Chapter 1 **Introduction**

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1.1 Overview

This introductory chapter sets the scene explaining why there is a need to find scalable and effective solutions to both prevent and manage the increasing number of non-communicable diseases, such as obesity and type 2 diabetes (T2DM), which result from poor lifestyle habits. Group education, if delivered well, has the potential to provide a solution but the group participant needs to be empowered to feel able to make the desired lifestyle changes. Evidence of successful group education is provided and key characteristics of the successful groups highlighted in the form of 'Top Tips'. These features are then discussed in more detail in subsequent chapters.

1.2 The need for lifestyle change

Non-communicable diseases (NCDs) are the major cause of both mortality and morbidity globally, killing more people each year than all other causes combined. Of the 56 million deaths that occurred in 2012, more than two thirds (68%) were due to NCDs, comprising mainly of cardiovascular diseases, cancers, type 2 diabetes and chronic respiratory disease. Liver disease, resulting from both alcohol abuse and non-alcohol fatty liver disease, is increasingly contributing to this list of NCDs. The combined burden of these conditions is greatest in low and middle income populations, where they impose large avoidable costs in human, social and economic terms. Despite this inequitable distribution in prevalence, much of the human and social impact caused through NCDs could be reduced. This could be by both primary and secondary prevention and through a better understanding of

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cost effective and feasible interventions that acknowledge the socioeconomic determinants of health (WHO, 2014).

NCDs are, in the main, caused by four behavioural risk factors that represent modern day lifestyles:

- tobacco use
- unhealthy diet
- insufficient physical activity/sedentary behaviours
- the harmful use of alcohol (WHO, 2010).

These four behavioural risk factors are discussed in more detail as they are likely to be the focal topics for group education.

Tobacco use

Smoking tobacco and the exposure to second-hand smoke is estimated to cause about 71% of all lung cancers, 42% of chronic respiratory disease and nearly 10% of cardiovascular disease. Smoking also increases the risk of diabetes and premature death (WHO, 2012).

Unhealthy diet (and malnutrition)

The World Cancer Research Fund estimated that 27–39% of the main cancers can be prevented by improving diet, physical activity and body composition (WCRF/AICR, 2007). Approximately 16 million (1.0%) disability-adjusted life years and 1.7 million (2.8%) deaths worldwide are attributed to a low fruit and vegetable consumption (Wang *et al.*, 2014). An adequate intake of fruit and vegetables reduces the risk of cardiovascular diseases, stomach cancer and colorectal cancer (Bazzano *et al.*, 2003; Riboli and Norat, 2003). The consumption of high energy processed foods, high in fats and sugar, increase the risk of obesity compared to low energy dense foods such as fruit and vegetables (Swinburn *et al.*, 2004).

The amount of salt consumed is an important determinant of blood pressure levels and overall cardiovascular risk (Brown *et al.*, 2009). It is estimated that reducing dietary salt intake from the current 9–12 g per day to the globally recommended 5 g for adults would have a significant impact on reducing blood pressure and cardiovascular disease (He and MacGregor, 2009).

Besides the amount of fat in the diet being important, so is the type with the replacement of saturated fats with unsaturated fats considered for many years to be beneficial in reducing risk of coronary heart disease (Hu *et al.*, 1997). A Mediterranean style diet, where the fat is mainly unsaturated, is perceived as being a diet we should aspire to.

Many people have a diet that is too high in free sugars, which can lead to weight gain and poor dental health (SACN, 2015). The main sources of free sugars in our diet include soft drinks, table sugar, confectionery, fruit juices,

biscuits, cakes, pastries, puddings and breakfast cereals all of which can be replaced by alternatives with a lower sugar content. The alternatives are also likely to have a healthier overall nutrient profile. Free sugars provide no other important nutrients other than being an energy source. The important relationship between healthy teeth and gums and being able to consume a healthy, varied diet is often overlooked.

Whilst the amount of free sugars in most people's diet is too high, the average intake of dietary fibre is too low in developed countries. Dietary fibre is important for colorectal health and alongside a healthy fluid intake and sufficient physical activity, can help to reduce the prevalence of constipation. In the UK the recommended daily amounts for adults have increased from 18 g/day to 30 g/day (SACN, 2015).

Having an adequate intake of micronutrients is also an important aspect of a healthy balanced diet. Micronutrient deficiencies, for example iron, calcium, iodine and vitamin D, are still common, particularly among vulnerable populations. The European Food and Nutrition Action Plan (2015–2020) aims to reduce the prevalence of anaemia in non-pregnant women of reproductive age by 50%. Group education which ensures that naturally iron rich foods are chosen in the diet will be important to ensure that this target can be achieved in such a large group of women.

People and families with lower incomes (in developed countries), generally have a less healthy diet with a lower intake of fruit and vegetables and a higher intake of processed high energy dense junk foods (McLaren, 2007). Whilst many people may be aware of what a healthy balanced diet includes, there is a need to make this diet more accessible and affordable and attractive as well as to support people to develop the skills and confidence needed to prepare healthier foods.

Insufficient physical activity

Insufficient physical activity is the fourth leading risk factor for mortality (WHO, 2009). People who are insufficiently physically active have a 20–30% increased risk of all-cause mortality compared to those who engage in at least 30 minutes of moderate intensity activity on most days of the week (WHO, 2010). The estimated risk of ischaemic heart disease is reduced by 30%, the risk of T2DM by 27% and the risk of breast and colon cancer by 21–25% through participation in 150 minutes of moderate physical activity each week (WHO, 2010). Additionally, physical activity reduces the risk of stroke, hypertension and depression and, given its key role in energy expenditure, is fundamental to energy balance and thus weight management. In 2010, 23% of adults aged over 18 years were insufficiently active, having less than 150 minutes of moderate intensity physical activity or the equivalent per week

(WHO, 2014). The prevalence of insufficient physical activity actually rises according to the level of country income with higher income countries having more than double the prevalence compared to lower income countries for both men and women. Almost 50% of women in high income countries do not get sufficient physical activity (WHO, 2009).

Alcohol

In 2015 the latest data suggests that the harmful use of alcohol, hazardous and harmful drinking, was responsible for 3.3 million (5.9%) deaths per year worldwide (WHO, 2015). More than half of the deaths occurred as a result of NCDs, including cancers, cardiovascular disease and liver cirrhosis with both morbidity and mortality occurring relatively early in life. In the 20–39-year age-group approximately a quarter of total deaths are alcohol related with more men than women affected. An estimated 5.1% of the global burden of disease, as measured by disability-adjusted life years, is caused by the harmful use of alcohol. Beyond the direct health consequences, the harmful use of alcohol leads to significant social and economic losses to both individuals and the wider society.

The relationship between the risk of these diseases and alcohol is dependent on both the amount and also the pattern of alcohol consumption (Rehm *et al.*, 2010). Low risk patterns of alcohol consumption might actually be beneficial for some population groups.

Besides there being a lack of knowledge about what constitutes a unit of alcohol the additional risks of binge drinking are poorly understood. Similarly, people are generally unaware of the energy contribution that alcohol can make to the diet and this can significantly contribute to obesity levels (Gatineau and Mathrani, 2012).

These lifestyle behaviours lead in turn to five key metabolic/physiological changes:

- raised blood pressure (hypertension)
- overweight/obesity
- hyperinsulinemia
- hyperglycaemia
- hyperlipidaemia.

Raised blood pressure

Globally, raised blood pressure is estimated to cause 12.8% of the total number of deaths and 3.7% of the total disability-adjusted life years. It is a major risk factor for coronary heart disease and ischaemic and haemorrhagic stroke (Lim *et al.*, 2007). In some age-groups, the risk of cardiovascular disease doubles for each incremental increase of 20/10 mmHg of blood pressure

(Whitworth, 2003). Besides coronary heart disease and stroke, other complications attributable to a raised blood pressure include heart failure, peripheral vascular disease, renal impairment, retinal haemorrhage and visual impairment (Williams *et al.*, 2004). The global prevalence of raised blood pressure in adults aged over 25 years was approximately 40% (WHO, 2009) and achieving a 25% relative reduction in the prevalence of raised blood pressure remains a WHO target to help prevent and manage NCDs (WHO, 2014). Some ethnic groups are more prone to hypertension at a younger age than others.

Overweight and obesity

Over the past 30 years, obesity has increasingly become one of the greatest public health concerns reaching epidemic proportions. It has a significant impact on both physical and mental health and well-being with an estimated 93.6 million of global disability-adjusted life years caused by being overweight or obese in 2010 (Lim *et al.*, 2012). Nearly three million people die each year as a result of being overweight or obese but this is likely to be a gross underestimate due to its link with a number of other chronic diseases and the complications resulting from the metabolic disturbances. Mortality rates increase with increasing levels of obesity (PSC, 2009). In many countries, approximately two-thirds of the adult population are either overweight or obese and around a quarter are obese. The prevalence of a high body mass index (BMI) increases with income level of a country, but within countries health inequalities are seen, particularly for women. In a high income country, women from the lowest socioeconomic group have twice as high a prevalence of obesity compared to those in the highest socioeconomic group (WHO Global Database, 2014).

For optimal health, the median BMI for adults should be 21–23 kg/m^2 and the target for individuals should be to maintain a BMI between 18.5 and 24.9 kg/m^2 (WHO, 2014). Again some ethnic minority groups, notably people of South Asian origin, benefit from a lower BMI in the healthy range. People of South Asian and black origin will be more likely to experience metabolic complications such as hypertension and type 2 diabetes once their BMI exceeds 23 kg/m^2 (NICE, 2013).

There are direct links between obesity prevalence and the development of T2DM as outlined next. Similarly links have been observed between obesity and cardiovascular disease risk. A raised BMI increases the risk of cancers of the breast, colon/rectum, endometrium, kidney, oesophagus and pancreas (WCRF/AICR, 2007). Overweight and obesity are also associated with impaired mental health well-being and low self-esteem, infertility, poor pregnancy outcomes, sleep apnoea, osteoarthritis and general mobility problems. Given limited mobility, obese people are less likely to engage in

physical activity of moderate to high intensity, which exacerbates the health problems they face.

The prevalence of overweight and obesity in children has also increased since the 1990s. T2DM is now being seen in children as a consequence of this increase and the metabolic changes associated with obesity. Early onset of T2DM is associated with an increased risk of morbidity and mortality during the most productive years of life. Microvascular complications can be present at time of diagnosis. Adolescents with T2DM are also prone to secondary obesity-related complications, including hypertension, non-alcoholic fatty liver disease and metabolic syndrome, all of which are associated with increased cardiovascular risk. The earlier that a person develops T2DM, the earlier and more likely they are to be affected by the associated macro- and microvascular complications. This has a significant impact on the quality of their life (Pinhas-Hamiel and Zeitler, 2007). As with adults, being overweight or obese not only affects the physical health of children but also their psychological health. Children may be bullied because of their weight and the underlying weight stigma present in society can mean that they are less likely to achieve their academic and employment potential (Puhl and Brownell, 2003).

Latest figures suggest that the global prevalence of overweight and obesity in children aged under 5 years has increased from around 5% in 2000 to 6.3% in 2013 (WHO Global Database, 2014). With easy access to energy-dense fast foods and a greater number of indoor based leisure activities that lead to sedentary lifestyles, prevalence levels continue to increase with age. This is causing concern to many government health departments. Again, health inequalities are seen, with children of less educated parents being most affected.

The WHO European Region Health Plan for 2020 promotes a life-course approach to help achieve universal access to affordable, balanced and healthy food for all. Organizations such as Public Health England are committed to supporting the development and implementation of a national childhood obesity strategy (PHE, 2015). This life-course approach will include the importance of good maternal nutrition. There will be more focus on antenatal lifestyle advice given the clear associations between growth *in utero* and early infancy and subsequent health, including risk of childhood obesity and adult cardiovascular risk (Barker, 1995). The health benefits of breastfeeding still need to be promoted with more mothers encouraged to both initiate breastfeeding and also to breastfeed for a longer period so that both the mother and infant can get the full benefits. In developed countries we see differences in breastfeeding rates across different socioeconomic groups and efforts to increase breastfeeding rates need to be targeted to more socially deprived communities where the level of maternal education is lower. Establishing good breastfeeding practice is important alongside the

introduction of appropriate solid foods, given that good eating habits are acquired at an early age.

Children, up until a certain age and apart from in a school setting, are dependent on their parents with respect to both access to a healthy diet and opportunities to be physically active. Hence any attempt to promote lifestyle change in children should include parents and, for some cultures, grandparents and the extended family also, as the main agent of change. Generally, a family approach works best.

Hyperinsulinaemia/hyperglycaemia/hyperlipidaemia

These metabolic abnormalities are characteristic precursors of both T2DM and cardiovascular disease. The transition from prediabetes to T2DM in adults is usually a gradual progression that occurs over a period of 5–10 years (Weiss *et al.*, 2005). Fundamental to the development of T2DM is a level of insulin resistance. When the muscle and liver become resistant to the action of insulin, as is often the case in overweight and obese individuals, the pancreas tries to compensate by producing more insulin to maintain normal blood glucose levels and this is characterized by hyperinsulinaemia. When pancreatic function is not able to maintain this level of activity, blood glucose levels gradually rise and in the early stage of declining function this would be associated with impaired glucose tolerance. Whilst obesity is probably the most important cause of insulin resistance, it is not the degree of obesity itself but the distribution of body fat that has the greatest effect. Increased visceral fat and decreased subcutaneous fat deposition are more closely linked to insulin resistance. People with an 'apple-shaped' figure and greater abdominal obesity are more likely to develop metabolic abnormalities compared to those with a more 'pear-shaped' figure. Some ethnic groups are genetically more sensitive to abdominal adiposity and these metabolic changes are seen at a lower BMI and it is recommended that different BMI 'cut off' values are used with different ethnic groups (NICE, 2013).

Insulin resistance and hyperinsulinaemia also impair lipid metabolism and are associated with higher circulating triglyceride and free fatty acid levels and lower levels of circulating HDL-cholesterol, the latter being beneficial in reducing the risks of raised cholesterol levels.

Hence it is appropriate that many government health departments are screening for prediabetes in order to offer public health interventions that prevent or delay the progression to T2DM. These interventions are likely to focus on weight management to reduce both insulin resistance and hyperinsulinaemia and prevent the associated abnormalities seen in lipid metabolism. Approximately one quarter of some adult population groups may be found to have prediabetes, according to the WHO guidelines, on screening (Abraham and Fox, 2013).

Summarizing the need for lifestyle change

As indicated previously, a large proportion of NCDs are both preventable and better managed through the reduction of the four modifiable behavioural risk factors. Healthcare systems should deliver interventions for individuals who either already have NCDs or who are at risk of developing them. Further, the long-term nature of many NCDs requires a comprehensive approach that is not dependent on the time of diagnosis or stage of the condition.

Still the main focus of healthcare for NCDs in many countries remains hospital-based acute clinical care based on a medical model. People with NCDs present at hospitals when cardiovascular disease, cancer, diabetes and chronic respiratory disease have reached the stage of being an acute event or with long-term complications already established. This is a very expensive approach that will not contribute to a significant reduction in the burden of NCDs. It also denies people the health and social benefits of taking care of their condition at an early stage. The prevention and management of NCDs needs to be integrated both into primary healthcare and the acute setting. Gaps in the provision of support for people with NCDs can lead to heart attacks, strokes, renal disease, blindness, peripheral vascular disease, amputations and the late presentation of cancer. It can deny people who have been successfully medically treated to make a full recovery and prevent secondary reoccurrence.

Whilst cardiovascular diseases, cancers, diabetes, chronic respiratory disease and, increasingly, liver disease have been listed as the main NCDs contributing to global ill-health, other chronic conditions such as poor mobility, lower back pain, osteoporosis, functional bowel disorders, dementia and poor mental health are of increasing importance. These chronic conditions all contribute to the individual and societal burden and are likely to further increase in prevalence given the aging population. The same four modifiable behavioural risk factors may also contribute either directly or indirectly to the severity of these conditions and may also be used to improve patient outcomes.

Other long-term conditions where group education may play an important role in helping the individual to better manage their health include type 1 diabetes, coeliac disease, physical disabilities including arthritis and chronic kidney disease.

1.3 Why group education?

The 30% of the UK's population with a long-term condition, including non-communicable disease, accounts for 70% of the current NHS spending. Reducing people's dependence on healthcare professionals and increasing

their sense of control and well-being is a more intelligent and effective way of working (de Silva, 2011).

Self-care is defined by the WHO as including 'activities that individuals, families and communities undertake with the intention of enhancing health, preventing disease, limiting illness and restoring health' (WHO, 2002). Self-management support through the provision of group education that focusses on behaviour change can help to improve self-efficacy, which in turn can have a positive impact on people's clinical symptoms, attitudes and behaviours, quality of life and patterns of healthcare resource use (Chih *et al.*, 2010; King *et al.*, 2010; Weng *et al.*, 2010; Sol *et al.*, 2011).

Self-efficacy refers to an individual's belief in their ability to successfully change a certain behaviour and to be able to maintain this behaviour change. Those with high levels of self-efficacy feel confident in their own ability to be able to achieve certain goals.

Group education and peer support programmes aim to help people learn how to manage their own care more effectively, including when to use different healthcare services and resources. Many group education sessions take place in a healthcare setting or in the community but there are also some examples that have been delivered in the workplace, children's centres and schools. This book provides examples of different settings in which group education can be delivered.

Information provision alone is unlikely to be sufficient to motivate sustainable behaviour change and improve clinical outcomes.

General components that have been proven to support self-management include:

- involving people in decision making
- emphasizing problem solving
- promoting healthy lifestyles and educating people about their conditions and how to self-manage
- motivating people to self-manage using targeted approaches and structured information and support
- helping people to monitor their symptoms and know when to take appropriate action
- helping people to manage the social, emotional and physical impacts of their conditions
- providing opportunities to share and learn from other service users with the same condition (de Silva, 2011).

Whilst all of these components can be more efficiently delivered through group delivery, it is the benefits of the wider support in the group setting that allow for the opportunities to share and learn from peers. Groups offer a forum for people, and their family or carers, with any long-term condition to gather and learn together.

A group can be defined as **a gathering or an assembly of people with a common interest**, such as diabetes self-management (Mensing and Norris, 2003). The number of people in a group can vary dependent on a number of factors including the topic, the delivery method, the size of the venue, the facilitators preference and ensuring viability. However, a minimum number of group participants is usually required to maximize the full benefits of group support.

Group attendees and educators have an opportunity to use creative approaches to learning.

1.4 What is the evidence for group education?

Putting aside cost-effectiveness, published literature demonstrates that group education for self-care can provide benefits in terms of knowledge, self-efficacy and health outcomes. Much of the literature has studied the benefits of group education for people with diabetes (Mensing and Norris, 2003). Since the 1970s, supporting people with diabetes in groups to help improve their glycaemic control has been seen as an effective intervention. Today, lifestyle interventions are recommended for preventing T2DM in people at high risk with up to a 58% reduction in risk cited as achievable (NICE, 2012). For those people with diabetes, the use of trained lay educators to facilitate the group is being explored with positive findings (Mandalia *et al*., 2014).

A number of NCDs, other long-term conditions and innovative evidence-based programmes that have been designed to promote lifestyle change in different population groups and that have measured efficacy, are presented as examples to encourage change in practice:

The ROMEO study for people with type 2 diabetes

Italian people (n = 815), with non-insulin treated diabetes and who had been diagnosed with diabetes for at least 1 year were randomized to either a group or to individual care.

Seven 1-hour group sessions with around 10 participants were held over 2 years with the group education including group work, hands-on activities, problem solving, real-life simulations and role playing.

After 4 years, those attending the group sessions had much better diabetes and cardiovascular management, despite being on similar medications.

Equally, their health behaviours, quality of life and knowledge of diabetes were all significantly better (Trento *et al.*, 2010).

TOP TIP FOR SUCCESSFUL GROUPS

Group facilitators receive training, support with materials and regular supervision.

There is more about role play in Chapter 5.

A peer support diabetes prevention programme

A peer support diabetes prevention programme demonstrated effectiveness of a culturally sensitive programme delivered by trained peers in Turkish- and Arabic- speaking communities in Australia. Ten bilingual peer leaders were recruited via a media release from existing health and social networks (leaders included ethnic workers, interpreters, health promotion workers, teachers), and were trained by diabetes educators over a 2-day period. Each leader recruited 10 participants who attended two lots of 2 hour sessions 1 week apart, with support telephone calls as follow up. Leaders were paid for their training time, recruitment of participants and delivering the sessions. The small group intervention was based on a modified, culturally sensitive training manual and delivered using interactive strategies using culturally sensitive foods. Pedometers were given out as an incentive to increase activity levels.

Three months after the programme the participants mean body weight and waist circumference were both significantly reduced, diabetes knowledge enhanced and lifestyle behaviours significantly improved (Sulaiman *et al.*, 2013).

TOP TIP TO ENSURE A CULTURALLY APPROPRIATE COMMUNITY APPROACH IS USED

Culturally appropriate health education is defined as 'education' that is tailored to the cultural or religious beliefs and linguistic skills of the community being approached, taking into account likely literacy skills (Overland, 1993). It could include adapting established 'health education' to innovative delivery methods, such as using community based health advocates, delivering the information to same gender groups or adapting dietary advice to fit the likely diet of the population group (Hawthorne *et al.,* 2008).

In a 2014 Cochrane review and meta-analysis (Attridge *et al.*, 2014), culturally appropriate diabetes health education in ethnic minority groups was found to result in a 0.2–0.5% reduction in HbA1c and improvements in triglycerides and diabetes knowledge. This is despite ethnic minority groups traditionally being viewed as being hard-to-reach and not accessing traditional diabetes care.

Comparing individual versus group therapy for obesity management

Renjilian *et al.* (2001) investigated whether treatment preference affected weight loss outcomes. In their study, adults with obesity who expressed a clear preference for either individual or group therapy were randomly assigned to either their preferred or their non-preferred option, each delivered over 26 weekly sessions and including behavioural weight management training, for example self-monitoring and goal setting. At the end of the 'treatment' the group therapy produced significantly greater reductions in weight compared to individual therapy. No significant effects were observed for treatment preference suggesting that group therapy produces greater weight loss even amongst adults with obesity who expressed a preference for individual treatment.

TOP TIP: ACKNOWLEDGE THAT SOME PEOPLE WILL FEEL UNCOMFORTABLE ABOUT GOING TO A GROUP BUT WILL ACTUALLY DO BETTER BY GOING TO A GROUP

Some people are nervous about going to groups for the first time. Hence it is really important that they are warmly welcomed. It can be helpful if supporting literature is available explaining what happens in the group and this is provided when the person is first invited to the group. Also, providing the contact details of the group facilitator so that the person can contact the facilitator in advance for further reassurance.

In reality there are very few individuals who would not be better going to a group for support. So be brave and make the group support the first choice.

Group education for couples to reduce their risk of cardiovascular disease

Couples were randomized to a group programme delivered over 16 weeks with a series of six sessions. The sessions addressed nutrition, physical activity and the benefits of a healthy lifestyle, and were delivered by an exercise

physiologist and a dietitian. Besides the focus on increasing physical activity levels and improving dietary habits, information about behaviour modification was also included. This covered topics such as barriers to behaviour change, costs and benefits of a healthy lifestyle, goal setting, time and stress management. Although reducing alcohol consumption and cigarette smoking were not the main focus, information on these topics was included consistent with the objective of achieving a healthy lifestyle.

Improvements, particularly in dietary behaviour but also in physical activity levels, were seen in a 1-year follow up when compared to the control group (Dzator *et al.*, 2004).

TOP TIP: PROVIDE IN-BETWEEN GROUP SUPPORT

In-between group mail-outs were used to complement the interactive group sessions. Given the use of technology in modern society, text messages may be an effective alternative or the use of social media where a closed Facebook page could provide the additional support.

TOP TIP: ENCOURAGE PEOPLE TO BRING A FRIEND OR ANOTHER FAMILY MEMBER TO THE GROUP

There can be benefits for the group member bringing along their partner, a friend or other family member.

Self-management group programme for people with arthritis

A self-management group programme for people with arthritis involved pairs of lay leaders, most of whom had arthritis themselves, delivering six weekly sessions with guidance by a manual to ensure consistency in delivery. Topics covered in the programme included exercise, cognitive symptom management, dealing with depression and good nutrition besides information about arthritis, setting realistic goals and communications with healthcare professionals. At four and 12 months follow up, the intervention group of 311 people had a greater self-efficacy, were less depressed and had a greater positive mood, had better dietary, exercise and relaxation habits with the number of visits to the GP decreased by the 12 month follow up (Barlow *et al.*, 2000). The underlying self-efficacy theory used in this programme used four efficacy enhancing strategies; skills mastery, modelling, persuasive communication and re-interpretation of symptoms.

TOP TIP: ROLE MODELS INSPIRE OTHER GROUP MEMBERS; ALL GROUP MEMBERS CAN ENCOURAGE ONE ANOTHER

Modelling is a really useful technique whereby a positive role model, who is successfully managing aspects of their life, serves as a source of inspiration to other group members.

And **persuasive communication** is all about group participants encouraging fellow group members to do just a little bit more than they are currently doing.

TOP TIP: THINK ABOUT WHAT OUTCOME MEASURES WILL BE USED TO MEASURE SUCCESS

Self-efficacy is an important outcome measure to report on. Outcome measures are discussed further in Chapter 2.

Group based 'treatment' for childhood obesity in a community setting

In Finland, children aged 7–9 years were randomized to either a family-based group programme or to routine care involving two individual appointments with a physician. The approach of the family-centred group was based on the principles of behavioural and solution-focussed therapy. The programme emphasized the importance of a healthy lifestyle and the well-being of obese children rather than weight management. Parents were targeted as the main agent for change given their responsibility for making changes happen at home. Most lifestyle changes encouraged were intended for the whole family and any overweight or obese parents attending who wanted to lose weight were encouraged.

The group programme consisted of 15 sessions of 90 minutes' duration over 6 months, held separately for the parents and the child, except for the one where making healthy snacks was the main topic. Each group consisted of seven children and their parents. 'Homework' was given to both parents and children so that they could practice certain skills between sessions. The children's programme was adjusted to the child's cognitive developmental level and thus consisted of functional activities with special themes, for example treasure hunting, to encourage continued participation.

The results showed that the children attending the group programme lost significantly more weight for height compared to routine practice. Attrition from the programme was less than 3%, which shows excellent commitment by the children.

The published paper demonstrating the effectiveness of the group programme provides a clear outline of the content of each session (Kalavainen *et al.*, 2007).

TOP TIP: DIFFERENT APPROACHES WILL BE REQUIRED WHEN WORKING WITH CHILDREN OF DIFFERENT AGES

When developing groups for children it is important to consider the age range. A different style of delivery is required for older children and for older adolescents the approach may be to not include their parents, although up until the age of 16, parental consent should be sought to allow participation in the group.

When working with children (and vulnerable adults), it is important that the group facilitators have the required criminal record checks and appropriate safe-guarding measures have been undertaken.

Workplace health promotion programme

A workplace health promotion programme encouraged employees to engage in healthy lifestyles through various challenges, for example, the healthy weight challenge where participants were encouraged to consider their energy intake and expenditure during the holiday period. As the programme was across a number of sites, a team approach was also used; for example, the Mount Everest fitness challenge, where each team moved a certain distance up a web-based map towards the top of Mount Everest by exercising, meeting the Food Pyramid guidelines and by getting adequate rest. Over a thousand employees participated, (around one-fifth of the total eligible), in the programme for either 1 or 2 years and at the end those who participated had, on average, three fewer days absent from the workplace (Aldana *et al.*, 2005).

TOP TIP: THE WORKPLACE IS AN IDEAL SETTING TO DELIVER GROUP EDUCATION FOR LIFESTYLE CHANGE

The workplace is an excellent setting to deliver group education for lifestyle change. Employers are attracted to the investment given the potential to increase productivity through the improved well-being of the workforce. Absenteeism is costly and reducing absenteeism is a positive outcome.

TOP TIP: GROUPS CAN WORK WELL TOGETHER IF A TEAM APPROACH IS ADOPTED

People generally like challenges but for those who are less keen, a group approach is less threatening. A group can be considered as a team of people who are either competing against other groups or who, as a team, are striving for certain goals.

People with serious mental health illness

People with serious mental health illness are at an increased risk for a number of chronic medical conditions, which the HARP peer-led group programme endeavoured to address (Druss *et al.*, 2010).

The six-session group intervention delivered by trained mental health peer leaders helped participants. Advantages were reported in physical health related quality of life, physical activity levels and medication adherence when compared to usual care. Greater advantages were experienced amongst the subgroup with greater social vulnerability.

TOP TIP: A GROUP FACILITATOR NEEDS TO BE SENSITIVE TO INCOME LEVELS AND THE POTENTIAL HIGHER COSTS OF HAVING A HEALTHIER LIFESTYLE

The diet and physical activity components of the group programme had to be modified to address the high rates of social disadvantage in the population. It is important to be sensitive to income levels and the potential higher costs of having a healthier diet and undertaking physical activity. Having tips on how to eat and be more active on a budget are valuable resources.

Some groups may form their own food cooperatives and make the most of special offers.

We can all learn much from the commercial slimming organizations who successfully deliver weekly groups to large numbers of people who are trying to manage their weight. The group facilitators are all role models who have received training and are passionate about supporting others to be equally successful. There are systems in place to praise the achievements of group members, no matter how small these achievements are, but also persuasive communication to encourage people to do even 'better' if they can. The community approach means that the group influences the discussions based on local community needs.

We acknowledge that there will be some people who will benefit more from individual support. For example, it can be quite difficult to support the underweight person with either T2DM or cardiovascular risk factors in a group setting when everyone else in the group is overweight or obese and would benefit from losing weight. However, these individuals are a smaller group with almost 90% of people with T2DM having a raised BMI.

This book will provide the encouragement and support that healthcare professionals and lay trainers need to help them facilitate effective groups motivating people to make lifestyle changes and better manage their own conditions. For scalable solutions to the increasing health burden associated with non-communicable diseases, good practice needs to be cascaded. There is a need for more people to be trained who are effective at delivering group education.

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