The feasibility and attractiveness, of an aquatic activity programme for members of Slimming World

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Abstract

Title: The feasibility and the attractiveness, of an aquatic activity programme for members of Slimming World.

Background: The benefits of physical activity in relation to physical and mental health are well documented and the most effective weight management interventions require a combination of both diet and physical activity. Slimming World are associated with successes in managing weight loss, however the benefits of combining their programme with regular exercise such as aquatic activity has not been previously reported.

A 12-week aquatics programme to increase physical activity amongst Slimming world members was implemented to examine the feasibility of a pilot programme based on the recruitment and retention data of the participants and the effects of the programme in improving well-being

Methods/design: Participants were introduced to the locally facility offering aquatic activity and encouraged to partake in their choice of activity for a minimum of 30 minutes, twice a week for twelve weeks. The methods include self-reported activity in a swim diary; a participant pre and post programme wellness questionnaire and a qualitative assessment of the programme.

Results: 2 participants completed the programme. The study was refocused to investigate the reasons for a low uptake and 7 semi-structured interviews were completed

Conclusion: The study established an aquatic activity offering was only feasible to existing swimmers and a simple promotion of local facilities with the potential of a preferential incentive was not a feasible offering in its current format to this population. Feedback was positive about the feasibility of a specific offering for Slimming World members where a welcoming pool facility, offering a choice of activities, with a support network and an attractive cost would be worth further investigation.
Author’s declaration

I declare that the work submitted in this dissertation is original and was carried out in accordance with the regulations of the University of Bristol. It has not been submitted as of any degree or qualification and the views expressed are those of the author and in no way represent those of the University of Bristol.

Signed .............................................

Date .............................................
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Glossary of Terms

ACSM  American College of Sports Medicine
ASA  Amateur Swimming Association
CDC  Centres for disease control and prevention
CMO  Chief Medical Officer
DOH  UK Department of Health
HHS  US Department of Health and Human Services
HSE  Health Survey for England
NHS  National Health Service
PARS  Physical activity referral scheme
PCT  Primary Care Trust’s
WHO  World Health Organisation

BMI  Body mass index, is used to define weight status, the ratio of weight (in kilograms) divided by height (in metres squared). (Kg/m²)

Underweight  BMI ≤ 18.5 Kg/m
Normal/Healthy  BMI 18.5 to 24.9 Kg/m
Overweight  BMI 25.0 to 29.9 Kg/m
Obese/Obesity  BMI ≥ 30 Kg/m

NCD’s  Non communicable diseases
MET  Metabolic equivalent of task
RMR  Resting metabolic rate

Physical activity
Any bodily movement produced by skeletal muscles that result in a quantifiable expenditure of energy [Caspersen et al., 1985]
Metabolic Equivalent
The ratio of (and therefore the rate of energy consumption) during a specific physical activity to a reference rate of metabolic rate at rest. E.g. A half hour swim (slow crawl at 50 yards per minute) is classed as vigorous intensity of 8 METS with an energy expenditure equivalent of 240 Kcal (for a person of 60Kg completing the activity for 30 minutes).


Moderate-intensity physical activity (approx. 3-6 METs)
Defines a level of physical activity where a person requires a moderate amount of effort and noticeable has to increase breathing and heart rate such as in brisk walking, dancing, gardening or swimming.


Vigorous-intensity physical activity (Approx > 6METs)
Used to define a level of physical activity where a person requires a large amount of effort and which causes rapid increased breathing and substantial increase in heart rate so they are unable to talk without taking short breathes, such as jogging, running, high-impact aerobic dancing or swimming continuous laps.


VO₂ max
The maximum capacity of an individual's body to transport and use oxygen during exercise, Indicates the cardiovascular fitness of the individual. E.g. VO₂ max 3.5 litres/minute or 45 ml/kg/min

Self-efficacy
Beliefs individuals have about their capability to carry out action in a way that will influence the events that affect their lives.
The feasibility and the attractiveness, of an aquatic activity programme for members of Slimming World.

1 Introduction

The western society has become obsessed with physical attractiveness and the mass media portray idealistic stereotype images of health and beauty for both men and women. The current physical attributes in fashion are the slender woman and lean, muscular man [Frederick et al., 2006]. In reality, they are an unrealistic goal for most to achieve and this can affect self-worth, self-acceptance and an overall dissatisfaction and self-consciousness in perceptions of an appearance that does not conform. These physical and global self-esteem perceptions have shown to be important indicators of psychological well-being [Fox, 1999].

1.1 Background

There are number of official organisations and a substantial amount of published scientific literature which present the link and draw attention to obesity, the role of physical activity, inactivity, sedentary lifestyles and the relationship to physical and mental health and the reduction of the major chronic non-communicable diseases. Some of these include the WHO, ACSM, CDC and the UK DOH and US HHS and the many studies published have been summarised in a number of Cochrane reviews. The Foresight report ‘Tackling Obesities: Future Choice’ was published in 2007, WHO has developed the 2008-2013 action plan for the global strategy for the prevention and control of noncommunicable diseases, the British Government has developed The White Paper ‘Healthy Lives, Healthy People’, the ‘Public Health Responsibility Deal’ was issued in March 2011 and new physical activity guidelines were published in July 2011.
Despite this wealth of information, in 2008, there were 1.5 billion adults (aged 20 and older) overweight globally, of these 300 million women were obese and the prevalence of obesity is climbing at an alarming rate. 

Physical activity levels are in decline, physical inactivity is now a global public health problem and sedentary lifestyles are increasing as a result of less active, travel and leisure time activities. The HSE 2008 report, only 4% of women met the government’s recommendations for physical activity (based on accelerometry) and 61% to 71% of the adult population are estimated to be affected by inactivity [DOH, 2010].

Weight gain is a result of energy intake exceeding energy expenditure and weight management requires a range of strategies which include reducing energy intake, increasing the amount of physical activity and reducing the amount of sedentary time [Donnelly et al., 2004; WHO, 2003], but there is also a clear association with BMI category and self-reported physical activity levels in both men and women and a decline in the levels of physical activity as BMI increases.

The diet industry is a multi-billion dollar industry estimated at £11.2bn in 2007 [Truby et al., 2006], however diets and weight loss products have been criticised as a temporary intervention, with most people returning to their old habits when the diet ends (Perry et al, 1998). There are many well established commercial weight management organisations within the UK which are widely recognised. The BBC ‘diet trials’ recently evaluated the effectiveness of four commercial programmes (Dr Atkins, Slim-fast, Weight Watchers and Rosemary Conley) and reported a clinically significant weight loss (average 5.9kg) over the six months of follow up. [Truby et al., 2006]. PCT’s have developed their weight management programmes which are reporting clinically significant weight losses of 5% [Jolly et
al., 2010). These weight management programmes offer a varying emphasis on diet and physical activity.

In spite of the compelling evidence for the benefits of physical activity, there are wide a range of practical, personal and social factors required to facilitate participation (Trost et al., 2002). Especially in women who have an unequal opportunity to participate due to their differing life stages and the multiple roles they play (Oguma and Shinoda-Tagawa, 2004; Tavares and Plotnikoff, 2008). Therefore, interventions to increase women's exercise need to focus on increasing problem-solving abilities to identify and reduce barriers to exercise (Moore et al., 2003).

Slimming World is a similar-type weight loss organisation. They operate weekly groups (or online support) and the classes are generally located in urban areas with local access to public health facilities. They have access to over 250,000 women in the UK and ROI, who attend a group meeting on a weekly basis and even more via online support. Members are empowered to modify their behaviour and manage their weight through a combination of ‘Food Optimising’ an energy balance eating plan, ‘Body Magic’, a non-specified moderate physical activity programme and ‘Image therapy’ which is the group support provided by other members. Slimming World do not include a formalised exercise programme, instead, they encourage members to change habits and find enjoyable activities to adopt a more active lifestyle. [www.slimmingworld.co.uk](http://www.slimmingworld.co.uk).

The Amateur Swimming Association (ASA) is the national governing body for swimming formed in 1969. One of its roles is to promote swimming and other aquatic activities as a healthy lifestyle choice, yet reports show female participation has been declining since 2005. It has also recognised that the same age group and sex are the most prolific attendees at weekly weight loss sessions. Therefore the ASA is proposing a pilot programme offering, to Slimming World members which provides easy access to water based fitness activities at local leisure centres, whilst monitoring the feasibility of the programme and the benefits to the participants.
Bristol University has an established relationship with Slimming World and the ASA requested collaboration with the university to evaluate their aquatic activity program, therefore as an MSc student studying at Bristol University, this dissertation has been devised to assess the feasibility of the pilot programme implemented by the ASA for Slimming World members

1.2 Purpose of the Study

It is proposed that interested Slimming world members are invited to participate in a twelve-week programme of personal choice aquatic activity and to understand the potential benefits to the participants in terms of fitness, weight management and personal wellbeing and the attractiveness of such a programme.

The design of the study is described in detail in Chapter 3, but briefly comprises of a programme of self-selected aquatic activity which is self-reported in a swim diary to establish the recruitment and retention statistics; a participant pre and post programme wellness questionnaire to assess any changes in fitness and well-being which may occur during the programme, and then a qualitative assessment of the benefits perceived by the participants and an exploration of the effectiveness of the program.

1.3 Aims of Study

The main aim of this research and analysis dissertation is to investigate and address the following questions:

1. Does a 12-week water-based activity programme attract and retain slimming world members
2 Do the slimming world members who participate in the 12-week program perceive a benefit in physical (body composition, fitness level) or mental well-being (self-esteem, self-confidence)

3 Are there any emerging themes offering insight to an offering on a larger-scale.

Therefore this dissertation evaluates the feasibility in terms of recruitment, retention and potential benefits of an aquatic programme for Slimming World members and the participant’s reactions to this early effort.

The limitations of this study are the small scale investigation; therefore the findings must be treated as illuminative in identifying opportunities with the possibility of some guidance towards potential solutions and a limited claim of generalisation.
2 Literature Review

2.1 Introduction

The literature review is in two parts; part 1 is a summary of the literature as a background for the proposed study which includes the prevalence of obesity, the role of physical activity and inactivity and the impact of a sedentary lifestyle on health and then the importance of physical activity for health benefits. Part 2 is a review of the aquatic activity literature, a summary of the benefits and understand which interventions have worked and why and concludes with a research rationale for this study.

2.2 Part 1

In the UK, the prevalence of overweight and obesity is a major public health problem and the rates have more than doubled in the last 25 years.

http://www.bis.gov.uk/assets/bispartners/foresight/docs/obesity/17.pdf

The Health Survey for England 2009 trend tables, show a gradual increase in the proportion of adults that were obese for 1993 to 2009, from 13% to 22% in men and 16% to 24% in women and it has been predicted that by 2050, 60% of men and 50% of women could be clinically obese

http://www.ic.nhs.uk/pubs/hse09trends
http://www.bis.gov.uk/assets/bispartners/foresight/docs/obesity/17.pdf

Overweight and obesity is the accumulation of excess or abnormal fat that increase weight and may impair health and a major risk factor for the noncommunicable diseases such as type 2 diabetes; cardiovascular disease (coronary heart disease, hypertension and stroke); musculoskeletal disorder (osteoarthritis) and various forms of cancer (colon, breast and endometrial) \(^{(Kopelman, 2007)}\). As BMI increases, the associated risk factor for these diseases increases which are considered largely preventable through adopting healthier lifestyle choices. The prevalence of co-morbidities related to obesity emphasizes the need to prevent and
manage obesity rather than just the associated health problems [Must et al., 1999].

http://www.who.int/mediacentre/factsheets/fs311/en/

Excess weight is caused when energy intake exceeds energy expenditure causing an energy imbalance and the result is a gain in weight. Weight management requires a range of strategies which include reducing energy intake by a change in diet and/or an increase in energy expenditure by increasing the amount of exercise or physical activity [Donnelly et al., 2004], [WHO, 2003].

An improvement in health benefits is achievable with a modest weight loss of 10% and there are numerous studies evaluating and identifying ways to lose weight and sustain weight loss. [Tuomilehto et al., 2001] [Lindström et al., 2003]. Systematic reviews have reported in the short and long term, a combination of both diet and exercise result in a greater weight loss than dietary interventions alone and only a modest weight loss for exercise alone [Curioni and Lourenco, 2005] [Shaw et al., 2006].

There are three main contributing causes: an increase of energy-dense foods which are high in fat, salt and sugars and low in vitamins, minerals and micronutrients; lower levels of physical activity and an increase in sedentary behaviour due to changes in forms of physical work, modes of transport and less active leisure time pursuits.


Physical activity is an expenditure of calories which raise the heart rate. It includes everyday activities such as active travelling, occupational activity or housework, gardening and DIY and includes recreational activities such as walking, cycling, dancing or playing any sport. The scientific evidence for the role of physical activity in reducing the risk of the major chronic diseases is compelling, regular physical activity helps prevent and manage many chronic conditions, lowers adult morbidity and mortality and is essential to improve quality of life into old age. [DOH, 2004].
The benefits include reducing the risk of: hypertension, coronary heart disease, stroke, type 2 diabetes (Pan et al., 1997, Lindström et al., 2003), cancer prevention (Friedenreich, 2001), mental well-being (Fox, 1999); the management of obesity (Grundy et al., 1999); musculoskeletal conditions, improvement in bone and functional health and reduce the risk of falls and active daily living disability (Penninx et al., 2001) and quality of life (Rejeski and Mihalko, 2001).

There is an insufficient levels of physical activity among adults aged 16 and over as reported by the 2008 Health Survey for England. 39% of men and 29% of women met the government’s current recommendations for physical activity, however these were self-reported figures and much higher than those reported in an objective accelerometry sample, where only 6% of men and 4% of women met the guidelines. There is a clear decline in the level of physical activity as BMI increases and the same report reveals 36% of normal weight adult women met the current physical activity recommendations, this reduces to 31% in overweight women and 19% in obese women.

In addition to the low participation rates, there is a well documented decline in physical activity levels and an increase in sedentary lifestyles in UK adults. Sedentary time is a class of behaviours where there are low levels of energy expenditure such as sitting, lying or stationary posture, examples of these may include either leisure (watching TV, reading, listening to music), travel (by car, bus or train) or occupational (such as sitting at a computer).

Physical Inactivity has also been identified as a global public health problem an estimation of 3.2 million (6%) of global deaths each year. The prevalence of
Physical inactivity is on the increase worldwide with 31% of adults over the age of 15 (28% of men and 34% of women) insufficiently active in 2008 and 61% to 71% of the adult population are estimated to be affected by inactivity [DOH, 2010].

The CMO issued the new UK physical activity guidelines in July 2011 to replace the previous ‘At least five a week’ [DOH, 2004]. They focus primarily on the dose-response relationship of the frequency, duration, intensity and type of physical activity required for the prevention of NCD’s and these guidelines have now been translated into specific guidelines for all individuals from under 5’s to older adults.

Adults should complete 150 mins, each week of moderate to vigorous intensity physical activity (and aim to do some every day e.g. 30 min on five days, which can be accumulated in bout of 10 minutes or more). Muscle strengthening activity should also be included twice a week and the amount of sedentary time spent should be minimised.

There is a very strong scientific evidence base from a wide range of well conducted studies which demonstrate physically active people have higher levels of health-related fitness, a low risk profile for developing the major chronic diseases than people who are inactive. These studies have contributed to the causal and dose-response rationale which underpin the globally recommended guidelines for physical activity and this literature review would be incomplete without discussing to a few of the most prominent studies to understand how they have contributed to the bigger picture. A selection have been are summarised in Appendix 1 - Table 1.
Since the first study in 1953, which hypothesised that the physical activity of the more active London bus conductors protected them from developing CHD, CVD risk factors were identified in The Framingham Heart Study which found obesity made a significant contribution independent of other risk factors, such as diet, physical activity and diabetes (Hubert et al., 1983).

Observational studies report an inverse relationship between physical activity and both coronary heart disease (CHD) and cardiovascular disease (CVD) (Arsenault et al., 2009; Hu et al., 2004a, 2004b, 2005; Li et al., 2006; Weinstein et al., 2008; Weinstein et al., 2004).

Clinical trials such as the Da Qing IGT, The Finnish Diabetes Prevention Programme (DPS) RCT and the Diabetes Prevention Program research group RCT trials have established the potential to prevent Type 2 diabetes in high-risk individuals with the use of Lifestyle interventions which include diet, exercise, diet and exercise against a control group (Pan et al., 1997; Lindström et al., 2003; Tuomilehto et al., 2001; Knowler et al., 2002) (DPPRG, 2009).

There has previously been some controversy surrounding the importance of ‘fitness’ or ‘fatness’ with regards to health, both prospective studies and randomized controlled trials such as The Nurses’ Health study and the Women’s Health Study differentiate the individual and joint association of obesity and physical activity as independent contributors to obesity (Rana et al., 2007).

However, even with a dose-response effect, studies on physical activity >4 hours/week, demonstrate higher doses do not reduce risk without concurrent weight loss in overweight or obese women and the reduction in Hazard ratios due to physical activity were still of less influence than obesity (Weinstein et al., 2004; Rana et al., 2007; Weinstein et al., 2008; Li et al., 2008) and in a large representative cohort of the US population comparing odds ratios for diabetes and diabetes with cardiovascular co-morbidities, the odds ratios for diabetes show normal-inactive individuals are at lower risk (1.52, 95% CI 1.25–1.86) than an obese-active
individuals (3.62, 95%CI, 2.95–4.43) which does not support a theory of body fitness overriding body fatness [Sullivan et al., 2005]

These studies confirm physical inactivity and obesity are both strong and independent risk factors for diabetes and heart disease and the highest risks were observed among women who were both inactive and overweight or obese, but whilst the evidence for reducing the risk is strong, there is less evidence available for effective ways to increase women’s adherence to physical activity.

Physical activity is a complex, multi-dimensional behaviour. There are different types of physical activity reported in the literature (e.g. transportation, leisure time, occupational, domestic life and total) and in addition the types of activity differ in frequency, duration and intensity, which make it difficult to assess. [Rennie and Wareham, 1998] [Wareham et al., 2002]. The measurement instruments used are simple and often self-report by questionnaire is used, grouping the activities within the questionnaires can limit the reporting accuracy of individuals’ self-reported activity levels can be significantly higher or lower than their actual participation and there is potential for socially desirable answers [Prince et al., 2008] subject to bias [Luke et al., 2011]. More standard measures are needed (e.g., heart rate monitoring, accelerometers) that have been developed to enhance reliability and validity. [Trost et al., 2002].

Previously, it has been difficult to quantify the specific types and amounts of physical activity required since the literature uses different methods to assess the physical activity. (E.g. Kcal/week, (MET) scores, actual activity levels or categorising the amount of activity level into descriptive categories rather than quantifiable amounts [Mora et al., 2007] [Arsenault et al., 2009]. In addition, the studies have reported on different types of activity differ i.e. (occupational and leisure-time activity or leisure-time time only [Hu et al., 1999] Rana et al., 2007] Li et al., 2008] Weinstein et al., 2008](Hu FB, Hu G, ).
The new guidelines have addressed this by quantifying the different types of activity by their intensity levels (light, moderate or vigorous) and also by their METs and energy expenditure (K/cal equivalent for a person of 60kg doing the activity for 30 minutes). Table 4 of the ‘Start Active, Stay Active’ report shows examples of the intensities and energy expenditure for some common types of physical activity.


http://www.sportengland.org/research/active_people_survey/active_people_survey_1.aspx

Participation of adults in physical activity is associated with a diverse range of personal, social and environmental factors and in a review of approximately 300 cross-sectional and prospective design studies, the strongest and most consistent were the individual-level variable such as socioeconomic status and perceived self-efficacy. [Trost et al., 2002] A community based study to increase physical activity recognised women were less likely than men to reach recommended levels of physical activity and had unequal access to achieve it [Wen et al., 2002].

A recent meta-analysis suggests the promotion of physical activity to women is different to the population in general due to their different life stages [Oguma and Shinoda-Tagawa, 2004] and the multiple roles women play (e.g. employer, parent, partner, carer) and their time constraints due to work, household and childcare duties which are common barriers to participation in physical activity. [Tavares and Plotnikoff, 2008]. A physical activity referral scheme showed even though women were keen to participate; time, cost, transport and childcare prevented access to the scheme [James et al., 2008].

The Women’s Sport and Fitness Foundation is a UK charity that campaigns to make physical activity an everyday part of life for women and girls. They have published articles on the barriers to sports participation for women and girls with recommendations and ideas for sports deliverers to implement to encourage and enable women and girls to participate.
The main barriers perceived by women for participation are practical barriers (lack of time, childcare, transport, money, and then personal safety, funding for their sport and access to facilities); personal barriers (body image dissatisfaction, expense of clothing and equipment, self-confidence in ability and parental and adult influences) and Social and cultural barriers (Male dominated culture of sport, attitudes about sexuality, disability or ethnicity, sexual harassment and female invisibility).


For the majority of the population, increasing physical activity is encouraged by adopting activities which can be incorporated into everyday life such as domestic (household, childcare, gardening DIY or active transport (walking or cycling, using stairs instead of the lift or getting off the bus one stop earlier). However, introducing active leisure, such as swimming, jogging, aerobics, and gym, team sports can increase activity levels further and provide more benefits.


Exercise guidelines from The American College of Sports Medicine recommend a combination of aerobic and resistance exercise as the optimal approach to achieve cardio respiratory fitness (Haskell et al., 2007). However the majority of aerobic and resistance exercises are weight bearing in nature and are not suitable for some individuals who may find this type of exercise difficult. Due to the physical properties of water, exercising in water is non-weight bearing and offers a safe and protective environment due to the water buoyancy which minimizes risk of joint injury. Body weight is supported by the water and vigorous exercise can produce increased VO2 max in a shorter time periods than the equivalent exercise on land. (Becker, 2009, Meredith-Jones et al., 2011).
There is a significant amount of evidence in the literature for the benefits of the aquatic environment in relation to health and rehabilitation. As early as 1911 therapeutic pools were being used to treat spastic and cerebral palsy patients, the physical properties of water including density, specific gravity, hydrostatic pressure, buoyancy, viscosity and thermodynamics effect physiological changes during immersion \cite{Becker, 2009} and aquatic activity has been used many types of rehabilitation including cardiovascular and metabolic health \cite{Meredith-Jones et al., 2011}; and Osteoarthritis, \cite{Cadmus et al., 2010}.
2.3 Part 2

This section is a review of the limited research studies conducted using aquatic exercise which aims to understand the perceived benefits of the activity in women and understand which interventions have worked and why.

Research in this area was identified via searches of several databases (web of science, PschyINFO and Pubmed) from inception to date. The databases were searched using the following key words or a combination of: ‘swimming’, ‘aquatic’, ‘water-based’, ‘aquafit’, ‘aqua-jogging’, ‘aqua-zumba’, ‘Swim-fit’ and the following subject heading terms: ‘overweight’, ‘obesity’, ‘physical activity’. (e.g. in Pubmed: (((((((swimming) OR aquatic OR water-based OR aqua-jogging OR aquafit OR aqua zumba OR swim-fit)) AND overweight) AND obesity) AND physical activity) NOT mice) NOT rats) NOT fish). The number of relevant studies (n=48) were reviewed for inclusion in this review.

The search studies included healthy, overweight or obese, active or sedentary women in the participants. Studies which did not include women were excluded, athletes or pregnant women were excluded and also studies focused on specific health conditions such as osteoarthritis and fibromyalgia. A manual search of the reference lists of the remaining studies were checked for additional papers and the main characteristics and results of the final studies for inclusion (n=10) are summarised in Table 2 in appendix 2.

Four of the studies were randomized controlled trials, [Bocalini et al., 2008 Tsourlou et al., 2006 POYHONEN et al., 2002 Takeshima et al., 2002], two were uncontrolled randomized trials, [Cox et al., 2008 Cox et al., 2010] three were uncontrolled trials [Wouters et al., 2010 Meredith-Jones et al., 2009] and one was a retrospective cohort study [Littman et al., 2005].
Two of the studies included aqua-jogging, one included deep water running, 3 included water aerobics and four included swimming. Five studies compared the aquatic activity with a land based exercise. All of the interventions were instructor led (except the cohort study) the time of the sessions ranged from 60 to 70 minutes per session, a frequency of 2-4 sessions per week and the length of the interventions ranged from 6—24 weeks. High levels of retention and adherence during the supervised activity period were reported. The ACSM has recommends at least 15—20 weeks of regular exercise as necessary to realise fitness benefits (Haskell et al., 2007).

The evidence from some of the aquatic studies suggest that regular swimming, deep or shallow water exercise has beneficial effects on cardio-respiratory fitness, strength, and body fat distribution, however bodyweight is unclear as there are examples of both weight maintenance and weight loss. Only one study reviewed quality of life and showed a positive effect (Wouters et al., 2010).

All of the studies, except the cohort study had small sample sizes, therefore increasing the possibility of selection bias, and decreasing generalizability. The studies showed too much heterogeneity in the type of aquatic activity, study design and data collection methods to draw firm conclusions regarding which interventions are the most effective. This area requires further research using more RCTs that have larger sample sizes, an intervention period longer than 20 weeks and more standardised assessment methods.

Aquatic exercise is purposeful, planned, structured and repetitive type of exercise, the physical fitness of a person benefits by using all the major muscle groups and exerting a vigorous demand on the heart and lungs, but swimming requires the ability to swim, a specific set of skills (Koury, 1996). A half hour swim (slow crawl at 50 yards per minute) is classed as vigorous intensity of 8 METS with an energy expenditure equivalent of 240 Kcal (for a person of 60Kg completing the activity for 30 minutes).
Access to exercise facilities was reported as a difficulty effecting weight loss efforts in an intervention using Aqua-fit sessions for obese women [Reed et al., 1999]. Whilst structured exercise programs have been reported to increase physical activity levels, post intervention, the cost and continued provision of facilities were perceived as barriers to maintaining the activity. [Opdenacker et al., 2008] and the disadvantage of adopting this type of activity is the reliance on a swimming pool and one of the common attributes for successful interventions recommends ‘not requiring attendance at a facility’

In addition to the barriers reported for women’s participation in physical activity in general, Women less satisfied with their bodies, are more concerned about wearing a swimsuit in public where others could evaluate their bodies in a negative way [Frederick et al., 2006]. In particular by overweight or obese women who experience social physique anxiety or are reluctant to go to a public swimming pool due to embarrassment or fear [Reed et al., 1999] and there are associations observed for females between ‘too fat’ as a barrier and being: ‘to shy/embarrassed’; ‘being too lazy/not motivated’; and ‘not being the sport type’ (each barrier, p<0.05) [Ball et al., 2000]. Although, it has also been reported, that chest-deep water exercise is motivating for overweight persons, because their bodies are hidden from others [Lepore and Gayle, 1998]. In this respect the body and aspects of appearance are associated with global self-esteem [Fox, 1999] and a better understanding of the weight-related barriers which influence physical activity participation is required.

The Sport England Active People survey is the most authoritative data available for swimming demand in England and is credible due to the large sample size of over 300,000 people. The 2005/06 survey highlighted a decline in female swimmers and the most recent survey (Period: APS2 (Oct 07 / Oct 08) to APS4/5 (Jan 10 /Jan11)) shows a participation reduction from 10% to 8.8%, with a loss of
over 215,000 female swimmers, (for the same period male swimmers increased by just over 50,000).

http://www.sportengland.org/research/active_people_survey/active_people_survey_1.aspx

Overall, there is a lack of consistent evidence evaluating the full benefits of aquatic activity. However it would appear from the studies that aquatic activity results in a range of positive physical and mental health benefits in a selection of healthy, overweight, obese, sedentary and active women, therefore suggesting it might be a valuable therapy in itself as well as an adjunct to a dietary intervention. The study was unable to find any studies evaluating aquatic activity as part of commercial weight management programme such as Slimming World and there were no scientific studies available to evaluate the Swim fit programme.

Therefore this dissertation evaluates the feasibility in terms of recruitment, retention and potential benefits of an aquatic activity programme for Slimming World members and the participant’s reactions to this early effort.
3 Methodology

3.1 Research design

The research design is a feasibility study in the form of a service evaluation. The main purpose is to assess the recruitment and retention of Slimming World members to an aquatic activity programme and provide a preliminary assessment of the benefits of the programme to the members. Measures are taken at baseline and 12 weeks to assess change. There is no control group. In addition, qualitative data are collected in the form of interviews with session leaders and participants themselves. Ethical approval was granted by the University of Bristol Ethics committee (reference number EAN 40-11).

3.2 Programme Delivery

The ASA in conjunction with Slimming World district managers from four regions nationally identified Slimming World groups within the vicinity of leisure centres with swimming pools. The leisure centres were contacted by the ASA and the type of sessions available, the cost and any incentives for Slimming World members were identified. The aquatic activity activities available for the participants included some or all of the following depending on the facility used: swimming, swim-fit, aqua-aerobics, aqua-fit, aqua-zumba aqua-fit and deep water aqua.

The aim was to provide availability for participation in two water-based, 30-minute, exercise activities per week and the participants were recommended to attend these sessions for twelve weeks. All the sessions were publicly available sessions without instruction, support or monitoring. The information booklet issued to the participants gave advice on swimming and how to get the best out of it and they were provided with a swim diary to record the description, frequency and duration of the sessions they attended.
3.3 Participant Recruitment

An information and advertising booklet was specifically developed by the ASA in partnership with both Slimming World and Bristol University (see appendix 6). This was used to brief potential participants. The booklet included information about the study, a consent form and information on the benefits of swimming and/or aquatic activity. An ASA aquatics officer used the marketing materials to brief potential participants at the Slimming world group meetings during week commencing 9th May 2011.

A presentation was used by the aquatics officers to brief the purpose and timescales for the study, the consent requirements and their role in completion of measures for the evaluation. Information was also provided on the location of the local facilities and any incentives made available to the group members. Interested slimming world members were invited to sign up and asked to start their first session week commencing 16th May 2011 and continue for twelve weeks finishing week commencing 12th August 2011.

To sign up for the study, a participant was given the A5 Booklet, questionnaire and a swim diary and issued with an identity code. Prior to completing their first session, the consent form and questionnaire were completed and returned to the aquatics officer and the participant was given a swim diary which they were requested to keep at their local facility and complete with the information from every session they attended. The only exclusion criteria were inability to take part through disability or the ability to swim competently.
3.4 Assessment

There were 3 forms of data collection - audit of recruitment and attendance, pre and post questionnaires, and post-study interviews.

3.4.a) Audit data

A record of recruitment and retention of participants to the programme was maintained throughout the length of the programme. A personal swim diary was issued to each participant at the start of the programme and used to record attendance, a description of the activity, duration and frequency of any completed session, which were all self-reported in the swim diary. Participants were also asked for any comments following attendance at a session. The diary was returned at the end of the twelve weeks and the information used to identify the recruitment rate, the attendance rates, the drop-out rate, the completion rate and the types of aquatic activity completed over the twelve week period.

3.4.b) Pre and post questionnaire

The main purpose of the questionnaire was to assess reasons for joining the programme and to measure aspects of mental well-being so that change over the period of the programme could be assessed. It was piloted by five volunteers to ensure a completion time of less than twenty minutes and identify any errors in the questionnaire. The questionnaire is appropriate for retest at twelve weeks to identify a participant profile over the duration of the programme. A questionnaire contained a specific set of questions to measure the following:

i  Participant characteristics

The opening section of the questionnaire assessed gender, location by postcode, age from a choice of 4 age groups, education by highest attainment level, ethnicity, height and weight by either metric or imperial. Body mass index was calculated from the height and weight.
ii Reasons for joining

Reasons for joining were measured using a specifically developed questionnaire. A sample question was “I thought it would be good for my health”. Responses to nine questions were scored on a 5-point Likert scale (from 1 = really true for me to 5 = not really true for me. Question 9 had the facility for own answer not covered by questions 1 to 8 and all items are positively worded.

iii What I feel about swimming and water exercise

This was measured using 4 confidence or efficacy based questions on a 10-point Likert scale (from 1 = no confidence to 10= very confident) to understand the participants levels of belief in their own competence towards the amount of time they felt confident to stay in the water, or complete either swimming or other water exercise ranging from 15 minutes to 60 minutes. A further 9 questions specifically developed to assess feelings about swimming using six positively worded questions (1,2,3,4 6 and 9) and (score from 4 = really true for me to 1 = not really true for me) and three negatively worded questions (5, 7 and 8) and (score from 4 = not really true for me to 0 = really true for me. An example question is “I have good swimming skills”. The total scale ranges from 0-36.

iv What I feel about myself

What I feel about myself was measured using two well established standardised measures, a modified version of Rosenberg’s Self-Esteem Scale [Rosenberg, 1989] and the Physical Self-Perception Profile (PSPP) [Fox and Corbin, 1989] for assessing the physical self.

The Rosenberg Self-Esteem scale is a widely used measure of self-esteem frequently used in social science research and considered both a reliable and valid tool for assessing self-esteem. [Rosenberg, 1989]. This modified 10-item scale is answered on a five-point Likert scale. A sample question is “I am able to do things as well as most other people”. Five of the scale questions (1, 3, 4, 7, and 10), have positively worded statements (score from 4 = strongly agree to 0 = strongly disagree) and the other five scale questions (2, 5, 6, 8 and 9) have negatively worded questions (score
from 4 = strongly disagree to 0 = strongly agree). The scale ranges from 0-40. Scores between 20 and 30 are in the normal range; scores below 20 may suggest low self-esteem.

The PSPP measures the multiple dimensions of the physical self. (Fox and Corbin, 1989). This measure has been reported widely in sport psychology literature, and has an adequate reliability (Cronbach alpha’s between 0.70 and 0.92) validity (Fox and Corbin, 1989). The PSPP is comprised of 30 questions, using 6 questions for each of five subscales of physical self perceptions which include (sport competence, physical condition, attractive body, physical strength and physical self-worth). A sample question is “I almost always feel very proud of who I am and what I can do physically”. For each question, the participant must indicate which characteristic is more like them on a 4-point scale, responses range from a choice of (1=Untrue, 2=Somewhat Untrue, 3=Somewhat True, 4=True). In each subscale half of the questions are worded to reflect high confidence (3,4,5,6,7,9,14,16,18,20,22,24,26,27,28 and 30), and the other half to reflect low confidence (1,2,8,10,11,12,13,15,17,19,21,23,25 and 29). The scale ranges from 0-120. Scores between 50 and 70 are in the normal range; scores below 50 suggest low self-perception.

v About your general health

General health was measured using the multi-purpose short form health survey (SF-12v2) which uses 12 items selected from the SF-36 Health Survey (Ware et al., 1996). It has been used by in many studies as a brief and reliable measure of overall health status (Dua et al., 2010).


The SF-12 questions are combined, scored and weighted and create two composite scores, physical and mental health composite scores (PCS and MCS) on a scale of 0 to 100, where (zero is the lowest level of health and 100 is the highest level of
health) which provide an indication of mental and physical function and an overall health-related quality of life \[\text{Ware et al., 1995}\] \[\text{Ware et al., 1996}\].

vi About your general physical activity levels
General physical activity levels were measured using part 2 only of the General Practice Physical Activity Questionnaire (GPPAQ), which is used in combination with part 1 to calculate a physical activity index (PAI) derived from the original EPIC study. \[\text{The General Practice Physical Activity Questionnaire (GPPAQ)}\] Department of Health, 2006. \[\text{Wareham et al., 2003}\] \[\text{Khaw et al., 2006}\].

The GPPAQ is a validated screening tool whereby participants are classified into four categories of physical activity (1=inactive, 2=moderately inactive, 3=moderately active and 4=active). The participant is asked to recall the number of hours spent performing various activities, from a selection of household/childcare chores to more vigorous activities during the previous week. For the purpose of this study, only section 2 was used, to determine whether the participant is currently meeting the Chief Medical Officer’s recommendation for physical activity. \[\text{DOH, 2004}\].

There are five questions summarising types of activities and participants choose one response for each for “how many hours did you spend on each of the following activities?” (none, some but less than 1 hour, 1 hour but less than 3 hours and 3 hours or more). Combining the physical exercise and cycling levels to score the number of hours of physical activity the delegates would be classed as (0=inactive, <1=moderately inactive, 1-2.9=moderately active and 3+=active).

vii Your feelings about your body
Feeling about the body physique were measure using the Social Physique Anxiety Scale (SPAS) \[\text{Hart et al., 1989}\], which was originally a 12-item measure reduced to a clearer uni-dimensional scale in the current 9-item version \[\text{Martin et al., 1997}\].
The SPAS assesses the perception of anxiety experienced when a participant’s physique is evaluated by others. Each item is rated on a five-point Likert type scale of “how the statement reflects your feelings about yourself at the moment”, and scored (1=not at all characteristic of me, 2=Slightly characteristic of me, 3=Moderately characteristic of me, 4=Very characteristic of me and 5=Extremely characteristic of me). An example item is “There are times when I am bothered by thoughts that other people are evaluating my weight or muscular development negatively”, the questions (1, 2, 3,4,6,7 and 9) are worded negatively and questions (5 and 8) are worded positively and reverse scored. The scores range from 9-45 and a higher score indicate a greater social physique anxiety.

viii About your energy levels

The subjective vitality scale was used to measure the status of feeling alert an alive with energy available to oneself. [Ryan and Deci, 2001]. The original validated scale used 7 items which was reduced to the improved effectiveness 6-item version, where a negatively phrased item 2 was removed. [Bostic et al., 2000]. There are two versions of the scale and this study used the individual difference level version which relates positively to self-actualisation and self-esteem [Ryan and Frederick, 1997]. An example item is “I nearly always feel alert and awake”, and the item is scored by indicating “the degree to which the statement is true for you I general in your life” on a 7-point Likert scale (from 1=not at all true to 7 = very true. The scale is scored by averaging the participant’s items scores. Vitality is considered an aspect of well-being and the aim is to be fully functional and psychologically well [Ryan and Deci, 2001], therefore an individual average score of 3 or less may indicate depression and anxiety.
3.4.c) Physiological Measures

i  BMI
BMI calculated at baseline and twelve weeks to measure any changes in weight which may occur during the programme.

ii Bioimpedance
A bio impedance analysis completed at baseline and twelve weeks to measure body composition, including percentage of body fat and lean body mass. The equipment used to obtain this analysis will vary depending on access to the equipment at the pool facility; however the participants will use the same equipment at baseline and twelve weeks.

iii  Fitness Test
An aerobic fitness level assessment will be completed at baseline and twelve weeks to measure any changes in fitness. This will be a simple timed swim test for an agreed number of lengths and the same distance timed at twelve weeks.

3.4.d) Qualitative Measures
The qualitative measures have been replaced by new methodologies in section 4.

3.5 Data Analysis
This sections was removed from the methodology as it became redundant and to make additional allowance for the extra word count used in section 4.
4 Re-orientation of Study

1.1 Introduction

This chapter has been added to explain the need for a re-orientation of focus for the study and to introduce new methodologies used which were not planned as part of the original study design.

4.1 Methodology

4.1.a) Research design

The original feasibility study was a service evaluation designed to measure the effectiveness of a water-based activity offering for slimming world members and the benefits of the programme. Due to a low initial sign-up of only 10 slimming world members nationally and an even lower participation and completion rate of only 2 members, there was an insufficient sample size to effectively appraise the original offering and include any statistical sampling.

However, this effect did provide an opportunity to pose some new research questions which required new ways of conducting research not previously described. The quantitative methods did not have the ability to capture the individual experiences of all the parties involved in the programme (who will now be referred to as research participants). It was possible however, by introducing some qualitative methodologies, to gain some additional insight into the programme by developing concepts which help understand the experiences and views of all the research participants

The study has been re-designed, but briefly comprises semi-structured interviews with a selection of personnel who had involvement with the programme. The investigation was designed to address the following questions:
1. Why were the recruitment rates so low
2. Why did participants who signed up not continue with the program
3. Are there any emerging themes offering insight to a more attractive offering.

In addition there are two members who did participate and complete the study and a qualitative approach may also identify elements of the program which are perceived to be most influential in increasing participation in swimming or water-based activity in slimming world members.

Therefore this study has been re-orientated with approval from Bristol University to re-focus the purpose of the study to identify the elements contributing to the feasibility of the programme and if there are any influential elements of the programme which may be recommended for implementation in a future programme or pilot study.

4.1.b) Qualitative methods
Because it was essential to identify both positive and negative elements of the programme, a set of semi-structured interview questions were developed which were suitable for completion by telephone. Four topics were covered in the semi-structured qualitative interviews including (i) the overall opinion of the programme, (ii) the most popular aspects, (iii) the most disappointing aspects and (iv) anything else you would like to contribute. An example selection of the questions appears in Table 1.

The questions chosen were open style questions designed to acquire a longer type answer from the respondent about their knowledge, views or opinions regarding the programme and explore the perceptions and experiences of research participant’s involvement in the programme. This approach was designed to draw out participant-generated themes based on the program. When a theme emerged, some funnel type questions were asked to find out more detail about the theme and some probing questions were used to seek clarification and avoid incorrect conclusions, in some
cases some closed style questions were used for confirmation of information received.

A line of more appreciative enquiry was used to identify the positive aspects of the programme to understand the future potential of introducing swimming or water-based activity to slimming world members. Appreciative Inquiry (AI) is used in business consulting as a way to learn from the most highly functioning parts of the organisation and use the information to improve the rest of the organisation \cite{Cooperrider1995}. AI methods have been used in nursing and medicine to promote cultural change \cite{Havens2006}.

### Table 1 - Semi-structured Interviews

<table>
<thead>
<tr>
<th>No</th>
<th>Style</th>
<th>Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Open</td>
<td>What is your overall opinion of the Slimming World meets Swimming World programme?</td>
</tr>
<tr>
<td>2</td>
<td>Open</td>
<td>What were the most popular aspects of the programme?</td>
</tr>
<tr>
<td></td>
<td>Funnel</td>
<td>What aspects would attract more slimming world members?</td>
</tr>
<tr>
<td></td>
<td>Probing</td>
<td>How often have you been swimming</td>
</tr>
<tr>
<td></td>
<td>Probing</td>
<td>What will keep you motivated to continue swimming?</td>
</tr>
<tr>
<td></td>
<td>Closed</td>
<td>Were you offered any incentives by the pool?</td>
</tr>
<tr>
<td></td>
<td>Probing</td>
<td>Would an incentive encourage you to participate?</td>
</tr>
<tr>
<td></td>
<td>Open</td>
<td>What would encourage you to go 2 or 3 times per week?</td>
</tr>
<tr>
<td></td>
<td>Closed</td>
<td>Are you an existing swimmer or previously?</td>
</tr>
<tr>
<td>3</td>
<td>Open</td>
<td>What were the most disappointing aspects of the programme?</td>
</tr>
<tr>
<td>4</td>
<td>Open</td>
<td>Anything else you would like to contribute to our understanding?</td>
</tr>
</tbody>
</table>

A list of potential research participants was requested from the ASA participation officer by the researcher. They were contacted by the researcher to agree a date and time agreed to complete the telephone interview, potential participants who could not be contacted or did not return a call to the researcher after two attempts were deemed to have declined to participate.
The semi-structure telephone interviews were carried out with the following research participants involved during the 12 week programme:

- 1 x ASA aquatics officer (ASARAO)
- 1 x Slimming world group leader (SWGL)
- 2 x participants who completed the programme (PC1 & PC2)
- 2 x participants who commenced but did not complete the programme (NC1 & NC2)
- 1 x ASA Health and participation officer (ASAHPO)

They telephone interviews were conducted by the programme researcher (8-19 August 2011), they were electronically recorded and the transcripts converted to hard copy for analysis.

In addition to the interview transcripts, two other pieces of qualitative data have been included for analysis:

- 1 x participant letter, from the programme start-up (PC2,E1)
- 1 x participant letter, post programme (PC2,E2)

Copies of the telephone interview protocol, the transcript interviews and the 2 participant letters are included in appendix 3.

4.1.c) *Qualitative Data Analysis*

These semi-structure interviews and the questioning skills approaches used extracted participant-generated themes grounded in their programme experience.

The content of the interview transcripts were analysed by thematic content to identify the common themes emerging. Thematic content analysis (TCA) is a systematic examination of qualitative data such as the interview transcripts and is used in the
analysis of transcripts to identify, group and portray the common themes in the texts. ([Miles and Huberman, 1994].

Examples of the actual words of the participants have been categorised together by these themes to summarise and present the main topics of feedback from the research participants. All names were removed from the transcripts to retain anonymity of the participants and comply with the Ethical protocols.
5 Results

5.1 Introduction

This study will present some results from the original research design and also incorporate results achieved from the additional methodology introduced in the previous re-orientation chapter.

5.2 Audit Data

5.2.a) Recruitment and attendance rates

Figure 1 shows the recruitment process and flow of participants through the trial. 8 ASA regions were made aware of the programme, North East (NE), North West (NW), East Midlands (EM), West Midlands (WM), South East (SE), South West (SW and London (LON). 4 of the ASA regions requested further information NW, EM, SW and SE. The 4 regions identified the following number of pools which could accommodate the programme (NW=1, EM=1, SW=9 and SE=2). Slimming World supplied the details of four district managers (one for each of the regions).

The ASA NW region gave the information to the local leisure centre for them to approach the groups and then did not have any further involvement. The ASA SE region visited one or two groups, but other priorities prevented any further involvement.

The ASA EM region visited slimming world groups between the 9-23 May 2011; and generated interest, it is unknown the number of groups visited, the number of slimming world members informed and the number of interested parties issued with information packs, however 7 pre-questionnaires, but no post study data was received from this area and extended holiday prevented information handover.
The ASA SW region visited slimming world groups between the 9-23 May 2011; The number of groups visited, the number of slimming world members informed and the number of interested parties issued information packs was not provided, however 3 pre, and 1 post questionnaire and 1 swim diary was received for this area.

10 female members agreed to participate and gave informed consent; 2 participants commenced the study and completed the 12 weeks programme. 8 participants did not complete the programme (1), lost interest (1), due to cost, (1) unable to contact for telephone interview, (5) contact details not supplied to complete telephone interview. 1 swim diary was completed and returned and 1 post questionnaire has been received.

Figure 1 - Recruitment process and flow of participants through trial.
5.2.b) Pre and Post Questionnaire

i Participant Characteristics

The characteristics of the 10 participants recruited to the programme are summarized in Table 2. All ten participants were female, white Caucasian, and the age ranged from one in the 25-34 age group, one in the 35-44, seven in the 45-54 and one in the 55+ age group. Six participants were from Derbyshire, one from Nottinghamshire and three from Plymouth. Their height ranged from 5’0” to 5’9” and their weight from 9 stone 6 pounds to 23 stone 3 pound. Three of the participants had a secondary education, three had further education and four had a post graduate education.

Table 2 – Participants characteristics

<table>
<thead>
<tr>
<th>Participant characteristics</th>
<th>n</th>
<th>Participant characteristics</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td>Body Mass Index (kg/m²)</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>0</td>
<td>18.5-24.9</td>
<td>2</td>
</tr>
<tr>
<td>Female</td>
<td>10</td>
<td>25.0-29.9</td>
<td>2</td>
</tr>
<tr>
<td>Postcode</td>
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</tr>
<tr>
<td>Derbyshire</td>
<td>6</td>
<td>Ethnicity</td>
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</tr>
<tr>
<td>Nottinghamshire</td>
<td>1</td>
<td>White/Caucasian</td>
<td>10</td>
</tr>
<tr>
<td>Plymouth</td>
<td>3</td>
<td>Black/African-Caribbean</td>
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<td></td>
<td>Asian</td>
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<td>Age</td>
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<td>18-24</td>
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<td>Highest level Education</td>
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<td>attended</td>
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<td>24-34</td>
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<td>Secondary</td>
<td>3</td>
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<td>35-44</td>
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<td>Further Education</td>
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<tr>
<td></td>
<td></td>
<td>Postgraduate</td>
<td>4</td>
</tr>
</tbody>
</table>
**ii Reasons for joining Swim and Slim**

Chart 1 is a Pareto analysis of the most popular reasons for joining the programme. A score of 1 is highest priority to the participants.

The top two reasons to join were (1- I thought it would be good for my health and 2 – I wanted to feel fitter), the two least popular reasons were (8 – my friends wanted me to come and 7 – To meet friends).

**Chart 1**

![Reasons for joining programme](chart)

**iii What I feel about swimming and water exercise**

Chart 2 show the confidence levels for time spend in the water, all participants reported the maximum confidence levels for staying in the water and swimming for 15 minutes, which only slightly reduced for 30 minutes and dropped off further for 60 minutes but still remained at an average confidence level of more than 7 out of 10.
Chart 3 shows the feelings of the participants and about swimming and their confidence levels by Pareto analysis, with ‘really true for me’ as the highest priority and ‘not really true for me as the lowest priority’. The top two statements were (1- I am a happier person when I am in the water and 2 – I have good swimming skills), the two least were (9 – I feel safe in the water and 7 – I am nervous when I go to the pool).

Chart 3
iv What I feel about myself

Table 3 shows the results for the modified Rosenberg Self-esteem scale questions, one participant was borderline for low self-esteem with a score of 20, 6 participants were in the normal range and 3 participants had higher than normal scores.

Table 3

<table>
<thead>
<tr>
<th>Rosenberg Modified Self-esteem Scale</th>
<th>Low Self Esteem</th>
<th>Normal Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Score</td>
<td>0  5  10  15  20  25  30  35  40  45  50</td>
<td></td>
</tr>
<tr>
<td>No of participants</td>
<td>0  0  0  0  1  0  4  0  2  3  0</td>
<td></td>
</tr>
</tbody>
</table>

Table 4 shows the results for the PSPS questions, one participant fell in the range for low self-perception, 8 participants were in the normal range and 1 participant had a higher self perception score.

Table 4

<table>
<thead>
<tr>
<th>Physical Self-Perception Scale</th>
<th>Normal Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Score</td>
<td>30  40  50  60  70  80  90  100  110  120</td>
</tr>
<tr>
<td>No of participants</td>
<td>1  2  2  4  1</td>
</tr>
</tbody>
</table>
v About your general health

Chart 4 shows the PCS and MCS scores by participant. 5 participants had both a PCS and an MCS at or above average, 7 had a PCS at or above average, and 7 had a MCS above average. There was 1 participant with a PCS in the below average range and 2 in the well below average range, 3 participants with an MCS in the well below average range and one participant had both a PCS and as MCS in the well below average range.

Chart 4
vi About your general physical activity levels

Table 5 summarises the composite scores for the participants, General physical activity levels show that existing physical activity levels in the participants are gained by domestic lifestyle such as walking (9/10 >= 3 hours), housework/childcare(6/10 report >=3 hours ) or gardening/DIY( 6/10 and 2/10 report 1-3 and >= 3 hours respectively) rather than purposeful physical exercise such as swimming, jogging, aerobics or sports (6/10 report none and 2/10 report for each of 1-3 and >=3hours) or cycling to work or for leisure (8/10 report none, 2/10 report 1-3 hours).

Table 5

<table>
<thead>
<tr>
<th>Type of activity</th>
<th>Please ✓ one box only on each row</th>
<th>None</th>
<th>Some but less than 1 hour</th>
<th>1 hour but less than 3 hours</th>
<th>3 hours or more</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Physical exercise such as swimming, jogging, aerobics, football, tennis, gym, workout, etc.</td>
<td>✅✅✅✅🗑️</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td></td>
</tr>
<tr>
<td>B Cycling, including cycling to work and during leisure time</td>
<td>✅✅✅✅🗑️</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td></td>
</tr>
<tr>
<td>C Walking, including walking to work, shopping, for pleasure, etc.</td>
<td>🗑️</td>
<td>🗑️</td>
<td>✗</td>
<td>✅✅✅✅✅✅✅</td>
<td></td>
</tr>
<tr>
<td>D Housework/childcare</td>
<td>🗑️</td>
<td>✅✅</td>
<td>✗</td>
<td>✅✅✅✅</td>
<td></td>
</tr>
<tr>
<td>E Gardening/DIY</td>
<td>✅</td>
<td>✅</td>
<td>✅✅✅✅</td>
<td>✅✅</td>
<td></td>
</tr>
</tbody>
</table>

45
Table 6 shows a profile of the participants individually, 1 participant reported less than 3 hours for the first 3 activities (A, B and C), but for all 5 activities (A, B, C, D and E), all participants reported more than 3 hours per week, the lowest activity levels reported were from 3 participants who average 7 hours per week physical activity.

<table>
<thead>
<tr>
<th>Average no of hours of activity by participant</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>A, B and C</td>
<td>3</td>
<td>6</td>
<td>5</td>
<td>3</td>
<td>5</td>
<td>6</td>
<td>2</td>
<td>5</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>A, B, C, D and E</td>
<td>9</td>
<td>10</td>
<td>11</td>
<td>8</td>
<td>7</td>
<td>11</td>
<td>7</td>
<td>8</td>
<td>7</td>
<td>8</td>
</tr>
</tbody>
</table>

vii Your feelings about your body
Table 7 shows the scoring for the SPAS, 4 participants did not complete this part of the questionnaire (3, the sheet was missing from their questionnaire) and (1, did not complete the sheet). No participants reported low SPA and 2 reported high SPA

<table>
<thead>
<tr>
<th>Social Physique Anxiety Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Results</td>
</tr>
<tr>
<td>Score</td>
</tr>
<tr>
<td>No of participants</td>
</tr>
</tbody>
</table>
viii About your energy levels
None of the participants completed this section as the sheet was not attached to the questionnaire.

5.2.c) Physiological measures

i BMI
BMI’s were in the range from 24.8 to 61.4. Two participants had a BMI in the normal range (<=24.9), 2 were overweight (BMI 25–29.9) and 6 obese (BMI>=30).

ii Bio-impedance
The information was not made available for bio-impedance; it is unknown if it was not completed or not provided.

iii Fitness Test
The information was not made available for a fitness test; it is unknown if it was not completed or not provided.

5.2.d) Qualitative Measures
Information for 11 potential research participants was made available to the researcher, of which 2 did not respond to 2 requests for an interview and 1 further contact was made and an appointment set up, but the respondent was unavailable at the date and time agreed and further attempts to contact were unsuccessful.
Semi-structured interviews were carried out with the research participants described in chapter 4:

- 1 x ASA aquatics officer (ASARAO)
- 1 x Slimming world group leader (SWGL)
- 2 x participants who completed the programme (PC1 & PC2)
• 2 x participants who commenced but did not complete the programme (NC1 & NC2)
• 1 x ASA Health and participation officer (ASAHPO)

From the semi-structured interviews conducted with the research participants, there were seven main emerging themes about the programme (i) overall opinion the programme, (ii) reasons for low uptake, (ii) reasons for low participation (iii) pool support and facilities, (iv) popular aspects, (v) perceived benefits (vi) opportunities for development. These themes are all broadly related and linked to the participants on whether to take part in the programme or not and perceptions of the supporting participants. There is overlap between some of the themes for example ‘reasons for low participation’ and ‘pool support and facilities’ and all of the first six themes contribute to the ‘opportunities for development’.

i Overall opinion of the programme,
The response to the programme concept was positive as demonstrated in Box 1, SWGL and ASARAO who are both supporting roles rather than participants both appraised the programme as a ‘principle and concept was fine’ ‘fantastic idea’ and ‘attractive’ and SWGL reported a higher level of interest levels than expecting even though ASARAO expressed concerns about the ‘barriers of the participation’. It also appealed to PC1 and PC2 as existing swimmers, ‘because I swim quite regularly anyway’ and ‘swimming might give me that extra boost’.

ii Reasons for low uptake,
The reasons for low uptake are demonstrated in Box 2. PC1 described ‘apathy’ by the rest of the group members. SWGL describes limiting offering the programme to only one group from a choice of two of the larger groups, ‘those groups were a good size’, ‘she chose the Monday group’ when there were also other groups available, but also expressed concerns about the information offered ‘when are we going to get the correct information’ and the lack of follow up ‘said she would come and talk to the group again and I haven’t heard anything since’ even though ‘so many people that were really interested’. ASARAO felt the uptake was limited by not encouraging the
iii Reasons for low participation,

The reasons for low participation have been listed separately from the reasons for low uptake since there were initially participants who signed up, but then did not commence or continue with the programme as demonstrated in Box 3. Three key reasons are identified in this section from the transcripts were either: follow up support from the ASA reported by PC1, PN2 and SWGL, ‘he then was supposed to come back’, ‘he didn’t contact me for 2 weeks’, ‘I just wanted some help early on’, and ‘I think she was getting a little bit exasperated’; the support from the pool reported by PC1, PC2 and SWGL ‘I don’t think they really know what was going on’, ‘they just looked at me blank’, ‘other people had been in and had got the same response’, ‘they did not seem to know anything about it’ and ‘there were communication problems all over’. Finally cost was a deterrent in some cases reported by PC2, E1 ‘swimming only and not pool aerobics’, PN1, ‘it was too much money for us to do it’, and SWGL ‘expecting pay as you go’, ‘upfront membership fee of £60’.

iv Pool Support and facilities

There are numerous comments referring to the pool and the facilities which can contribute to either reasons for low uptake or opportunities for development, they have been listed separately in box 5 and include comments from both completing and non-completing participants PC1, PC2, PN1 and PN2 as well as supporting comments from ASARAO, these include the reception by the pool which ASARAO considers ‘the key is those first visits’ and ‘staff are warm friendly patient and sympathetic’, however the experiences ranged from unsupportive ‘no clue what to do about the physiological checks, and suggested I do them myself’ to completely supportive ‘next day I saw the manager….he said I really want this to work’.
The availability of the swim sessions range from a positive response for the timing and availability of sessions ‘even the older ladies do not have any excuse’, ‘I just then go to the adults only session’ to a negative response for timing ‘I think 9-10pm is a bit late really, and usage of the pool ‘...... I said I have had enough and can’t stick this’. The changing facilities were a factor for PC2 and PC2, E1, ‘I know you feel a bit vulnerable’, ‘How embarrassing’

v  Popular aspects,

The popular aspects of the programme are described in box 4 by participants PC1 and PC2 and there is one supporting comment from ASARAO who experienced the benefit of one of the participants, ‘she got a lot out of it’. The most popular aspects of the programme perceived by the participants were the cost incentives, ‘if you go more than twice a week you are saving money’, ‘really good offer’, they were committed to the programme because they had signed up for something ‘I pushed myself to do more’, ‘because I had signed up for this project’, determined to see it through’ and the diary helped with the motivation, ‘cause I was writing it down’ and ‘it was good to have the swim diary’. Also extra incentives offered to PC2 ‘if you want to use the sauna as well’.

vi  Perceived benefits

The benefits of the programme are described in box 5 and are restricted to the only participants PC1 and PC2 who have described the benefits as ‘best form of exercise, ‘exercises every part of your body’, ‘felt more fitter in myself’, ‘enjoying going and looking forward to it’, ‘it is relaxing’, ‘fitness levels rose even after those first couple of weeks’, ‘ it is peaceful’, ‘it reduces stress a little bit’,’ noticing the tops of my arms my shoulders particularly were looking toned’, looking slimmer and looking fitter’ and ‘got to the stage where I was enjoying it’.

vii  Opportunities for development

There is overlap between the opportunities for development and the themes already discussed as can be seen in box 7. Opportunities for development exist for all the previous categories and include some new feedback from all the research
Box 1 - Overall Opinion of the programme

ASARAO - I think the principle and concept was fine, I think the amount of people that signed up were pretty poor but I think that there were underlying reasons why that was really,

ASARAO - understanding the barriers of the participation to people from slimming world, embarrassment, confidence, self-esteem belief and that sort of thing and um. you know.. the rarity for someone to come along with that ability to you know what, get stuck in and give it a go

PC1 - I think I was the only one who took it up from our group I don’t think anyone else did…Yes…. because I swim quite regularly anyway I just did as an incentive to make it keep going as I have to fill in this diary…..okay…. it made me keep going

SWGL - when the literature became available in the group I said look who is interested can you put your hand up if you are interested and then ANONYMOUS will give you the literature and the amount of hands that went up I was amazed to be truthful with you and I thought there would be half a dozen hands but I reckon there were about 20 members that were interested…

SWGL -I have to say I think it is an absolutely fantastic idea and if it all comes off in other groups if is fantastic

SWGL -I think it was already attractive.. okay… it was when the members picked the phone up it was the aftercare right that was the point it went well it went well in group the information was there it was put over really well the thoughts of doing it I think it was all there it was afterwards it was let down

PC2 - I just thought that swimming might give me that extra boost I needed so I had already been 2 or 3 times anyway at …. and then this girl came to slimming world and said about this study that you were doing and I thought oh great that’s brilliant you know that has come at a really good time so I was really keen to do it
Box 2 - Reasons for low uptake

PC1 - the actual programme itself was fine it was not what he was saying no I was surprised by the apathy from the rest of the group yes they kept saying that yes yes they wanted to do this that and the other but when it comes down to it somebody there offering the help and guidance and a bit of coaching and stuff like that they all just couldn’t be bothered hum hum

SWGL - my group on a Monday evening or my morning group which is on a Wednesday I thought those groups were good size and thought they might be receptive and she chose the Monday group which I thought was more convenient at the time

ASARAO - the issue I felt was that if the that if the invitation was clearly about getting the group down to the centre then clearly there would be that group level of support mechanism there and more likely to continue

ASARAO - there were some barriers embarrassment, confidence, self-esteem belief and that sort of thing it was the fact that they were a rarity in terms of the fact that they were self-driven and there wasn’t an issues regarding those barriers as mentioned.

SWGL - she came into the group and spoke to the members and the members were absolutely delighted there were so many people that were really interested

SWGL - I kept asking people when are we going to get the correct information I did not like getting my members excited about something and then finding that they couldn’t do it anyway

SWGL - said she would get back to me and I said look please do not come back to me unless you have got something that you can tell me that we can tell the members that’s concrete information I do not want to keep giving them promises and she said she would come and talk to the group again and I haven’t heard anything since then

ASARAO - it was very hard coming into it cold but that was the way it would be I just wonder if you know in terms of preparation if there were highlighted key leaders or in the group that were up for it so that you know that they could get their group involved okay
<table>
<thead>
<tr>
<th>Box 3 - Reasons for low participation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PC1</strong> - one of the ones he timed me doing two lengths I think it was okay so a bit of a fitness test so he then was supposed to come back and time to do 5 but he has not been back</td>
</tr>
<tr>
<td><strong>PC1</strong> - as far the staff members were concerned I don’t think they really knew what was going on there really</td>
</tr>
<tr>
<td><strong>PC2</strong> - when I got to this swimming baths at Long Eaton they just looked at me blank and they did not have a clue about what I was talking about the girls on reception really I said well I leave and I will make some enquiries and come back later which I did and went back later on they still hadn’t got a clue the manager wasn’t there so I asked to see the assistant manager to see if he was in and he was and he came to talk to me which he did and he said oh I think I have an email about it somewhere really it was all very lacksydazical</td>
</tr>
<tr>
<td><strong>PC2</strong> - in the meantime I understand that other people had been in and had got the same response and then just didn’t bother going back again which is a shame really right</td>
</tr>
<tr>
<td><strong>PC2, E1</strong> - the membership was for swimming only and not pool aerobics.</td>
</tr>
<tr>
<td><strong>PN1</strong> - but we didn’t only because Devon Leisure Centre wanted too much money really yes it was going to be me and my husband and I think they wanted like £60 for each of us and it was just to much money for us to do it</td>
</tr>
<tr>
<td><strong>PN1</strong> - if they had come up with a better offer you know we probably would have done yes</td>
</tr>
<tr>
<td><strong>PN1</strong> - we were on a pay as you go facility okay but then of course it got lighter evenings so we like walked the dog and things like that</td>
</tr>
<tr>
<td><strong>PN1</strong> - I think because it is 2 of in the you and I think if it was an individual it would be alright but if you are paying for slimming world and paying for swimming it is a lot of money each week if it was just one it wouldn’t be so bad but as there is two of you in the family it is a lot like</td>
</tr>
<tr>
<td><strong>PN2</strong> - I didn’t bother which was my own fault really I just wanted some help early on</td>
</tr>
<tr>
<td><strong>PN2</strong> - I was really enthusiastic about it I had been the once I thought about signing up for monthly membership but because he didn’t ring me in those 2 days it was almost that he had forgotten about me so to honest I lost interest</td>
</tr>
<tr>
<td><strong>PN2</strong> - when I met the guy the first time he was going to contact me within the next few days to sort of give me some information and feedback from my initial swim and information about the swim fit yes he didn’t contact me for 2 weeks and by then I didn’t bother okay okay bit disappointed really right</td>
</tr>
<tr>
<td><strong>SWGL</strong> - but then it all started going down hill when the members approached whether by telephone or in person the swimming baths that they were told all this was going on they did not seem to know anything about it right</td>
</tr>
</tbody>
</table>
SWGL - and to be honest I think she was getting a little bit exasperated as well with the swimming baths really as they were at fault I think because the manager of one baths probably didn’t pass the information on to staff and he was on holiday again there were communication problems all over right I don’t think it was set up well enough in advance

SWGL - that they could pay as they went so you were expecting to pay as you go but it was an actual up front membership fee they wanted an upfront membership fee of £60

ASAHPO - we needed a bigger lead in time and I think probably a bit more planning and more buy in from the regional teams

PC2 - we all had to get out because someone had done a pooh so being overweight I felt really quite conscious just standing at the side of the pool right while we were just waiting
Box 4 - Pool support and facilities

ASARAO - anyone coming back to an activity after a long break or never not using it at all, the key is those first visits

ASARAO - it is what I call a receptive pool and that the staff are warm friendly patient and sympathetic and that could be a real winner and I think that is the key to the future relationship

PC1 - I went this morning between 11 and 12 there is an over 50’s session so I went to that okay so even the older ladies do not have any excuse so you cannot say oh there are too many kids around so go to the adults session or the over 50 session

PC1 - this time of year when there are lots of holidaymakers here and children are still in the pool and they have got as much rights to be here as anybody and you cannot get cross with them for getting in the way so I just then go to the adults only session and it is a lot quieter so I can then keep going and going then without people getting in the way

PC2 - at lunchtime were they public swim sessions or early evening 5pm when there weren’t too many people there and that was a general public swim session yes that everybody could attend yes if it was a swim session they have the lanes roped off and you can actually do there is three lanes a slow lane medium and a fast lane and they are roped off

PC2 - I think the whole experience of going into a small cubicle and then being in a changing room with other people and then having to come out into a corridor and put your things into a tiny locker and I know you feel a bit vulnerable

PC2 - in the public changing rooms as I say you come out and you are in like a corridor where the lockers are and there are obviously men and women going past as the lockers are not in the changing room they are outside the changing room right so you have to stand there messing around with your locker in your bathing costume

PC2 - next day I saw the manager as he had come back in to work then lovely man really lovely and he took me in his office and he said I really want this to work you know I want you to enjoy yourself swimming and that his wife was a member of slimming world and we had a nice chat and he said what I will do is if you want to use the sauna as well anytime you can do okay it is not actually part of the membership but you can use it just to make up for your experience

PC2 - possibly having the lockers inside the changing rooms rather than having them outside the changing rooms

PC2,E1 - I have no idea how to work out my bioimpedance and struggled to time my swim as I hadn't got my glasses on in the pool so couldn't see the clock clearly

PC2,E1 - no clue what to do about the physiological checks, and suggested I do them myself
PC2,E2 - The reason for this is because in the public swim area at Long Eaton you have to go out of the changing room to put your clothes in the locker, and then walk through the pool area to get to the swim lanes. You then have to pay again for the locker if you want to have a shower and wash your hair ... thus repeatedly going into to main corridor where the lockers are. How embarrassing! If using the sauna you can use a towel or a robe when exiting the changing room and then go directly to the swim area. The lockers are situated within the facility and you can access them at any time without cost.

PC2,E2 - What would be really helpful to me (and other women in my situation I guess) would be a swim and sauna package.

PN1 - but I think 9-10pm is a bit late really that 9-10 in the evening yes

PN1 - yes I think I would and it is personal like if they had it about 8-9 session that would be better I think

PN1 -what didn’t help was the last time I went swimming we only had half the pool and I don’t mind having half the pool because they had like the swimming club in the other half then they had three individual learners in our half of the pool plus two from swimming clubs going hell for leather up and down as well right it was like … for 40mins and I said I have had enough and can’t stick this and we got out
Box 5 - Popular aspects

ASARAO - one in particular of my candidates she got a lot out of it but she was self disciplined and motivated

PC1 - I was already had a swim membership where you paid for it monthly I think it is about £16 per month so if you go more than twice a week you are saving money now

PC1 - I probably I would have gone maybe once or twice but I have pushed myself to do more okay and I have been going Monday and Wednesday and Friday and on Tuesday I have been doing Aqua Aerobics as well ....okay ......okay so I have been pushing myself harder to do more

PC1 - I think I cannot be bothered to go today and stuff like that but doing this has made me focus more and made me do it cause I was writing it down so I could probably continue to keep a diary actually and see if I can improve on times and distances and stuff like that

PC1 - uh no not really my daughter has been going with me so we have been trying to keep up with each other but she does shift work so she could not sign up to do it which because she never knows when she will be able to go but except for this time we got something to aim for we were doing the same distances and just improve the time so had a bit of support and encouragement from her

PC1 - writing it down again that like in what Slimming World do as well like writing down your food diary and stuff like that gives you the motivation to keep going as well okay same sort of thing really yes okay but because I have had this official looking diary thing to fill in it has made me then oh yeh yeh I have to go to fill anything in on that one and yeh I got to go and do something

PC2 - because I actually only a couple of weeks before started swimming again on a regular basis

PC2 - because I had signed up for this project and thought I have signed up for it and have paid £15

PC2 - came to slimming world and said about this study that you were doing and I thought oh great that’s brilliant you know that has come at a really good time so I was really keen to do it and I think because I was so keen which is one of the reasons I persevered yes

PC2 - I just feel that I needed to up the exercise a little bit more because I was at a little bit of a standstill

PC2 - it took me a while to feel the benefit if you know what I mean right and to feel as if I wanted to go in the first two weeks I would say do I do I really want to go swimming you know yes and I was having to force myself to go

PC2 - it was a really really good offer as well it was £15 if as you know for the month right instead of the normal rate of £18.50
PC2 - it is nice to look back and see how I did struggle those the first couple of weeks right and I also recorded how many lengths I was doing okay and how many lengths I was doing without stopping and it is interesting to see how my fitness level s rose even after those first couple of weeks so yes it was good to have the swim diary

PC2 - my membership will finish the this week and asking me if I wanted to renew it and say that they will waive the £23 that they charge for the starter membership you know so all I will have to pay is the £18.50 for the month lovely okay so I am really pleased with that and I have emailed her back to say I want to do that

PC2 - so yes it was really good experience and I am so glad that I did it because I think that If I hadn’t have signed up for the programme for the three months with just going to bramcote? When I felt like it I probably would not have stuck it out right okay so because I signed up for this project and was determined to see it through

PC2 - next day I saw the manager as he had come back in to work then lovely man really lovely and he took me in his office and he said I really want this to work you know I want you to enjoy yourself swimming and that his wife was a member of slimming world and we had a nice chat and he said what I will do is if you want to use the sauna as well anytime you can do okay it is not actually part of the membership but you can use it just to make up for your experience
Box 6 - Perceived benefits

PC1 - it is the best form of exercise so I can't do this and I can't do that so I am a complete wreck as well you know I get joint pains and one of the disc in my back is breaking up so I get a lot of pain in my back and my hip but you do not get it with swimming you can do the exercise and there is no the water supports you yeah but if you can swim it is one of the best forms of exercise

PC1 - it is the only exercise that I actually do um mainly because of joints and joints and stuff like that and less stress on the joint that because it exercises every part of your body when you are doing it so it is the first all round exercise that I can do I have never been a runner for any other kind of exercise I am built for comfort not speed so the water is ideal

PC2 - but then after two weeks I had started to feel a bit more confident and had was swimming about 10 lengths or so without stopping and felt more fitter in myself sand a lot better and was loving going into the sauna as well

PC2 - I felt more confident and I was enjoying going and looking forward to it and saying I am off for a swim and off I would go I was really into it so yes I really am into it

PC2 - it has replaced the sitting down for an hour okay reading a book right okay basically I would not have been doing anything not if I didn't go swimming just sitting around relaxing okay in a way it is relaxing anyway going swimming because as I say when I go in the sauna it is quite nice but I am only sorry that this membership now taking out I will see how I get on with it unfortunately does not include the sauna

PC2 - it is nice to look back and see how I did struggle those the first couple of weeks right and I also recorded how many lengths I was doing okay and how many lengths I was doing without stopping and it is interesting to see how my fitness level's rose even after those first couple of weeks so yes it was good to have the swim diary

PC2 - when I go swimming I like to go it is peaceful if you know what I mean when you are swimming in the water it is like it reduces your stress a little bit you know right and it is nice just to have that time to have your own thoughts and swim

PC2 - yes I was noticing that the tops of my arms my shoulders particularly were looking toned right and you know that when you loose weight you get that little wing thing under your arm at the top... yes I do.... the fat there I noticed that was tightening up as well and just being in the pool and after 4 weeks I was swimming 32 lengths which is half a mile without stopping you know I was just so proud of that achievement and that it makes you feel so much better when you have done something like that
PC2 - you get to chat to people as well in there and a lot of them were asking my why I had joined and what I was doing and I told them about slimmer’s world they all sort of after a couple of weeks when they got to know me saying oh how are you doing you are looking slimmer and looking fitter and that was really encouraging for me

PC2 - I got passed the not wanting to go stage or forcing myself to go and got to the stage where I was enjoying it so
Box 7 - Opportunities for development

ASARAO - I believe there is a large group of interest who are very interested in aqua fit particular going down well in my patch at the moment is Aqua Zumba and I think I tend to think what I am doing is what you would call a facilitator you know I say to the pools I used for the Aqua Zumba here is an Aqua Zumba instructor, form that relationship and get some activities going

ASARAO - I was speaking to one of the group organiser about 6 miles down the road and she was telling me about the exercise instructor who was part of the slimming world group ok and basically what she did she took along to her local leisure centre 50 – 80 individuals to take part in dedicated sessions for slimming world participants it wasn’t just about the website, slimming but aqua fit but these were dedicated sessions but from that initial introduction 50 – 80 of the participants actually took out Memberships with that centre

ASARAO - I would recommend inviting the group to two distinct sessions one of the main structures of the session along the lines of swim fit aquafit they get a feel of the session….there is a degree of personal choice of what I like to do and you know what I love lane swimming so I am going to sign up for swim fit and enjoy or you know what that’s not my bag so I am going to sign up for aqua fit right

ASARAO - you have got the key things that are important you got the leader or the individual in the group or body in it, all have got the receptive pool and organisation and it you have got those key things and they make the initial greeting and look at the potential of dedicated session I think that it will be a real massive possibility of developing usage of the pool

ASAHP0- biggest dropouts were females of that particular age group 35 up and over so it was an obvious choice

ASAHP0- but looking back on it again that is to do with timescales and time constraints in pulling it together and I think internally we need to have more buy in from our regional teams to be successful

ASAHP0- I think there probably needs to be a little working group get together locked in a room several months before we would have Slimming World the ASA regional representatives if need be and whether it is a local authority or two local authorities or private or trust operated pool that sort of group together so everybody is aware of what they are doing and all of them coming from it together rather than it being a little bit bitty in places

ASAHP0- it is unfriendly sessions are not at particularly the right time and when they are we not get value for money

ASAHP0- one of the keys points is the timing and the time constraints that we had to pull it together
ASAHPo- we need you to be prepared to possibly move one or two sessions to accommodate these people and we may need to look at training or retraining members of your staff

ASAHPo- what is actually happening at the pool and the pool environment as well as the pool programme and the activities being on at the right time for those people it is like a journey isn’t it from the receptionist being happy aware people are coming

PC1 - I have been doing Aqua Aerobics as well

PC1 - if you go on your own you just pouttle along at your own pace but having somebody there does help and in terms of sort of maintaining this level of activity

PC1 - when he did come he gave me a few pointers on style and how to improve stroke and stuff like that and I have never actually had any proper guidance on different strokes but he gave me a few pointers and that has helped

PC2 - at lunchtime were they public swim sessions or early evening 5pm when there weren’t too many people there and that was a general public swim session yes that everybody could attend yes if it was a swim session they have the lanes roped off and you can actually do there is three lanes a slow lane medium and a fast lane and they are roped off

PC2 - came to slimming world and said about this study that you were doing and I thought oh great that’s brilliant you know that has come at a really good time so I was really keen to do it and I think because I was so keen which is one of the reasons I persevered yes

PC2 - I just feel that I needed to up the exercise a little bit more because I was at a little bit of a standstill

PC2 - if they could offer a swim and sauna because I think people that are over weight like things like the sauna right because you can go in there and you can cover up a little bit if you know what I mean and put a towel around you and it is not embarrassing it is something that you can do yes to relax without it being and I think it adds to the experience really makes it more pleasure able when you go swimming oh I think I will go for a swim I will do so many lengths and then I can go into the sauna and relax

PC2 - it has replaced the sitting down for an hour okay reading a book right okay basically I would not have been doing anything not if I didn’t go swimming just sitting around relaxing okay in a way it is relaxing anyway going swimming because as I say when I go in the sauna it is quite nice but I am only sorry that this membership now taking out I will see how I get on with it unfortunately does not include the sauna
PC2 - next day I saw the manager as he had come back in to work then lovely man really lovely and he took me in his office and he said I really want this to work you know I want you to enjoy yourself swimming and that his wife was a member of slimming world and we had a nice chat and he said what I will do is if you want to use the sauna as well anytime you can do okay it is not actually part of the membership but you can use it just to make up for your experience

PC2 - possibly having the lockers inside the changing rooms rather than having them outside the changing rooms

PC2,E1 - I was told that the cut off date is today, so anyone who goes tomorrow will not be able to do it

PC2,E2 - Further, I would like to say what a pleasurable experience this has turned out to be. After the initial first week glitch, I enjoyed every visit to the pool ... feeling welcomed by the staff and getting to know people in the sauna who encouraged me with my weight loss. Again this is another positive attribute

PC2,E2 - What would be really helpful to me (and other women in my situation I guess) would be a swim and sauna package.

PN1 - yes I think I would and it is personal like if they had it about 8-9 session that would be better I think

PN2 - I didn’t bother which was my own fault really I just wanted some help early on
5.3 Case Studies
A swim diary and post questionnaire were returned for PC1, but they were not received in time to be included in this study.

5.4 Discussion of results
This results section presents the available results from pre-questionnaire from the original study, but there are no post-questionnaire results available to provide case studies. Instead a large amount of qualitative information has generated seven emerging themes to provide an insight into:

1. Why were the recruitment rates so low
2. Why did participants who signed up not continue with the program
3. Emerging themes offering insight to a more attractive offering.

These are the key results which will inform the discussion and provide an insight to any influential elements of the programme which may be recommended for implementation in a future programme or pilot study.
6 Discussion

6.1 Introduction

Following a reorientation of the original study due to the low take up, sufficient information required to fully appraise the study was not made available and some of the expected data failed to materialise at all or time to be included, this has limited the ability of the study to fully evaluate the programme. Since the reasons behind this are also endemic of the underlying causes of the low recruitment, they will be covered as part of the main discussion. This discussion will cover the limited quantitative data available and then focus more on the outcomes from the qualitative information.

6.2 Audit Data

6.2.a) Recruitment and attendance rates

The response rate to the study was very low, of the members who did express an interest and signed up, 8 out of the 10 members subsequently did not participate and the recruitment of slimming world members to this programme was shown to be unsuccessful. However, the 2 participants who did sign up both completed the 12-week programme.

The low uptake may reflect an ineffective recruitment strategy, an unattractive programme offering or a combination of both, but it could also be a reflection on the wider participation in swimming as reported by Sport England. The 2005/06 survey reports only 2% of adult population swim enough to derive a health benefit from swimming on its own (i.e. 12 times in 4 weeks), and a decline in female swimmers. Swimming is also reported as a habitual activity; therefore if you have a swimmer they are likely to swim more often.

http://www.sportengland.org/research/active_people_survey/active_people_survey_1.aspx

6.2.b) Pre and Post Questionnaire

The characteristics of the slimming world members, who expressed an interest, depict a white Caucasian female population predominantly overweight in the 45-54 age group, with a range of educational attainment from secondary to postgraduate. Previous studies report individual-level determinants such as socioeconomic status and educational attainment as the only demographic factors associated with baseline activity levels (Steptoe et al., 2000). The population cannot be generalised to the wider slimming world population due to such a low sample size, however the population does have similarities with the well educated, Caucasian population described in the NICE effectiveness of public health interventions briefing which discovered common attributes for interventions to increasing physical activity.


The reasons cited for joining the programme were prioritised by health related items rather than social related items. This is interesting data from a population which uses ‘IMAGE’ therapy (Individual Motivation and Group Experience) as a motivating session to help members with their weight loss challenges and demonstrates in the participating population, health was a stronger correlate for physical activity than social interaction. Previous studies have reported awareness of risk factors of current behaviour as insufficient to motivate behaviour change for health benefits (Price et al., 2011) however this could indicate the existing health status of the participants, their physical ability to partake in other types of exercise, which limits their choice of activity and their knowledge in terms of the potential benefits of aquatic exercise. Specifically in the case of the two completing participants, both reported joint problems.

The ‘feelings and confidence levels’ about aquatic exercise data could indicate the programme is attractive to participants with a high level of self-efficacy for this type of activity, again this is apparent in the two participants who did complete the programme, they were both existing swimmers and chose swimming as
their choice of aquatic activity. Self-efficacy has been reported as one of the strongest and most consistent associations with physical activity behaviour (Trost et al., 2002) and swimming unlike other forms of exercise requires a set of specific skills (Koury, 1996, Meredith-Jones et al., 2011).

General physical activity levels in the participants were gained by domestic lifestyle rather than purposeful exercise; current guidelines for increasing levels of physical activity report the easiest to maintain and most acceptable to adopt, are those forms that can be incorporated into everyday life such as active transport (e.g. walking and cycling) (DOH, 2009, DOH, 2011). A recent study reported a lifestyle program including walking and cycling was effective in increasing physical activity, since the activities were easily integrated into the daily routine (Opdenacker et al., 2008). Slimming world also promote building up activities in stages by finding enjoyable activities which include the family.


6.2.c) Physiological measures

Physiological measures for BMI were available at baseline and there were participants in the normal, overweight and obese range. Previously, obesity has been reported as a barrier to physical activity particularly in obese women and there are associations observed for females between ‘too fat’ as a barrier and being: ‘to shy/embarrassed’; ‘being too lazy/not motivated’; and ‘not being the sport type’ (each barrier, p<0.05) (Ball et al., 2000) (Ball et al., 2000). The same study recommends encouraging easily achievable programs of regular low to moderate-intensity activity as useful to overcome embarrassment about participation and suggests non-competitive social activities such as aquatic exercise to address the specific needs of overweight women.
6.2.d) Qualitative measures

Fundamental to a successful recruitment campaign for this programme was the mutually-beneficial relationships between the ASA, Slimming World, the local authorities as well as the attractiveness of the programme offering to Slimming World members.

To understand the reasons behind the low uptake, there is a need to establish whether it was the recruitment strategy, the programme offering or influences from both, which failed to recruit participants. In order to successfully do this, the qualitative feedback will be discussed in terms of the ‘key players’ and their involvement in the programme, i.e. the completing participants, the non-completing participants and then the supporting functions which include the ASA Health and Participation Officer (ASAHPO), an ASA regional aquatics officer (ASARAO) and a slimming world group leader (SWGL).

i Completing Participants

The two completing participants were existing swimmers who understood the benefits of the activity, and suitability in relation to their personal health concerns. For them, the programme provided an opportunity to increase their physical activity through swimming, for which they had high levels of self-efficacy. They were motivated by the initial support from the ASARAO, attracted by the cost incentive, committed to the duration of the programme, allowed to set their own goals, self-monitored their activity and were undeterred by the initial negative reception from the pool and then later encouraged by the positive experience.

These positive attributes mirror some of common attributes identified in a review of successful physical activity interventions which are; advice for behaviour change, goal setting and self-monitoring and these participants continued even though some of the other success attributes were missing such as; cognitive and behavioural factors, ongoing verbal support, intervention follow-up and non
This study did not fully explore the cognitive and behavioural factors associated with the participants adoption of the programme, if a theoretical framework had been applied such as the transtheoretical model of behaviour change, which states people are at different stages of readiness to change and long-term heath behaviour changes require multiple actions and adaptations. In the case study of PC2, the perceived stage of change was advanced enough to commit to change, accept help and support to change behaviour. Motivation levels and self-efficacy were also advanced enough to outweigh some of the potential barriers for relapse such as the less receptive pool staff and the pool facilities (e.g. changing room layout and cost of the locker rooms), and availability of swim sessions).

Ongoing verbal support and intervention follow-up were not catered for as part of this programme, however the swim diary was commended by both participants as a useful tool for monitoring progress and motivation. Neither participant reported using the online swim-fit facility, although one reported being aware of it. This would have provided a free, on-line support system and a monitoring of progress. There are currently no studies available which evaluate this programme, however a recent RCT walking intervention on middle aged women reported setting a daily goal and immediate reporting on progress (using a pedometer) promoted an increase in physical activity (Pal et al, 2009) and a similar study required a combination of goal setting and calendars to increase daily activity in a population with previously no interest in a formal exercise program (Tudor-Locke et al, 2008, De-cocker et al, 2008).

The most successful aquatic interventions are an instructor led, a structured activity, for a set number of sessions and times per week. In this study, there was nothing available specifically for members of slimming world,
that was not already in place and available to the general public, which raises the question, was there really a programme offering or was this just an opportunity to promote aquatic activity? After all, what the 2 participants did was swim, an activity they had been doing prior to the programme, albeit, they reported doing more swimming and they monitored their progress

\[ ii \] Non-Completing Participants

This feedback, even though derived from only 2 people, identifies the undeveloped nature of the supporting relationships with the ASAROA or partnerships with the local pool required to correctly resource the project start-up.

There was an expectation of support from the regional ASARAO which was available initially but then withdrawn due to conflicting priorities. This was a key resource in the initial recruitment phase in developing interest, attracting and recruiting for the programme, all Slimming world members were influenced on the strength of the original briefing from the ASAROA. Following sign-up, potential participants were lost when this support was no longer available and the interested members did not have the correct information or support to commence the programme and the result was a loss of confidence in the programme.

Evidence from both clinical and community intervention studies show that programmes which are instructor led, monitor progress and have ongoing support are more successful, have higher participation and adherence rates \[^{1}\] \[^{2}\] and post intervention, the activity has decreased, suggesting a need for a booster or continued contact. \[^{3}\] \[^{4}\] A pre-programme partnership with the local pool facility, with agreed procedures for introduction of new members and the cost structure were absent in this programme. Several examples of feedback alluded to the pool facility being unaware of the programme and potential participants were discouraged by an unreceptive facility.

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The literature on community-based recruitment efforts is much less extensive than in clinical setting and recruitment of individuals with lower fitness levels is a challenging task, however, a study recruiting adults to an aquatic exercise class made use of a toll-free number and participants were encouraged to call for more information. In addition, the recruitment flyer included the local information about the facility, aquatic exercise available, and cost. (Spencer et al., 1998).

Similarly, because the costing structure had not been agreed, this allowed opportunities for potential participants to perceive a lack of value for money.

Cost is one of the main barriers to participation in physical activity. (Trost et al., 2002, James et al., 2008)

A community based intervention to promote physical activity in women demonstrated there were existing community networks in place which could be readily mobilised (Wen et al., 2008). There are a number of primary care physical activity referral schemes (PARS) available for a range of health benefits including overweight and obesity and they have reported some clinically significant weight loss (Jolly et al., 2010). They offer an initial consultation for the current price of a prescription and then a subsidised attendance at the local public facilities for a set period of time (e.g. Cheltenham borough council RE-ACTIVE scheme, 12 weeks @ £2 per activity), which in terms of value for money has a competitive advantage over any of the incentives offered by the participating pools in this study.

https://guide.glosnhs.net/guide/index.php/record/detail/138998
This programme was not developed following a consultation process with the target population. This would establish the interest levels or preferences for types of physical activity in advance of developing and introducing a programme (Taylor et al., 1998). It should also have included involvement with members of the target group from the outset to understand the specific needs. Instead the programme offering was limited to the existing facilities available to the general public and the objectives of the ASA to widen participation in aquatic activity.

Research guidelines recommend a thorough assessment of needs, attitudes and preferences prior to the implementation of a programme, with barriers such as cost, motivation, transportation or child-care minimized or prevented in advance (Taylor et al., 1998). A recent physical activity referral scheme showed women were keen to participate, but time, cost, transport and childcare prevented access to the scheme (James et al., 2008). Without this initial consultation, the barriers effecting participation in this population were not identified and the opportunity to problem-solve and remove or reduce the barriers prior to programme commencement was overlooked (Moore et al., 2003).

This study remit only includes members who signed up. The SWGL and the participating members reported an informal level of interested from other members; this study does not evaluate these reasons for not participating. Previous studies have looked to bridge the gap between high interest and low uptake through tailoring to preferences, providing professional support, enhancing self-efficacy and combating barriers (Ussher et al., 2007).

### iii Supporting functions

Similar themes emerged in the feedback from the supporting functions, which strengthens the case for the validity of the emerging themes from such a small selection of research participants.
The enthusiasm from the ASAHPO facilitated many aspects of this programme. These include the initial discussions with Slimming World and the university; provision of a complete list of available pools, the facilities and cost incentives available, the slimming world groups within the area, the development of the marketing material to support the programme and the initial instructions to the ASARAO’s. However, the programme relied on the availability of the ASARAO’s and this relationship was not agreed in advance. This was evident in the ‘optional’ support from the regional areas, where only 4 out of 8 regions expressed an interest and the decreasing level of support from the ASARAO’s prior to and during the programme. This demonstrated a lack of accountability within the regions for the programme. Although they are all part of the same organisation, the ASAROA’s work for a regional manager and conflicting priorities limited the resource availability, hence, direct impact on the recruitment and support to the programme.

ASARAO’s also had initial enthusiasm to support the project, but in the EM region, the lack of a supportive pool prevented the ASARAO from making any further progress and then a 4-week absence prevented access to information for research purposes. The partnership with the local authority is another example of a premature partnership which should have been established in advance, this would have ironed out the costing, service offering and ability to welcome participant, therefore, preventing the negative feedback from potential participants put off by unreceptive facilities.

The SWGL had a by standing role rather than an active part in the process, which was apparent by the restriction of groups available to the ASARAO. A clearly defined supporting role from Slimming World and the group leader would have provided potential assistance to the members in terms of re-enforcing the benefits of adopting aquatic activity. Without any accountability established for the participation levels, the SWGL saw the programme as an optional participation rather than an actual requirement of their role.
Programme resource constraints from the supporting functions were acknowledged with respect to time and availability of support. ASAHPO recognised the lack of established partnerships with the regional teams, local authorities and slimming world and the time restriction to support the lead into the programme. The availability of the regional teams and conflicting priorities, impacted on the initial launch of the programme and the collection of the limited post programme data and information.
6.3 Conclusion

Due to strict time constraints for the programme and a lack of correctly established robust partnerships in place at the start of the study, it was not possible to increase the number of participants, and the opportunity for more significant finding was greatly reduced. In addition, unclear accountabilities and responsibility for data management, greatly limited the availability of the post-programme research data. Evaluation of the programme as originally planned in the methodology was compromised and this study is unable to fully establish from the lack of information supplied, whether it was the recruitment strategy which failed or an unattractive programme offering or a combination of both.

In summary, aquatic exercise is a suitable type of exercise activity for an overweight or obese population. Therefore, at the outset, promoting this type of activity to Slimming World members seemed like a good idea. However, this study has established an aquatic activity offering was only feasible to existing swimmers and a simple promotion of local facilities, with the potential of a preferential incentive for slimming world members was not a feasible offering in its current format for this population.

In spite of this, feedback from non-participating members and support functions are positive about the feasibility of a specific offering for Slimming World members where a welcoming pool facility, offering a choice of activities, with a support network in place to introduce and support the members at an attractive cost would be worth further investigation.
6.4 Strengths and Limitations

Two high profile corporate organisations, the ASA and Slimming world have an interest in the preliminary findings from this study. This study is unique in that it was adapted from an initial quantitative design to a re-orientated qualitative design, in order to benefit from the opportunity to discover reasons for low participation, rather than feasibility of the programme, even though the information available for research was very limited.

Several factors limit the generalizability of the study, firstly, the small number of participants who agreed to participate in the programme of which only 2 completed it and secondly, it was only possible to interview a small number of research participants; they were only interviewed once, by telephone and additional themes may have emerged had more time been spent with the participants and if the contact had been direct. However, there was commonality of responses which does suggest the most important themes emerged.

Also additional themes may have emerged if a selection of slimming world members who were made aware of the programme, but did not show any interest were included in the research participants.

Important factors associated with the recruitment of slimming world members to a water-based offering were identified and these can be used as a basis to research further the recruitment potential of this population and develop a more attractive programme offering.
6.5 Recommendations

Prior to any further programme development, it is essential to develop a protocol for a consultation process. Focus groups should be completed with a representative sample of Slimming World members, to establish the interests and preferences for types of physical activity and perceived barriers to participation within this population.

The cognitive and behavioural factors associated with adoption of the programme should be explored and an appropriate theoretical framework should be adopted.

Once these are established, there needs to be an identification of potential partnership opportunities who can provide access to the activities, which at this point may include the local authorities and corporate organisations such as the ASA.

It is recommended that provision of local availability of services is a topic which can be included in the slimming world groups and this can be a contribution from the members themselves rather than the responsibility of slimming world or an invitation to the local leisure facility to present to the local group what facilities are available.

Until the actual interest levels and numbers of are established, it is not possible to recommend further development of a programme specifically for Slimming World members. Also in customising to a specific population there is automatic exclusion of other populations, therefore there needs to be a cost-benefit justification for doing so. However, if aquatic exercise was shown to be an interest area with a high level of support then the recommendation would be the following feasibility study:

1. Identification of an urban pilot area, with access to local authority facilities, slimming world presence and support from an ASA regional aquatics officer.
2 Set up a ‘New responsibility deal’ working party consisting of a representative from each of the following:
   a. Local facility
   b. Slimming world
   c. New Responsibility deal partnerships i.e. Sport England, ASA as appropriate
   d. Independent project team leader
   e. Project researcher,

3 Identify and review what is currently available i.e. Leisure memberships, Walking programs, PARS and assess the suitability for slimming world members and a gap analysis of activities not currently provided for.

4 Modify or develop the existing available resources to remove perceived barriers perceived and attract members from the overweight or obese population.

5 Review the opportunity (cost benefit justification) to identify a selective programs or custom offering to members from the overweight or obese population.

Finally, where a need is established, and a suitable programme offering identified, and the resource requirements for availability have been identified and agreed to, then the working group can continue to a project planning phase for a pilot study.
7 Appendices
### Appendix 1 - Table 1 - Prominent Studies of Physical Activity in Health

**ABBREVIATIONS:** CVD=cardiovascular disease; CHD=Coronary heart disease; T2D=Type 2 diabetes; HR=Hazard ration; OR=Odds ration; CI=confidence interval; PA=physical activity;

<table>
<thead>
<tr>
<th>Author &amp; Year</th>
<th>Title and Study Design</th>
<th>Participants (n=)</th>
<th>Main PA and Overweight/Obesity Findings</th>
<th>Implications</th>
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<tr>
<td>Arsenault, 2010</td>
<td>Physical inactivity, abdominal obesity and risk of coronary heart disease in apparently healthy men and women</td>
<td>21729 45-79 years</td>
<td>Compared with active woman with low waist circumference, the multivariate-adjusted HR for future CHD in women: Inactive-waist &gt;85, 4.00 (95% CI, 2.04–7.86) Inactive-waist &lt;76, 2.35 (95% CI, 1.14–4.86) Active-waist &gt;85, 3.63 (95% CI, 1.72-7.68) Every BMI category, inactive participants have higher waist circumference than active participants. Physical inactivity and abdominal obesity were both independently associated with an increased risk of future CHD</td>
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| Hu G, 2004 | Joint effects of physical activity, body mass index, waist circumference and waist-to-hip ratio with the risk of cardiovascular disease among middle-aged Finnish men and women | 18,892 25–74y | Age- and study year-adjusted HR of CVD compared with low PA moderate, 0.62 (95% CI, 0.47-0.81) high 0.51 (95% CI, 0.37-0.71) (p < 0.001) HR of CVD compared with normal weight BMI among lean, 1.24 (95% CI 0.4-2.98) overweight, 1.23 (95% CI 0.9-1.68) obese 2.04 (95% CI 1.5-2.78) (p < 0.001) Regular PA and normal weight can reduce the risk of CVD. BMI had a significant direct association with the CVD risk among women even though a slightly increased risk was found among the leanest subjects. BMI rather than waist circumference or WHR predicted CVD risk, BMI > 30 or PA alone increased the risk of CVD by 56% and 70%, respectively, and those women who had both high BMI and were inactive had a double risk compared to the reference group. PA seems to have an independent effect on CVD risk, whereas obesity increases the risk partly through the modification of other
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<tr>
<td>Hu G, 2005</td>
<td>The effects of physical activity and body mass index on cardiovascular, cancer and all-cause mortality among 47212 middle-aged Finnish men and women</td>
<td>47212 F=24684 M=22528 25-64y at baseline</td>
<td>Compared with both active and non-obese group, the HR for CVD, cancer and total mortality: active-obese 2.18 (95% CI, 1.83–2.61) inactive-non obese 1.52 (95% CI, 1.18–1.97) inactive-obese 2.10 (95% CI, 1.86–2.38)</td>
<td>Regular PA and normal weight are both important indicators for a decreased risk of mortality from all causes, CVD and cancer. PA had a strong independent effect on mortality, whereas the effect of BMI was partly mediated through other obesity-related risk factors.</td>
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<td>Hu FB, 2004</td>
<td>Adiposity as compared with physical activity in predicting mortality among women</td>
<td>116564F 30-55 years</td>
<td>multivariate RR normal-inactive 1.55 (95% CI, 1.42-1.70) obese-active 1.91 (95% CI, 1.60-2.30) obese-inactive 2.42 (95% CI, 2.14-2.73)</td>
<td>Adiposity predicted incr risk of death independent of PA. Higher levels of PA beneficial at all levels but did not eliminate higher risk of death assd with obesity. Modest weight gain, independent of PA assd with higher risk of death.</td>
</tr>
<tr>
<td>Rana et al, 2007</td>
<td>Adiposity Compared With Physical Inactivity and Risk of T2D</td>
<td>F=68,907 30-55y at baseline</td>
<td>Risk of T2D increased progressively with increasing BMI (P &lt;0.001) and waist circumference (P &lt;0.001) and with</td>
<td>Both waist circumference and PA are significant predictors of T2D. Waist circumference is stronger than...</td>
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<tr>
<td>Author &amp; Year</td>
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<td>Knowler WC, 2002</td>
<td>Type 2 Diabetes in Women Prospective Cohort Study Nurses’ Health Study</td>
<td>3234</td>
<td>decreasing physical activity levels (P&lt;0.001). In joint analyses of BMI and physical activity, using normal-active as the reference, RR of T2D Obesity and PA independent contributors to risk of T2D. Obesity is the greater risk</td>
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<tr>
<td>Diabetes Prevention Program Research Group, 2009</td>
<td>Reduction in the incidence of type 2 diabetes with lifestyle intervention or metformin Diabetes Prevention Program Research Group Randomized controlled trail</td>
<td>2766</td>
<td>Incidence of diabetes cases per 100 person-years in the placebo, 11.0 metformin, 7.8 lifestyle 4.8, Reduction in incidence metformin, 31% (95% CI, 17 to 43%) lifestyle 58% (95% CI, 48 to 66%)</td>
<td>T2D can be prevented or delayed in persons at high risk for the disease. Relative contributions of dietary changes, increased PA and weight loss not determined The lifestyle intervention was significantly more effective than metformin in high risk</td>
</tr>
<tr>
<td>Diabetes Prevention Program Research Group, 2009</td>
<td>10-year follow-up of diabetes incidence and weight loss in the Diabetes Prevention Program Outcomes Study Follow-up</td>
<td>2766</td>
<td>T2D Incidence rates cases per 100 person-years in the placebo, 5.6 metformin, 4.9 lifestyle 5.9, Reduction in incidence since 10 yr randomization metformin, 18% (95% CI, 7 to 28%) lifestyle 34% (95% CI, 24 to 42%)</td>
<td>T2D incidence rates in this follow-up after DPP study fell to equal those in former lifestyle group and incidence rates similar between treatment groups Cumulative incidence of T2D lowest in lifestyle group. Prevention or delay of diabetes with lifestyle or metformin can last 10 years</td>
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<tr>
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<td>Lee, 2010</td>
<td>Physical Activity and Weight Gain Prevention</td>
<td>Prospective Cohort Study</td>
<td>Women’s Health Study</td>
<td>F=34,079</td>
</tr>
<tr>
<td>Li, 2006</td>
<td>Obesity as compared with physical activity in predicting risk of coronary Heart disease in Women.</td>
<td>Longitudinal Nurses’ Health Study</td>
<td>F=88393 30-55y at baseline</td>
<td>For each unit of BMI increment, risk of CHD was increased by 8% (95% CI, 7% to 9%).</td>
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<tr>
<td>Lindstrom,</td>
<td>Lifestyle intervention and 3-year results on</td>
<td></td>
<td>522</td>
<td>After 1 and 3 years, weight reductions were: intervention - 4.5 and 3.5 kg</td>
</tr>
<tr>
<td>Author &amp; Year</td>
<td>Title and Study Design</td>
<td>Participants (n=) F/M, Age</td>
<td>Main PA and Overweight/Obesity Findings</td>
<td>Implications</td>
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<td>2003 diet and physical activity</td>
<td>Randomized controlled trial The Finnish Diabetes Prevention Study (DPS)</td>
<td></td>
<td>control - 1.0 and 0.9 kg Measures of glycemia and lipemia improved in the intervention group. During 3 years of the study, subjects developed diabetes (P = 0.0001, χ² test) intervention - 22 subjects (9%) control - 51 subjects (20%)</td>
<td>A highly significant reduction in diabetes incidence Non-pharmacologic Lifestyle intervention can prevent or at least postpone T2D in high risk people</td>
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<tr>
<td>Mora et al, 2007</td>
<td>Physical Activity and Reduced Risk of Cardiovascular Events Potential Mediating Mechanisms</td>
<td>27055</td>
<td>The risk of CVD decreased linearly with higher levels of activity (P for linear trend &lt;0.001). PA of &lt;200 kcal/wk age- and treatment-adjusted HR of CVD associated with 200 to 599, 0.73 (95% CI, 0.61 to 0.86) 600 to 1499, 0.68 (95% CI, 0.57 to 0.80) ≥1500, 0.59 (95% CI, 0.49 to 0.71)</td>
<td>PA reduced risk of CVD The risk of CVD decreased linearly with higher levels of activity. Beneficial effect of PA stronger for CHD than CVD Potential underlying mechanisms identified known risk factors such as inflammatory/hemostatic factors, blood pressure</td>
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<tr>
<td>Tuomilehto, 2001</td>
<td>Prevention of type 2 diabetes mellitus by changes in lifestyle among subjects with impaired glucose tolerance Finnish Diabetes Prevention Study Group</td>
<td>522</td>
<td>After 1 and 2 years, mean weight reductions were: intervention - 4.2 and 3.5 kg control - 0.8 and 0.8 kg, (P&lt;0.001 for both comparisons between the groups) During 4 years of the study, subjects developed diabetes intervention-27 subjects (11%) (95% CI, 6.15%) control - 59 subjects (23%) (95% CI, 17.29%) Cox regression analysis of all person-years accumulated, incidence of diabetes intervention was 58%</td>
<td>A highly significant reduction in diabetes incidence Small weight lost, yet substantial difference in incidence of T2D in intervention and control. The low odds ratio for T2D among 5 % loss of initial weight reveals the importance of relatively small reduction in weight in the prevention of T2D Non-pharmacologic Lifestyle intervention</td>
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<td>Sullivan, 2005 Obesity, Inactivity and the prevalence of diabetes and diabetes related cardiovascular co-morbidities in the US 2000-2002.</td>
<td>Cross-sectional</td>
<td>68500</td>
<td>lower in the intervention group than in the control group (HR, 0.4; 95% CI, 0.3 to 0.7; P&lt;0.001). The incidence of diabetes was 54% percent lower among women (HR, 0.46; 95% CI, 0.26 to 0.81 percent; P=0.008).</td>
<td>T2D prevented or delayed by changes in lifestyle at high risk</td>
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<tr>
<td>Weinstein, 2008 The joint effects of physical activity and body mass index on coronary Heart disease risk in women.</td>
<td>Prospective Cohort</td>
<td>38987 F</td>
<td>As BMI increased the risk of CHD increased BMI 25-30, HR 1.64 (1.39-1.93) BMI &gt;+30, HR 2.13 (1.77-2.56) after adj for confounders (p&lt;0.001)</td>
<td>Incr in BMI predicted incr risk of T2D and T2D&amp;CVm independent of PA</td>
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<td>Women’s Health</td>
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<td>Compared with active -normal weight individuals, the multivariate-adjusted HR overweight-active 1.54 (95% CI, 1.14-2.08) obese-active 1.87 (95% CI, 1.29-2.71)</td>
<td>Lower levels of PA and obesity strongly and independently associated with T2D and T2D&amp;CVm inactive-normal individuals are at lower risk than obese-active individuals, therefore does not support the fitness level overrides body fatness</td>
</tr>
<tr>
<td>Author &amp; Year</td>
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<tr>
<td>Weinstein, 2004</td>
<td>Relationship of physical activity vs body mass index with type 2 diabetes in women. Prospective Cohort Women’s Health Study</td>
<td>37878F +45 years</td>
<td>normal–inactive 1.08 (95% CI, 0.84-1.39) overweight-inactive 1.88 (95% CI, 1.46-2.42) obese-inactive 2.53 (95% CI, 1.94-3.30)</td>
<td>HR of DM by BMI Overweight 3.22 (95% CI,2.69-3.98) Obese 9.06 (95% CI, 7.6-10.8), P&lt;0.001 Meeting PA guidelines had a lower risk of diabetes HR 0.73 (0.65-0.83) For overall activity (kcal/wk compared with the least active first quartile, the multivariate-adjusted HRs were: 2nd Q, 0.91 (95% CI, 0.79-1.06) 3rd Q, 0.86 (95% CI, 0.74-1.01) 4th Q, 0.82 (95% CI, 0.70-0.97) (P =.01) The multivariate-adjusted HRs were normal- inactive 1.15 (95% CI, 0.83-1.59) overweight-active 3.68 (95% CI, 2.63-5.15) overweight-inactive 4.16 (95% CI, 3.05-5.66) obese-active 11.5 (95% CI, 8.34-15.9) obese-inactive 11.8 (95% CI, 8.75-16.0)</td>
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### Appendix 2 - Table 2 - Reported studies of Aquatic Activity.

BMI = Body Mass Index, (weight in kilograms divided by the square of height in metres); WHR = waist-to-hip ratio (waist circumference divided by hip circumference). vs. = versus; mins = minutes; S = swimming; W = walking; resp. = respectively ** = only abstract available; Incr = increased; decr = decreased; assoc = associated; circ = circumference; QoL = quality of life;

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<tr>
<td>Wouters et al, 2010</td>
<td>Healthy obese (16-65 yr) 2M, 13F</td>
<td>Uncontrolled trial</td>
<td>6-wk supervised 2/week x 60 mins</td>
<td>Fat mass and waist circ decr 1.4 kg (P = .03) and 3.1 cm (P = .005), resp. The 6-Min Walk Test incr 41 m (P = .001). Three scales of the Impact of Weight on QoL -Lite questionnaire improved: physical function (P = .008), self-esteem (P = .004), and public distress (P = .04). Incr perceived exercise benefits (P = .02) and decr embarrassment (P = .03) were observed.</td>
<td>Aqua-jogging in obese adults was assd with reduced body fat, waist circ and improved aerobic fitness and QoL but not weight loss in a small study of 15 participants</td>
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<tr>
<td>Cox et al, 2010</td>
<td>Healthy sedentary women (50-70 yr) n=116</td>
<td>Uncontrolled randomised trial</td>
<td>24-wk supervised, 24 week unsupervised swimming (S) and walking (W) 3/ week x 60 mins Trained fitness instructor Average water temp 26.5°C moderate-intensity</td>
<td>After 6 months, 1.6-km walk time decreased in W and S, improvement in W (1.0 vs 0.6 minute, P = .001). In S, distance swum in 12 mins increased (78.1 vs -2.2 m, P = .021). Waist and hip circ, W vs S (80.8 vs 83.1 cm and 101.8 vs 102.4 cm; P = .023 and P = .042, respectively) Insulin area under the curve (oral glucose tolerance test) (5128 vs 5623 µU/L 120 min), P b .05) were lower with S. 12 mths, fitness was maintained. W reduced body weight by (1.1 kg, P = .039) and lower total and low-density lipoprotein cholesterol (0.3 and 0.2</td>
<td>Compared with W, S improved body weight, body fat distribution and insulin in the short term and body weight and lipid measure long term</td>
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| Meredith-Jones et al, 2009 | Overweight Obese, sedentary 18 women (2 pre-men. 16 post-men) | Uncontrolled trial          | 12-wk Aquatic circuit-training with flotation belt 3 day/week, 60 min Experienced instrucor Average water temp 29oC | Reductions in WC, WHR, and HC (p<.05) Weight and BMI were not significantly altered (p>.05).  
Upper body strength of 20% and knee extension and flexion significantly improved by 32% and 33%, resp (p<0.05).  
O2 peak improved training by 13% |
| Cox et al, 2008          | Healthy, sedentary women (50-70 yr) (n=116)        | Uncontrolled randomised trial| 24-wk supervised, 24 week unsupervised swimming (S) and walking (W) 3/ week x 60 mins Trained fitness instructor Average water temp 26.5oC Moderate- intensity | 100 women (86%) completed 6 months and 86 (74%) continued for 12 months.  
Retention rates were similar for both exercise at 6 and 12 months. |
| Bocalini et al, 2008     | Healthy sedentary 50 women (62-75)                 | RCT                           | 12-wk supervised Land (WL) vs Shallow water (WE), 3/week, 60 min Trained fitness instructor Average water temp 29oC 70% of their baseline age-predicted HR maximum | WE = significant reduction of HR at rest by 10%  
WE and WL enhanced VO2max by 42% and 32%, respectively.  
no signif change for bodyweight in either program  
WE improved lower and upper body flexibility. WL only affected lower body flexibility, upper body unchanged.  
WE lower body flexibility 89 |

mmol/L; P = .040 and P = .049, respectively).  
In addition, circuitbased deep water running was effective at reducing WC and WHR, despite no change in BMI.  
S or W programs with supervision over 6 months result high retention and adherence rates by highly motivated older women over 12 months  
Both WE and WL increase or maintain physical fitness in older women.  
WE exercise more effective compared with WL exercise.  
No change in body weight
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<tr>
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<tr>
<td>Tσουρλου et al, 2006</td>
<td>22 women (60-75 yr)</td>
<td>RCT</td>
<td>24-wk supervised aquatic training (AT) program in shallow water 3/ week x 60 mins Trained fitness instructor Average water temp 30oC AT = light to moderate intensity (65% HRmax increasing to 80% JR max)</td>
<td>Significantly superior compared to WL.</td>
<td>Resistance aquatic exercise increase upper and low strength and functional performance</td>
</tr>
<tr>
<td>Gappmaier et al, 2006**</td>
<td>Obese 38 women</td>
<td>Uncontrolled randomised trial</td>
<td>Aerobic exercise in water versus walking on land and walking in water at the shallow end of the pool for weight loss</td>
<td>All groups showed significant reductions in body weight, (5.9 kg), percent body fat, (3.7%), and skinfold and girth measurements, occurred in all groups, no significant differences between groups. all three groups lost an average of 13 pounds in weight</td>
<td>W is as effective as W for weight loss no differences in the effect of aerobic activities in the water versus weight-bearing aerobic exercise on land on body composition components as long as similar intensity, duration and frequency are used</td>
</tr>
<tr>
<td>Littman et al, 2005</td>
<td>(53-57 yr) W=7944, M=7556</td>
<td>Cohort Study</td>
<td>10 yr study on physical activity intensity, frequency, type and duration on weight change over 10 yr</td>
<td>10yr long term effect of jogging, slow walking, fast walking, cycling and swimming on weight gain</td>
<td>slow walking and swimming were less effective in reducing weight gain</td>
</tr>
<tr>
<td>Pøyhonen et al, 2002</td>
<td>Healthy, active 30 women (60-75 yr)</td>
<td>RCT</td>
<td>10-wk Lower body shallow water RT (Aqua-jogging) vs control 2-3 day/week, 60 min extension and flexion isometric/isokinetic torque varied between 8 and 13% EMGs between 10 and 27% in the exercise group. Quadriceps LCSA of the exercise</td>
<td>Aquatic training can be recommended for neuromuscular conditioning in healthy persons</td>
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<tr>
<td>Takushima et al, 2002</td>
<td>Healthy sedentary 30 women (60-75 yr)</td>
<td>RCT</td>
<td>12-wk supervised WEX program, 3 sessions per week, 70 mins per session, Led by trained fitness instructor, Average water temp 30°C, WEX of light to moderate intensity</td>
<td>Increase (P &lt; 0.05) in peak VO2 (12%) and VO2 at lactate threshold (20%). Muscular strength resistance increased significantly at resistance for knee, chest, shoulder and back. Decrease in skin-fold thickness (-8%), low-density lipoprotein (LDL) cholesterol (-7%) and total cholesterol (-11%). 90% adherence to the program.</td>
<td>Improve in cardio-respiratory fitness of health in older women.</td>
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Appendix 3 – Transcripts of semi-structured interviews

Transcript 1 – Aquatics officer, referred to as ASARAO

‘Researcher’ - Hello is that ASARAO yes it is ‘Researcher’, are you okay ASARAO - yes great thanks, I think this is now set up and recording you and so really I think I just need to introduce myself Okay I am ‘Researcher’ just to say and I am the ‘Researcher’ from Bristol University collating the information for the Slimming World Study and really I just wanted to talk to you to learn what you thought about the programme and if you had any feedback, I can try and prompt you with a few questions or you can just talk to me of your general feedback, I am recording it so I can go back and listen to what you Have said and just our ethics protocol means that anything that we have said here is in strict confidence complete anonymity other than I probably need to identify you as one of the ASA co-ordinators but not by person ASARAO - yep, and is that okay any questions? ASARAO - No no problem at all, okay so really if we start with the overall opinion or feedback in terms of what was tried in getting slimming world members introduced to swimming. ASARAO - I think the principle and concept was fine, I think the amount of people that signed up were pretty poor but I think that there were underlying reasons why that was really,

Okay what would you say then was the main reasons be

ASARAO - I think apart from the ASA the key to success with organisations like Slimming World is the support mechanism is to go along to an activity with support from group or a friend or partner and the issue I felt was that if the that if the invitation was clearly about getting the group down to the centre then clearly there would be that group level of support mechanism work there and more likely to continue what was expected from my interpretation of the project was the invitation to QHHGHGWREHLQGLYLGXDOVRWKHUHIRUHWKHUHZDVQ¶WPXFKWDNH up.

Okay yes that makes sense, were there any popular aspects of it in terms of the people who did take up the opportunity.

ASARAO - Sorry repeat that,

Were there any popular aspects?

ASARAO - I think there were not many take ups but one in particular of my candidates she got a lot out of it but she was self disciplined and motivated which not being critical but the understanding the barriers of the participation to people from slimming world, embarrassment, confidence, self-esteem belief and that sort of thing and um.. you know.. The rarity for someone to come along with that ability to you know what, get stuck in and give it a go and get the full programme and let me get on with it.. um coming back to my earlier comment saying support your team and if you did succeed there were some barriers embarrassment, confidence, self-esteem belief and that sort of thing it was the fact that they were a rarity in terms of the fact that they were self driven and there wasn’t an issues regarding those barriers as mentioned.

Right okay good, thank you, could anything had been done to increase the participation

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ASARAO - What I tended to do is think the best thing of the project was as in the long term relationship built with the ASA and the Slimming World and to be honest um an example would be I just gave details to a pool in Devon, Ivybridge and basically I met the local facilities person and I said do you know what you have more groups in your area and they were very interested in sort of you know particularly getting involved in swimming and from that initial meeting she emailed me back this week to say basically she’d offered she sent her local group offering out vouchers for free swimming okay which is an example of the leaf scenario that the strength could be that the relationship between what I call that the … effective probable and the effective group.

okay so I understand what you are saying it is not just the Slimming World members, but it is actually how receptive the local facilities are to encouraging Slimming World Members or other people to come along,

ASARAO - yes that’s true but not just for the group yes I think that’s true but anyone coming back to a activity after a long break or never not using it at all, the key is that those first visits

Yes

ASARAO - and it is what I call a receptive pool and that the staff are warm friendly patient and sympathetic and that could be a real winner and I think that is the key to the future relationship

if the pool is receptive and you have a receptive pool and just going back to your point you made on group support with the slimming world members so not just going down actually on your own going with a buddy or going with the actual group or members of the group umm would that be something that which could be encouraged either by the pools or something that could be done with the group

ASARAO - I think massively I think you know to give you an example of not the intervention that I have done regarding the activities that I have done but the activity but the intervention of activity with regards to the slimming world group in terms of swimming activity Having gone around and seen a variety of local groups and organisers in the area I was speaking to one of the group organiser about 6miles down the road and she was telling me about the exercise instructor who was part of the slimming world group ok and basically what she did she took along to her local leisure centre 50 – 80 individuals to take part in dedicated sessions for slimming world participants it wasn’t just about the website,. Slimming but aqua fit but these were dedicated sessions but from that initial introduction 50 – 80 of the participants actually took out Memberships with that centre

Wow

ASARAO - and they are the classic example of you have got the key things that are important you got the leader or the individual in the group or body in it, all have got the receptive pool and organisation and it you have got those key things and they make the initial greeting and look at the potential of dedicated session I think that it will be a real massive possibility of developing usage of the pool but not just that achieve results for the slimming world organisation.

Okay that is very useful information. Good. In terms of when you had to go around the groups and talk about what was planned and how it was going to roll out can you give me some feedback on the materials you had and in terms of the booklet and the presentation etc

ASARAO - obviously I do it very informally because my first …….. power point presentation in terms of in reality being I do not think a realistic………………group in the sense of the group is.(tape stopped)
(Tape started)

ASARAO - If they would want to sign up then or contact me after the meeting

Okay did you feel that worked best or did you think anything else could have been done

ASARAO - I think as I say it was very hard coming into it cold but that was the way it would be I just wonder if you know in terms of preparation if there were highlighted key leaders or in the group that were up for it so that you know that they could get their group involved okay and that then wouldn’t have been coming in cold selling and then you could have a receptive leader who could have said come on guys let’s give it a go and we could go to x y z who is up for it that sort or approach rather than just myself up there telling about them about the project and what it’s about and getting to be honest  

Did the slimming world group leaders know in advance of you going or was it their first time hearing also

ASARAO - I was quite lucky that concept rather than cold calling rang ahead and through my contacts I came across a lead who that worked cross county and worked across Devon and Cornwall which covered all my patches and having contacted her and bounced off an email about the project which gave me a bit of a shimmey really yes It’s about contact you it’s about xy and z you know if you are interested then please me and will be in contact soon

Okay

ASARAO - That might be another person worth talking to get their feedback also

Okay is there anything else that you would like to add

ASARAO - all I would say is this ground the focus of the ASA participation first you don’t want I am still destined from my email participation around contact that I have I am getting interested and receptive calls who want those contact details I tend to rather than just give out the basic details I tend to send out the basic protocol for dealing with the group um so it is not compulsory it just that a guide it is a luxury a bit of a promo to the invitation to that sort of thing you know that I expect the relationship to be on going and any more contact that I can provide in my county hey I up for meeting the group thing with the local pool

great okay just off the top the head the main points that have come across from you have really been about the participation of the pools but the main thing I think which stuck out for me was the main group slimming world group themselves what seems to be happening at the minute is they are going from all the support of the group to almost an individual activity in turning up at the pool on their own and there might be an opportunity there

ASARAO - I think there is something that I haven’t mentioned is that I hate to generalise but I am going to I am sure that a lot of people in participation within this project and are very inter … dedicated programmes however I believe there is a large group of interest who are very interested in aqua fit particular going down well in my patch at the moment is Aqua Zumba and I think I tend to think what I am doing is what you would call a facilitator you know I say to the pools I used for the Aqua Zumba here is an Aqua Zumba instructor form that relationship and get some activities going and that is the sort of type of activity that I personally
the Slimming World group would really buy into I am not saying that not all are female but you can
guarantee that 90 -95%  would buy into those sort of sessions

Okay so rather than just a swimming session more a class based session

ASARAO - think I think it is yes I think it is personal choice in the end you know  I think I talk
about my options I send out to the centres I would recommend inviting the group  to two distinct
sessions one of the main structures of the session along the lines of swim fit aquafit , they get a feel
of the session….there is a degree of personal choice of what I like to do and you know what I love
lane swimming so I am going to sign up for swim fit and enjoy or you know what that’s not my bag
so I am going to sign up for aqua fit right

Okay that’s great feedback um anything else or

ASARAO - no I hope that has been of value for you

That’s been fantastic thanks very much for your time I really appreciate it and so quickly as well

.........................

ASARAO - I really hope the relationship continues as there is a massive opportunity there to
continue and to put it together in the right way thats the key

okay so hopefully if we can get down to some participants we can understand what is going to press
the right buttons um good thank you so much for your time I really do appreciate it

ASARAO - no problems at all that’s great also  thanks for the contact information as well I will try
and contact those people and get their feedback  also .........................’Researcher’ thanks Anon

Brilliant thanks no problem at all thanks bye.

Transcript 2 – Participant Completer 1 referred to as PC1

Hello can I speak to ‘Completer 1’ please, speaking oh hello ........ my name is ‘Researcher’ I
spoke to you earlier on today to ask if I could ring you about the Swimming  programme

PC1 - ah right yes yes you did

It is an okay time to talk to

PC1 - yeah yeah it is fine I was actually  doing a driving lesson rang earlier on when you phoned,

oh okay I am sorry it should’nt take more than maybe 10 – 15 minutes are you okay for that length
of time

PC1 - yeah yeah that will be okay

lovely fine as I said my name is ‘Researcher’.  I am the ‘Researcher’ from Bristol University who
really are looking to collate the information from the Swimming Programme
so I am really I am just trying to talk to people who may have participated in the programme to get some feedback so that we can get to learn all there is to learn about it what you thought about it and how it could be useful for Slimming World members what I just wanted to make you aware that I record this conversation so that I can go back and listen and hopefully pull out any of the useful information and also that because of our Ethics protocol you know anything you say to me is in strict confidence and will remain anonymous is just used for study purposes is that okay

PC1 - yep yep

So really over to yourself if you want to give me your overall opinion of what Slimming World and the swimming programme tried to do would be really useful feedback.

PC1 - Well actually I think I was the only one who took it up from our group I don’t think anyone else did…Yes…. because I swim quite regularly anyway I just did as an incentive to make it keep going as I have to fill in this diary…..okay…. it made me keep going there had been a number of things that held me up part way through okay cause it should have been going for like 12 weeks actually it is the last week this week isn’t it

Yes that’s correct 12th week

PC1 - I did go away for a week in April ah actually it has got down here the 17th June oh no it doesn’t say holiday it says hospital right the first week I managed to go 3 times then I have tried to go 3 times each week okay 2nd week was three times 3rd week was only twice but I did 2 and half hours salsa dancing class as well in the meantime so I have been doing other things not just swimming but there was a number of things that come up where I couldn’t go as my husband had a brain haemorrhage so I was trekking off to Dayleford for a week going back and forth to Dayleford so I just didn’t have time to do anything at all

Oh my goodness I am not surprised

PC1 - swimming wise ah and the I have just come back from two weeks in Tenerife and I did do swimming most days that we were there but as much as I could but two days before we went I was in a car crash so that held things up there a little bit as well

Right you haven’t had but then 2 days while we were away I had food poisoning as well so there were a number of things that got in the way shall we say of what I would have normally been doing swimming

Sounds like it, okay so just clarify that you already swim

PC1 - yeh yeah but I think I cannot be bothered to go today and stuff like that but doing this has made me focus more and made me do it cause I was writing it down so I could probably continue to keep a diary actually and see if I can improve on times and distances and stuff like that

Do you think it was particularly the diary which provided you the motivation to keep going the record of activities?

PC1 - yes writing it down again that like in what Slimming World do as well like writing down your food diary and stuff like that gives you the motivation to keep going as well okay same sort of
thing really yes okay but because I have had this official looking diary thing to fill in it has made me then oh yeh yeh I have to go to fill anything in on that one and yeh I got to go and do something

Okay that is really useful thank you and do you think there was anything um about anything else that you were a slimming world member that encouraged you or made you want to take part in it or was it purely because you liked swimming in any case and it is something that you already do

PC1 - it is the only exercise that I actually do um mainly because of joints and joints and stuff like that and less stress on the joint that because it exercises every part of your body when you are doing it so it is the first all round exercise that I can do I have never been a runner for any other kind of exercise I am built for comfort not speed so the water is ideal

sure um thank you was there anything that you would say that you might have found frustrating about what we are trying to do in trying to encourage Slimming World members to swim or anything that was disappointing or frustrating not of use which might be usual feedback um what about the programme alongside slimming world

PC1 - yes um well I thought there could have been a bit more participation from the other class members I thought that was a bit tight yeh everybody says that want to do this exercise but no body else helped me up on the night when he came right it was you know they say I want to do this swimming and all this exercise and then at the end of it um when he said he was tying it in to see how the two worked together not necessarily as weight loss but toning and all that sort of thing nobody else took him upon it and I thought it was a bit disappoint they way that the rest of the class did but the actual programme itself was fine it was not what he was saying no I was surprised by the apathy from the rest of the group yes they kept saying that yes yes they wanted to do this that and the other but when it comes down to it somebody there offering the help and guidance and a bit of coaching and stuff like that they all just couldn’t be bothered hum hum but I found what Neil did say because I haven’t seen much of him but have had a few emails from him but when he did come he gave me a few pointers on style and how to improve stroke and stuff like that and I have never actually had any proper guidance on different strokes but he gave me a few pointers and that has helped

Did he attend when you were there completing one of your sessions …sorry…. did he come to one of the sessions that you were there …..yes…… Okay did you find that useful?

PC1 - yes he came twice I think …Okay…. I cannot remember I think it was twice okay on one of the first one of the ones he timed me doing two lengths I think it was okay so a bit of a fitness test so he then was supposed to come back and time to do 5 but he has not been back but I think it is probably it is because I think it is the time I go because I go to the evening one adults only evening so that doesn’t start to about 8.30 at night by which time he has been working since about 8am in the morning but it only the time I can get to but yeh what he did help me with has improved my swimming stroke so that was good

Was there any other facility at the pool in terms of support to you to help you with your stroke or to encourage you with what you were doing?

PC1 - uh no not really my daughter has been going with me so we have been trying to keep up with each other but she does shift work so she could not sign up to do it which because she never knows when she will be able to go but except for this time we got something to aim for we were doing the same distances and just improve the time so had a bit of support and encouragement from her okay
as far the staff members were concerned I don’t think they really knew what was going on there really

So having a buddy with you helped motivate you

Yes keep going yes if you go on your own you just poutle along at your own pace but having somebody there does help and in terms of sort of maintaining this level of activity

Now that the 12 weeks are finished is there anything that would keep you going keep motivating you to continue the swimming beyond these 12 weeks

PC1 - well yeh I think I am going to carrying on keeping a diary

Okay so you found the diary useful

PC1 - but I don’t know if I can copy this and put dates on it put it in a little hand diary or something but I think if I can carry on doing that or even fill it in on the food diary on the slimming world food diary….okay… because it helps with the motivation on the diet as well and if I keep filling it in on something like that it will help

Is there anything the Slimming World Group can do to help motivate you to maintain that level of activity?

PC1 - well they do what they call body magical awards which is doing a fitness first one in 15mins of exercise 3 times per week or something like that but you have to do it 4 weeks continuous so the first one is the bronze one and a bit more for the silver one you have to do more than 3 times per week to get silver and then the bronze sorry up gold and that’s only and nobody monitors that they just take your word for it that you do it

So that’s a self report.. yes yes… and have you found that you have replaced existing things that you might have done through doing the swimming or has it been additional to what you would have normally done

PC1 - uh I probably I would have gone maybe once or twice but I have pushed myself to do more okay and I have been going Monday and Wednesday and Friday and on Tuesday I have been doing Aqua Aerobics as well ….okay …..okay so I have been pushing myself harder to do more

so it has helped you increase the level of activity that you do…. yeah yeah…… so that now you have completed the 12 weeks do you think you would recommend it to other friends colleagues other slimming world members or is it something personal to you because you enjoy swimming in any case

PC1 - well I thought I have always tried to encourage people to go anyway because it is the best form of exercise so I cant do this and I cant do that so I am a complete wreck as well you know I get joint pains and one of the disc in my back is breaking up so I get a lot of pain in my back and my hip but you do not get it with swimming you can do the exercise and there is no the water supports you yeah but if you can swim it is one of the best forms of exercise you can people say no I cannot do exercise but can you swim well then there you go it is best thing you can do and there is so many different sessions that you can go to today I have not been this evening because I went this morning between 11 and 12 there is an over 50’s session so I went to that okay so even the older ladies do not have any excuse so you cannot say oh there are too many kids around so go to the adults session or the over 50 session

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Did you find that your local pool helped you do it because it had these sessions particularly for adults only or over 50’s did that help and encourage you to go…?

PC1 - yes yes… definitely especially at this time of year when there are lots of holidaymakers here and children are still in the pool and they have got as much rights to be here as anybody and you cannot get cross with them for getting in the way so I just then go to the adults only session and it is a lot quieter so I can then keep going and going then without people getting in the way

Were you offered any incentives to go by the pool were there any specifics?

PC1 - no… okay… no not as in cutting the costs or anything like that Neil tried to sort something out for us like that but they were not having anything like that but they said that you would have to join and be a member right I was already had a swim membership where you paid for it monthly I think is is about £16 per month so if you go more than twice a week you are saving money now

just a couple of minutes ago you were talked about the benefits of swimming how good it was and how accessible it was for if you have all these joint pains etc do you think there was enough in the information booklet to get that message across to encourage people and to prompt to slimming world members

PC1 - In the session that was delivered by Neil uh it is a while since I have read it actually about 5months ago so I have it on my lap so I will have a quick flip through possibly not actually

Okay I just wondering if there is anything on the information side that would improve or help to attract more slimming world members

PC1 - well I have tried to tell people as much as possible because and our consultant she mentions things every so often when there are new people come because a few years ago probably about 6years ago now I was doing an extreme amount of swimming about twice a day doing a mile a time each time I went because and my friend and I were did the Channel distance

Okay so you are a serious swimmer previously

PC1 - yes but different things happened and it slacked off a bit after I done that and I was busy at work and I wasn’t going as often but when people are saying different things about exercise relating it to the food and she usually tells them about the training that I did and how much weight I lost and not so much the weight I lost but the toning as well yes so it wasn’t just loosing the weight you have to stick to the diet as well to do that but you cannot just keep piling it in you still have to eat sensibly you just cannot cook and leave things out you have to do it both to make it work so she brings it up often to new members I have to say do what I said when I was doing the training so that I you get it through to them but I don’t have the time to do that anymore as I am working different hours now yes

Okay so I think have asked all the questions that I had I had planned is there anything else that you would like to add or anything you can tell me about your experience which might be useful information

PC1 - I do not think so I think that pretty much covers about everything I think
I really do appreciate your time thank you very much and I am sure the feedback will be very useful and I shall look forward to listening to it again and see what I can pull out of it so thank you very much for your time thank you again

Okay thank you.
Hello is that SW1, hello SW1 sorry to address you by your first name I am a Researcher on the slimming world project hi there I was given your phone number to contact and I just wondered could I arrange a time when I could call you to get some feedback please (silent as the tape was not playing sue back) it is the slimming world and swimming project that I think you were invited to I do not expect you to talk now but wondered whether I can arrange a time when I could get some feedback okay that’s fine if you are happy to do so that’s great just before you start SW1 appreciate I just need to make you aware who I am so you know who I am etc I am the Researcher from Bristol University so I am trying to collate any information about swimming and slimming world I need to record this conversation so I can play it and pull out all the key things so I just wanted to make you aware of that and just so that we do have an ethics protocol which means that anything you do say is in confidence and it is anonymous and that we would just use it for the study purposes so I just wanted to reassure you of that and really I am just happy to hear your feedback or I can prompt you with questions …………………..okay (sound now from sue)

SW1 - I was first approached by AO2 you must know AO2.
No I do not personally know her, is she the slimming world or is she
SW1 - she was from the research centre the lady who actually came to speak and spoke to the group doing the swimming alongside the slimming yes she was the lady who came from your department somewhere yes she was from the ASA that’s correct lovely she came into the group and spoke to the members and the members were absolutely delighted there were so many people that were really interested and I really have to say at this point ANONYMOUS was absolutely fantastic right but then it all started going downhill when the members approached whether by telephone or in person the swimming baths that they were told all this was going on they did not seem to know anything about it right and it oh it went on and on to be honest with you and I was getting a little bit tired of it because I kept asking people when are we going to get the correct information I did not like getting my members excited about something and then finding that they couldn’t do it anyway it was all sorted out in the end but the big one was that they were led to believe that they would not have to pay £60 up front for right the whole thing they were told that in fact I spoke to Slimming World and they said they had the same as I did that they could pay as they went so you were expecting to pay as you go but it was an actual up front membership fee they wanted an upfront membership fee of £60 so I spoke to ANONYMOUS and that ANONYMOUS said she would get back to me and I said look please do not come back to me unless you have got something that you can tell me that we can tell the members that’s concrete information I do not want to keep giving them promises and she said she would come and talk to the group again and I haven’t heard anything since then
right okay so are you the slimming world group leader yes a consultant yes so it was actually your group members that they were trying to recruit to the programme yes do you know any of your group members at all that would have gone along and tried to do anything
SW1 - yes I do now I have to try and remember their names as I have 4 groups so there is a specific amount of members yes now who went along Mary Walker to start with she is actually doing it as far as I know okay there is another lady called Lorraine she was very interested in it and I am not sure whether she did it or gave up on it okay I cannot remember to be truthful with you right because I have had quite a few weeks now and I did say at the beginning no that it was not particularly something that I wanted to be involved in because I have too many other things to do… sure… and this was all supposed to be ANONYMOUS coming into the group and then the group contacting ANONYMOUS and it all being done between the swimming baths and ANONYMOUS and the members so I didn’t get really involved in it too much
right okay so just to go back to say what you first said about it which I thought I found really interesting was that initially there was a lot of group interest …yes… and there was potentially some participants there who may definitely may have been interested in taking something up…. 

SW1 - Absolutely when the literature became available in the group I said look who is interested can you put your hand up if you are interested and then ANONYMOUS will give you the literature and the amount of hands that went up I was amazed to be truthful with you and I thought there would be half a dozen hands but I reckon there were about 20 members that were interested… okay…. okay we all know that people might want literature or whether they are going to follow it through is another thing but there was quite a few that were actually interested and some of them just gave up on it

How many members do you have in the group in that group at the moment last week I had in about 50 in?
And you think about 20 put their hands up
About that roughly
Okay was it just the one group that she came to… yes yes…. okay did the members take the literature and was it available to take away
SW1 - yes they took all the literature… yes…. okay as I said ANONYMOUS was very good she asked if there were any questions and very professional and as I said she did offer to come back in fact I would go as to far to say now ANONYMOUS wanted to come to me some weeks prior and I had a death in the family and I just didn’t want to know about anything and I was just doing my groups and that was it….. sure… and I now think it was just as well that I didn’t let her come in those weeks before because if they weren’t prepared when she did come in it would have been even worse …yes 3 weeks prior okay

The enthusiasm was there from your group members and you had a lot of support from ANONYMOUS but you felt that it was let down by the pools themselves

SW1 - yes and also the big one was the pricing issue and pricing upfront there was no mention that they would be having to pay the whole thing all up front right and I think ANONYMOUS was quite surprised about that as well and I know Sliming World and I know when I spoke with them they said that they had no idea right it was too much to expect our members to do right

Thank you that was really thorough is there anything else
SW1 - I don’t think there is anything else but I have to say I think it is an absolutely fantastic idea and if it all comes off in other groups if is fantastic as I do promote we call it body magic you know Yes I am a slimming world member

SW1 - so yes I do promote body magic to the group on a regular basis and I have got four groups as I say and I am only glad that with all this carry on I am glad I only took it in to one group right
And was there any reason why you chose a particular group you chose

SW1 - I said to ANONYMOUS my group on a Monday evening or my morning group which is on a Wednesday I thought those groups were good size and thought they might be receptive and she chose the Monday group which I thought was more convenient at the time
Okay and in terms of you’re thinking it a good idea what things would make it work and what would attract it to your members

SW1 - I think it was already attractive.. okay… it was when the members picked the phone up it was the aftercare right that was the point it went well it went well in group the information was there it was put over really well the thoughts of doing it I think it was all there it was afterwards it was let down
right okay great that’s fantastic feedback thank you really appreciate the time so hopefully I can pull the main points out of that and feed that back to the ASA and slimming world good good thank you very much

SW1 - if you need my help you know where I am
Thank you SW1 thanks very much.
Hello can I speak to PC2 please yes here she is thank you hello is that PC2 yes this is ‘Researcher’ Phoning you back…okay thanks for phoning me back…. I just need to introduce myself as the ‘Researcher’ from Bristol University who is collating the information from the Slimming World and Swimming programme… yes try saying that when you have had a few… if you have got sort of 10 minutes to give me some feedback that would be super… yes yes…. just a couple of things that I need to make you aware of I think I have already mentioned I am going to record the conversation which allows me to go back and listen to it afterwards yes and our ethics protocol really means that anything said and anything you say is in confidence and anonymous and is just used for the study purposes so I want to make you aware of that also okay I am quite happy to just let you talk or I have got a few questions as prompt but really but I just wondered whether you could just give me your overall feedback on the Slimming and Swimming that you may have been involved in

PC2 - what on the actual pool itself on the condition of it or on my experience or how I felt about it the whole experience really?

what I am interested in is how a swimming programme might be attracted to members of slimming world so really anything you can offer in terms of how it was presented and how it was promoted how you were attracted to it and how you got involved your own personal involvement your personal experience down to the detail of the pool the presentations to the groups anything which could give us an insight into this programme you know can something be done for slimming world members in terms of swimming

PC2 - right well to be honest to begin with it was a bit a disaster right I do not know if you were aware of what happened I went to I was quite keen to do it because I actually only a couple of weeks before started swimming again on a regular basis yes and ….baths which is also near to us I just feel that I needed to up the exercise a little bit more because I was at a little bit of a standstill I have lost 2 and half stone… wow…. and was finding it difficult to get below that 15 stone that I was at… yes… and I was walking a lot and doing different exercises and going on the Wii fit at home and things like that but I just thought that swimming might give me that extra boost I needed so I had already been 2 or 3 times anyway at ….. and then this girl came to slimming world and said about this study that you were doing and I thought oh great that’s brilliant you know that has come at a really good time so I was really keen to do it and I think because I was so keen which is one of the reasons I persevered yes when I got to this swimming baths at Long Eaton they just looked at me blank and they did not have a clue about what I was talking about the girls on reception really I said well I leave and I will make some enquiries and come back later which I did and went back later on they still hadn’t got a clue the manager wasn’t there so I asked to see the assistant manager to see if he was in and he was and he came to talk to me which he did and he said oh I think I have an email about it somewhere really it was just very lacksydazical you know um so I rang the girl that came to the slimming club as I had her mobile number and sort of left her a message and said they do not know what I am talking about and looking at me as if I am from another planet and I understand then that she contacted the manager the next day as he was on holiday that particular day and ironed out a few things with him you know but in the meantime I understand that other people had been in and had got the same response and then just didn’t bother going back again which is a shame really right because it was a really really good offer as well it was £15 if as you know for the month right instead of the normal rate of £18.50 okay and when I actually got to see the manager which was the next day as I went into see him oh no what I did I sent him an email yes sent email to someone at the university then he emailed me back it was a professor um right professor Ken Fox… yes… but he explained that he was in Arizona on holiday and that he had just all he done was set up the programme sort of thing right so then he directed me to the right person and I sent an email off about my experience but the whole thing was quite funny really because the
first time I went I went into the changing room and got changed and got to the locker and it was 20p for the locker right fortunately I had got 20p in my purse but if I hadn’t had I would have been in a bit of a mess because no-one had told me yes put my 20p in and put everything in shut the door locked it then realised I still had my handbag on the back of my shoulder oh no so I thought oh god so I opened the locker shoved my handbag in and you do not get the 20p back and I haven’t got another 20p so I found one of the pool attendants so I said look I have done a really silly thing and explained and he said oh don’t worry I will try and sort it out for you so he got a 20p out and put it in for me closed it again and then I realised I still had my glasses on ……so I said to the pool attendant I do not know whether you can give me another 20p or is there somewhere I can put my glasses so he pointed me in the direction of this covered thing by the side of the pool it was absolutely filthy full of old handkerchiefs and all other sorts of stuff yuk but anyway I put my glasses in there because I am not going to complain as it was my fault really I had been in the pool what 10mins and we all had to get out because someone had done a pooh so being overweight I felt really quite conscious just standing at the side of the pool right while we were just waiting you know it wasn’t their fault it was just how it happened and circumstances so we were allowed to go back in about 10mins after sitting by the side of the pool but I can laugh about it now but at the time it was quite horrendous for me and it was a wonder that I went back really yes so that was the start of it so the next day I saw the manager as he had come back in to work then lovely man really lovely and he took me in his office and he said I really want this to work you know I want you to enjoy yourself swimming and that his wife was a member of slimming world and we had a nice chat and he said what I will do is if you want to use the sauna as well anytime you can do okay it is not actually part of the membership but you can use it just to make up for your experience

So there was an extra incentive there

yes so you know I saw him quite a few times after that when I went in and it took me a while to feel the benefit if you know what I mean right and to feel as if I wanted to go in the first two weeks I would say do I do I really want to go swimming you know yes and I was having to force myself to go because I had signed up for this project and thought I have signed up for it and have paid £15 but then after two weeks I had started to feel a bit more confident and had was swimming about 10 lengths or so without stopping and felt more fitter in myself and a lot better and was loving going into the sauna as well because for a start you had paid a £1 for your locker and you got your £1 back that was okay important and that was another thing when you had paid your 20p and lost it you if come out of the pool and wanted to wash your hair and come out of the shower you either have to put another 20p in to keep you things safe or leave them in the changing room while you go into the shower okay so that was a bit awkward so because I could use the sauna it was nicer as I could go in and out of the locker as I needed it and you get to chat to people as well in there and a lot of them were asking me why I had joined and what I was doing and I told them about slimmer’s world they all sort of after a couple of weeks when they got to know me saying oh how are you doing you are looking slimmer and looking fitter and that was really encouraging for me

So you felt physically better within a few weeks

I did yes I did yes I felt more confident and I was enjoying going and looking forward to it and saying I am off for a swim and off I would go I was really into it so yes I really am into it so still but I haven’t been for the past two weeks and we have been on holiday but I loved it so I must say I have really missed it

Right is there anything do think specifically changed you from not wanting to go to you know wanting to go and actually enjoying it do you think it was the fact that you started to feel fitter and more confident
yes definitely yes I was noticing that the tops of my arms my shoulders particularly were looking toned right and you know that when you lose weight you get that little wing thing under your arm at the top… yes I do…. the fat there I noticed that was tightening up as well and just being in the pool and after 4 weeks I was swimming 32 lengths which is half a mile without stopping you know I was just so proud of that achievement and that it makes you feel so much better when you have done something like that…. absolutely yes…. so yes it was really good experience and I am so glad that I did it because I think that If I hadn’t have signed up for the programme for the three months with just going to bramcote? When I felt like it I probably would not have stuck it out right okay so because I signed up for this project and was determined to see it through I got passed the not wanting to go stage or forcing myself to go and got to the stage where I was enjoying it so.

Do you think the upfront costs may have helped you think “I have invested in this as well” would this have been a factor

PC2 - possibly yes yes particularly as you have paid for the membership as well you feel that you ought to use it but then I could have done that at bramcote you know that was an option there if I had wanted it okay but yes I think it is like if you sign up for a gym or something isn’t it if you pay for it then you make use of it don’t you

Yes did you use the swim diary?

PC2 - yes I did yes I have got that

How did you feel about the swim diary?

PC2 - I did not think there was enough information enough space to write down how you were feeling okay I have had to keep it to one or two little words like a challenge or found it hard or something like that I could have done with something like writing a little bit more of how I was feeling at the time okay or how difficult it was at the beginning

Okay

PC2 - but I really mean the swim diary was a record of how many times I had gone wasn’t it yes.. yes.. but it would have been nice to have a bit more space to comment..

Okay would you have continued it without the swim diary did that make any difference in terms of keeping it?

PC2 - it is nice to look back and see how I did struggle those the first couple of weeks right and I also recorded how many lengths I was doing okay and how many lengths I was doing without stopping and it is interesting to see how my fitness level s rose even after those first couple of weeks so yes it was good to have the swim diary

Okay I am just going through my questions so has it changed your view about swimming at all do you think it is something that you will maintain

PC2 - yes definitely funnily enough I had an email yesterday from ANONYMOUS at Long Eaton swimming baths telling me that my membership will finish the this week and asking me if I wanted to renew it and say that they will waive the £23 that they charge for the starter membership you know so all I will have to pay is the £18.50 for the month lovely okay so I am really pleased with that and I have emailed her back to say I want to do that so I will go this weekend and get it sorted out so yes I will carry on with it
okay and I think the message coming across from you the most frustrating and most disappointing thing was at the pool and the facilities when you first started when you first went there you mentioned that nobody knew about it and

PC2 - yes okay when I went to the slimming club the Tuesday after Sue my consultant asked me how I got on with the swimming and did anyone else go and of course other ladies in the group said they went and nobody knew anything else about it so we didn’t bother right okay and I said well I did and I actually copied Sue in on the email I had sent so that she knew that I had had problems and then she said are you going to persever with it though and I said yes I am as I want to do it and then we encouraged these other women to go back and try again so I said you really want to go back and try again oh I know what else I did I did pool aerobics

I was going to ask you did you any other aerobics did you do the swim fit at all

PC2 - no what is the swim fit?

Okay that is the British Gas online

PC2 - oh yes I did yes I went online and looked at that right

that’s supposed to be like a work out for the pool and that is something that the swimming pools are doing at the minute and that you have the choice of lane swimming doing something like aqua aerobics aqua fit aqua Zumba or actually making use of the swim fit programme which will actually tell you what to do in the pool to actually increase your fitness levels and you tone etc as you build up yes did you look at that

PC2 - yes I looked at the exercises classes

Did you try that?

PC2 - yes I went to this aerobics class I think it was about the second week I was swimming and I found it ever so hard as I have got a bad knee so I have to be careful of what I do and I do not want to jolt it or anything although I quite enjoyed the first part of the aerobics it got to be quite difficult towards the end and the next day I ached all over right okay so I did not go again as it was not my cup of tea but

You obviously got a lot out of the swimming

PC2 - yes I really enjoyed my swimming

Okay have you found that swimming has replaced something else that you do or is it in addition to what you were doing already

PC2 - it has replaced the sitting down for an hour okay reading a book right okay basically I would not have been doing anything not if I didn’t go swimming just sitting around relaxing okay in a way it is relaxing anyway going swimming because as I say when I go in the sauna it is quite nice but I am only sorry that this membership now taking out I will see how I get on with it unfortunately does not include the sauna so I if I want to use the sauna I shall have to pay for each time I go which is £6 or something or take the full membership which is £28 I think which is quite a difference yes and that lets me use the gym everything and I am not bothered about the gym okay if they have got
a membership where I could just use the pool and the sauna that would be absolutely fantastic but they haven’t got that so

Right okay do you think there is anything else that could be done to attract other slimming world members

PC2 - um well yes just what I have said if they could offer a swim and sauna because I think people that are overweight like things like the sauna right because you can go in there and you can cover up a little bit if you know what I mean and put a towel around you and it is not embarrassing it is something that you can do yes to relax without it being and I think it adds to the experience really makes it more pleasure able when you go swimming oh I think I will go for a swim I will do so many lengths and then I can go into the sauna and relax

Do you think people are put off sorry that is my daughter shouting in the background that okay let me shut the door do you think that a lot of people are put off by having to put a swimming costume on when they are over weight

PC2 - yes definitely yes okay I think the whole experience of going into a small cubicle and then being in a changing room with other people and then having to come out into a corridor and put your things into a tiny locker and I know you feel a bit vulnerable…..really do you think….where as when you are in the sauna you have your towel around you yes okay you can come out of the changing room with your towel around you and then just put your stuff in the locker and then when you are ready to go for a swim just shove your towel on the back of the chair and then go in yes and then you are straight in the pool as well from the sauna and you do not have to go through any public areas or anything

Okay so the layout can be very important there as well

PC2 - yes definitely because when you go in the public changing rooms as I say you come out and you are in like a corridor where the lockers are and there are obviously men and women going past as the lockers are not in the changing room they are outside the changing room right so you have to stand there messing around with your locker in your bathing costume and then you have to walk through the shower bit and then around the pool to get to the swim area you got to right round okay so when whereas you are in the sauna it is the other side and when you come out of the door you are directly in front of the swimming area so it is better

Okay do you think there could be anything better on the facilities on the layout which could attract more overweight people to swim?

PC2 - um I think well yes possibly having the lockers inside the changing rooms rather than having them outside the changing rooms the fact that when you go to bramcote baths is I know that is a different swimming baths when you go the set up is completely different as they have got the lockers in the ladies changing room… right okay…. so you can put your stuff in you know and then you only have a little walk through to get out and you are in the pool.. Okay… it is just that hanging about and especially if you leave your handbag on your shoulder and your glasses on and stuff like that yes

Did you use any specific sessions at the facility other than the aqua aerobics I do not know like maybe did you go to any certain age group or women only or no children or anything or did you swim at your convenience when it was a good time for yourself
PC2 - I tried to mainly use the swim sessions because obviously when the schools are there you cannot go in the pool when the schools are using the pool right so I use the swim sessions obviously which tend to be at lunchtime were they public swim sessions or early evening 5pm when there weren’t too many people there and that was a general public swim session yes that everybody could attend yes if it was a swim session they have the lanes roped off and you can actually do there is three lanes a slow lane medium and a fast lane and they are roped off and then the kids and everybody else that’s in and if they are not actually swimming lengths they just stay in the other bit and don’t bother you but when it was half term it was horrendous because the kids were all there and they have this music there all blasting out at the side of the pool because it was half term and it was a free swim sort of thing and I said to the life guard can you please turn the music down it is really giving me a headache you know it was really really bad and they did turn it down it was still it wasn’t just like when I go swimming I like to go it is peaceful if you know what I mean when you are swimming in the water it is like it reduces your stress a little bit you know right and it is nice just to have that time to have your own thoughts and swim but when you have got music blasting out you can’t think about anything accept just boom boom boom yes so that was a bit off putting I must say okay but now it is the 6 weeks holiday so I presume when I go next week or whenever it will be the same yes

Yes okay that’s lovely I think you have answered most of my questions is there anything else that you might not have covered that you might want to tell us

PC2 - no nothing else I can’t think of anything no

You mentioned and the email that you sent in I do remember seeing it, it was actually passed around to us between myself and ... and etc and would you be happy to use the content of the email in the research

PC2 - yes that’s fine yes because was it Ken Fox I sent it to yes

yes he is the professor it is all interesting feedback because what we are trying to understand is some of the barriers as to why people are going, what makes a programme attractive and what doesn’t make it attractive so all the feedback whether it is an email or talking to you now is really interesting and valuable

PC2 - so yes as I said we got off to a bad start but I am glad that I persevered as I do feel a lot better for it good good yes and I will carry on

lovely okay well it has been great to talk to you well your story is amazing....yes that email.... and I am trying to be an independent ‘Researcher’ but .........I can’t I said to my husband I don’t think I dare send this

no I think that it was great that you persevered really but I know I am sure between your email and the content of our conversation there are some great learning opportunities there so I really do appreciate your time thank

PC2 - good thank and thank you take care bye.
Transcript 5 - Participant Non-Completer 1, referred to as PN1
Hello can I speak with “PN1” please.. Yes sure… it is ‘Researcher’ calling hello is that PN1
PN1 - yes it is
this is ‘Researcher’ calling from Bristol University I spoke to you briefly the other day are you alright for 10 minutes… yes… to talk to you
PN1 -yes because we gave you my number as we were going to do the swimming wasn’t we right okay but we didn’t only because Devon Leisure Centre wanted too much money really yes it was going to be me and my husband and I think they wanted like £60 for each of us and it was just to much money for us to do it we have gone on the odd times but haven’t done it like we should have done it do you know what I mean
Was that for a month’s membership or was that for 3months
PN1 -do you know (asking husband) what did they want £60 it was just the normal amount you pay or something yes I don’t know it was like £27 per month or something like that it was no individual incentive for you to go no… no okay…which was a shame really because it was just like a lot of money ….because we started going like 2 or 3 times a week but it was like too much for both of us to do it you know what I mean
Yes could you go as a pay as you go facility or were you encouraged to sign up
PN1 -no we were not on a pay as you go facility okay but then of course it got lighter evenings so we like walked the dog and things like that right and that sort of thing okay
So it was really the cost that put you off yes… yes really…. if it had been a bit more incentive do you think you may have been more interested in doing it
PN1 -yes I think so yes if they had come up with a better offer you know we probably would have done yes
Yes okay any information that you can give me in terms of your experience you thought about it is very helpful was there anything else that may have put you off or was there anything that attracted you
PN1 - I think what didn’t help was the last time I went swimming we only had half the pool and I don’t mind having half the pool because they had like the swimming club in the other half then they had three individual learners in our half of the pool plus two from swimming clubs going hell for leather up and down as well right it was like … for 40mins and I said I have had enough and can’t stick this and we got out I don’t mind having half the pool but when you have got 3 individuals plus these other 2 I think that was a bit of the icing on the cake as to why we wouldn’t do it as well yes
Is there anything you could think of that might that could be done to attract slimming world members to swimming is there anything the pool could do or slimming world to do to make you go or encourage your interest
PN1 -I don’t know really because I think unless you got like a leisure centre and I know t hat everybody wants to go its later and you have to have the swimming club and the little ones learning and all that and of course then the next one is like a 9-10 session but I think 9-10pm is a bit late really that 9-10 in the evening yes
Is that a specific session for adults or
PN1 -yes that’s late yes adult late okay I know it’s late but like I am ready to go to bed at 10 because Up at 6am in the morning yes
If they had that facility earlier on in the evening do you think you would make use of it
PN1 -yes I think I would and it is personal like if they had it about 8-9 session that would be better I think
Do you have a view on what they need to charge to encourage you to go 2 or 3 times a week which would be the level you would need to go?
PN1 -I think because it is 2 of in the you and I think if it was an individual it would be alright but f you are paying for slimming world and paying for swimming it is a lot of money each week if it was just one it wouldn’t be so bad but as there is two of you in the family it is a lot like
Do you both attend slimming club... yes yes... and would the swimming replace something that you would do currently like you said walking the dog or would it be something that you did in addition
PN1 -it would certainly be something that we would do in addition
Right okay thank you for your feedback
PN1 -I don’t think I was much help no
No it is all useful I really appreciate your time thank you very much thank you
PN1 -thank you bye,
Transcript 6 - Participant Non-Completer 2, referred to as PN2
Hello can I speak to PN2 please… yes hang on a minute and I will pass you over

Hello is that “PN2” … yes it is… my name is ‘Researcher’ I am calling from Bristol University and wondered if I could get a time with you sometime to just get some feedback from you from the Slimming World and Swimming Programme… from the what sorry…. Slimming World and Swimming programme

PN2 - there is no feedback to be honest with you when I met the guy the first time he was going to contact me within the next few days to sort of give me some information and feedback from my initial swim and information about the swim fit yes he didn’t contact me for 2weeks and by then I didn’t bother okay okay bit disappointed really right

Okay is there anything that may have encouraged you

PN2 - yes if he had got back to me in the next couple of days he said it would be in the next day or two to discuss what the swim fit does and regular training programme and things then yes I would have I was waiting for him to contact me and it was 2 weeks and by then to be honest I wasn’t interested

PN2 - sure okay was that the ASA contact or your local pool he was called “ANON” I assume it was the ASA right he met me there and timed me to do an initial swim of 5 lengths or something and then told me he would be in contact in a couple of days with how long it took me and then either about setting goals or to do the swim fit because they do actual sessions at the local pool and he never phoned me back oh okay but he did but it was 2 weeks

Yes by then you felt that you had lost interest

PN2 - yes so I didn’t bother which was my own fault really I just wanted some help early on because I had the initial swim and he said it would be a couple of days and then that turned in to the two weeks

Would that be an important factor that would encourage you to go if there was somebody there to help you get started and explain

PN2 - yes definitely because he said that he would contact me in the next couple of days and I was really enthusiastic about it I had been the once I thought about signing up for monthly membership but because he didn’t ring me in those 2 days it was almost that he had forgotten about me so to honest I lost interest

Okay so thank you very much for that feedback

PN2 - that’s okay you are welcome…….thank you then…..thank you……. Bye.
Transcript 7 – ASA Health Participation Officer, referred to as ASAHPO

If I can pick up on anything else I will give you a quick call can’t I, yes okay. Just basically a few questions about the programme I do not want it to go on forever as I have to transcribe it normally I have to do this anonymous it is a bit difficult with yourself but you know it is for the research purposes so although your name won’t be mentioned it would be quite obvious who you are

ASAHPO yes yes I am fine with it don’t worry about it so yes overall feedback slimming world programme for no sorry say that again Slimming World members

ASAHPO I think for us the original idea was a perfect opportunity because we had target specific and the majority of or increased targets or targets in participation and the biggest dropouts were females of that particular age group 35 up and over so it was an obvious choice with the trialling came with so that was why the approach was made to begin with and then it sort of escalated from there to try and look at well actually to become part of the research etc etc um and plus each of the regions we were going through what we called a commissioning process and each of the regions were identifying priority pools and what activity were going to be put into that programming and how they were going to attract and who they were going to attract and so it formed part of that sort of offer or where those sort of people were going to come from to help them achieve the targets in those priority pools so it was part of a bigger objective a bigger picture I guess and the overall time to achieve and ultimately increase the participation of swimming yes what was the other end of the question

So really what was the most important experience of the programme what did you learn how to change your view any key learning points really

ASAHPO yes I think one of the keys points is the timing and the time constraints that we had to pull it together and I appreciate that we needed you to help us do the evaluation and I appreciate you had time constraints and you had it as part of your course I think there were other time pressures and other priorities on the part of the region which were quite frustrating at the time because we thought we could do this and it came back that we were yet not in a position to role with it and as you can see from what we have already talked about there were only 3 or 4 regions that actually got involved even to that extent great that they got involved but really the time and the commitment that should have been put in to it they just didn’t have that for a number of reasons so I think overall we needed a bigger lead in time and I think probably a bit more planning and more buy in from the regional teams

Okay

ASAHPO and probably thinking about it now and looking at it and this goes back to the conversation we had it is some sort of smarter working with slimming world and not just a list of post codes can we have a list of groups and can we match them up I don’t know how it would work but we need to be a bit smarter if we did it again how we would develop that and how we would pull it together

Yes okay I am just reading through my questions if you were to do it again what would you do differently or if you were to run another pilot or another study in a different area what is the key learning points

ASAHPO I think I mentioned the lead in time.. Yes.. I think time and timing of it is an issue but I also think the planning and buy in so part of that time build up to it and communication we would need rather than me going to Slimming World and then back and the aquatic officers and them going back to the individual pools and their priority pools I think there probably needs to be a little
working group get together locked in a room several months before we would have Slimming World the ASA regional representatives if need be and whether it is a local authority or two local authorities or private or trust operated pool that sort of group together so everybody is aware of what they are doing and all of them coming from it together rather than it being a little bit bitty in places

Okay and in terms of the offering to Slimming World members anything about the offering itself

ASAHO yes I mean I think we have looked at this......... and we have had some research done by a futures research group and a women’s insight and we have all this sort of data and things like that and the women’s swimming network and we think do we sell the benefits and let slimming world helps us promote the benefits of swimming and advertise and promote where there local pools are and what’s actually on at that pool rather than try and sell an offer if that makes sense but we work with slimming world on the promotional marketing tool for their members rather than trying to do or engage them like you said earlier on and like some of the other work we have done where you go to a group and you handout 20 – 40 forms and everyone is interested and then only one person picks it up so is it we can’t force people to go but is it more of the promotional market type partnership rather than trying to offer things if that makes sense

Do you think in view of the fact that a lot of people showed an interest but then didn’t take it up do you think that there is an opportunity there something to be done together for a wider up take

ASAHO yes I think it needs coming back to having a working group so that you can take that back and slimming world could jump on to it say that actually we have these people we have been into that particular group we now need to go back into that group and chase it up and need the support from you from your group or regional leaders then pick it up and promote it right off or invest it while people are going and encouraging them to do it and I think it is seen as quite a nice thing ............seeing somebody else coming in and trying to do this or to follow that so we would probably need we would certainly need buy in from our internal staff but I think we also need buy in from Slimming World as well and that’s how if it were to happen again that’s how we would work around that as we would need their support to go back to pull it to work together

You just mentioned those people to find out as to why they didn’t take it up do you think that would be a useful research area

ASAHO Yes it would yes yes to be honest with you we possibly have some reasons really and time constraints or value for money no body to go with and that kind of thing I know that probably contradicts it if they are in a group they probably got friends and the bonding of those friends would actually men I feel confident to go with that individual with my body shape etc so yes I think it would yes possibly would be yes

okay do you think some those reasons are known or do you think it is just down to the amount of people who take up swimming

ASAHO I think we probably do know it is probably to be honest some of them struggle for a long time and it is how we get those people to go Is it back to the pool and the pool environment and are they going because the particular session is not at the right time or where the pool is offering 3-4 aqua aerobics and they are going selling with particular group they are only interested in when they need to go because they thinking have to put the kids to bed at that time thinking about a meal then have to go and see so and so thinking about this and that and I haven’t got time to do actually if it was at 8 by the time I have done all that I have put the kids to bed and done this and that I might go then so it is two ways as well which is what is actually happening at the pool and the pool
environment as well as the pool programme and the activities being on at the right time for those people it is like a journey isn’t it from the receptionist being happy aware people are coming from a particular group might not be …. That type of gym induction session so there is that as well I guess and that’s possibly where we need the group to sit down with the pool operators that are going to be involved in such a project we to say we are going to do this and that we need you to be prepared to possibly move one or two sessions to accommodate these people and we may need to look at training or retraining members of your staff in where it is customer service training I probably be shot if I said that to them but something along those lines to enable them to maybe go and hopefully as to why they may go

So my original question was do we know the reasons as to why they don’t go or are you making assumptions on the reasons

ASAHPo I think we have some research from the women’s group that kind of similar feedback that it is unfriendly sessions are not at particularly the right time and when they are we are not get value for money so yes we know those facts so yes from the research that has already been done

okay you mentioned several times the value for money and the support from the pools do think that this is a big consideration… yes yes… in terms of too expensive…. no it is not too expensive or it is what they get when they get there

ASAHPo it is is it a dirty environment when they pay 3.75 – 4.00 for a swim nobody says hello to them then there’s the state of the pool is it dirty cold miserable staff it is that kind of value for money right okay

Okay there is a lot of information there is there anything else

ASAHPo no well probably I will dwell on a few things and if I do then I will ring you back and

anything else on the support network you mentioned about a working group you mentioned about the facilities at the pools and what can be done by the pools to help people come along for the first time

ASAHPo yes I think again when I say a working group I don’t actually mean you say a working group for the sake of it I don’t mean working group whether it would need a working group or whether that the information or and the idea of a pilot or programme or relationship or some partnership would work as long as it could be discussed in a relevant place whether that would be with the groups or meetings that already exist or whether there would be a need for a working group or somewhere in whatever structure there is with all those groups already available it needs just to be coordinated a little bit better and that’s probably a restriction on me really but looking back on it again that is to do with timescales and time constraints in pulling it together and I think internally we need to have more buy in from our regional teams to be successful okay we certainly had the support form marketing as we turned out the study pack and the questionnaires and the diary information I know we went back and forward a little but we did turn it around in a couple of weeks

Were you happy with the marketing material that came out

ASAHPo yes I think so yes?
Do you think anything was missed or did it need anything else or were you happy with it was it too much information not enough

ASAHP0 yes I was happy with it yes again it’s a difficult one because Unfortunately we have a few partners in there we have you guys and slimming world and unfortunately at the end of the day this stuff gets frustrating at times actually there are concerns in we want to have our bit in there and we need to sell the benefits of swimming and the bit where ANONYMOUS was coming from you don’t need all that and actually it is a study about Slimming World people ad yes a paragraph on how swimming why it is good for you and not 3 pages full and there was that kind of conflict but not that there was that to take into consideration and personally I think actually we should not get that precious as to whether we have our logo and as to together we have 10 pages of the benefits of swimming ultimately just take two steps back what’s it about its slimming world members we need to research and evaluate them going through the programme and if that’s what it is well then let’s stick to it but again you have the practice of partners and there bit in there……………………sometimes what you are trying to achieve gets lost amongst it

Okay

It’s like a counselling session does that make sense

yes perfect that’s really good feedback there are some really good things in there you don’t say um too much

ASAHP0 there is some stuff in there where anybody were involved they were up for it and very keen for it to happen were working towards it there weakness were dare I say from our side where there were different priorities and that’s where the frustrations crept in we have got 3 or 4 regions that were up for it

ASAHP0 And …….. then we were trying to work with the pools and develop with them and then other priorities and pressures put on them elsewhere so yes so I think we have covered that but let me have a think I think that covers everything but if of anything else comes up I can always give you a shout or email I think I have covered it haven’t I that’s really great feedback thanks for that.

Transcript 8, email 2 – Participant Completer 2, referred to as PC2,E2
I have spoken with one of the researchers from Bristol University today, and made some suggestions regarding the 'larger' women who want to swim at Long Eaton. What would be really helpful to me (and other women in my situation I guess) would be a swim and sauna package. The reason for this is because in the public swim area at Long Eaton you have to go out of the changing room to put your clothes in the locker, and then walk through the pool area to get to the swim lanes. You then have to pay again for the locker if you want to have a shower and wash your hair ... thus repeatedly going into to main corridor where the lockers are. How embarrassing! If using the sauna you can use a towel or a robe when exiting the changing room and then go directly to the swim area. The lockers are situated within the facility and you can access them at any time without cost. The sauna/steam rooms constitute a little bit of pampering after a work out in the pool! Such an incentive for people like me! I do not wish to use the gym or any other facility at this moment in time. Perhaps when I have lost a bit more weight I will change my mind. May I suggest a cost of £20 a month? I would gladly pay this and would be happy to promote it within my slimming group. Further, I would like to say what a pleasurable experience this has turned out to be. After the initial first week glitch, I enjoyed every visit to the pool ... feeling welcomed by the staff and getting to know people in the sauna who encouraged me with my weight loss. Again this is another positive attribute. I trust this feedback is helpful. Sincerely, PC2
Transcript 9, email 1 – Participant Completer 2, referred to as PC2,E1

Dear ANONYMOUS, after speaking with ANONYMOUS this morning at ANONYMOUS Long Eaton Slimming World group, I agreed to sign up for the 'asa and Slimming World Study'. We were told that we had to register today or tomorrow, and for £15 a month, for the next 3 months, we would have access to all pool activities at Long Eaton Leisure Centre. I confirmed with Hannah that this included pool aerobics and she affirmed this. I went to the Centre this afternoon and was met with blank faces from both of the receptionists. They hadn't got a clue what I was talking about. I said that I would go back later for the evening swim and give them chance to find out about it. I also phoned Hannah and left a message telling her that it may be an idea to phone them. I returned this evening and went through a lengthy process of form filling before I was given a card and told that was it. I asked about the Swim Diary and again was met with a blank look. The deputy Manager, Peter Wallis, was summoned and he then went to find the e-mail. He had no clue what to do about the Physiological checks, and suggested I do them myself. He also said that the membership was for swimming only and not pool aerobics. Also, I was told that the cut off date is today, so anyone who goes tomorrow will not be able to do it, and I am the only one who has signed up for it at the moment! Perhaps the others got wind of the debacle that was to be. I have no idea how to work out my bioimpedance and struggled to time my swim as I hadn't got my glasses on in the pool so couldn't see the clock clearly. Well, actually I had got my glasses in the pool because I forgot to take them off and I'd already had to ask someone to lend me another 20p piece because the locker keeps your money, and I locked it and then realised I still had my bag on my shoulder! So, my glasses were in a dirty cupboard (full of crumpled up tissues for some reason), at the side of the pool. I'd been in the pool about 10 minutes when we all had to get out because a child had done a pooh. 10 minutes later we were allowed back in to the swim lanes only. By that point I was so stressed up that I swam another 20 minutes or so and then was glad to get out. I'm beginning to wonder if I've done the right thing here. I thought swimming was supposed to reduce stress? Oh, and could you tell me what my ID number is please. I'm going for a lie down in a dark room now. Sincerely, PC2
Appendix 4 - Swim and Slim Questionnaire

About you
ID Code: ________________________

Gender
Male ☐  Female ☐

Postcode
☐ ☐ ☐ ☐ ☐ ☐

Age
☐ 18-24  ☐ 25-34  ☐ 35-44  ☐ 44-54  ☐ 55+

Height  ☐  Feet ☐ Inches or ☐ Metres ☜ cm

Weight  ☐ ☐ Stones  ☐ ☐ Pounds or ☐ ☐ Kilos

Ethnicity
White/Caucasian ☐  Black/African-Caribbean ☐
Asian ☐  Other ☐

Highest level education attended
Secondary ☐  Further education ☐
Undergraduate ☐  Postgraduate ☐

____

Reasons for joining Swim and Slim

Please put a cross in the box that is closest to how you feel about each statement.

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<th>Reason for joining</th>
<th>Really true for me</th>
<th>Sort of true for me</th>
<th>Not really true for me</th>
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<td>1 2 3 4 5</td>
<td></td>
<td></td>
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<tr>
<td>I wanted to feel fitter</td>
<td>☐ ☐ ☐ ☐ ☐</td>
<td>☐ ☐ ☐ ☐ ☐</td>
<td>☐ ☐ ☐ ☐ ☐</td>
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<tr>
<td>I thought it would be fun</td>
<td>☐ ☐ ☐ ☐ ☐</td>
<td>☐ ☐ ☐ ☐ ☐</td>
<td>☐ ☐ ☐ ☐ ☐</td>
</tr>
<tr>
<td>I thought it would be good for my health</td>
<td>☐ ☐ ☐ ☐ ☐</td>
<td>☐ ☐ ☐ ☐ ☐</td>
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<tr>
<td>To help me with weight loss</td>
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<tr>
<td>I thought it would make me feel more positive about myself</td>
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<td>☐ ☐ ☐ ☐ ☐</td>
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<td>To improve my swimming ability</td>
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<td>☐ ☐ ☐ ☐ ☐</td>
<td>☐ ☐ ☐ ☐ ☐</td>
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<td>To meet friends</td>
<td>☐ ☐ ☐ ☐ ☐</td>
<td>☐ ☐ ☐ ☐ ☐</td>
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<tr>
<td>Other reason – please write in the box</td>
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<td>☐ ☐ ☐ ☐ ☐</td>
<td>☐ ☐ ☐ ☐ ☐</td>
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What I feel about swimming and water exercise

How confident do you feel about each of the following (tick one box on each line):

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<th>Very confident</th>
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<td>Swimming or water exercise for 15 minutes</td>
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<td>Swimming or water exercise for 30 minutes</td>
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<td></td>
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<tr>
<td>Swimming or water exercise for 60 minutes</td>
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<table>
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<th>Really true for me</th>
<th>Sort of true for me</th>
<th>Not really true for me</th>
</tr>
</thead>
<tbody>
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<td>I feel safe in the water</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am confident in the water</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>I can swim for a long time</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I have good swimming skills</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>I am not very fit for swimming</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>I am a happier person when I am in the water</td>
<td></td>
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<tr>
<td>I am nervous when I go to the pool</td>
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<tr>
<td>I feel embarrassed in front of other swimmers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I really look forward to swimming sessions</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

118
### What I feel about myself

Circle the appropriate number for each statement

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>☐</td>
<td>☐</td>
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<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

**On the whole, I am satisfied with myself.**

**At times I think I am no good at all.**

**I feel that I have a number of good qualities.**

**I am able to do things as well as most other people.**

**I feel I do not have much to be proud of.**

**I certainly feel useless at times.**

**I feel that I’m a person of worth, at least on an equal plane with others.**

**I wish I could have more respect for myself.**

**All in all, I am inclined to feel that I am a failure.**

**I take a positive attitude toward myself.**

---

**Now, please read each of the following statements, and circle the appropriate value for you.**

<table>
<thead>
<tr>
<th>Statement</th>
<th>Untrue</th>
<th>Somewhat Untrue</th>
<th>Somewhat True</th>
<th>True</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am not so confident when I take part in sports activities</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I tend to feel a little uneasy in fitness and exercise settings</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I am extremely confident about my body’s appearance</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>When a situation requires strength, I am among the first to step forward</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I feel extremely satisfied with the kind of person I am physically</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Given the chance, I am always among the first to join in sports activities</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Statement</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>--------------------------------------------------------------------------</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td></td>
</tr>
<tr>
<td>I am very confident about my ability to exercise regularly and maintain my physical condition</td>
<td></td>
<td></td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>I do not feel that my body looks like it’s in good physical shape, compared to most people’s</td>
<td></td>
<td></td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>I feel that I am physically stronger than most people of my sex</td>
<td></td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>When it comes to the physical side of myself, I do not feel very confident</td>
<td></td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>I am sometimes slower than most when I learn a new sports-related skill</td>
<td></td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>I do not feel confident about my level of physical conditioning and fitness</td>
<td></td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>I feel that I have difficulty maintaining an attractive body</td>
<td></td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>I feel that I am very strong and have well-developed muscles compared to most people</td>
<td></td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>I wish that I could have more respect for my physical self</td>
<td></td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>I feel that I am among the best when it comes to athletic ability</td>
<td></td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>I do not usually have a high level of stamina and fitness</td>
<td></td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>I feel that I have an attractive body, compared to most people’s</td>
<td></td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>I feel that most people are better than me when dealing with situations requiring strength</td>
<td></td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>I almost always feel very proud of who I am and what I can do physically</td>
<td></td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>I do not feel I am very good at playing sports</td>
<td></td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>I feel that I always maintain a high level of physical conditioning, compared to most people</td>
<td></td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>I feel embarrassed by my body when I wear few clothes</td>
<td></td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Statement</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>--------------------------------------------------------------------------</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>I feel that my muscles are much stronger than most others’ of my sex</td>
<td></td>
<td></td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>I am sometimes unhappy with the way I am or what I can do physically</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>I feel that I am always among the best when it comes to joining in sports activities</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>I make certain I take part in some form of regular, vigorous physical exercise</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>I feel that I am often admired because my body is considered attractive</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>I tend to lack confidence when it comes to my physical strength</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>I always have a very positive feeling about the physical side of myself</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>
About your general health

Please answer every question by marking one box. If you are unsure about how to answer, please give the best answer you can.

1. In general, would you say your health is:-
   - Excellent
   - Very good
   - Good
   - Fair
   - Poor

   [ ] [ ] [ ] [ ] [ ]

The following items are about activities you might do during a typical day. Does your health now limit you in these activities? If so, how much:-

2. Moderate activities such as moving a table
   pushing a vacuum cleaner, bowling or playing
golf

   [ ] [ ] [ ]

1. Climbing several flights of stairs

During the past 4 weeks have you had any of the following problems with your work or other regular daily activities as a result of your physical health?

4. Accomplished less than you would like

   [ ] [ ]

5. Were limited in the kind of work or other activities

   [ ] [ ]

During the past 4 weeks have you had any of the following problems with you work or other regular daily activities as a result of any emotional problems (such as feeling depressed or anxious)?

6. Accomplished less than you would like

   [ ] [ ]

7. Didn’t do work or other activities as carefully as usual

   [ ] [ ]

8. During the past 4 weeks, how much did pain interfere with your normal work (including both work outside the home and housework)?

   Not at all  A little bit  Moderately  Quite a bit  Extremely

   [ ] [ ] [ ] [ ] [ ]

These questions are about how you feel and how things have been with you during the past 4 weeks. For each question please give the one answer that comes closest to the way you have been feeling. How much of the time during the past 4 weeks:-
<table>
<thead>
<tr>
<th>Question</th>
<th>All of the time</th>
<th>Most of the time</th>
<th>A good bit of the time</th>
<th>Some of the time</th>
<th>A little of the time</th>
<th>None of the time</th>
</tr>
</thead>
<tbody>
<tr>
<td>9. Have you felt calm and peaceful?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Did you have a lot of energy?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Have you felt downhearted and blue?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. During the past 4 weeks how much of the time has your physical health or emotional problems interfered with your social activities (like visiting friends, relatives etc)?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

All of the time  Most of the time  Some of the time  A little of the time  None of the time
[ ]              [ ]               [ ]                     [ ]                 [ ]
About your general physical activity levels

During the last week, how many hours did you spend on each of the following activities?

<table>
<thead>
<tr>
<th></th>
<th>Please ✓ one box only on each row</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>None</td>
</tr>
<tr>
<td>A</td>
<td>Physical exercise such as swimming, jogging, aerobics, football, tennis, gym, workout, etc.</td>
</tr>
<tr>
<td>B</td>
<td>Cycling, including cycling to work and during leisure time</td>
</tr>
<tr>
<td>C</td>
<td>Walking, including walking to work, shopping, for pleasure, etc.</td>
</tr>
<tr>
<td>D</td>
<td>Housework/childcare</td>
</tr>
<tr>
<td>E</td>
<td>Gardening/DIY</td>
</tr>
</tbody>
</table>
Your feelings about your body

Read each of the following statements carefully and indicate the degree to which the statement is characteristic or true of you, according to the following scale:

***** use this for state**Or which best indicates how the statement reflects your feelings about yourself at the moment:

1 = Not at all characteristic of me
2 = Slightly characteristic of me
3 = Moderately characteristic of me
4 = Very characteristic of me
5 = Extremely characteristic of me

1. I wish I wasn’t so uptight about my physique/figure
2. There are times when I am bothered by thoughts that other people are evaluating my weight or muscular development negatively
3. Unattractive features of my physique/figure make me nervous in certain social settings
4. In the presence of others, I feel apprehensive about my physique/figure
5. I am comfortable with how fit my body appears to others
6. It would make me uncomfortable to know others were evaluating my physique/figure
7. When it comes to displaying my physique/figure to others, I am a shy person
8. I usually feel relaxed when it is obvious that others are looking at my physique/figure
9. When in a bathing suit, I often feel nervous about the shape of my body
About your energy levels

Please respond to each of the following statements by indicating the degree to which the statement is true for you in general in your life. Use the following scale and write the number in the box.

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>not at all</td>
<td>somewhat</td>
<td>very</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>true</td>
<td>true</td>
<td>true</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. I feel alive and vital. 
2. Sometimes I feel so alive I just want to burst. 
3. I have energy and spirit. 
4. I look forward to each new day. 
5. I nearly always feel alert and awake. 
6. I feel energized.

Thank you for completing this questionnaire. Please return with your consent form.
23 May 2011

Dear Kirsty

**Re: Ethics application**

Thank you for submitting your revised application for consideration to the ENHS Research Ethics Committee. On behalf of the ENHS Research Ethics Committee I am granting you ethics approval.

Your Ethics Approval Number for your research dissertation is:

**EAN 40-11**

Thank you very much.

On behalf of the Committee,

Professor Ken Fox
Chair ENHS Ethics Committee

K.R.Fox@bristol.ac.uk
Semi-structure interview Introduction

Hello, Thank you for your time today, my name is Kirsty Terry, I am the researcher from Bristol University who is collating the information from the Slimming world meets Swimming World programme of which you have participated in during the previous twelve weeks.

We have arranged this telephone call so that we can learn from you what you thought about the Swim-Slim program for slimming world members. In particular, was it a useful facility, what encouraged you to attend and what stopped you from attending?

This is an ‘open’ discussion with the opportunity to contribute, whilst respecting the confidentiality, knowing that any comments are confined to the research and will not continue beyond the programme feedback. We want to know about your experiences of the programme, what you think, the good, the bad and anything else you think useful. This is how we learn about the programme, please do not assume we know what you know, this is all our opportunity to learn about the program which will help to decide if it can benefit other Swimming World members in the future or not or if there is anything that can be done to be modified to make it more suitable.

This session will be recorded so that we can study what has been said. The ethics protocol for this study means that anything said here will be held in strict confidence, anonymity and used for the study purposes only.

Suggested Semi-structure interview Questions:

1. What is your overall opinion of the Slimming World meets Swimming World programme
2. What is the most important experience of this programme for you (e.g., what did you learn, did you change your view, behaviour, your life or direction)? Can you summarize how or why that happened? Perhaps a story about your experience would help to understand.
3. What is the most frustrating, disappointing or wasteful consequence of the programme for you? Can you explain how or why? Perhaps another example would help us understand.
4. Swim-Slim, Aquaerobics are nationwide programmes you have used in this programme. What are the strengths and weaknesses of them? How could a custom class help motivation to swim, if the custom class was not available, how could you/would you continue
- Swim-Slim, Aquaerobics
- swimming,
- other type of physical activity.

Questions 5 through 10 are specific follow-up questions about specific outcomes.

5. Has the use of Swim-Slim impacted your attitude to physical activity? Why or why not? Please explain.
8. Has the use of Swim-Slim made it easier to manage your weight? Why or why not? Please explain.
9. Has the use of Swim-Slim affected your fitness levels? Why or why not? Please explain.

Questions 11 through 15 are questions of general interest.

11. What attracted you to the Swim-Slim program influence your decision?
12. Was Swim-Slim a factor in deciding to increase physical activity? If so, in what ways was it a factor, and why?
13. Did you replace existing physical activity to complete the Swim-Slim class, was it additional or replacing existing. Was it the start of increasing physical activity?
14. Would you recommend Swim-Slim to other Slimming world members? Why or why not?
15. Is there anything else you would like to tell us about your experience with this programme?

At the end of the Semi-structure interview

At the end of the semi-structure interview, briefly summarize the main points of the programme. Encourage some general agreement by ‘what I have heard is …….., did I summarize this correctly? I there anything you would like to add or amend?

Thank you very much for your time. The information you have provided in your feedback will be invaluable to help us to evaluate and improve the programme.

Thank you everyone for attending!
Session Leader Introduction

Hello, Thank you for your time today, my name is Kirsty Terry, I am the researcher from Bristol University who is collating the information from the Slimming world meets Swimming World programme of which you have participated in during the previous twelve weeks.

We have arranged this session leader interview so that we can learn from you what you thought about the Swim-Slim program for slimming world members.

Suggested Session Leader Interview Questions:

1. What is your overall opinion of introducing Slimming World members to Swimming World. What were the key success factors? What aspects did not work?
2. What were the most popular aspects of Swimming taken up by the Slimming world members. (e.g., which swimming activities were most popular ie Swim-fit, Aquaerobics, general swim).
3. What were the key factors which retained the Slimming world members for the duration of the programme.
4. What were the key factors which inhibited the Slimming world members from attending the programme?
5. How does have Slimming world members in a class differ from a group with members of Slimming world. Did the class have to be tailored in any way? Was the class restricted in any way?
6. Were there any noticeable differences in either motivation, effort or intensity levels of Slimming world members compared with other group members?
7. How has having Slimming world members participate in you group affected your delivery as a leader (e.g enjoyment, challenging or motivational).
8. Swim-Slim, Aquaerobics are nationwide programmes you have used in this programme. What are the strengths and weaknesses of them with respect to Slimming world members?
9. How could a custom class available for Slimming world members only improve motivation to swim?
10. From your experience of this programme, is there anything else that you would like to contribute which will help evaluate the programme or modify the programme for future use.

At the end of the Interview

At the end of the semi-structure interview, briefly summarize the main points of the programme. Thank you very much for your time. The information you have provided in your feedback will be invaluable to help us use to evaluate and improve the programme.
Suggested Cessation Telephone Interview Questions:

Hello, my name is Kirsty Terry, I am the researcher from Bristol University who is collating the information from the Slimming world meets Swimming World programme which you signed up for. Would you be happy to answer a few questions about the programme which will take approximately ten minutes/May I begin or can we schedule a more convenient time.

1. What is your overall opinion of the Slimming World meets Swimming World programme
2. What is the *most* important experience of this programme for you (e.g., what did you learn, did you change your view, behaviour, your life or direction)?
3. What is the *most* frustrating, disappointing or wasteful consequence of the programme for you?
4. Is there any reason you would like to share with us as why you were unable to complete twelve weeks
5. Is there any other information regarding the programme which we may find useful that you would like to share

Thank you very much for your time. The information you have provided in your feedback will be invaluable to help us evaluate and improve the programme.
Appendix 7 – Brochure
## Appendix 8 - Diary

### Swim Diary

**The ASA & Slimming World Study**

<table>
<thead>
<tr>
<th>Name:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Slimming World Consultant:</td>
<td></td>
</tr>
</tbody>
</table>

#### Physiological Checks Week 01

<table>
<thead>
<tr>
<th>Date:</th>
<th>Basal metabolism:</th>
<th>Fitness Check: Distance (e.g. Time to swim 5 lengths or distance in 5 mins)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight:</td>
<td>Body mass, kg</td>
<td></td>
</tr>
<tr>
<td>Height:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Physiological Checks Week 02

<table>
<thead>
<tr>
<th>Date:</th>
<th>Basal metabolism:</th>
<th>Fitness Check: Distance (e.g. Time to swim 5 lengths or distance in 5 mins)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight:</td>
<td>Body mass, kg</td>
<td></td>
</tr>
<tr>
<td>Height:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix 9 – Statement of compliance with data protection procedures

Statement of compliance with data protection procedures

PLEASE COMPLETE BY HAND

Title of dissertation: ___________________________________________________________
____________________________________________________________________________

Student name:_________________________________________________________________

Year/month of dissertation submission: _____ / ________
Ethics approval no: ________________________________

Procedures for destroying audio tapes or digital recording files

<table>
<thead>
<tr>
<th>No of recording sessions</th>
<th>No of tapes /digital files used in recording</th>
<th>Number of these destroyed:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Destruction procedure: _______________________________________________________
Witnessed by (sign): ___________________________________________________________________

Number of these erased*:
Erasure procedure: _______________________________________________________
Witnessed by (sign): ___________________________________________________________________

Comments:
____________________________________________________________________________

Procedures for destroying video tapes

<table>
<thead>
<tr>
<th>No of recording sessions</th>
<th>No of tapes /digital files used in recording</th>
<th>Number of these destroyed:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Destruction procedure: _______________________________________________________
Witnessed by (sign): ___________________________________________________________________

Number of these erased*:
Erasure procedure: _______________________________________________________
Witnessed by (sign): ___________________________________________________________________

Comments:
____________________________________________________________________________

I confirm that this is a true record of my procedures
Student signature: ________________________ Date: _____________

*The number of tapes/files destroyed PLUS those erased must equal the total number of interviews.recordings.
### Appendix10 - Record of Meeting with Adviser

<table>
<thead>
<tr>
<th>Meeting no</th>
<th>Date of meeting</th>
<th>Purpose(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>19/5/2011</td>
<td>Progress review</td>
</tr>
<tr>
<td>2</td>
<td>28/7/2011</td>
<td>Progress review</td>
</tr>
<tr>
<td>3</td>
<td>17/8/2011</td>
<td>Progress review</td>
</tr>
<tr>
<td>4</td>
<td>5/9/2011</td>
<td>Progress review</td>
</tr>
</tbody>
</table>

I confirm this is a true record of the meetings with my Adviser in the completion of this dissertation.

Signed:
Date:
References


MILES, M. & HUBERMAN, A. 1994. Qualitative data analysis


and without Young Children.

Environmental Implications for Workplace Physical Activity Programming Among Women with and without Young Children. "Health Care for Women International," 29, 244-281.


