris, Hanley, Valente and Zinman</td>
<td>2005</td>
<td>A Pilot School-Based Healthy Eating and Physical Activity Intervention Improves Diet, Food Knowledge, and Self-Efficacy for Native Canadian young people</td>
<td>Students aged 7-14 years (n=122)</td>
<td>To assess the effectiveness of a diabetes prevention programme in changing dietary intake behaviours and related to psychosocial factors</td>
<td>Pre-test and post-test, single sample design conducted during the 1998-1999 school year. Anthropometrical measures, dietary recall and 2 questionnaires were completed.</td>
<td>The programme was associated with improved knowledge and the psychosocial factors related to healthy eating and dietary fibre intake of students aged 7-14. There were significant increases (p&lt;0.001) in dietary preference, knowledge and dietary self-efficacy.</td>
<td>Exposure to the intervention was significantly associated with young people being more knowledgeable about foods low in fat, and having higher scores on dietary self-efficacy and curriculum knowledge scales. Self-efficacy was shown to be a consistent predictor of behaviour across a variety of health domains, including weight loss and diet. Those with high self-efficacy are more likely to initiate challenging behaviour</td>
</tr>
</tbody>
</table>
Tables 8 and 9 summarise a collection of evidence relating to health promotion and changes in health behaviour, below is a breakdown of the key findings from each study.

Young et al (1996) stated that initiatives that develop effective methods to promote moderate-intensity physical activity into individual's daily schedules is needed. These findings link with McAvoy et al (1999) who found that GP's identified that current practices should offer more support, information and training to help change patients lifestyle behaviours.

Another finding relating to GP's and health promotion was that of Ashenden et al (1997). If general practice-based interventions are to be effective at altering behaviour, a greater number of GPs will need to become involved in promoting behaviour change than is currently occurring.

In addition to the above, Swerissen and Crisp (2004) stated health promotion must address the appropriate levels of social organisation to be effective. However, Backett (1992) found that health behaviour is not directly linked to health awareness and knowledge. For example, self-report measures are often linked to socially desirable responses. This finding can be related to Saksvig et al (2005) who found that self-efficacy was shown to be a consistent predictor of behaviour relating to health.
3.3. Discussion

The evidence summarised in the Tables 8 and 9 indicates that there are varied levels of success in the ability of health promotion initiatives and these may have a positive effect on health behaviour.

Figure 34. Examples of factors, which may influence the effectiveness of educational interventions (Hutchinson 1999).

Figure 34 highlights the factors which contribute or may influence the effectiveness of educational interventions. Hutchinson (1999) suggests that there are many contributing factors to an effective educational intervention.
Findings from Swerissen and Crisp (2004) stated that interventions that are pitched at the wrong level of the social system are unlikely to be effective. This supports Hutchinson (1999), as a programme that does not consider all the factors highlighted in Figure 34 such as; relevance, social and population setting (risk conditions) may result in an ineffective programme.

The MHLP showed positive increases in self-assessed knowledge after the project when compared to before. The main focus of Figure 34 is the effectiveness of educational interventions and what impact they have on society. The MHLP may have shown positive results in self-assessed knowledge but its impact on society was not assessed.

The study by Young et al (1996) found that adults are more receptive to physical activity messages that encourage the incorporation of moderate-intensity activities into their life-styles. This generally can be accomplished with less disruption of their daily schedules. This is due to busy lifestyles and the perceived lack of ability an individual has to devote prolonged periods of time to physical activity.

This finding can be supported by Backett (1992). Using one-to-one interviews to collect data about health knowledge and behaviour resulted in findings relating to what people know and what they actually do. The main explanations of disparities i.e. people knowing the healthy lifestyle principles
but not adopting them were; pressure of time, work, social or domestic obligations, the satisfaction of individual or family preferences, lack of motivation or the pursuit of pleasure. Backett (1992) found little change in health related behaviour, but there was no intervention to increase knowledge over the 18-month duration of the study.

The use of interviews in Backett’s (1992) research seemed effective. This technique could have been adopted in the evaluation of the MHLP, as it may have resulted in more in depth meaningful data relating to the effectiveness of the programme.

The findings from Young et al (1996) show positive results and this may be due to the study design. Young et al (1996) used a long-term follow up design to assess the effectiveness of the initiative. The evaluation of the MHLP would have benefited from a long-term follow up session to assess whether the participants on the programme had transferred their knowledge into the wider community.

One of the aims of the MHLP was to provide qualified lifestyle advisors. However, the participants were voluntary and this may have affected the overall impact of project on the wider community.
For example, it is possible that knowledge learnt made a big difference on the small group (the participants) it might have only had a small impact on the larger group (the wider community) (this will only apply if the participants have not put their new skills into practice).

The effectiveness of a programme in changing health behaviour is also due to the individuals taking part. This was highlighted by Saksvig et al (2005) who found self-efficacy was an important factor in a variety of health related issues, such as; weight loss and diet. Saksvig et al (2005) found that individuals with greater self-efficacy are more likely to use increased knowledge to change behaviour.

Self-efficacy is individual’s belief in their own ability to change behaviour, therefore only people with high self-efficacy will benefit from an health promotion initiative and show positive changes in health behaviour. This relates to findings from the MHLP self-assessment questionnaires. For example, when the adult and the young peoples data were separated, it showed that the adults self perceived scores on the questionnaires before the project were higher than the young peoples.
This suggests that the adults had greater self-efficacy than the young people. Therefore, it may have created a more positive behaviour change. However, this may also have been due to sample selection. For example, the young people were NEET and may not have a lot of belief in their own ability.

The evidence discussed above raises some interesting issues relating to effective health promotion and health behaviour. Using this evidence the next section highlights the main conclusions from the study.

4. Conclusion

To create effective health promotion initiatives conceptually sound evidence base needs to be developed. Speller, Learmonth and Harrison (1997) state that the current search for evidence regarding effective health promotion is unlikely to succeed due to three main reasons:

1. A lack of consensus about the nature of health promotion activity
2. A lack of agreement over what evidence to use to assess effectiveness
3. The range of differing views on the appropriate methods for reviewing effectiveness
This may result in health promotion being deemed ineffective because it is being assessed with inappropriate tools. For future health promotion initiatives to be effective they must concentrate on altering the health behaviour. Evidence of their effectiveness can only be evaluated using long-term follow up studies to gain a better understanding of their impact on the community.

Although health promotion initiatives seem expensive and relatively ineffective at changing health behaviour the view of upstream intervention and prevention rather than cure will help save money. In the long-term it will help reduce the medical costs relating to treating lifestyle related issues. One-to-one initiatives are the most effective and programmes such as the MHLP, that trains community health advisors, will begin to see positive changes within their community.

The final section uses the evidence discussed and presented relating to health promotion initiatives to suggest some recommendations relating to future health promotion initiatives and the best approach to achieve positive behaviour change. The final section contains the closing statements on the issue and highlights a new initiative set up by the NHS along with the key factors in successful health promotion and evaluation for the future.
4.1. Recommendations

The findings from the MHLP and the studies highlighted in Tables 8 and 9 state that the most effective methods to affect health behaviour is to first increase knowledge, attitudes and beliefs, which in turn will lead to a change in behaviour in a motivated individual. This supports Swerissen and Crisp (2004) who state that the most effective interventions are aimed at changing individual behaviour through education and social marketing as changing knowledge, attitudes and beliefs are all precursors to behaviour change.

The positive changes seen from the self-assessment questionnaires after the MHLP may have lead to a larger increase in behaviour change. However, there was no follow up data collection or assessment, which may have shown behaviour change in the participants.

For health promotion initiatives to be effective they need to be geared to suit the needs of individuals along with considering the risk environment when designing future programmes. The most effective methods to change health behaviour is on a one-to-one basis as the individuals needs can be addressed and begin to have a positive effect on health behaviour.
A recent programme set up by the NHS in Manchester called; Community Health Trainers works closely with individuals who want to adopt a healthier lifestyle but who are unsure about how to do so. The programme was set up in 2005 and has been growing since then. The main focus of the project is to train 'Health Trainers' who have basic qualifications to go out into the wider community or workplace and work on a one-to-one basis with clients. Their aim is to empower individuals and help them set realistic, achievable goals relating to health.

This project is newly developed therefore, there is no published evidence of its effectiveness. However, its design and structure should prove to be an effective health initiative as it is placing a greater number of individuals promoting behaviour change in the community. This may relieve some of the pressure placed on GP's with non-medical related issues. This supports the findings from Ashenden et al (1997) who state that there needs to be a larger number of GP's involved in promoting behaviour change.
This is further supported by McAvoy et al (1999) stating that GP's are facing increasing work loads but remain positive about health promotion and there has been an increase in routine enquiries about lifestyle behaviour. The NHS Community Health Trainers could be placed to deal with these routine enquiries and help ease pressure on GP's.

The Health Trainer initiative set up by the NHS is a similar design to the MHLP evaluated in Study 1. However, the MHLP was carried out in the voluntary sector and therefore, may not have had the same level of interest or carry the same weight as a project developed and carried out by the NHS. However, Gillies (1999) states that, the greater level of community involvement and volunteer activities, the larger the impact of health related behaviour change. This approach is believed to be the most effective as it is specifically meeting the needs of any given community by providing community members the tools to help make positive changes within their own community.
5. References

5.1. Primary References


5.2. Secondary References


6. Appendices

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6.1. Appendix 1. Additional Methodology
   • Self-Assessment Questionnaire ‘Before’
   • Self-Assessment Questionnaire ‘After’
   • Course Content Questionnaire

6.2. Appendix 2. Additional Results
   • Course Content Questionnaire Results
   • Group Evaluation Summary

6.3. Appendix 3. Additional Materials
   • Participant Information Sheet (version 4)
   • Participant Consent Form (version 2)
   • Advertising Material for the Healthy Living Programme
   • Ethical Approval Confirmation
6.1. Appendix 1

6.1. Appendix 1. Additional Methodology

- Self-Assessment Questionnaire ‘Before’
- Self-Assessment Questionnaire ‘After’
- Course Content Questionnaire
HEALTHY LIVING PROJECT - Target Setting Questionnaire

Take all the time you need to fill in the following questionnaire. Highlight the phrase that you feel most accurately completes each sentence. Your answers will affect the level and type of support you receive on the course or project but are not used for selection.

If you feel you need help filling in any part of the form a member of Clubhouse staff will help you.

Name ................................................................................................................ Date......./....../...........

<table>
<thead>
<tr>
<th>1. My diet at present is</th>
<th>Excellent</th>
<th>Good</th>
<th>Fair</th>
<th>Poor</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. My current day to day activity levels are</td>
<td>Excellent</td>
<td>Good</td>
<td>Fair</td>
<td>Poor</td>
</tr>
<tr>
<td>3. My cooking and food preparation knowledge is</td>
<td>Advanced</td>
<td>Intermediate</td>
<td>Basic</td>
<td>Complete Beginner</td>
</tr>
<tr>
<td>4. I find light exercise to be</td>
<td>Easy &amp; Enjoyable</td>
<td>Comfortable most of the time</td>
<td>Difficult</td>
<td>Impossible</td>
</tr>
<tr>
<td>5. Fitting exercise into daily routines is</td>
<td>Easy &amp; Enjoyable</td>
<td>Comfortable most of the time</td>
<td>Difficult</td>
<td>Impossible</td>
</tr>
<tr>
<td>6. Finding time to prepare/eat healthy and nutritious meals is</td>
<td>Easy &amp; Enjoyable</td>
<td>Comfortable most of the time</td>
<td>Difficult</td>
<td>Impossible</td>
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<tr>
<td>7. Currently available resources, guidelines and information about diet is</td>
<td>Excellent</td>
<td>Good</td>
<td>Fair</td>
<td>Poor</td>
</tr>
<tr>
<td>8. Currently available resources, guidelines and information about exercise is</td>
<td>Excellent</td>
<td>Good</td>
<td>Fair</td>
<td>Poor</td>
</tr>
<tr>
<td>9. My knowledge of diseases linked to unhealthy lifestyle is</td>
<td>Excellent</td>
<td>Good</td>
<td>Fair</td>
<td>Poor</td>
</tr>
<tr>
<td>10. My motivation towards leading a healthy life is</td>
<td>Excellent</td>
<td>Good</td>
<td>Fair</td>
<td>Poor</td>
</tr>
</tbody>
</table>

CSV Media is committed to equal opportunities. This form is available in alternative formats, please ask a member of Clubhouse staff to assist you.
Very Strong = I would feel confident teaching others  
Quite Strong = I am confident in most areas  
Basic = I have limited experience  
Beginner = I have no experience

<table>
<thead>
<tr>
<th></th>
<th>Very strong</th>
<th>Quite strong</th>
<th>Basic</th>
<th>Beginner</th>
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</thead>
<tbody>
<tr>
<td>1. My knowledge of nutrition principles is</td>
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<tr>
<td>2. My knowledge of exercise principles is</td>
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<td>3. My knowledge of keeping diet and exercise diaries is</td>
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<td>4. My ability to create diet and exercise programmes is</td>
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<tr>
<td>5. My ability to advise on exercise and nutrition is</td>
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</tbody>
</table>

Please give details of any other experience, knowledge or skills you can contribute to the project.

Thank you for your time!

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HEALTHY LIVING PROJECT - Exit Questionnaire

This questionnaire is used to chart what you have learned, achieved and contributed to the HEALTHY LIVING PROJECT project. Highlight the phrase that you feel most accurately completes each sentence. Your answers may help identify your strengths, possible progression routes and the effectiveness of the HEALTHY LIVING PROJECT.

If you feel you need help filling in any part of the form a member of Clubhouse staff will help you.

Name ........................................................ Date……/……/…….

<table>
<thead>
<tr>
<th>1. My diet at present is</th>
<th>Excellent</th>
<th>Good</th>
<th>Fair</th>
<th>Poor</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. My current day to day activity levels are</td>
<td>Excellent</td>
<td>Good</td>
<td>Fair</td>
<td>Poor</td>
</tr>
<tr>
<td>3. My cooking and food preparation knowledge is</td>
<td>Advanced</td>
<td>Intermediate</td>
<td>Basic</td>
<td>Complete Beginner</td>
</tr>
<tr>
<td>4. I find light exercise to be</td>
<td>Easy &amp; Enjoyable</td>
<td>Comfortable most of the time</td>
<td>Difficult</td>
<td>Impossible</td>
</tr>
<tr>
<td>5. Fitting exercise into daily routines is</td>
<td>Easy &amp; Enjoyable</td>
<td>Comfortable most of the time</td>
<td>Difficult</td>
<td>Impossible</td>
</tr>
<tr>
<td>6. Finding time to prepare/eat healthy and nutritious meals is</td>
<td>Easy &amp; Enjoyable</td>
<td>Comfortable most of the time</td>
<td>Difficult</td>
<td>Impossible</td>
</tr>
<tr>
<td>7. Currently available resources, guidelines and information about diet is</td>
<td>Excellent</td>
<td>Good</td>
<td>Fair</td>
<td>Poor</td>
</tr>
<tr>
<td>8. Currently available resources, guidelines and information about exercise is</td>
<td>Excellent</td>
<td>Good</td>
<td>Fair</td>
<td>Poor</td>
</tr>
<tr>
<td>9. My knowledge of diseases linked to unhealthy lifestyle is</td>
<td>Excellent</td>
<td>Good</td>
<td>Fair</td>
<td>Poor</td>
</tr>
<tr>
<td>10. My motivation towards leading a healthy life is</td>
<td>Excellent</td>
<td>Good</td>
<td>Fair</td>
<td>Poor</td>
</tr>
</tbody>
</table>

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Very Strong = I would feel confident teaching others
Quite Strong = I am confident in most areas
Basic = I have limited experience
Beginner = I have no experience

1. My knowledge of nutrition principles is
   - Very strong
   - Quite strong
   - Basic
   - Beginner

2. My knowledge of exercise principles is
   - Very strong
   - Quite Strong
   - Basic
   - Beginner

3. My knowledge of keeping diet and exercise diaries is
   - Very Strong
   - Quite Strong
   - Basic
   - Beginner

4. My ability to create diet and exercise programmes is
   - Very Strong
   - Quite Strong
   - Basic
   - Beginner

5. My ability to advise on exercise and nutrition is
   - Very Strong
   - Quite Strong
   - Basic
   - Beginner

Please give details of any other experience, knowledge or skills you feel you have gained by being part of the Healthy Living project

Thank you for your time!

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This form is available in alternative formats, please ask a member of Clubhouse staff to assist you
HEALTHY LIVING PROJECT Course Content Questionnaire
Take all the time you need to fill in the following questionnaire. Delete the phrases that do not apply for each question or highlight the phrase that you feel most accurately completes each sentence. Your answers may affect the design of course content, as it is tailored to suit the needs of the community and will not be used for any other form of research.

If you feel you need help filling in any part of the form please contact Chester University on Tel: 01244513402 (please leave a message and your call will be returned) E-Mail: 0605613@chester.ac.uk
Organisation or Name (optional) ........................ Date....../...../..........  

<table>
<thead>
<tr>
<th>Question</th>
<th>Excellent</th>
<th>Good</th>
<th>Fair</th>
<th>Poor</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The local facilities available to exercise are</td>
<td></td>
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<td></td>
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<tr>
<td>2. The availability of healthy foods is</td>
<td></td>
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<tr>
<td>3. Financial boundaries are a factor when considering a healthy lifestyle within your community</td>
<td>True</td>
<td>Partly true</td>
<td>Not really</td>
<td>Not at all</td>
</tr>
<tr>
<td>4. Fitting exercise into daily routines is</td>
<td>Easy &amp; Enjoyable</td>
<td>Comfortable most of the time</td>
<td>Difficult</td>
<td>Impossible</td>
</tr>
<tr>
<td>5. Finding time to prepare healthy and nutritious meals is</td>
<td>Easy &amp; Enjoyable</td>
<td>Comfortable most of the time</td>
<td>Difficult</td>
<td>Impossible</td>
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<tr>
<td>6. Currently available resources, guidelines and information about diet is</td>
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<tr>
<td>7. Currently available resources, guidelines and information about exercise is</td>
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<tr>
<td>8. Information available regarding diseases linked to unhealthy lifestyle is</td>
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<tr>
<td>9. Motivation towards leading a healthy lifestyle within your community group is</td>
<td></td>
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<tr>
<td>10. Currently available healthy lifestyle advice offered by your organisation is</td>
<td></td>
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CSV Media is committed to equal opportunities.
This form is available in alternative formats, please ask a member of Clubhouse staff to assist you
<table>
<thead>
<tr>
<th>1. The need for increased knowledge of nutrition principles is</th>
<th>Very Important</th>
<th>Quite Important</th>
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</thead>
<tbody>
<tr>
<td>2. The need for increased knowledge of exercise principles is</td>
<td>Very Important</td>
<td>Quite Important</td>
<td>Not Very Important</td>
<td>Not Needed</td>
</tr>
<tr>
<td>3. The need to raise awareness of diseases linked to lifestyle is</td>
<td>Very Important</td>
<td>Quite Important</td>
<td>Not Very Important</td>
<td>Not Needed</td>
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<tr>
<td>4. The need for lifestyle advice relating to specific community groups is</td>
<td>Very Important</td>
<td>Quite Important</td>
<td>Not Very Important</td>
<td>Not Needed</td>
</tr>
<tr>
<td>5. The need to offer qualified advice on exercise and nutrition to others is</td>
<td>Very Important</td>
<td>Quite Important</td>
<td>Not Very Important</td>
<td>Not Needed</td>
</tr>
</tbody>
</table>

Please give details of any other suggested topic or issues that should be addressed in a Healthy Living course such as this.

Thank you for your time.

Please email completed forms back to 0605613@chester.ac.uk

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6.2. Appendix 2

6.2. Appendix 2. Additional Results

- Course Content Questionnaire Results
- Group Evaluation Summary
Course Content Questionnaire

The course content questionnaire was sent out to Manchester-based organisations, which had an interest in the health of the community. The questionnaire contained 15 questions relating to health, knowledge, attitudes and behaviour. The questions aimed to establish the risk condition of inner city Manchester.

The questionnaires offered a choice of four answers for each question (poor, fair, good, excellent) or variable. The answers were scored on a scale of one to four the lowest choice was given a score of one and the highest choice was given a score of four.

A total score was obtained by:

\[
\text{Question score} \times \text{number of responses} = \text{total score}
\]

Then all scores were added together to form the group total score.

30 questionnaires were sent out and out of these only 13 were returned. This data did not form part of the evaluation, and was not used to develop materials for the project, as the sample was not representative of Manchester. However a pre-course questionnaire is a good way to tailor the programme to meet the needs of the group.

The findings are presented in Table 10 and graphically thereafter.
<table>
<thead>
<tr>
<th>Score</th>
<th>1</th>
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<th>3</th>
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<th>Total score</th>
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<td>13</td>
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<td>lifestyle within your community</td>
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<tr>
<td>8. Information available regarding diseases linked to unhealthy</td>
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<tr>
<td>9. Motivation towards leading a healthy lifestyle within your</td>
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<td>10. Currently available healthy lifestyle advice offered by your</td>
<td>1</td>
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<td>12. The need for increased knowledge of exercise principles is</td>
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<tr>
<td>13. The need to raise awareness of diseases linked to lifestyle is</td>
<td>0</td>
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<td>14. The need for lifestyle advice relating to specific community</td>
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<td>4</td>
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<td>15. The need to offer qualified advice on exercise and nutrition</td>
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<td>2</td>
<td>1</td>
<td>10</td>
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<td>to others is</td>
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</tbody>
</table>
Figure 35. Question 1 from the Course Content Questionnaire (1= Poor, 2= Fair, 3= Good, 4= Excellent)

Figure 36. Question 2 from the Course Content Questionnaire (1= Poor, 2= Fair, 3= Good, 4= Excellent)

Figure 37. Question 3 from the Course Content Questionnaire (1= Not at All, 2= Not Really, 3= Partly True, 4= Very True)
**Figure 38.** Question 4 from the Course Content Questionnaire (1= Impossible, 2= Difficult, 3= Comfortable Most of the Time, 4= Easy and Enjoyable)

**Figure 39.** Question 5 from the Course Content Questionnaire (1= Impossible, 2= Difficult, 3= Comfortable Most of the Time, 4= Easy and Enjoyable)

**Figure 40.** Question 6 from the Course Content Questionnaire (1= Poor, 2= Fair, 3= Good, 4= Excellent)
**Figure 41.** Question 7 from the Course Content Questionnaire (1= Poor, 2= Fair, 3= Good, 4= Excellent)

**Figure 42.** Question 8 from the Course Content Questionnaire (1= Poor, 2= Fair, 3= Good, 4= Excellent)

**Figure 43.** Question 9 from the Course Content Questionnaire (1= Poor, 2= Fair, 3= Good, 4= Excellent)
Figure 44. Question 10 from the Course Content Questionnaire (1= Poor, 2= Fair, 3= Good, 4= Excellent)

Figure 45. Question 11 from the Course Content Questionnaire (1= Not Needed, 2= Not Very Important, 3= Quite Important, 4= Very Important)

Figure 46. Question 12 from the Course Content Questionnaire (1= Not Needed, 2= Not Very Important, 3= Quite Important, 4= Very Important)
Figure 47. Question 13 from the Course Content Questionnaire (1= Not Needed, 2= Not Very Important, 3= Quite Important, 4= Very Important)

Figure 48. Question 14 from the Course Content Questionnaire (1= Not Needed, 2= Not Very Important, 3= Quite Important, 4= Very Important)

Figure 49. Question 15 from the Course Content Questionnaire (1= Not Needed, 2= Not Very Important, 3= Quite Important, 4= Very Important)
Findings

The Course Content Questionnaire did not show any significant findings due to the low response rate. However one of the common themes was that 11 out of the 13 responses showed that an increase in Health knowledge relating to nutrition, exercise and diseases linked to healthy lifestyles was very important. This shows that there is a need for health education programmes. Another interesting finding was from question 3, which related to socio-economic status.

Question 3. ‘Financial boundaries are a factor when considering a healthy lifestyle in your community’.
The four answer choices were; 1= Not at All, 2= Not Really, 3= Partly True, 4= Very True.

All responses rated this as either ‘Partly True’ or ‘Very True’ this supports French, Story and Jeffery (2001) as individuals and families rely on a variety of sources for their food, including markets and restaurants. The food options available at these locations almost certainly influence people’s choices of what they consume on a day-to-day basis. Findings from Cade (1999) state that eating healthy food is expensive; also that healthy eating is just another fashion. Other general beliefs are that people with low incomes are least likely to eat healthy diets.
These findings illustrate that the cost of a healthy lifestyle may be perceived to be too expensive for people with low incomes in the Manchester area.

Conclusion

These findings from the Course Content Questionnaire are interesting and can be linked to the findings from the evaluation of the Healthy Living Project, as the project showed an increase in self-assessed knowledge relating to diet and exercise principles among the participants, however the need to educate the wider community is the key to the success of future programmes.
Evaluation Summary for the Healthy Living Project

The final session in each of the Healthy Living courses (both the adult and the young people) consisted of a group discussion/evaluation procedure. There was a sheet handed to each of the participants with a list of nine questions. These were designed to be trigger points to initiate discussion about the effectiveness of the course. The participants were asked to contribute to the group summary, which was recorded by the facilitator on a white board at the front of the room.

The main points taken from each discussion point are summarised below.

Did you find the course useful?

All of the participants found the course useful, other comments included:

- Not only for oneself, also for friends and family
- Increase awareness and consciousness of the food they ate
- Gave a base knowledge to then support the community
- Very useful
- Already had a basic understanding of the topics but increased knowledge and learnt more
- Notes and handouts were very detailed
- Yes, excellent
Was the course what you expected?

Most of the participants stated that the course was what they expected other comments included:

- Less than expected, expected more practical than theoretical
- Nearly but not quite
- More than expected, more detailed and informative
- More than expected, more in depth and excellent
- Yes, excellent
- Yes all information presented in a clear manner

What was good about the course?

Below is a summary of the good points from the course highlighted by the participants;

- Learnt calculations for weight management and how to maintain healthy daily lifestyles
- Took place in a very relaxed and friendly environment with sufficient knowledge
- Freedom of speech and openness
- Mixture of participants gave different inputs which support the people who had limited knowledge
- Very practical
- Provided strong knowledge in nutrition, weight control and healthy lifestyle
• Full of information and very interactive
• Learnt calculating and manage to maintain daily life
• Took place in a very relaxed and friendly environment with sufficient knowledge
• Learning about lifestyle changes and implementing the information in real practice
• Very detailed handouts and material

What needs improving?
The main points to be taken from this were that the course needed to be more practical, less changing of venue and perhaps a better time schedule due to other commitments. Other suggested improvements were:
• Boring and on paper, suggest interactive material like CD or USB
• First few weeks were boring
• Smaller quiz to consolidate the info
• More workshops
• Interaction and discussion between participants
• Health database for communities where to find info on training opportunities
• Suggestion of activity days and trips to help get the message across
How can the project developed?

- More practical
- Single place permanent for the whole course
- Reunion 3-6 months to feedback and follow up
- Co-operation with different organisations or projects to advise as a complete package
- Support from other organizations to train more people
- More publicity
- More support from CSV
- Provide a link to what is available in local area

Were the workshops well structured?

- Ok, can be more structured
- Nearly
- Yes
- Very intensive
- Well balanced with theoretical and practical
- Yes but there needs to be a bigger practical element

What would you like to see more of in the workshops?

- More practical elements
- Using Nutricalc (diet analysis software)
- Less lecture style
• Group work
• More practical exercise sessions
• Designing more diet and exercise programmes

What would you like to see less of in the workshops?
• Just talking and not acting (putting theory into practice)
• Large breaks

Has this course helped raise your awareness of healthy living?
• All stated that the workshop helped raise they’re awareness of healthy living and all the participants try to lead a healthier life.

All of these points will be considered when designing future programmes to ensure that participants get the most out of each of the workshops, and the programme will have a positive effect on the wider community.
6.3. Appendix 3

6.3. Appendix 3. Additional Materials

- Participant Information Sheet (version 4)
- Participant Consent Form (version 2)
- Advertising Material for the Healthy Living Project
- Ethical Approval Confirmation
Participant information sheet - Version 4

Manchester Healthy Living Programme – a case study

You are being invited to take part in a research study. Before you decide, it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and discuss it with others if you wish. Ask us if there is anything that is not clear or if you would like more information. Take time to decide whether or not you wish to take part. Thank you for reading this.

What is the purpose of the study?
The aim of the study is to assess whether the Manchester Healthy Living Programme is meeting its aims, and to measure the extent of changes in participants knowledge, attitudes and beliefs regarding exercise and nutrition, targeting adults, young people and ethnic minority groups in Manchester. Course content will be geared specifically to meet the needs of community groups, as information will be gathered prior to the beginning of the course. Participation in the study is additional and voluntary and withdrawal from the study will in no way affect the training programme and no data will be used for the purposes of the study without permission.

Why have I been chosen?
As you have expressed an interest in the Healthy Living Project you been chosen because you are taking part in the Healthy Living Project, the study will run alongside the project and will not interfere in any way.

Do I have to take part?
It is up to you to decide whether or not to take part. If you decide to take part you will be given this information sheet to keep and be asked to sign a consent form. If you decide to take part you are still free to withdraw at any time and without giving a reason. A decision to withdraw at any time, or a decision not to take part, will not affect or prejudice participation in the training programme and none of the data collected prior to your withdrawal will be used for the purposes of the study.

What will happen to me if I take part?
If you decide to take part, you will be given this information sheet to keep and asked to sign the consent form. You will then be required to fill in questionnaires at the beginning of the 10-week programme assessing your knowledge, attitude and behaviour towards Healthy Living and then the same questionnaire at the end of the programme. From this an evaluation report will be produced to show the effectiveness of the programme.
What are the possible disadvantages and risks of taking part?
There are no disadvantages or risks foreseen in taking part in the study.

What are the possible benefits of taking part?
The Healthy Living Programme, has links with many organisations and aims to increase awareness and knowledge within specific communities by providing trained and qualified (OCN accredited to GCSE standard) individuals with first hand experience of diet and lifestyle within certain ethnic groups to act as advisors. Also each participant will gain a qualification in Healthy Living Studies, which can help gain further education or increase employment opportunities.

What if something goes wrong?
If you wish to complain or have any concerns about any aspect of the way you have been approached or treated during the course of this study, please contact Professor Sarah Andrew, Dean of the School of Applied and Health Sciences, University of Chester, Parkgate Road, Chester, CH1 4BJ, 01244 513055.

If taking part in this research project harms you, there are no special compensation arrangements. If you are harmed due to someone’s negligence (but not otherwise), then you may have grounds for legal action although you may have to pay for this.

Will my taking part in the study be kept confidential?
All information, which is collected about you during the course of the research, will be kept strictly confidential so that only the researcher carrying out the research will have access to such information.

What will happen to the results of the research study?
The results will be written up into an evaluation report for CSV and be available for the participants. It is hoped that the findings may be used to gain more funding and increase the interest in the Healthy Living Programme. Individuals who participate will not be identified in any subsequent report or publication.

Who is organising and funding the research?
The Centre Exercise and Nutrition Science at the University of Chester will be involved in organising and carrying out the study, however there is no funding for this research.

Who may I contact for further information?
If you would like more information about the research before you decide whether or not you would be willing to take part, please contact:

Andrew Ellison

Tel: 01244513402 (please leave a message and your call will be returned)

E-Mail- 0605613@chester.ac.uk
Participant consent form – Version 2

Title of Project: Manchester Healthy Living Programme – a case study

Name of Researcher: Andrew Ellison

1. I confirm that I have read and understand the information sheet for the above study and have had the opportunity to ask questions.  

2. I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason and without my Legal rights being affected.

3. I agree to take part in the above study.

Please initial box

Name of Participant  

Date  

Signature

Researcher  

Date  

Signature

One copy for participant, one copy for researcher
Healthy Living in Your Community

Manchester has been named as one of the unhealthiest cities in Britain. But You can help do something about it!

CSV, a national charity is looking for VOLUNTEERS in Manchester to take part in 3 months (one day a week) training programme which will see you becoming a Community Healthy Living Advisor

Help yourself and your community to make Manchester a better, healthier place to live!

Please contact Andy at CSV, 116 Tib Street, Manchester, M4 1LR
Call: (0161) 839 9067 or E-mail: andyellison1981@btinternet.com

CSV
Make A Difference
HEALTHY LIVING IN THE COMMUNITY

ABOUT YOU

We are looking for individuals with an interest in health, who would like to volunteer as Community Healthy Living Advisors. You will be given an extensive training by a specialist and will gain qualification in Nutrition and Exercise Studies (Level 2). Expenses will be paid. After completing your training you will be acting as an Advisor to community members taking part in other well-being activities such as community events, attending the library etc. You will be fully supported throughout your role. It is a great opportunity to gain experience, qualification and help your community help itself to become healthier and happier.

ABOUT THE PROJECT

Did you know that Manchester has officially been named as one of the unhealthiest cities in the country? Not only do we have the lowest life expectancy for men and the second lowest for women* but as people living in Manchester we are more likely to suffer from one of unhealthy lifestyle related diseases such as Coronary Heart Disease, Type II Diabetes and Obesity. Healthy Living in the Community Project is not a miraculous solution to these and similar problems. It is, however, a structured intervention that aims to give communities of Manchester a Toolkit to improve their own health. The project will be delivered in the heart of the communities by Volunteer Advisors who themselves will come from the same communities and as such have a stake in it’s health and have a unique knowledge of the views and behaviour of these communities. Once trained, the Volunteer Advisors will operate (1-2 times a month) in places associated with health such as community centres, libraries and Health Centres.

This service will aim to enable community members to implement principles of healthy lifestyle in their everyday lives. Volunteer Advisors will be at hand to help participants keep food diaries, improve their diet to reach specific goals such as weight loss or nutritionally balanced meals, also to improve their physical fitness through being advised on the type of exercise to take part in, duration and intensity. The Healthy Living Volunteer Advisors will always advise participants to talk to their GPs before implementing any nutrition and exercise suggestions.

The project will therefore be easily accessible, non-threatening, relevant and community-led. This, it is hoped, will encourage all community members who would like to improve their health to join in.

The Volunteer Advisors will be fully trained and then supported throughout their Healthy Living Workshops activities by CSV nutrition and exercise specialists. They will gain not only a qualification but also a valuable experience for their professional or personal future. Most importantly, the Volunteers will be the force of healthy lifestyle change in Manchester and more specifically their own communities.

Healthy Living in the Community is the project that cares about the health of Manchester communities.

For further details phone Andy on (0161) 839 9067 or email andyellison1981@btinternet.com
NEW HEALTH & FITNESS
PROGRAMME FOR YOUNG PEOPLE

Are you aged between 16 and 18?

Do you have an interest in fitness, diet and health?

Want to learn how to make the best of your health, looks and fitness?

Want to improve yourself and learn something new?

If you answered ‘yes’ to any of the above then join the Young People’s Healthy Living Project. You will gain accreditation, meet new people and learn all you need to know to be your own nutritionist and a personal trainer!

A taster session is scheduled to take place on July 10th (1-3pm) at the City of Manchester Stadium and will include lunch and a tour of the ground.

For more information and to book your place on the course, please feel free to contact Andy at CSV on 0161839 8855 or email aellison@csv.org.uk
26 February 2008

Dear Andrew

Study title: Manchester Healthy Living Programme - a case study
FREC reference: 158/07/AE/CENS
Version number: 4

Thank you for sending the above-named application to the Faculty of Applied and Health Sciences' Research Ethics Committee for review.

The application has been considered on behalf of the Committee by Cathy Perry as Lead Reviewer and reported to the Faculty's Research Ethics Committee.

On behalf of the Committee, I am pleased to confirm a favourable ethical opinion for the above research on the basis described in the application form and supporting documentation.

This approval is given provided that you comply with the conditions set out in the attached document. You are advised to study the conditions carefully.

The final list of documents reviewed and approved by the Committee is as follows:

<table>
<thead>
<tr>
<th>Document</th>
<th>Version</th>
<th>Date</th>
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<tbody>
<tr>
<td>SREC application form</td>
<td>1</td>
<td>May 2007</td>
</tr>
<tr>
<td>Participant Information Sheet</td>
<td>4</td>
<td>August 2007</td>
</tr>
<tr>
<td>Participant Consent Form</td>
<td>2</td>
<td>June 2007</td>
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<tr>
<td>Non-validated questionnaires (x3)</td>
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<td>Recruitment posters</td>
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<tr>
<td>Letter from CSV</td>
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With the Committee's best wishes for the success of this project.
Yours sincerely,

Dr. Stephen Fallows  
Chair, Faculty Research Ethics Committee

Inclusions  Standard conditions of approval

cc. Supervisor  
FREC Representative