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Kirklees Young Pals Evaluation: Final Report

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# Kirklees Young Pals Evaluation

## *Final Report*

January 2009

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**Claire Fraser, Kiara Lewis & Martin Manby**

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**Note:** Direct quotations in this report from services users (from recorded interviews or questionnaires) are in *italics*, without inverted commas.

**Claire Fraser, Kiara Lewis and Martin Manby**

**January, 2009**

# Executive Summary

## *Introduction*

- (i) Results of the first year of data collection for the National Child Measurement Programme suggest that Kirklees has average levels of children who are overweight and who are obese compared to national figures.
- (ii) In January 2008 the Government introduced a new strategy to combat obesity: “Healthy weight; healthy lives”.
- (iii) Childhood obesity has increased to unprecedented levels in recent years in the United Kingdom. Asian children are more likely to be obese than white children.
- (iv) Childhood obesity has been correlated with serious health risks and physical disorders.
- (v) The causes of the current rise in childhood obesity are complex. They are related to increased consumption by children of energy dense foods / fast foods / soft drinks, less consumption of milk and an increase in snacking. Current advice is that children should be active for at least sixty minutes per day at a moderate level. Children are walking less, partly due to car usage.
- (vi) Tackling obesity requires a combination of a healthy diet and an active lifestyle.
- (vii) Higher levels of obesity are linked to higher birth weights and most of children’s excess weight gain happens before school age. Breast feeding has a protective effect against obesity. Parents’ attitudes, beliefs and behaviour have been found to be influential in tackling childhood obesity.
- (viii) Guidance from the National Institute for Clinical Excellence (NICE) recommends multi-component interventions including behaviour change

strategies to increase physical activity, and improvement in eating behaviours and diets.

- (ix) A recent research overview (Riley 2007) commended prevention programmes promoting breast feeding; reducing television viewing and screen time; promoting physical activity; and reducing the intake of sugar sweetened, fizzy and fruit drinks
- (x) The Kirklees Young Pals (KYP) Programme had begun by 2003, supporting overweight or obese young people through physical activity programmes. More recently, educational elements and working with parents have been incorporated. Full time staff to deliver the Young Pals programme have increased. Kirklees Young Pals has run alongside the National MEND programme since 2007. The programme has been extended across the seven locality areas in Kirklees.
- (xi) School nurses and other health professionals have played a main part in recommending children and young people to Young Pals.

### *Evaluation*

The Nationwide Children's Research Centre (NCRC) was appointed to evaluate the Young Pals programme, in partnership with the University of Huddersfield, in 2006. The evaluation period was from September 2006 until September 2008.

- (xii) The evaluation methodology included physical measurements, self esteem questionnaires and questionnaires focusing on physical activity; and qualitative data, drawing on the experience of participants and their parents/carers, service providers and other professionals.

### ***Quantitative Data - Findings***

- (xiii) Data about 325 children was entered onto an SPSS database. Numbers of boys and girls have been roughly equal. Participants have been fairly evenly distributed across Kirklees. About two thirds of participants have attended infant/primary or junior schools; and (rather less than) one third

have attended secondary school. Asian, black and mixed ethnicity children have been over represented in the Young Pals sample.

- (xiv) About a third of the sample had dropped out by September 2008.
- (xv) School nurses recommended 36% of the sample and GP surgeries 11%. Substantial numbers were self referred. Publicity at schools and sports centres was particularly successful in raising awareness of the programme.
- (xvi) Children and young people who enrolled on the Young Pals scheme either attended physical activity (Fusion) sessions; or simply attended twelve weekly one to one review sessions, for example if they were participating in physical activity elsewhere.

#### *Impact of the service*

- (xvii) Self esteem increased for 72% of participants for whom at least two scores were available. Younger children scored higher (on average) than older children. Higher numbers of attendances at Fusion sessions were associated with higher self esteem. Most participants had positive attitudes to physical activity at the start of their involvement and therefore large increases in scores would not be expected. Young people with a disability had more positive attitudes towards physical activity than those without a disability.
- (xviii) Participants tended to record increases in frequency of participation in a range of physical activities, although there were some exceptions. Children were encouraged by Young Pals staff to exercise every day in whatever way they wished.
- (xix) 46% of young people increased the range (type) of activities in which they took part following participation in the programme; 20% recorded no change.
- (xx) Findings indicated that girls were more likely to choose a wider range of exercise, while boys were more likely to increase the frequency of

exercise participated in over time. Increases in both the type and frequency of exercise undertaken were more associated with children without a disability.

- (xxi) For children who had two sets of data recorded, 57% recorded decreases in body mass index (BMI). The mean decrease in BMI was 0.9
- (xxii) Almost all children and young people participating in the programme were either overweight or obese. The study found very high prevalence of obese and morbidly obese children in the sample.
- (xxiii) Most children remained at the same point on centile charts, although 10% moved to a lower weight category.

#### *Follow up of non attenders*

- (xxiv) Telephone interview data for children who had dropped out of the programme found that the proportion of children and young people participating in physical activity elsewhere was much increased amongst those who had previously attended Fusion sessions (compared with those who had not). As well, children and young people who had attended Fusion sessions were much less likely to feel shy or embarrassed at the prospect of attending physical activity sessions.

#### *Case Studies*

- (xxv) Case studies provided by the Young Pals staff team demonstrated progress achieved by individual young people; and close monitoring and support provided by KYP staff.

#### *Feedback from Fusion taster sessions in schools*

- (xxvi) KYP staff provided taster session programmes in 13 schools in the summer of 2008. Questionnaires received from 4 schools demonstrated extremely high satisfaction levels from those schools.



## **Qualitative Data - Findings**

### *Views of Children and Young People and Parents/Carers*

- (xxvii) Children and young people involved understood the aims of the programme and described improvements in self confidence and other benefits from attending. Most were knowledgeable about healthy eating.
- (xxviii) Qualitative data indicated that children's level of embarrassment about weight related issues had reduced following attendance at Young Pals.
- (xxix) Children and young people rated KYP staff very highly.
- (xxx) Parents described a range of benefits experienced by children and young people attending, including increases in self confidence, fitness, improved diet and evidence of healthy eating, and evidence of children taking on new sports and activities. Parents and carers consulted described the Young Pals staff as approachable and their advice for children as authoritative and motivational.
- (xxxi) Parents welcomed children of similar abilities coming together at Kirklees Young Pals in an environment free of stigma.
- (xxxii) Parents consulted, particularly in 2008, were knowledgeable themselves about healthy eating.
- (xxxiii) Parents who were overweight themselves were equally determined (as other parents) for their children to take advantage of the programme, although they could find this more difficult.
- (xxxiv) Experiences of children and young people and parents who participated in the National MEND programme were mainly very positive.

*Views of Dieticians and School Nurses and KYP staff*

- (xxxv) Dieticians and school nurses have welcomed and commended the Young Pals programme, emphasising the merits of a whole family approach.
- (xxxvi) Dieticians and school nurses commented positively on changes introduced by KYP in 2007, from a referral procedure to one based on recommending children and young people to the Young Pals programme. The scheme was now working “as well as it could”.
- (xxxvii) These professionals have acknowledged the limited time they have available to support children and young people with weight and obesity problems.
- (xxxviii) School nurses welcomed the extension of the Young Pals scheme through the provision of “taster sessions” in schools across Kirklees.
- (xxxix) School nurses’ main concerns (2008) were about children whose parents resisted getting involved with programmes like KYP; and about the barriers in accessing the scheme experienced by Asian young people due to (entirely proper) requirements for Mosque attendance after school.
- (xl) Kirklees Young Pals staff were very clear about service objectives.
- (xli) KYP Fusion sessions now (2008) include more emphasis on parental involvement including education sessions.
- (xlii) Staff recognised that the impact of diet on children’s weight was at least as important as the impact of physical activity; advice on both aspects had been successfully integrated into the programme.
- (xliii) Staff levels of confidence about achieving positive outcomes were high once children and young people had become actively involved in the programme.

- (xliv) Staff concerns were about overweight children not being picked up by GPs or school nurses; and about what they perceived as the Government's "softly softly" approach to tackling problems of childhood obesity.

#### *Views of strategic Managers*

- (xlv) Addressing the needs of overweight and obese children was a very high priority for Kirklees PCT. Future plans included more intensive intervention for children with the most serious problems.
- (xlvi) The evidence base for Kirklees had improved since the introduction of the National Child Measurement Programme.
- (xlvii) Kirklees PCT put a premium on the contribution made by Kirklees Young Pals to tackling childhood obesity.
- (xlviii) Opportunities to focus on children and young people's emotions and mental health needs were being prioritised by both Kirklees MDC and Kirklees PCT.
- (xlix) A multi-agency approach was crucial. Schools had a key role in combating obesity.

#### **Conclusions and recommendations**

- (i) The Kirklees Young Pals Programme has proved resilient, successful and adaptable; and responsive to feedback from participants, parents and professionals.
- (ii) The programme has successfully integrated Fusion sessions and the National MEND programme emphasising the involvement of the whole family.
- (iii) The programme has been well led. KYP staff are commended for their exemplary attitudes to reducing stigma attached to obesity; and for their sensitive and successful integration of children with a range of disabilities.

- (liii) The programme has successfully adopted and implemented a multi-agency approach. Partnership work between Kirklees MDC and Kirklees PCT has been effective and well developed. Close links with schools have been prioritised.
- (liv) The programme has been effectively targeted towards children in the obese or morbidly obese categories. Children from ethnic minority communities have been (appropriately) over represented in the sample.
- (lv) Evidence from the evaluation has confirmed positive progress achieved by participants.
- (lvi) A majority of participants for whom two sets of data were obtained have recorded decreases in BMI.
- (lvii) Health professionals and KYP staff have had most concerns about overweight or obese children and young people, particularly teenagers, and their families, who have not so far become involved in the scheme.

#### *Recommendations*

- (lviii) Continuation of the programme and of the multi-agency approach is strongly recommended.
- (lix) Promotion of the scheme should involve closer partnership with Children's Services and local schools, as well as the Healthy Schools Programme and Kirklees PCT.
- (lx) Targeting and recruitment of children and young people from the South Asian community, and also for teenagers should be prioritised.
- (lxi) The Kirklees Obesity Board should assist with implementation of recommendations; and consider how to influence Government policy to address issues of childhood obesity robustly.

- (lxii) A wider range of programmes including day and residential facilities needs to be commissioned alongside the Kirklees Young Pals programme, to help to address the needs of children and young people with the most serious obesity problems.

# 1. Introduction

## Background

Child obesity is a complex public health issue that has been documented as a growing threat to children's health, as well as a current and future drain on National Health Resources (NAO 2006). In response to this in 2004 the Government produced a PSA (Public Service Agreement) to "halt the year on year rise in obesity among children aged under 11 by 2010" (Department of Health 2004). To support this target in 2005 /06, PCTs (Primary Care Trusts) were asked to collect data on children's height and weight (reception and year 6) of all LEA schools. Locally, childhood and young people have been identified as a priority within the LAA's (Local Area Agreements). The results of the first year of data collection for the NCMP suggest that Kirklees has average levels of overweight and obesity at both age groups compared to the national average (YHPO 2008).

Obesity, and childhood obesity in particular, continues to be high on both local and national health agendas. In January 2008, the Department of Health introduced a cross government strategy to combat obesity 'Healthy weight; healthy lives' and with it provided a £372 million budget. The first priority of this strategy is 'by 2020 to reduce the proportion of overweight and obese children to 2000 levels' (Department of Health 2008). The first campaign from this strategy "Change 4 life - eat well, move more, live longer", launched in January 2008, aims to improve children's diet and activity levels. This was preceded by social marketing research which found in particular:

- Parents acknowledge childhood obesity is a problem – but not their problem
- Parents underestimate the amount they and their children eat and overestimate the amount of activity the family does
- Parents do not make connections between unhealthy weight status and long term health problems

## **Prevalence**

The background to this unprecedented Government intervention into children's lives was the alarming rise in the prevalence of obesity in England from 11% (1995) to 14% (2003) and this has continued to rise with latest available data suggesting 16% of children aged 2-15 are classed as obese (HSE 2006). Kirklees Obesity Strategy (2007) states that: *Obesity amongst children has doubled in 2 - 4 year olds in the last ten years, and has trebled in 6 – 15 year olds in the last eleven years. Obese children are more likely to be obese as adults. In Kirklees, 16.4% of Year 6 children are obese.* General trends suggest that Asian children are 4 times more likely to be obese than those who are white (NAO 2006) and that levels of obesity are increasing fastest in the most deprived areas (NAO 2006). Kirklees has average levels of income deprivation compared to national averages, but significant areas of poverty (Department of Health 2007).

## **Measurement of obesity**

While obesity is universally measured through BMI, difficulties arise when measuring BMI in children. Guidelines have now been produced nationally as to how to measure childhood obesity on a population level (Department of Health 2006). According to these guidelines and the PSA target, children are defined as overweight if their BMI is above the 85<sup>th</sup> centile and obese if above the 95<sup>th</sup> centile (Department of Health 2006). This cut off is derived from the UK National BMI classification (Department of Health 2006). When dealing with individual children the 91<sup>st</sup> and 98<sup>th</sup> centile tend to be used and are the cut off points used within the Young Pals Scheme.

## **Health impact**

Childhood obesity has been correlated with increased cardiovascular risk and the recent increases in type II diabetes in early adolescence are probably related to increases in obesity levels in this age group (Steinbeck 2001). It has also been demonstrated that childhood obesity substantially increases the risk of orthopaedic, respiratory and psychosocial disorders and, importantly, obese children are more likely to become obese adults (Department of Health 2006). The likelihood increases the more obese a child is, and if parents are obese (Department of Health 2004). Childhood obesity is associated with increased adult cardiovascular morbidity and mortality, irrespective of adult weight (Steinbeck 2001).

## **Causes**

There has been much speculation as to why children's weight levels and obesity are increasing; and there is now a commonly held belief that children are eating too much and not exercising enough. However, when these two areas are studied more closely, the causes (and therefore the prevention/treatment) are found to be much more complex. One of the problems has been difficulties in measuring both physical activity and diet. Most research to date relies on self-report of behaviours which are both difficult to define and to measure. Calorie consumption includes both food and liquid consumption. When the total calorie consumption of children today (self/parent reported) is compared to that of the 1960's there does not appear to be much difference (Eisenmann 2006). However the content and the pattern of eating has changed considerably with more consumption of energy dense foods/ fast foods/ soft drinks and less consumption of milk and an increase in snacking (Eisenmann 2006). Fizzy drinks and sugar and chocolate confectionary are the top three sources of non-milk extrinsic sugars in children's diets (aged 7-10 years) (BMA 2005). The contention therefore that we merely need to reduce caloric consumption in order to manage weight is clouded by the importance of the macro and micro-nutrient content of the food consumed, and also possibly by children's eating behaviours and patterns. In order to assess the effectiveness of any weight loss intervention these need to be taken into account.

Assessing the other side of the equation – energy output – is also complex. Difficulties arise in not only measuring physical activity but also defining what we mean by physical activity. Definitions used by Sport England (Sport England 2006) encompass all forms of energy expenditure such as walking to school and gardening, yet when questioning children on their activities research typically focuses on structured sport / exercise. As to how much activity children should be doing, many questions still remain. The advice is that all children should be active for at least 60 minutes a day of moderate activity (Department of Health 2004) and at least twice a week this should include activities to improve bone health, muscle strength and flexibility. But this is compounded by what type of activity? What does moderate mean? Activity levels in children at present are much higher than in adults (70% boys and 61% of girls are already meeting recommendations), (Sport England



2006) suggesting that these recommendations may be conservative when looking at the prevention and treatment of obesity. It may also be that methods of measuring activity may not be accurate. The most common methods of measuring energy expenditure on a large scale (self-report) are also the most unreliable. Whereas energy expenditure can be estimated to some extent when attending designated sessions, the overall increase in activity (e.g. walking more instead of using the car etc.) is again more difficult to measure. What is certain is that children are walking less (due to car usage, in particular as a means of travelling to school) and that safety concerns have led to their playing freely less (Mackett and Paskins 2008).

### **Role of diet and exercise in the management of obesity**

The majority of research in this area is on adults. However there is a growing body of evidence that has researched into childhood obesity (research on ethnic minority groups and gender difference is very limited) and found:

- 1) Diet and exercise is more effective than diet alone
- 2) Exercise can increase fitness levels in obese children
- 3) Exercise particularly an 'active lifestyle' is important for maintenance of weight loss (10 year follow up studies)
- 4) Exercise and behaviour modification (including the family, dietary advice, encouraging participation in active rather than sedentary pursuits) is most effective

Exercise has been described as:

*an empirically validated method of treating paediatric obesity.... the impact has been found through synthesis of available research to have a modest to strong impact on selected body composition variables (LeMura and Maziekas 2002 p. 494).*

The UK Government has also set targets to increase physical activity in the population. This includes a PSA of increasing the proportion of school children who spend a minimum of two hours a week (within or outside of school time) on high quality PE and sport from 25% in 2002 to 85% by 2008; and by 2010 for all pupils to do up to two hours sport in school hours and two to three hours outside of school hours (Department of Health 2004).

The 2012 Legacy Action Plan (launched June 2008) aims to get 2 million more people active by 2012 and includes a school walking challenge and investment in children's play.

Research has been conducted to establish what barriers to physical activity exist amongst children, and the results suggest three distinct areas:

- (i) preferences and priorities (preferring to do other things);
- (ii) family life and parental support (parents not supportive);
- (iii) restricted access to opportunities (Brunton et al, 2003).

The majority of interventions to date that have tried to increase activity levels have been school-based and most have focused on providing information / education. They have mostly been undertaken in the US and few intervention studies have been conducted in the UK (Brunton et al, 2003). There is, therefore, little evidence of what is effective to guide physical activity promotion. The recommendations that do exist suggest engaging parents in supporting and encouraging their children's physical activity, and providing opportunities for family participation and combining this with education and provision at school. Successful approaches that take into account children's views "provide children with a diverse range of activities to choose from; emphasise the aspects of participating in physical activity that children value (e.g. opportunities to spend time with friends); (and) provide free or low-cost transportation and reduce costs" (Brunton et al, 2003 p6).

### **Other factors**

There is now some evidence that sleep duration is linked to obesity in children (Eisenmann 2006) and that this has been reduced over previous decades. The increase in availability of electronic equipment in children's bedrooms leading to later bed-times may be a contributory factor. The origins of the obesity problem may in fact be *in utero* as the rise in obesity in children has been mirrored by an increase in mean birth weights (Surkan et al 2004). There are strong links between high birth weight and increases in obesity in adolescence and adults (Garn 1976) and evidence of links with very low birth weights (Steinbeck 2001). Children born to obese mothers are twice as likely to be obese by the age of two (Catalano & Ehrenberg 2006) regardless of

their birth weight suggesting there is both a genetic and environmental impact. The lack of recognition of the “maternal-foetal origins of obesity may help to explain why (traditional) approaches of diet and exercise are ineffective” (Eisenmann 2006 pp 332). Breast feeding has consistently been shown to have a protective effect on childhood obesity (BMA 2005). The latest Government strategy (Healthy Weight Healthy Lives, Department of Health 2008) recognises these factors and pregnancy and early years and breastfeeding are given a high priority. Parents’ attitudes, beliefs and behaviours have been found to be influential and require a supportive environment (impact of deprivation) (BMA 2005). Recent research suggests strategies to prevent childhood obesity may need to focus on pre-school children since much of children’s excess weight gain is thought to happen during early years (BBC News 2008).

Finally there is increasing concern about children’s and young peoples’ level of stress and the potential links to obesity. “It is conceivable that environmental noise, crime, terrorism, household stress etc. may be contributing to the overall stress load of contemporary children and adolescents” (Eisenmann 2006 pp. 331). The impact of the social and physical environment provided for children is manifested in the physiological response in children to problems of being overweight and obese. This requires more than providing information on diet and exercise and hoping that the result is a change in behaviour. The complex interaction of parental behaviour, socioeconomic status, and marketing varies with age (BMA 2005).

### **Intervention strategies**

If the causes of obesity are complex then so too will be its treatment.

*Overweight and obesity in children are socially engineered problems. Physiology is responding appropriately to the conditions of plentiful food supply and reduced activity by storing fat.*

Steinbeck 2001 pp.126

There is to date very little evidence of how to effectively prevent or treat obesity in children. NICE (2006) recommends for children multi-component interventions including behaviour change strategies to increase people’s physical activity levels or decrease inactivity, and to improve eating

behaviours and diet (NICE 2006). More recently the Foresight review (2007) recognises the need for diet and exercise interventions to coexist with parallel environmental interventions to support and facilitate behaviour change (Jebb et al, 1997).

Evidence to date on successful weight management programmes suggests that behavioural modification can enhance an exercise programme: for example, including parents, providing nutritional advice, and encouraging more spontaneous activity as well as attending structured exercise sessions (LeMura and Maziekas 2002). Evidence to date on the MEND programme has found similar results; that intensive, child-orientated multidisciplinary programmes can improve the health and psychological well being of obese children. There is in particular, however, a lack of research on successful interventions that address ethnic and gender differences, despite the knowledge that children from ethnic minority backgrounds tend to be less physically active and that gender differences in both activity participation and fat deposition and removal exist (LeMura and Maziekas 2002).

The recognition of psycho-social issues is also deemed essential to effective weight management in children. Changes in psychosocial health are regarded as an essential component of any weight loss intervention (Hill 2005). Both depression and low self-esteem are predictors of drop-out from paediatric weight management services. However, the relationship between the two is not clear. In particular, this is true in younger children where obesity does not appear to impact on concepts of self worth – it is only during adolescence (and more commonly in girls) that links (but not necessarily causative relationships) are found to self-esteem (Hill 2005).

A recent research overview on Childhood Obesity (Reilly, 2007) proposes that prevention programmes should focus directly on obesity rather than healthy living; should modify target behaviours; do no harm; and produce measurable impacts. This research overview commends prevention programmes which promote breast-feeding; reduce television viewing and screen time; promote physical activity; and reduce the intake of fruit juices and sugar-sweetened fizzy drinks. Children's well-being has been found to increase when they are involved in responsible programmes aimed at the prevention or treatment of obesity. Overall, children's behaviours have been found to be more resistant

to change than previously thought. Reilly refers to the Planet Health programme conducted in schools in the USA (Gortmaker et al, 1999), a randomised control trial carried out over two school years which successfully prevented new cases of obesity in girls; the positive effects of the programme are attributed by the authors to a reduction in television viewing.

The suggestion from most of the research to date is that further evaluations of what does and does not work for overweight and obese children are needed. More is required on the most effective ways of engaging young people in physical activity, both structured and spontaneous; and more is needed on preventing future weight gain on those already overweight and on the psychological impacts of obesity in childhood.

*“Given the shortage of evidence on what works for obesity, it will be of critical importance to ensure that high quality evaluations are put in to place as programmes and initiatives are rolled out” (NAO 2006).*

### **Kirklees Young Pals**

*Part of the evidence in this section was provided by the Kirklees Physical Activity Development Manager, and by the Health Improvement Practitioner responsible for the Kirklees PCT Obesity Programme.*

Kirklees Young Pals was developed by Kirklees Culture and Leisure Services in partnership with Kirklees Primary Care Trust (PCT) based on their experience of running the Adult Pals Programme, launched in 1994. This provided activity programmes for people with a wide range of health problems, including people who were overweight. Young Pals had started by 2003 with a clear focus on supporting young people who were overweight (above the 91<sup>st</sup> centile) or obese (above the 98<sup>th</sup> centile). The Young Pals Programme has been influenced by NICE (National Institute for Clinical Excellence) Guidance which emphasised tackling problems linked to young people being overweight or obese through a combination of physical activity, nutrition and addressing emotional and mental health needs. All three elements were included in monthly Meltdown physical activity clinics. Initially, these were run alongside weekday physical activity Fusion sessions. During

the period of the evaluation (2006 / 2008) educational elements including food and nutrition and behaviour change, and working with parents were incorporated into Fusion programmes. In response to participant requests for more weekly sessions, separate weekend Meltdown sessions were phased out. In 2007 / 2008, more emphasis was placed on involving parents in Fusion sessions, including providing education sessions for parents as well as children. Fusion sessions have been run on Saturday mornings in North Kirklees for Asian children unable to attend after school sessions because of Mosque attendance commitments. Programmes have been run for children aged 5 – 11 and 11 – 16 in North and South Kirklees. Sessions have provided a structured programme of games and physical activity, including regular measurement of height and weight; and more recently education, food and nutrition and behaviour change.

During the period of the evaluation, numbers of full-time staff for the Young Pals Programme increased from 2 to 4.5 full-time equivalents. Kirklees Primary Care Trust (PCT) took responsibility for joint funding the programme, reflecting the priority attached to tackling problems of obesity for both adults and children. Sport England provided additional funding.

During 2007, a key development was the introduction of the National MEND (Mind, Exercise, Nutrition, Do It!) Programme funded through the Big Lottery. MEND is an inclusive programme for whole families, providing intensive (twice-weekly) sessions for children and including educational elements for adults, running over nine weeks. Involvement in the MEND Programme took approximately a quarter of the Young Pals staff team's time by July 2008. The programme had been rolled out across Kirklees, running now in seven locality areas up to three times per year. Programmes were co-ordinated by the Kirklees Physical Activity Development Officers under the umbrella of the Young Pals Programme, with opportunities for transfer between the programmes and follow-up support.

A second key development was the introduction by the staff team of Young Pals "taster" programmes run over six sessions and based in schools, free of charge, across the Authority in the summer term, 2008. These sessions aimed to raise children's awareness and to motivate them to become involved in Young Pals.

### *Referrals / Recommendations*

To start with, children and young people were referred to Young Pals, mainly by School nurses, via their General Practitioner who could also refer children to Dieticians. Joint clinics were held initially by Kirklees Young Pals and by Dieticians with the former assessing physical activity needs, and the latter assessing nutrition and dietary requirements. Self-referrals became increasingly important during the lifetime of the project.

However, referral processes overall proved cumbersome and were replaced by a system based on recommendations from 2007. School nurses, or other health professionals, after seeking parental consent, recommended children and young people directly to the Young Pals service. Joint clinics with Dieticians had been discontinued by the spring / summer of 2008: this was because numbers using the clinics had dropped; and also because the Physical Activity Development Officers were more confident about assessing children's healthy lifestyles, including nutrition, following training received for MEND programmes and for weight management. Dieticians recommended that the wider role adopted by the Physical Activity Development Officers should be continued.

Evaluation of the programme was discussed initially with the University of Huddersfield (Kiara Lewis, Senior Lecturer in Physical Activity, Exercise and Health) early in 2006. Aims of the evaluation were described as:

- (i) To evaluate the effectiveness of a care pathway for overweight and obese young people
- (ii) To find out what works locally for children and young people who are overweight and obese to inform local practitioners and contribute to the debates about effective approaches to tackling childhood obesity
- (iii) A case study approach to evaluation was recommended as its aims are to be inclusive, and the evaluation would consider processes as well as outcomes

- (iv) A triangulation of data collection techniques would be used to enhance the validity of the data combining quantitative (questionnaires, psychological tests) and qualitative (semi-structured) interviews. An evaluation framework was developed between Kirklees Culture and Leisure and the University of Huddersfield

The Nationwide Children's Research Centre (NCRC) was approached in June 2006 to undertake the evaluation in consultation with Kirklees Culture and Leisure and the University of Huddersfield, and a contract for the evaluation was agreed in October 2006.

Kirklees Culture and Leisure stressed the importance of including parents and referring agencies in the evaluation.

### **Methodology**

Following negotiation it was agreed that the evaluation would comprise:

- (i) Attendance data for young people at Meltdown or Fusion sessions (and for parents attending Meltdown sessions where available).
- (ii) BMI, weight (kilograms) and body fat percentage to be recorded at monthly Meltdown sessions at regular intervals (Weeks 1, 12, 24 and 48).
- (iii) Self-esteem (of young people) to be measured using the Rosenberg Self-Esteem questionnaire at regular intervals.
- (iv) Additional questionnaires recording Type and Frequency of Activity and Attitudes towards Physical Activity to be completed by young people

The evaluation framework included focus groups with children and young people, parents/carers, referring agencies (school nurses and dieticians); and meetings with Kirklees Culture and Leisure Services staff (6-monthly). In the second year of the evaluation, short (10 minute) interviews with children and young people were substituted for focus groups as interviews proved more



productive. Additional data was obtained regarding young people from forms recommending children to the scheme, review meetings, exit interviews and follow-up telephone calls (including 36 with parents of children who had stopped attending Fusion sessions).

An evaluation Steering Group was established, chaired by the Kirklees Culture and Leisure Physical Activity and Development Manager, including Kirklees Culture and Leisure Services staff involved in running the project, the University of Huddersfield, and the NCRC. Steering Group meetings continued to be held throughout the lifetime of the project. The Steering Group monitored data collection throughout the evaluation. An Interim Report was produced in the autumn of 2007. Feedback data from schools where Young Pals “taster sessions” were run in 2008 was made available to the evaluators. The Physical Activity Development Officers agreed to produce case studies to illustrate children and young people’s progress.

## 2. Quantitative Data

### Summary

Data from a range of quantitative measures is presented here for a sample of children and young people from across the Kirklees district. The sample represents a good range of the local population as defined by age, gender and ethnicity. Participants were most likely to hear about the Young Pals scheme following a recommendation from a school nurse; recommendations from GP practices were also common. Self-referral accounted for almost a quarter of the sample and recent publicity drives in schools and sports centres appear to have been particularly influential in raising awareness of the scheme.

Both models of support offered via the Young Pals scheme (one to one support with or without attendance at Fusion activity sessions) appear to have similar outcomes on the variables measured.

Self-esteem scores increased, following participation in Young Pals, for 72% of the sample and attendance at Fusion sessions was positively correlated with increases in self-esteem. Younger participants had, on average, higher self-esteem scores than older participants.

Attitudes towards physical activity were found to be relatively high (positive) at baseline and therefore limited improvements were to be expected over time. Comparisons against normative data indicated that for younger participants, attitudes of overweight/obese children were less positive than children of average weight. This pattern was not observed for older participants and it is considered this may be due to their greater exposure to physical activity = good health messages. Centile position and disability impacted on attitudinal scores and there is some evidence to suggest that Young Pals attracts children and young people with already positive attitudes towards physical activity.

Participation in a range of pre-defined activities increased over time with the exception of PE, team sports and cycling. The findings also provide evidence of increased flexibility in relation to understanding of what constitutes *physical activity* such that it may now be a less daunting prospect for some children and young people. For example, children are encouraged to realise that *physical activity* may be something which is as much fun as 'playing out' provided it is done at an appropriate level of intensity. Some group differences based on gender, age and disability were observed.

Over half (57%) of the sample recorded decreases in BMI and 35% recorded decreases in weight (in kg). Centile score data reveals the high prevalence of obese and morbidly obese children and young people in the Young Pals sample. Improvements (i.e., reductions) in centile score were more likely to be associated with very young (below 7 years) participants.

The final section of this chapter explores follow up data obtained from children and young people who have either failed to attend the scheme following a recommendation or who have ceased attending after a period of time. Importantly this data highlights largely positive feedback about the content and style of the sessions (for those who had attended Fusion) and notes that a significant proportion are now attending alternative physical activity sessions outside of the Young Pals scheme.

### **Introduction**

Quantitative evaluation outcome measures (self-esteem; frequency and type of activity undertaken; attitudes to physical activity) have been completed by all young people (where they have agreed to participate and the parent has provided consent) who have enrolled in the Young Pals programme since September 2006 throughout Kirklees.

Initially the evaluation also explored the use of accelerometers as an objective measure of physical activity participation, but this proved too difficult to implement fully within the evaluation time period. However, data from a pilot of the accelerometers at a Fusion session in North and South Kirklees during June 2007 provided evidence for the level of intensity of exercise undertaken at sessions being of a moderate level.

Outcome measures have been completed during initial assessments (baseline measure) and during follow up review (ALE) appointments. Physical measurements (height and weight) were also recorded for some children during these appointments. Data collection for existing evaluation participants ceased on 30<sup>th</sup> September 2008 and new registrations

ceased on 30<sup>th</sup> June 2008 since registrations beyond this time would not allow for time two data to be collected.

Data collected during the course of the two year evaluation programme has been regularly recorded onto an SPSS (Statistical Package for the Social Sciences) database by a member of the evaluation team. This database contains information on attendance, evaluation measure scores, physical measurements and demographic data for up to 325 children and young people who have participated in the Young Pals scheme since September 2006. Demographic data is recorded at the time of entry to the scheme and figures reported here do not reflect changes during the two year evaluation programme (e.g., change in child's age/school attended). To comply with data protection requirements, all data inputting has taken place at Galpharm stadium and access to the SPSS database is password protected and only accessible by the evaluation team.

### ***Demographic Data***

Of the 325 children and young people detailed on the SPSS database, 166 (51%) are female; and 159 (49%) are male. Participants range in age from 5 – 16 years with the majority (63%) in the younger age range of 5 – 10 years. Exploring participation peaks in terms of age it can be seen that the scheme is most popular with children aged from 7 – 12 years.

Participants are fairly evenly distributed across the Kirklees area with 53.5% (174) residing in the North and 46.5% (151) in the South of Kirklees. Seventy-six children (23%) are also participating in the National MEND Initiative (or have done so within the last two years).

Forty-eight (15%) of the sample are attending infant/primary School; the majority (175 or 54%) are attending junior school and just under a third (100 or 31%) are attending Secondary School. Two children are attending special educational provision.

The majority of the children and young people recorded their ethnicity as white British (59%); 15% Pakistani; 5% Indian; 8% any other Asian background; 5% Black; 7% dual heritage; 1% any other ethnic group.

Comparing these figures against local area statistics from the Office for National Statistics (ONS) census data as detailed in Table 1 below, it can be noted that Asian, Black and mixed ethnicity children are over-represented in the Young Pals sample:

**Table 1 – Ethnicity Census Data – Kirklees (2001)**

<b>Ethnic Group</b>	<b>%</b>
White	85.61
Asian	11.35
Black	1.35
Mixed	1.39
Other	0.3

Source: ONS ([www.neighbourhood.statistics.gov.uk](http://www.neighbourhood.statistics.gov.uk))

This finding is consistent with recent research exploring the prevalence of children who are overweight or obese in Great Britain which found that Asian young people were four times as likely to be obese than white participants (Jebb et al, 2003).

To facilitate statistical analysis, all Black and minority ethnic groups were subsumed to form just two categories of white British children (59%) and Black and minority ethnic children (41%).

Information recorded on disability reveals that thirty-one (9.6%) of the sample consider themselves to have a disability. Eighteen children were noted to have a learning disability; eight a physical disability; three a hearing impairment; three a visual impairment; five speech/language difficulties; three Aspergers/Autism and one child has Downs Syndrome (in some cases more than one type of disability was recorded for a particular child and therefore total figures equate to more than 31).

At the end of the two year evaluation period (September 2008), 59% (192) of the 325 children and young people were still actively enrolled in the Young Pals scheme. Of the remaining 133, 29 had completed and exited the full 48 week programme and 104 had ceased attending fusion sessions or failed to attend review or exit appointments. This represents a 'drop out rate' of 32% and it is interesting to note that this is much lower than that found in research with adults where the drop out rate was in the region of 50% across different schemes (Robinson & Rogers, 1994).

Much of the research exploring non-adherence to exercise schemes has focused on an adult population to date and clearly there may be some differences in children and young people's

reasons for non-adherence, not least because they may be reliant on support from an adult in order to travel to the scheme. Further data on children and young people who dropped out before the end of the scheme is detailed in the final section of this chapter.

### ***Recommending Agents***

To facilitate data collection on care pathways, information on recommending agents was recorded to assess the main referral routes for children enrolling on the Young Pals programme. The largest group (36% or 117) had been recommended to the scheme by a School Nurse; 19% had been recommended by their GP Surgery (either by the GP or the Practice Nurse); 11% had been referred after attending the National Mend scheme; 6% had been recommended by the Community Paediatric Dietician or another Hospital specialist; and 6% had been told about the scheme by Kirklees Culture and Leisure Services staff directly. The remaining 21% had contacted the scheme directly as a result of seeing publicity for the scheme, receiving a recommendation from a parent or relative, or because they had previously attended Young Pals. Leaflets and posters at schools and sports centres and information on the Kirklees website appears to have been particularly successful in raising awareness of the scheme, with this source of referral being cited by 15% of the sample.

### ***Attendance Data***

In the first year of the evaluation period (September 2006 – September 2007), the Young Pals scheme offered weekly Fusion activity sessions in a number of localities across the Kirklees district and two monthly Meltdown sessions, one in the South (Huddersfield) and one in the North (Batley) of the district.

In September 2007, in response to consultation with service users and a review of evidence contained within NICE (National Institute for Clinical Excellence) guidance, the Young Pals team made changes to programme delivery. Meltdown sessions in their pre-existing format (monthly) were cancelled and replaced by increased Fusion sessions, including sessions at weekends. This was in response to observations from parents and children that attendance during the week could be restricted due to other commitments (e.g., mosque/madrasah attendance) and weekly session times clashing with parental working hours.

The session structure was also amended to incorporate educational information about healthy eating and lifestyles as well as physical activities. In the second year of the evaluation Fusion sessions have run (and continue to run) at Batley Baths (5 – 7 years and 7 – 13 years); Dewsbury Sports Centre (5 - 7 and 7 – 13); Spensborough Baths (7 – 13) in the

North of Kirklees and Huddersfield Sports Centre (7 – 13); and Colne Valley Leisure Centre (5 – 7 and 7 – 13) in the South.

To reflect these changes attendance has simply been summed to produce a total figure for each participant across the two year evaluation period, regardless of whether they attended Fusion, Meltdown or both. However, it should be noted that not all children and young people enrolled on the Young Pals scheme attend Fusion sessions. For example, some participants simply attend the 12 week review sessions (ALE) without attending Fusion activity sessions as they are participating in physical activity elsewhere. This is the case for 54% (176) of the sample.

Mean attendance at Fusion over the course of the two-year evaluation period was 5.59 for the 149 children and young people who had regularly attended Fusion activity sessions. Of these:

- 88 children and young people attended between 1 and 10 sessions
- 37 children and young people had attended between 11 and 20 sessions
- 7 children attended between 21 and 30 sessions
- 11 children attended between 31 and 40 sessions
- 6 children attended 41 or more Fusion sessions with the highest attendance rate recorded as 66 sessions over the two year period

In addition to the main Young Pals programme, six-week 'taster' sessions have also been offered during the last year at a number of schools throughout the district with the aim of encouraging more young people to attend their local Fusion sessions. The school sessions (which do not form part of the evaluation database) have recorded good attendance levels. It is thought this is because the sessions are held during or shortly after the school day (lunchtime or afterschool) and because they are free of charge. A total of ten children have joined the Young PALS scheme as a result of attending a school based 'taster' session and a further twelve children have attended Fusion sessions without signing up to the Young Pals programme (as they are 'inactive' rather than overweight). A summary of the

evaluation data collected by Young Pals staff on the school-based sessions is included in section five of this report.

### **Evaluation Data**

*Where time two data is missing this is due to the non-attendance of the participant at an ALE review or exit from the scheme prior to time two data collection*

### **Models of Support**

All of the outcome variable data (self-esteem; attitudes towards physical activity; frequency and type of exercise undertaken; physical measurements) reported in this section has been analysed in terms of a number of factors such as age, gender, ethnicity etc. and details are reported within each section.

It is interesting to note here that the two models of support offered via the Young Pals scheme (one to one support via ALE sessions with additional attendance at weekly Fusion activity sessions *versus* one to one ALE support without Fusion attendance) do not appear to differ in terms of their impact on the outcome variables. This finding suggests that both models of support can be equally effective in terms of the outcomes measured in this evaluation.

When all outcome variables were analysed based on type of support received, only one significant difference was found such that young children (below 10 years) who did not attend Fusion sessions had *slightly* more positive attitudes towards the benefits of physical activity in terms of social relations and health and fitness ( $t = 2.866$ ,  $df = 61.936$ ,  $p = 0.006$ ;  $t = 2.096$ ,  $df = 54.95$ ,  $p = 0.041$ ). However, the mean differences recorded in attitudinal scores were minimal.

### **Self-Esteem**

The Rosenberg Self-Esteem Scale (Rosenberg, 1979) is a ten-item self-report measure of global self-esteem. It consists of ten statements related to overall feelings of self-worth or self-acceptance. The items are answered on a four-point scale ranging from strongly agree (4) to strongly disagree (1) to produce a score ranging from 10 to 40 with higher scores indicating higher self-esteem. A child-friendly version of the scale was used to increase engagement amongst younger children in particular. In this version the words are replaced



with a series of faces ranging from smiley (strongly agree) to sad (strongly disagree). The scale is detailed at Appendix iii.

Baseline Rosenberg self-esteem measures were completed by 92% (300) of the sample at the initial assessment and the mean score at Time 1 was 29.39 indicating moderate levels of self-esteem although some children's scores were as low as 13 indicating extremely low levels of self-esteem at baseline. The mean score at Time 2 (completed by 115 participants) had increased (indicating improvements in self-esteem) to 31.89, by time 3 (34) the mean score was 33.70 and by time 4 (12), 37.45.

To enable scores across the sample to be compared, regardless of whether the measure had been completed on two or four occasions, baseline and final scores for each participant were analysed to assess whether they had increased, decreased or remained the same. **Overall, self-esteem increased for 72% of the sample** (82 of the 115 for whom at least two scores were available) and remained the same for a further 8% (9). Self-esteem decreased over time for 20% (23) of the sample.

A paired sample T-test was carried out and the **increase between time one self-esteem and end score was found to be statistically significant** ( $t = -6.997$ ,  $df = 114$ ,  $p = 0.0001$ ).

These findings are consistent with Physical Activity Development Officers' observations and parental reports of increases in confidence amongst the young people attending Fusion sessions.

Further analysis was undertaken to explore the effects of demographic variables such as age, gender, ethnicity and disability and level of attendance and weight classification (above or below 98<sup>th</sup> centile) on self-esteem scores:

A one-way Anova explored the impact of age (categorised into four groups of 7 years and below; 8 – 10 years; 11 – 13 years and 14 years +) on final self-esteem scores. A **significant difference between the four groups was found** ( $F = 4.392$ ,  $DF = 3$  &  $111$ ,  $p = 0.006$ ) with **younger children scoring higher (on average) than older children**. From the Scheffé F tests it can be seen that there is a significant difference between the following groups:

7 years of age and below vs. 8 – 10 years ( $p = 0.021$ )

7 years of age and below vs. 11 – 13 years ( $p = 0.023$ )

Thus, at the end of the evaluation, younger children had, on average, significantly higher self esteem than older participants. Possible explanations for this finding are that the scheme impacts more positively on self-esteem for younger participants or simply that children below 7 years are less prone to negative impacts on self-esteem often associated with being overweight. This latter suggestion is partly supported by a review of the psychosocial consequences of childhood obesity which found impaired self-perception only began in teenage years for boys (Hill, 2005). However, the negative effects on self-perception were noted in the same paper to be detectable before puberty for girls.

An independent samples t-test found no significant differences in self-esteem scores on the basis of gender, disability, ethnicity or involvement in the MEND programme (alongside Fusion) and a one-way Anova found no significant differences based on children's centile scores.

To examine whether greater scheme involvement had an impact on self-esteem scores a Pearson's r test was carried out to explore if either total length of scheme involvement (i.e., number of months enrolled on scheme) or number of fusion sessions attended in total was related to final self-esteem score. **The analysis found a statistically significant positive correlation between total number of fusion sessions attended and final self-esteem score such that as fusion session attendance increased, so did self-esteem** ( $r = 0.204$ ,  $N = 115$ ,  $p = 0.028$ ). Length of involvement in the scheme found no such correlation which suggests that it is participation in fusion sessions (as opposed to simply being enrolled on the scheme but not attending fusion) which impacts on self-esteem over time. However, it should be highlighted that although the correlation is statistically significant, at 0.2 it is a relatively weak correlation.

### ***Attitudes to Physical Activity***

The Children's Attitudes to Physical Activity Scale (CATPA) was designed by Schutz et al (1985) to assess attitudinal dispositions towards the physical activity sub-domains of social growth, social relations, health and fitness and, in the case of older participants, release of tension. The scale employs a semantic differential scale for the response format, presenting bipolar adjective pairs, e.g., happy-sad; good-bad which the respondent 'scores' on a five-point scale. In the younger children's version only one bipolar adjective pair is presented and 'smiley faces' are employed to facilitate the engagement of younger respondents.

Just under a third of the sample (100 participants) completed the revised versions of the CATPA (see below) on at least two occasions:

#### *Younger Participants*

Sixty-four younger participants (generally 10 years and below) completed a reduced version of the Attitudes to Physical Activity Scale (Appendix iv) on at least two occasions. This adapted scale assessed three domains: *social growth* (taking part in physical activity = a chance to meet new people); *social relations* (taking part in physical activity = a chance to be with friends); and *health and fitness* (taking part in physical activity = making health better and improving body condition). Two further original domains entitled 'vertigo' and 'aesthetic' were deleted from the scale for the purposes of this evaluation. The maximum score for each of the three domains is 5 which indicates a highly positive attitude towards physical activity.

At Time 1, the mean score for the 64 younger participants on the measure of *social growth* was 4.40 (out of 5). At Time 2 this had increased to 4.56, although this increase was not statistically significant.

The mean score for the domain of *social relations* was 4.55 (out of 5) at Time1 and at Time 2 this had increased to 4.66, although this increase was not statistically significant.

For the domain of *health and fitness*, an increase was also observed with a mean score at Time 1 of 4.70 increasing to 4.78 (out of 5) at Time 2. (Not statistically significant).

All scores observed indicate positive attitudes at time one (baseline) and therefore large increases in scores would not be expected.

Further analysis was undertaken to explore the effects of demographic variables such as age, gender, ethnicity and disability and level of attendance and weight classification (above or below 98<sup>th</sup> centile) on younger participant's attitudes to physical activity scores:

An independent samples t-test found no significant differences in attitudes to physical activity on the basis of gender, ethnicity or disability or involvement in the MEND programme (alongside Fusion) and a one-way Anova found no significant differences on the basis of age.

An independent samples t-test found significant differences on attitudes towards physical activity amongst younger participants based on centile scores. After re-coding the four categories of centile score ( $\geq 99.6^{\text{th}}$ ;  $\geq 98^{\text{th}}$ ;  $\geq 91^{\text{st}}$ ;  $< 91^{\text{st}}$ ) into two categories representing children and young people above and below the  $98^{\text{th}}$  centile, **attitudes towards physical activity for social growth and health and fitness were significantly different such that children below the  $98^{\text{th}}$  centile had a more positive attitude towards these ideas** ( $t = -4.876$ ,  $df = 49$ ,  $p = 0.0001$  (SG) and  $t = -3.348$ ,  $df = 49$ ,  $p = 0.002$  (HF))

To examine whether greater scheme involvement had an impact on attitudes towards physical activity, a Pearson's r test was carried out to explore if either total length of scheme involvement (i.e., number of months enrolled on scheme) or number of fusion sessions attended was related to final attitudinal scores. **The analysis found a statistically significant negative correlation between total time enrolled on the scheme and attitudes towards physical activity on the health and fitness domain (younger participants)** ( $r = -0.286$ ,  $N = 62$ ,  $p = 0.024$ ). This finding suggests that greater scheme involvement has a negative impact on attitudes towards physical activity for health and fitness such that the longer younger children are enrolled on the scheme the less likely they are to feel positive about the idea of 'taking part in physical activities to make your health better and get your body in better condition'. No similar relationship was found between attitudes and increased fusion attendance. However, as noted in the previous section on self-esteem, this is again a relatively weak negative correlation and the finding is based on less than half of the total sample. However, it is an interesting finding and might suggest that younger participants have unrealistic expectations about the time needed to observe changes in body condition and health.

#### *Older Participants*

Forty-six young people (generally over 10 years of age) completed a revised Attitude to Physical Activity for older participants (Appendix v) on at least two occasions. The revised version contained four of the seven original sub-domains. The maximum score for each of the three domains of *social growth*, *social relations* and *release of tension* is 25 (indicating a positive attitude towards physical activity). The maximum score for the *health and fitness* (value) domain is 10, and for the *health and fitness* (enjoyment) domain, 15, although to facilitate inter-sub domain comparisons these latter two domains have been rescaled to a value out of 25 by multiplying the scores by 2.5 and 1.67 as indicated in Schutz et al, (1985).

In the *social growth* domain, the mean score at Time 1 was 22.21 (out of 25) and this had increased to a mean score of 23.59 at Time 2. (Not statistically significant).

In the *social relations* domain, the mean score at Time 1 was 23.09 (out of 25), and this increased to a mean score of 23.98 at Time 2. (Not statistically significant).

In the domain *health and fitness (value)* the mean score at Time 1 was 24.35 (out of 25); this slightly *decreased* (indicating a reduction in positive attitude) to 23.55 at Time 2. (Not statistically significant).

In the domain *health and fitness (enjoyment)* the mean score at Time 1 was 23.29 (out of 25) and this increased to 23.64 at Time 2. (Not statistically significant).

In the domain *release of tension*, the mean score at Time 1 was 22.34 (out of 25) and this had increased to 23.37 at Time 2. (Not statistically significant).

Baseline scores for the older participants also indicate very positive attitudes towards physical activity at time one and therefore little change over time.

Further analysis was undertaken to explore the effects of demographic variables such as age, gender, ethnicity and disability and level of attendance and weight classification (above or below 98<sup>th</sup> centile) on younger participant's attitudes to physical activity scores:

An independent samples t-test found significant differences between young people with a disability and those without (older participants) on the domains of social growth ( $t = 4.523$ ,  $df = 39$ ,  $p = 0.0001$ ), social relations ( $t = 3.695$ ,  $df = 39$ ,  $p = 0.001$ ) and release of tension ( $t = 4.376$ ,  $df = 39$ ,  $p = 0.0001$ ) such that **young people with a disability had more positive attitudes towards physical activity than those without a disability.**

An independent samples t-test found no significant differences in attitudes to physical activity on the basis of gender, ethnicity or involvement in the MEND programme (alongside Fusion) and a one-way Anova found no significant differences for age or centile scores. A Pearson's  $r$  test found no correlation between session attendance or scheme involvement (in months) and attitudes to physical activity.

*Comparison against normative data*

The use of the revised CATPA inventories has highlighted that attitudes towards physical activity amongst the children and young people participating in this evaluation were very positive at baseline and therefore little change has been observed overtime.

Although, with the exception of the health and fitness (older children) domain, minor changes have all indicated positive increases in attitude, the generalisability of this data may be limited. For example, it was hypothesised that children and young people enrolling on the young pals scheme would have less than positive attitudes towards physical activity and that attendance at Fusion would impact (positively) on these attitudes. However, since scores were high (positive) to begin with, it has not been possible to evaluate this hypothesis.

However, an alternative explanation is that the hypothesis that overweight/inactive children have more negative attitudes towards physical activity than normal weight/active children has been refuted. To assess this proposition, the data from the children and young people participating in this evaluation has been compared against the normative data presented in the Schutz et al (1985) paper as detailed in Table 2 below:

**Table 2 – Comparison of CATPA scores against normative data**

Domain (and age group)	Young Pals Sample		Normative Data
	Baseline	Endscore	
Social Growth (<10)	4.40	4.56	4.75
Social Relations (<10)	4.55	4.66	4.75
Health & Fitness (<10)	4.70	4.78	4.80
Social Growth (>10)	22.21	23.59	21.75
Social Relations (>10)	23.09	23.98	22.55
Health & Fitness – Value (>10)	24.35	23.55	24.05
Health & Fitness – Enjoyment (>10)	23.29	23.64	22.00
Release of Tension (>10)	22.34	23.37	21.15

The scores of younger participants in fact appear to support the hypothesis that attitudes of overweight/inactive children towards physical activity are lower (less positive) than those found in a 'normal' sample of children who are active/not overweight. Importantly, the Young Pals scheme appears to have impacted on these attitudes such that participants displayed

more positive attitudes post-intervention (although this change is not statistically significant as noted above).

However, in the case of older participants, this further analysis reveals that the young pals sample have more positive attitudes towards physical activity than has been found in norms produced from earlier studies with 'normal' samples (i.e., not overweight/inactive young people). This suggests that the hypothesis has been refuted in the case of older participants.

A number of explanations are possible. Firstly, it is possible that older participants are more aware than younger participants of positive health messages in relation to physical activity. Secondly, the normative data dates from the mid 1980s and therefore given the current policy focus on positive health and physical activity it is certainly likely that the current evaluation sample will have been more exposed to messages which impact on attitudes towards physical activity. Thirdly, it is possible that the high scores may suggest the presence of a 'social desirability' effect, that is, that older participants particularly could identify the most desirable response from the options presented and so chose the option that Young Pals staff would want to see (i.e., positive attitudes). Discussions with Young Pals staff suggest this appeared to occur in some cases and indeed, the possibility of such an effect is acknowledged in the Schutz et al (1985) paper.

A further possible explanation is that children and young people with more positive attitudes towards physical activity are more likely to enrol on the Young Pals scheme than those with negative attitudes. This hypothesis is further supported by the fact that older participants, who are likely to have more voluntary choice to attend sessions, including the ability to travel to sessions without parental transport, are displaying more positive attitudes at baseline. Younger participants are more likely to attend sessions, regardless of attitude towards physical activity, if their parent suggests they do so and if they are reliant on their parent to attend the session. This view is supported by qualitative data with younger participants who sometimes revealed it was their parent's idea for them to enrol on Young Pals.

### ***Type and Frequency Data***

A measure was specifically designed for the purpose of this evaluation to record children and young people's participation in activities outside of the Fusion and Meltdown sessions (Appendix vi). The measure records twelve types of activity, e.g., walking; PE; cycling, and the child's frequency of participation in these activities, on a scale of 1 to 5 as follows:

1 = Never      2 = Less than once per week      3 = Once per week  
4 = Two or three times per week      5 = Five times per week

95% of the sample (310) completed the *frequency and type* measure at time one (baseline) and 117 completed a second (time two) measure. Thirty-three completed a third measure and eighteen, a fourth.

Mean changes in scores over time for each of the twelve types of activity are displayed below (based on two administrations of the measure due to low numbers participating in the third and fourth administration):

- Walking (mean increase from 3.99 to 4.26)
- Swimming (mean increase from 1.40 to 2.35)
- Playing out (mean increase from 3.81 to 4.23)
- Household chores (mean increase from 2.72 to 2.86)
- *P.E.* (mean decrease from 3.58 to 3.47)
- *Team sports* (mean decrease from 2.05 to 1.88)
- *Cycling* (mean decrease from 2.27 to 2.23)
- Exercises (mean increase from 2.36 to 2.74)
- Skateboarding / rollerblading (mean increase from 1.40 to 1.51)
- Jogging (mean increase from 2.26 to 2.73)
- Dance (mean increase from 2.18 to 2.30)
- Club activities (mean increase from 1.36 to 1.58)



All activities except PE, team sports and cycling recorded increases in frequency of participation over time. Clearly, increases in PE participation would not be expected since this is a timetabled activity within school provision. However, despite the slight increases in frequency recorded, the majority of activities, with the exception of walking, playing out and PE, are still performed less than once per week. However, since a greater range of activities are now being undertaken (see below), this may also explain smaller increases in individual activities since more time is being spent on a greater number of activities.

Furthermore, the responses to the frequency and type measure are likely to reflect children's attitudes towards definitions of physical activity. For example, it has been noted by Young Pals staff that children enrolling on the scheme often view 'physical activity' as structured sports and games, e.g., PE and team sports. However, children are encouraged to realise that physical activity can be achieved in a range of ways such as walking to school and playing out with friends and 'jogging' is defined as 'running about' such as would be seen in the playground rather than a structured running session. To emphasise this point, rather than specifying particular types of physical activity to be undertaken, staff encourage children to:

*Exercise everyday! Work yourself to a medium level where your body gets a bit out of puff and a bit sweaty! You need to do 1 hour of physical activity! Do any exercise that you like as long as you enjoy it and do the above!*

*(Source: Kirklees Energise website - [http://www.energisekirklees.co.uk/physical\\_activity.htm](http://www.energisekirklees.co.uk/physical_activity.htm))*

Further analysis was carried out to allow the data for all participants (who had completed at least 2 measures) to be compared over time to assess individual changes, i.e., whether a child's participation in, and frequency of participation in exercise had increased, decreased or remained stable.

Of the 117 children and young people who completed the measure on at least two occasions, **46% (54) increased the range of activities (type) they participated in following participation in the Young Pals programme.** A further 20% (23) recorded no change and 34% (40) recorded decreases in the range of activities in which they participated. This is positive evidence of the impact of Young Pals on children and young people's willingness to try new activities.

Of the 117 children and young people who completed the measure on at least two occasions, **59% (69) increased their frequency of participation in the twelve activities.** 4% (5) recorded no change and 37% recorded decreases in frequency of participation.

Further analysis was undertaken to explore the effects of demographic variables such as age, gender, ethnicity and disability and level of attendance and weight classification (above or below 98<sup>th</sup> centile) on frequency and type of exercise participation.

To examine the impact of age on frequency and type of exercise participation the four age categories (7 years and below; 8 – 10 years; 11 – 13 years and 14+) were crosstabulated with the recorded change over time (increased; decreased; no change) on frequency and type to explore relationships between the two variables.

Crosstabulation is a statistical procedure which is used to look for a relationship between two variables (e.g., in this case age and type and frequency of exercise participation). It is known as a test of association and is used when the variables consist of category (e.g., age categories) data rather than actual numbers (e.g., age in years) or scores. It is possible to create percentages for each column or for each row depending on the variable of interest. In this report percentages are created for each column.

**Table 3 – Crosstabulation of age and type of exercise participation<sup>1</sup>**

			Change in type of exercise participated in over time			Total
			increased	decreased	no change	
agecat	0 - 7 years	Count	15	11	6	32
		% within Change in type of exercise participated in over time	27.8%	27.5%	26.1%	27.4%
	8 - 10 years	Count	16	18	11	45
		% within Change in type of exercise participated in over time	29.6%	45.0%	47.8%	38.5%
	11 - 13 years	Count	16	7	5	28
		% within Change in type of exercise participated in over time	29.6%	17.5%	21.7%	23.9%
	14+ years	Count	7	4	1	12
		% within Change in type of exercise participated in over time	13.0%	10.0%	4.3%	10.3%
Total		Count	54	40	23	117
		% within Change in type of exercise participated in over time	100.0%	100.0%	100.0%	100.0%

From Table 3 above it can be seen that **younger participants (up to 13 years) tend to be more associated with increasing the type (range) of exercise they participate in** after participating in Young Pals than participants aged 14+ although the numbers of older participants are considerably lower than younger participants and therefore the strength of the association may be limited.

<sup>1</sup> **Key:** agecat = age category

**Table 4 – Crosstabulation of age and frequency of exercise participation**

			Change in frequency of exercise participated in over time			Total
			increased	decreased	no change	
agecat	0 - 7 years	Count	18	12	2	32
		% within Change in frequency of exercise participated in over time	26.1%	27.9%	40.0%	27.4%
	8 - 10 years	Count	25	18	2	45
		% within Change in frequency of exercise participated in over time	36.2%	41.9%	40.0%	38.5%
	11 - 13 years	Count	20	7	1	28
		% within Change in frequency of exercise participated in over time	29.0%	16.3%	20.0%	23.9%
	14+ years	Count	6	6	0	12
		% within Change in frequency of exercise participated in over time	8.7%	14.0%	.0%	10.3%
Total		Count	69	43	5	117
		% within Change in frequency of exercise participated in over time	100.0%	100.0%	100.0%	100.0%

**When examining frequency of exercise participation (regardless of type), young people in the 8 – 10 years category are associated with the largest increases.**

To examine the impact of gender on frequency and type of exercise participation this variable was crosstabulated with the recorded change over time (increased; decreased; no change) on frequency and type to explore relationships between the two variables:

**Table 5 – Crosstabulation of gender and type/frequency of exercise participation**

			Change in type of exercise participated in over time			Total
			increased	decreased	no change	
GENDER	MALE	Count	26	26	13	65
		% within Change in type of exercise participated in over time	48.1%	65.0%	56.5%	55.6%
	FEMALE	Count	28	14	10	52
		% within Change in type of exercise participated in over time	51.9%	35.0%	43.5%	44.4%
Total		Count	54	40	23	117
		% within Change in type of exercise participated in over time	100.0%	100.0%	100.0%	100.0%

			Change in frequency of exercise participated in over time			Total
			increased	decreased	no change	
GENDER	MALE	Count	37	25	3	65
		% within Change in frequency of exercise participated in over time	53.6%	58.1%	60.0%	55.6%
	FEMALE	Count	32	18	2	52
		% within Change in frequency of exercise participated in over time	46.4%	41.9%	40.0%	44.4%
Total		Count	69	43	5	117
		% within Change in frequency of exercise participated in over time	100.0%	100.0%	100.0%	100.0%

**Female participants were more likely to be associated with increases in the type of exercise undertaken** whereas gender differences for frequency indicate that **male participants were more likely to increase the frequency of exercise participated in over time**. This finding suggests that girls are perhaps being more imaginative about choosing a wider range of activities, but that boys are choosing to exercise with greater frequency.

To examine the impact of ethnicity on frequency and type of exercise participation this variable was crosstabulated with the recorded change over time (increased; decreased; no change) on frequency and type to explore relationships between the two variables:

**Table 6 – Crosstabulation of ethnicity and type/frequency of exercise participation**

			Change in type of exercise participated in over time			Total
			increased	decreased	no change	
bme categories subsumed	white british	Count	30	24	11	65
		% within Change in type of exercise participated in over time	55.6%	60.0%	47.8%	55.6%
	BME children	Count	24	16	12	52
		% within Change in type of exercise participated in over time	44.4%	40.0%	52.2%	44.4%
Total		Count	54	40	23	117
		% within Change in type of exercise participated in over time	100.0%	100.0%	100.0%	100.0%

			Change in frequency of exercise participated in over time			Total
			increased	decreased	no change	
bme categories subsumed	white british	Count	39	23	3	65
		% within Change in frequency of exercise participated in over time	56.5%	53.5%	60.0%	55.6%
	BME children	Count	30	20	2	52
		% within Change in frequency of exercise participated in over time	43.5%	46.5%	40.0%	44.4%
Total		Count	69	43	5	117
		% within Change in frequency of exercise participated in over time	100.0%	100.0%	100.0%	100.0%

White British children were more likely to increase both type and frequency of exercise participation when compared to children from black and minority ethnic groups.

A Pearson's r test found no correlation between session attendance or scheme involvement (number of months enrolled on scheme) and type and frequency of exercise participation.

To examine the impact of disability on frequency and type of exercise participation this variable was crosstabulated with the recorded change over time (increased; decreased; no change) on frequency and type to explore relationships between the two variables:

**Table 7 – Crosstabulation of disability and type/frequency of exercise participation**

			Change in type of exercise participated in over time			Total
			increased	decreased	no change	
Does child have a disability	Yes	Count % within Change in type of exercise participated in over time	4 7.4%	3 7.5%	5 21.7%	12 10.3%
	No	Count % within Change in type of exercise participated in over time	50 92.6%	37 92.5%	18 78.3%	105 89.7%
Total		Count % within Change in type of exercise participated in over time	54 100.0%	40 100.0%	23 100.0%	117 100.0%

			Change in frequency of exercise participated in over time			Total
			increased	decreased	no change	
Does child have a disability	Yes	Count % within Change in frequency of exercise participated in over time	8 11.6%	4 9.3%	0 .0%	12 10.3%
	No	Count % within Change in frequency of exercise participated in over time	61 88.4%	39 90.7%	5 100.0%	105 89.7%
Total		Count % within Change in frequency of exercise participated in over time	69 100.0%	43 100.0%	5 100.0%	117 100.0%

**Increases in both the type and frequency of exercise undertaken were more associated with children without a disability.**

Independent samples t-tests found no significant differences in type and frequency of exercise undertaken on the basis of involvement in the MEND programme (alongside Fusion) and total sessional attendance/length of time enrolled on the scheme.

### **Physical Measurement Data**

During the Active Lifestyle Evaluations (ALE) or 'one to one' sessions with children and parents, physical measurements (height in cm and weight in kg) are recorded at baseline (week one) and then again on a twelve week basis at follow-up review appointments (12, 24, 36, 48 weeks). From the physical measurements recorded, BMI (Body Mass Index) can be calculated by taking the child's weight in kilograms and dividing it by their height in metres squared. The resulting figure can then be checked against age-specific BMI charts to determine whether the child's weight falls above or below the 91<sup>st</sup> and 98<sup>th</sup> centiles. These figures, derived from the UK National BMI classification, are used to determine if a child is overweight (at or above the 91<sup>st</sup> centile) or obese (at or above the 98<sup>th</sup> centile) and are based on the 1990 reference population from Cole et al (1995).

#### *Overall Sample*

The mean measurements for the whole sample for height, weight and BMI recorded at individual review sessions are detailed in the table below. **Due to the differing sample sizes across recording times, changes over time should be reviewed with caution and it is not intended that data should be reviewed across the table:**

**Table 8 – Physical Measurements - All Participants**

Measure (Mean)	Time 1 (N=195)	Time 2 (N=90)	Time 3 (N=31)	Time 4 (N=25)	Time 5 (N=9)	Time 6 (N=5)	Time 7 (N=4)	Time 8 (N=4)
Height (cm)	144.2	145.2	143.5	142.7	137.7	141.1	138.5	139.6
Weight (kg)	56.7	58.5	54.9	53.5	49.6	52.8	53.6	55.25
BMI	26.46	27.06	25.9	24.86	25.6	26.28	27.31	27.75

Since the majority of participants have just two sets of data recorded, the dataset was re-analysed using just these 90 children and young people (from herein referred to as the 'subsample' – highlighted in grey above) to explore changes in BMI and weight in kg from baseline to endpoint (either end of evaluation or when young person left the scheme). **Overall, 57% (51) of sub-sample participants recorded decreases in BMI** and a further 3.4% (3) recorded no change. Thirty-five children (39%) recorded increases in BMI. Complete data was missing for one child.

The mean decrease in BMI was -0.9 which is the same as the decrease recorded in the research by Sacher et al (2005), which reports pilot study intervention data for the MEND programme.



To further compare recorded BMI changes following the Young Pals intervention with other findings reported by Carnegie Weight Management (CWM), BMI scores were converted to standard deviation scores (SDS). CWM reports changes in BMI SDS as -0.07 for the MEND programme (Sacher et al, 2005); -0.08 for the Watch It programme (Rudolf et al, 2006) and -0.11 for its own intervention programme based in Leeds.

Changes in BMI SDS from this evaluation were 0.006 (i.e., a slight increase) when reviewing the whole sample for whom two sets of data were available (N=89). However, when the change in BMI SDS is reviewed for those children (N=51 or 57% of sample) who recorded a decrease in their BMI over time, the change in BMI SDS is -0.448 as detailed in Table Nine below:

**Table 9 – Change in Body Mass Index (BMI) Standard Deviation Score (SDS) following Young Pals Intervention**

	Number of Children (%)	Mean Change in BMI SDS Score
Increased	35 (39%)	.6730150
<b>decreased</b>	51 (57%)	<b>-.4488842</b>
no change	3 (3.4%)	-.0471096
<b>Total</b>	89	<b>.0058551</b>

It is suggested that this BMI SDS data is further reviewed and perhaps discussed with colleagues at CWM to ascertain whether data presented in their report is for all participants or only those who have recorded decreases in BMI.

**Weight (in kg) decreased for 35% (31) of the sub-sample and was maintained (no change over time) for a further two children (2.2%).** Fifty-six children (63%) recorded increases in weight over time. However, as Reilly and Wilson (2006) have noted, significant weight losses would not necessarily be expected with a paediatric sample since children may *grow into their weight* and therefore weight maintenance can be a significant indicator of success.

#### *Centile Score Assessment*

To fully assess the impact of the Young Pals scheme on weight management and BMI it is necessary to review the data from the overall sample in terms of centile scores rather than

simply weight/BMI. Kirklees PCT, in line with the traditional approach in UK clinical settings uses the 91<sup>st</sup> and 98<sup>th</sup> centile to define individuals as overweight and obese respectively:

**Table 10 – Centile Scores for Young Pals Scheme – All Participants**

Centile Score	Baseline % (N)	End Score % (N)
≥ 99.6 <sup>th</sup> centile (morbidly obese)	59.5% (116)	58.9% (53)
≥ 98 <sup>th</sup> centile (obese)	24.6% (48)	28.9% (26)
≥ 91 <sup>st</sup> centile (overweight)	13.8% (27)	8.9% (8)
< 91 <sup>st</sup> centile (normal weight)	2.1% (4)	3.3% (3)
Total	100% (195)	100% (90)

Table 10 above indicates **the very high prevalence of obese and morbidly obese children in the Young Pals sample**. The small number of children below the 91<sup>st</sup> centile (normal weight) reflects the fact that siblings/friends of overweight children will sometimes also attend the Fusion sessions to provide peer support. In addition, the sessions can be accessed by ‘inactive’ as well as ‘overweight’ children and those who are borderline to provide a preventative approach. Given that the sample size at baseline is 195 children and this reduces to 90 when we explore the numbers for whom time two data is available, it is important to not ‘read across’ table eight above. Instead, the data for 90 participants where baseline and time two data is available has been re-analysed to explore changes in centile score over time for this group (from herein referred to as the ‘sub-sample’).

**10% of the sub-sample (9 children) improved with six children moving from the morbidly obese (99.6<sup>th</sup> centile) to the obese (98<sup>th</sup> centile) category; one child moved from the obese (98<sup>th</sup> centile) to the overweight (91<sup>st</sup> centile) category; and two children moved from the overweight (91<sup>st</sup> centile) to normal weight category (below 91<sup>st</sup> centile).** A further 86.7% of the sub-sample (78 children) remained at the same point on the BMI centile chart. Relatively small changes in children’s weight (and adiposity) following intervention is consistent with other research in this area such as that reported by Ebbeling et al (2002) which found *“most children remained substantially obese”* (pg. 477). The need

for longer-term interventions and longitudinal research is highlighted as a means of better evidencing successful interventions.

Three children (3.3%) deteriorated on centile scores, moving from the 91<sup>st</sup> centile (overweight) to the 98<sup>th</sup> centile (obese) in the case of two children and from obese (98<sup>th</sup> centile) to morbidly obese (99.6<sup>th</sup> centile) in the case of the third.

Further analysis was undertaken to explore the effects of demographic variables such as age, gender, ethnicity and disability and level of attendance/involvement in MEND on centile scores over time:

To examine the impact of age on change in centile score a crosstabulation was computed:

**Table Eleven – Crosstabulation of age and change in centile score**

			change in centile score over time			Total
			improved	deteriorated	no change	
agecat	0 - 7 years	Count	5	1	22	28
		% within change in centile score over time	55.6%	33.3%	28.2%	31.1%
	8 - 10 years	Count	1	2	29	32
		% within change in centile score over time	11.1%	66.7%	37.2%	35.6%
	11 - 13 years	Count	2	0	21	23
		% within change in centile score over time	22.2%	.0%	26.9%	25.6%
	14+ years	Count	1	0	6	7
		% within change in centile score over time	11.1%	.0%	7.7%	7.8%
Total		Count	9	3	78	90
		% within change in centile score over time	100.0%	100.0%	100.0%	100.0%

**Improvements in centile score were more likely to be associated with younger participants (7 years and below).**

**Table Twelve – Crosstabulation of gender/disability and change in centile score**

			change in centile score over time			Total
			improved	deteriorated	no change	
GENDER	MALE	Count	4	1	36	41
		% within change in centile score over time	44.4%	33.3%	46.2%	45.6%
	FEMALE	Count	5	2	42	49
		% within change in centile score over time	55.6%	66.7%	53.8%	54.4%
Total		Count	9	3	78	90
		% within change in centile score over time	100.0%	100.0%	100.0%	100.0%

			change in centile score over time			Total
			improved	deteriorated	no change	
Does child have a disability	Yes	Count	1	1	7	9
		% within change in centile score over time	11.1%	33.3%	9.0%	10.0%
	No	Count	8	2	71	81
		% within change in centile score over time	88.9%	66.7%	91.0%	90.0%
Total		Count	9	3	78	90
		% within change in centile score over time	100.0%	100.0%	100.0%	100.0%

Changes in centile score crosstabulated with gender and disability revealed that female participants and those without a disability were most likely to improve on centile score over time.

**Table Thirteen - Crosstabulation of ethnic group and change in centile score**

			change in centile score over time			Total
			improved	deteriorated	no change	
bme categories subsumed	white british	Count	6	3	46	55
		% within change in centile score over time	66.7%	100.0%	59.0%	61.1%
	BME children	Count	3	0	32	35
		% within change in centile score over time	33.3%	.0%	41.0%	38.9%
Total		Count	9	3	78	90
		% within change in centile score over time	100.0%	100.0%	100.0%	100.0%

Changes in centile score crosstabulated with ethnic group revealed that white British participants were more likely than their black and minority ethnic counterparts to improve on centile score over time.

A Pearson's r test found no correlation between being involved in MEND (as well as Young Pals) nor in session attendance/scheme involvement (number of months enrolled on scheme) and change in centile score.

### ***Follow up of Non-Attendees***

As noted earlier in this chapter, time two data has not always been collected if children and young people have failed to attend their follow up review (ALE) appointments (schedule to take place at 12, 24 and 48 weeks) following their initial appointment. During the second year of the evaluation, additional data has been sought from those choosing not to attend the scheme.

However, it is important to note that non-attendance at Young Pals may not necessarily indicate non-participation in physical activity since some children and young people may simply have found a different physical activity session closer to home. Such a reason for not attending would still be considered positively since the aim of the scheme is to foster participation in physical activity, regardless of where it takes place.

When a young person fails to attend review (ALE) appointments a follow up non-attendance questionnaire (NAQ) is sent to ascertain the reasons for non-attendance. As the response rate to these postal questionnaires had been quite low, the Young Pals team have made a considerable effort over recent months to telephone non-attending families to ascertain reasons for non-attendance and to encourage re-starting the scheme.

As a result, the following feedback has been collated from the parents of 36 non-attenders, 70% of whom were female and 30% male. The children were evenly distributed across the Kirklees district and 65% had attended at least one Fusion session.

Telephone interviews were largely conducted with parents although where children were present, they often provided additional input. When asked, 'What was good about Young Pals?', the following responses were received:

- sessions were informative, helpful and motivating

- polite, friendly staff who can put children at ease
- ability to attend with siblings
- provision of 'more' card
- the review appointment and evaluation forms (particularly the self-esteem measure)
- all of it!

When asked, 'was there anything you did not like about Young Pals?', the following responses were received:

- not enough activities at different times
- other children behaving badly at the session
- 'more' card never received
- need for a 'buddy' to encourage child to attend

With regard to the ALE (Active Lifestyle Evaluation) appointment, 77% rated it as 'good' whilst the remaining 23% rated it as 'average'.

Respondents who had not attended a Fusion session since enrolling on the scheme were asked to choose from a list of options for their reason(s) for non-attendance:

<b>Reason</b>	<b>Yes</b>	<b>No</b>
Session times	37.5%	62.5%
Lack of transport		100%
Doing other things	43%	57%
Lack of time	37.5%	62.5%
Cost	14%	86%
Shy/embarrassed	37.5%	62.5%
Lack of confidence	29%	71%
Did not want to attend alone		100%
Participating in physical activity elsewhere	44%	56%

It is interesting to note that almost half (44%) of the children and young people were participating in physical activity elsewhere and indeed this figure may indeed be higher depending on the exact definition of 'doing other things'. It is suggested that this particular

response option ('doing other things') is clarified before further use of the follow up questionnaire.

Additional comments included:

*Her brothers still attend but the time is no good for my daughter now she is at High School - school work & buses take too much time*

*My child has ADHD and is over sensitive about weight...felt uncomfortable at the session*

*Fusion sessions clashed with attending mosque*

*My child just didn't enjoy the sessions*

*My child didn't want to attend an 'overweight' class*

*There were no other children there with her; she needed a buddy to support her*

Respondents who had previously attended Fusion but were no longer attending were also asked to choose from the same list of options for their reason(s) for non-attendance:

Reason	Yes	No
Session times	25%	75%
Lack of transport	5%	95%
Doing other things	40%	60%
Lack of time	15%	85%
Cost	10%	90%
Shy/embarrassed	5%	95%
Lack of confidence	5%	95%
Did not want to attend alone	10%	90%
Participating in physical activity elsewhere	76%	24%

Comparing the two tables (those who had attended a Fusion session before exiting the scheme and those who had not attended a session) we can see that **the percentage of children and young people who are presently participating in physical activity**

**elsewhere is much increased amongst those who had previously attended Fusion.**

This provides good evidence of the positive impact of Fusion attendance on wider engagement in physical activity.

Similarly, **those who had attended Fusion sessions were far less likely to feel shy/embarrassed at the prospect of attending physical activity sessions.**

Additional comments included:

*The children are now active elsewhere*

*Now attending MEND*

*Didn't enjoy sessions, didn't feel they were for him/her*

*Sessions not what was expected, thought it would be more like aerobics*

*Too difficult to fit in with homework and has now outgrown session since starting high school*

*Difficult to fit in sessions due to care of younger children*

*Other children in session were badly behaved and gym staff (not Young Pals staff) were not helpful when trying to use machines*

*Lack of measurement of progress – heights and weights not being recorded*

Respondents were asked if they recalled receiving a reminder to book in for a review appointment with Young Pals and 90% agreed they did. Reasons for not attending the review were very similar to the reasons for not attending Fusion sessions (session time; doing other things etc.). **Importantly, more than half of those contacted (54%) about failure to attend a review were now involved in physical activity elsewhere even though they were not attending Fusion.**

Finally, respondents were given an opportunity to make any other suggestions for improvements to the scheme:



- more sessions at different times
- more teen activities and age appropriate sessions
- less parental involvement to encourage child
- alternative activities, e.g., dance, to encourage less sporty children

Finally, follow up of non-attenders has prompted three children to re-start the scheme and a further thirteen parents have booked their children in for review appointments. However, staff feedback recently has noted that many of these appointments have not been kept to date.

### 3. Qualitative Data

*This section describes the views of children and young people, parents / carers and referring / recommending agencies obtained by the evaluators attending Meltdown sessions in North and South Kirklees between November 2006 and May 2007. Some of these children and young people started the programme before September 2006, and are not included in the quantitative analysis. Additional qualitative data obtained in 2008 has been included. All the children and young people interviewed in 2008 had “officially” joined the Young Pals Programme. Views of professionals involved with Young Pals are also updated. Over 50 children were interviewed by the evaluators from across the seven localities where Young Pals (Fusion) sessions were run. A section on children and young people and parents’ / carers’ views of the MEND (Mind, Exercise, Nutrition, Do it!) Programme is also included in **Appendix (ii)** to this report.*

#### **Views of Children and Young People**

*Views of children and young people, first in the younger groups aged 5 – 11, and then in the older 11-16 age range who met the evaluators are summarised below:*

##### **Key points**

- (i) Children have understood the aims of the Programme and described improvements in self-confidence and other benefits from attending.**
- (ii) Children consulted have been knowledgeable about healthy eating. Older children (11-16) recognised the importance of changing diet, and being more imaginative and adventurous about their choice of fruit and vegetables.**
- (iii) Qualitative data indicates that children’s level of embarrassment about weight-related issues, and worries about being bullied at school have reduced.**
- (iv) Younger children described their involvement in a range of other physical activities; they compared their experience at Young Pals favourably with PE sessions at school.**

##### **Key quotes**

***The aim is to...lose weight, do more activities. It’s fun, energetic, it tires you out, and it’s healthy (boy aged 10, 2008).***

***There’s three reasons for joining Young Pals: to keep healthy; to make new friends; and to help other people and have fun (older young person, 2008).***

Evaluator 2 observed a Meltdown session attended by fifteen younger children in November 2006. A high proportion of the children were from Asian or Dual-Heritage families. Following a warm-up session, playing games, the first hour was for circuit training with children completing a sequence of about eight activities. After a cool-down game, two trainers from Huddersfield Giants (Rugby League) took the final session, teaching ball games. A few of the children were seriously overweight and some struggled with the exercises. Each of the children was taken for a short individual session by two of the instructors where the children's height and weight were checked, and they completed a Physical Activity Questionnaire. The senior instructor asked for feedback about the session from the children before the rugby trainers arrived. All the children said that they had enjoyed the session, including the small number who had struggled most to complete the circuit training. The senior instructor's advice to the group was that they should exercise every day for half an hour to an hour with a medium level of exertion. Instructors' engagement with the children was positive and encouraging and every attempt was made to ensure that children felt included at all stages.

In the Meltdown sessions attended by Evaluator 1 (North Kirklees, March 2007), and Evaluator 2 (South Kirklees, May 2007) children gave clear reasons for attending Meltdown and understood what Young Pals was aiming to achieve. Some felt nervous before they attended, but most found the sessions friendly and supportive once they arrived. A number of children were able to describe clear benefits from attending the programme. Children also described other physical activities in which they were taking part and their views about diet. Some described being bullied because of being overweight. Their suggestions for improving Young Pals were noted.

#### *Reasons for Attending*

A ten-year old boy (South Kirklees) gave a clear account:

*My Mum thought me and my sister were getting a bit overweight. She wanted to find a club that would help us lose a bit 'cos she didn't want us ending up a bit fat... We came to Fusion first and that was good, so we kept on going 'cos we lost quite a big of weight then. We heard about Meltdown as well. I've*

*lost quite a bit of weight and I'm getting a bit taller as well...also the games, you don't realise that you're losing weight 'cos they're so much fun.*

Another child said:

*I needed some exercise and my Mum found this place, the Meltdown...We went to the doctor's and then they get you put through to Pals...and then we started coming here, and it's really fun.*

Another child said she had started attending:

*...because I was fat once and my Dad told me to lose some weight so they sent me here.*

Some of the North Kirklees children had been worried before they started to come:

*...because there's loads of new people and I don't know who people are and stuff.*

Another child said:

*You know when I first came, I felt a bit shy 'cos I didn't know anybody.*

Some children had been encouraged to attend by their school, for example, by a School Nurse. Most of the children from North Kirklees said that it was their idea to come, although some said that it was a joint decision with their parents. One of the children said:

*Well, mine and (my) brother's Mum and Dad said, "Well, we'll leave it to you. If you want to go you can, but we'll leave it to you".*

A girl aged seven, consulted in 2008 had been asked by her School Nurse:

*Do you want to join Young Pals because you're overweight?, which she found quite scary.*

The North Kirklees group had clear ideas about why they attended:

*I think a good reason to come here is because we get two-and-a-half hours of physical exercise, and we don't get that amount of time at home 'cos you're usually busy doing stuff with your friends and that, and your family.*

*I like to come for physical exercise 'cos I don't get so much at home. I'd like to do trampolining.*

*To make new friends, lose weight and have lots of exercise.*

These views were echoed by other children. Losing weight, making new friends, getting exercise, getting fit, having fun and learning new games were reasons mentioned by several children.

*You get to do games and they give you lots of exercise like rounders and stuff like that.*

*Get more energy.*

Children consulted in 2008 provided additional evidence about reasons for attending:

*...To get you healthy, 'cos you do loads and loads of exercises (girl aged 7).*

Reasons for attending mentioned most often by other children included losing weight, making new friends and keeping fit and healthy.

#### *Other Exercise, Diet and Suggested Improvements*

Children in South Kirklees volunteered examples of exercise and physical activity in which they were involved including skipping, football, playing out, gymnastics, karate, and walking. (The latter was sometimes a family activity). Swimming was particularly popular.

Comparisons were made between Young Pals and school.

*I like it better here 'cos we do more team games.*

*You never get to choose your own partners at school and you do here.*

*Sometimes they let you pick your own players at games and stuff.*

*At school you have to do work and here you don't(!)*

Other children were not so sure:

*I don't like it because when you're really, really hot and you need a break they say, "Come and join in a minute".*

*I don't like Meltdown because we don't get enough water breaks.*

Some of the children had ideas about improving Meltdown sessions including introducing golf and trampolining and being able to access the Squash Courts, and having more sports sessions (including cricket and football).

However, children understood the importance of coming to Young Pals and losing weight. It was...*good, 'cos we'll live longer.* Another child said...*If we don't lose any weight we could have a heart attack.*

Children in the South Kirklees group were positive about changes which they had experienced since they had been attending Young Pals. They understood the importance of increasing levels of physical activity, and the importance of a healthy diet. Several examples were given:

*'Cos we put on lots of weight and most people told us to eat (well) and we'd take off the weight.*

*I have changed quite a bit. I used to eat loads of bad stuff but now I've cut down a lot.*

Several children gave examples of eating fruit and vegetables, including some not always popular with children:

*Yeah, I've started eating cauliflower, broccoli, carrots and fruit.*

“Five a Day” was another concept which the children had absorbed.

*You've got to eat five fruits per day, and the next day you eat another five.*

Main responses about Young Pals from the children interviewed were very positive, although one or two children were more diffident. In South Kirklees all the children were able to describe two other physical activities in which they took part apart from Meltdown. In North Kirklees, several children said that they were getting bullied less since they had been attending Young Pals, and several also thought that they had become more confident.

Additional evidence was obtained from children aged 5 – 11 in 2008.

One ten-year old boy said, after attending Fusion sessions for five weeks:

*I've got more fit. I eat less and I'm just more active.*

An eleven-year old girl was pleased that she had made new friends at Fusion sessions, and she had also branched out, getting involved in netball, acrobatics and dance. She said:

*I thought it would be good fun, and it's good for my health...I'm getting very good at talking to people now.*

Other children commented on changes since attending Fusion sessions:

*I've made friends...I've got better at PE and stuff. (girl aged 10).*

*I only got two Easter eggs this year (the previous year she had received ten or more). I've lost a stone. I can do cartwheels now. (girl aged 7).*

*I've made more friends and I'm losing weight (Fusion was different and better than PE at school). I was slow at running and I can go faster now and I don't need a drink. (Asian girl aged 8).*

*It's made me healthier. (I've made) new friends...(Fusion is) better than PE because it's more fun. I don't eat much chocolate. I've cut down on fizzy drinks and I eat more vegetables. (girl aged 8).*

*It's not hard work, it's just about having fun...I'm getting faster and a lot more active. Fusion is like PE but more relaxed...learning about not getting stressed because you lost (at games). (boy aged 9).*

Another child stated that the Programme was aiming...*to teach me that I'm stronger and it's building my sports confidence. I think it's making me healthier. It's making me lose my weight...it's more sporty here...they mess about more at school...(so you) get to know more here. (boy with dual-heritage, aged 8, who also commended positive support from both his parents).*

*I was nervous to start with...now, I'm really happy and I've made lots of new friends. (boy aged 7 also involved with swimming and bike-riding with his parents).*

*The aim is to...lose weight, do more activities. It's fun, energetic, it tires you out and it's healthy. (boy aged 10, also involved in cricket, football, swimming and table tennis, and requesting more activities and longer sessions).*

*I watch less TV and come here to have fun. (Asian girl aged 8).*

*I didn't even know I was going to come, but now I want to come, for sport, (and) to keep fit. (boy aged 10).*

Other children compared Fusion sessions with school:

*At school they don't treat you as well as here. (boy aged 8).*



*It's better than PE...you've got more area, and you've got more time to learn the stuff, and they also help you. (boy aged 10).*

*Less people, and more friendly. (girl aged 10, comparing Fusion with PE at school).*

Few children objected to being weighed and measured, seeming to accept that this was part of the experience at Young Pals. One boy who had been attending Fusion sessions for six weeks had been measured, but...*didn't like it. (It could be) a bit shocking for some.*

#### *Views of Young People (11 – 16)*

*Evaluator 2 interviewed a large group of young people attending Meltdown in North Kirklees (March 2007). Evaluator 1 met two boys attending the session for older young people at South Kirklees (May 2007).*

*These young people had coherent views about reasons for attending Young Pals and the benefits they had experienced from the programme.*

*Additional evidence was obtained in 2008.*

#### *Getting Started*

Young people (North Kirklees) described being referred to the programme by Health Professionals:

*I went to the dietician and I saw (name of dietician) there, and she were just talking to me about it, so I ended up coming.*

*One time I went to the Baby Clinic and I saw...I think it were the dietician and (name of senior instructor at Young Pals)...she explained it as well and she posted us leaflets and stuff as well.*

*I heard (about it) from school because the dietician was (there) and I think it was (name of senior instructor at Young Pals) who was there.*

*I (was) getting bullied at school so (I) went to see my doctor and he said he'd heard about this Young Pals thing.*

*I went to the dietician and she just told me about it.*

A fifteen-year old girl consulted in 2008 explained the reasons for her attendance:

*I wasn't really overweight, but my Mum wanted me to start eating more healthy food...nagging at me wasn't really helping. Mum said (Young Pals) was exercise in a "fun" way, and learning the importance of food, and which foods are healthier for you.*

Several of the young people admitted that they were nervous or scared before they attended the first session. Some of the young people had heard positive accounts of activities at Young Pals sessions. One young person described her first attendance:

*I was all-right because E (name of Physical Activity Development Officer)...I knew who E were, and I think A (another PAC) came for the first time and they looked after me so I weren't nervous.*

Some young people had been involved in a "buddying" system at Young Pals. Buddies were known as "Extras":

*When new kids come you've just got to, like, help 'em out...and if someone's sat out you've got to try to get them to join in and stuff.*

*Most people made friends anyway. As soon as you walked in they were friendly and stuff.*

Like the younger group of children, young people were clear about Young Pals' objectives:

*There's three reasons: to keep healthy and stuff; to make new friends; and to help other people and have fun.*

Another young person had received positive feedback:

*Well, when I went to the dietician...she said that I'd lost quite a few pounds, so it's like getting me fit and healthy...and I've grown a load.*

Bullying was an important issue for a number of young people:

*I were fed up of getting bullied at school, so I wanted to do something about it.*

Several young people said that they were now getting bullied less and getting their confidence back. One young person said:

*I still get bullied a bit and, like, I've started making friends now 'cos when I were in Junior School and (in the) beginning of Year 7 I didn't really have any friends.*

Confidence could be the key to handling bullying:

*Well, it's like when you've been bullied at school and the positive thing about it, they make you feel good in yourself, and they make you feel like your confidence has grown back...they're very friendly. They help you, and they teach you new games and the games are quite fun.*

Another young person said...

*It's better than (being) sat upstairs doing 'nowt and playing at stuff.*

One young person had enjoyed moving up to the older group:

*I didn't used to like the younger (group) 'cos all we did was play games, but I like the older one now. This is my second time because we go to the proper gym, and we go swimming and stuff like that.*

Young people consulted in 2008 added their views about the impact of attending Young Pals:

*It helps you lose weight and it gets you out of the house...healthy eating advice – that's what helped me most. I like sports (and making new friends). If some of them get stuck I like to help them. (boy aged 12 who had attended Young Pals for four years, and who had been helped by older young people himself when he first attended).*

*I like playing with my friends and playing different games. It's really good...I'm becoming more flexible...I run around a lot more...we always seemed to have healthy meals, but I never really ate my vegetables – but I (do) now. It's healthy, but nice. (girl aged 15).*

Another fifteen-year old girl had been attending Fusion sessions for about a year, focusing on exercise and how to lose weight. Losing weight...*felt good*. She had made new friends and thought the staff were...*really nice*. She was taking more exercise now with her mother and her family. This young person was weighed regularly at the sessions and had lost about a stone. She felt...*fitter and happier*.

Some young people had experienced embarrassment and discomfort at school:

*I've started doing sport at school and stuff now, and getting involved in PE. When I used to run my legs used to hurt and stuff, so I didn't join in. But now they don't hurt as much, so I run about and join in.*

*'Cos I'm quite chubby and my legs are quite chubby, and I don't like wearing shorts, and they just take the mickey out of me. I do want to do PE but Miss said, "If you don't wear shorts for indoor PE you can't do it", so sometimes I were missing.*

*'Cos you get picked last for doing stuff, 'cos they think you're slow.*

*When I started (at my new school), 'cos I'm a big lad... they think I'm an easy target.*

*When we do football and rugby...you have to change your top first, people laugh at you then.*

*'Cos in PE I used to go out... 'cos you're allowed to take your own towels and stuff... I used to tie the towel round my legs... 'cos I didn't like wearing shorts.*

#### *Changes since attending Young Pals*

Young people gave positive descriptions of improvements since they had been attending Meltdown or Fusion sessions:

*If they call you bad names like "Fatty" and stuff like that you just say, "Well, look in t' mirror at yourself".*

*Like here, when we go swimming, if someone says summat to one of us we'll all stick up for this person.*

There could be psychological benefits from the programme as well:

*I used to have a short temper. I used to have to have "anger management", but since I've started losing weight... that's stopped.*

One young person previously was unable to keep up with his cousins when he went to visit his aunt:

*'Cos they're older and they're more athletic... now, I'll go up to my auntie's... and just play footy with my cousins and stuff, and run about with them.*

Another young person said:

*Yeah, I've got confidence at going out. You know, I didn't used to play out, but I play out now with my friends.*

Young people also described changes in their diet:

*I didn't used to like fruit, but since I've been coming here, I've been trying different (ones). The other day me and my Mum made a fruit kebab, so we got sticks and put loads of fruit on it.*

Young people described changing their diet to include salads and fruit, to which they had been introduced by Young Pals:

*I didn't used to like eating fruit, I'd only eat bananas, but now I'm eating kiwi, apples and stuff like that...*

Young people commented that they appreciated having much longer sessions at Meltdown, and some wanted Fusion sessions to be longer, so that more activities could be fitted in.

Young people attending the Meltdown sessions appreciated the wider range of sporting activities available. This view was shared by a twelve-year old boy attending the young person's Meltdown session in South Kirklees. He had found opportunities to try out aerobics, squash and badminton exciting. This young man had been referred to Young Pals from a hospital clinic. He described the main objectives of the programme as making new friends, being healthy and trying out new activities. He gave the programme 10 / 10 for all three. Before coming to Meltdown he could not run half the length of a football pitch; now he could run the whole length. He had also learnt to reduce his diet, eating salads, and being satisfied with half a plate of pasta instead of a full one.

A fifteen-year old young man and his father at South Kirklees Meltdown also described positive benefits from attending sessions. This young man said that Meltdown had been very good for him in terms of keeping healthy and fit. He had made an effort to eat more fruit and less fatty foods. His father said that his son had lost more than a stone while attending Meltdown. His son was happier and more outgoing when his weight was under control. The young man's objective was to be able to run without keeling over; his father said that he had a good turn of speed for a boy carrying a lot of weight. He had had problems with his knees causing him to miss some Meltdown sessions and making it difficult for him to get back to playing rugby, so he was now trying out other sports. His father described how difficult it was for young people to control their diet and keep their weight under control.

During this session, the senior instructor said that the key elements in a healthy lifestyle were nutrition, plenty of fluids, plenty of sleep, with a lot of fun mixed in.

### **Evidence from Parents / Carers**

*Evidence in this section is drawn from focus groups held with parents attending Meltdown sessions with Evaluator 1 in North Kirklees (Batley Sports Centre, March 2007), and at Huddersfield Sports Centre (Evaluator 2, May 2007). Data from interviews with two individual parents, one in North and one in South Kirklees is also included.*

*Data from interviews with a further 30 parents / carers interviewed across the seven localities where Young Pals sessions were run, in 2008, is also included. Almost all the parents consulted in 2008 were mothers.*

#### **Key Points**

- (i) Parents have confirmed the benefits experienced by children attending, including increases in self-confidence and fitness; improved diet and evidence of healthy eating; and evidence of children taking on new sports and activities.*
- (ii) Parents (mainly mothers) and grandmothers consulted described the Young Pals Physical Activity Development Officers as approachable, and their advice for children as authoritative and motivational.*
- (iii) Parents welcomed children of similar abilities coming together at Kirklees Young Pals in an environment free of stigma.*
- (iv) Advice from dieticians has been welcomed by parents.*
- (v) Parents consulted, particularly in 2008, were knowledgeable themselves about healthy eating.*
- (vi) Parents have referred to some problems accessing KYP sessions*
- (vii) Views of parents about the implications of their own level of fitness or their weight problems are explored. Overweight parents were equally determined for their children to take advantage of opportunities of involvement with Kirklees Young Pals, although being overweight themselves could make this more difficult.*

2007

Most parents at the two focus groups held had heard about Young Pals from Health Professionals, including School Nurses, Dieticians, General Practitioners and Health Visitors. Parents expressed relief that people in authority were taking their problems seriously:

*I was relieved that there was such a thing where they could come and they'd be treated equally, regardless of their size or their issues; to know that there was someone there that could help. (Parent, North Kirklees).*

*As parents, we have to do our bit and I suppose we push a lot onto schools. There's so many things in the curriculum they have to get through. You needed somewhere else you could go without it being a last resort. (Parent, 2008).*

*I'm glad somebody else had knowledge and something to offer because where I live it wasn't easy to get him to go out and play. We don't live near his friends from school so he was restricted as to how much exercise he could get...so somebody offering me something he could go to was a godsend, really. (Parent, North Kirklees).*

Parents welcomed access to professional advice from dieticians:

*I didn't realise, but you can phone the dietician up if you're getting stuck for ideas...I've got her phone number at home and she's lovely...She was the one that helped me, not just cutting portions down in one go, to gradually lower it down. Now they (children) both know, if I put too much on their plate, they tell me. (Parent, North Kirklees).*

Other parents commented that they would have welcomed more follow-up support from dieticians after the initial assessment:

*If somebody had said, "Do you want to come back for another visit and let us know how things are going", I'd have rung up and said, "Yes, I do". But they just seem to have lost me in the system so I haven't seen anybody with regard to diet. (Parent, North Kirklees).*

Where dieticians were able to provide advice on appropriate meals or portion size, parents seemed to strongly welcome this and to take the advice on board. Sometimes parents had found reassurance from doctors unconvincing:

*I went when she (daughter) was three, and they said, "No, she's all-right". I said, "She's three and she shouldn't be out of breath". He (doctor) said, "Oh, she's fine, she'll grow up", and then it got to, "No, that ain't happening, she's just getting bigger". But, whatever I do with her, she doesn't seem to be*



*losing weight...so I'm thinking it's her thyroid gland...but they haven't tested her for that.*

Another of the North Kirklees parents had been to see the Hospital Paediatrician who had said:

*"Rest assured, he will grow into his body weight", and I just thought, "You don't know what you're talking about". There were no explanations or diagrams or anything. It was just, "He will grow into his size. Don't worry about it". That's no answer for a concerned parent when your three-year old child's in six-year olds' clothes and stuff like that.*

Parents commented on their children sometimes feeling picked on, and on the positive impact of Young Pals on children's confidence:

*My eldest (daughter) is terrified...well, not terrified, but doesn't like doing PE at school because of her size...although she's still overweight...This (Young Pals) has given her confidence. She's not bothered (about) her appearance now at all, is she?" (Parent, South Kirklees).*

Buying clothes could be very difficult:

*I find myself even now cutting labels out of (my son's) clothes because I think if anybody gets hold of it when he's getting changed for PE they're just going to laugh at him...I've caught him before now wearing his PE kit underneath his uniform because he doesn't want to get undressed in front of other kids. (Parent, North Kirklees).*

*(My daughter)'s eight, and she's into age 15 – 16 clothes, and it gets very upsetting. I bought her some beautiful clothes yesterday and she's absolutely suited because I'd got her a dress and it really looks lovely on her. So that's given her a little bit more confidence. Buying clothes for them, it's bad news. (Parent, North Kirklees).*

*It's the first time in (my son's) life I've actually bought him a pair of trousers that aren't trackie bottoms...I cried when he put them on and he fastened*

*them, and he zipped them up. I said, "Ooh, you look lovely". I was so proud of him because he had lost that little bit of weight to get them on.*

Many of the parents at the focus groups gave examples of their children enjoying attending Young Pals and gaining in self-confidence:

*They (son and daughter) both enjoy attending. It's not exactly a drag to get them to come in. They're all eager, ready and waiting. I've enjoyed seeing them attending something like that. (Parent, South Kirklees).*

*My daughter really likes it and she enjoys coming. I think she is gaining the benefit from that. (Parent, South Kirklees).*

*(My daughter) loves coming. She's actually started walking to Fusion. She'd never have done that before. She's made lots of friends. She's more outgoing...she's doing more exercise and stuff. It's good. (Parent, South Kirklees).*

*My two have always been confident anyway in spite of their size. (Parent, South Kirklees).*

Parents commented that the staff at Young Pals were approachable. They varied the activities at Young Pals sessions. Children could see that they were making progress:

*I think it's because they had their weight monitored that they could physically see that someone else in authority, in their eyes, was making a mark on their progression. So I think it was like they didn't want to let themselves down, and they didn't want to let anybody else down. (Parent, South Kirklees).*

Parents from North Kirklees described how their children were apprehensive when first attending Young Pals sessions, worried that they might be talked about or picked on. One mother said that when her children...*saw other kids round about their size, that's when they thought, "Oh yeah, this is cool. I'm gonna go".*

Parents talked about making attending Meltdown sessions a special occasion for their child.

Some had heard about “buddying” schemes being developed by Young Pals. Parents said that giving children extra responsibility could help their self-confidence:

*I think it would be good for the ones that have been going a long time to give them a bit of responsibility,...a reward for what they have done. (Parent, North Kirklees).*

Parents were pleased that their children’s attitude to exercise had changed:

*(My son) sees exercise as fun now, not something that he has to do to lose weight...We have real trouble controlling him...To calm him down, he’s skipping, and he loves doing everything, and he doesn’t see a certain sport as a girl’s sport or a boy’s sport. (Parent, North Kirklees).*

The boost in children’s morale was plain to see:

*They’ve got higher self-esteem, they stand up for themselves now...they say, “Well, you watch me”, that sort of thing. “I’m going to join in”. (Parent, North Kirklees).*

*They’ve got the confidence and the ability to do it at school as well. Even school’s noticed...They were two little kids who sat in a corner and didn’t do anything, whereas now...if there’s no-one playing they’ll get up and they’ll organise a game. (Parent, South Kirklees).*

One father who attended the focus group in North Kirklees said that his daughter was...*shy not having been...very good at sports before, but since she’s been coming here she’s got more confidence. She’s better at games, and she’s just really enjoying coming.*

### *Weight Loss*

One parent (North Kirklees) described wanting her children to have a better quality of life and to be aware of health issues. Her son was starting to take careful note of fat content and carbohydrate content in foods commenting...*You can't have carbohydrates after teatime because it all piles on.* His mother was proud that her son had become more knowledgeable.

Parents also appreciated that not gaining weight could be a more realistic target than losing weight. One mother (North Kirklees) said...*It isn't a case that my son's lost weight, he's actually slimmed down and he's grown taller...So it's maintaining the weight more than actually losing it.*

One of the fathers in the group said that his daughter had...*toned up a bit. She hadn't gained any, but she might have lost some (weight).*

Parents knew that they could obtain information from Young Pals about weight and height measurements. Some of the children talked about their results. Some parents (North Kirklees) said that they would welcome regular monthly information about their children's progress.

Parents (South Kirklees) acknowledged that schools were putting more emphasis on healthy eating and exercise. Some parents put a premium on adopting a healthy lifestyle at home, although this was not necessarily followed by their children. Some of them acknowledged that they had given their children too much "fast" food, which could be very tempting when parents were working full-time. However, no doubt influenced by their contact with Young Pals, parents interviewed were knowledgeable about appropriate diet and portion size.

Some parents acknowledged that being overweight themselves made it more difficult for them to help their children. One mother of twins attending Young Pals at South Kirklees was very conscious that one of her daughters could be stuck at home while her sister was out playing with her friends...*I mean, I'm not a very active person, but it's made me think that really I should be doing something...doing more exercise...My conscience is playing on me thinking I should be doing something. I like swimming, but I've got to get some weight off first before I'll go.*

Another parent in North Kirklees said that her twelve-year old son enjoyed swimming, whereas she hated it, being very conscious of carrying too much weight herself.

Other parents (North Kirklees) were becoming involved in taking more exercise with their children. One of the mothers described exercising with her daughter including skipping, playing ball and going for walks...*I've (got) to do the exercise just like she is doing; so I'm slimming down...I do a lot more with her, but I'm knocking on now, I can't do it.* This kind of commitment was demanding for some parents.

#### *Comments on Meltdown and Fusion Sessions*

Parents welcomed the monthly Meltdown sessions and had found them easy to get to. There were several comments (North Kirklees) requesting that their frequency be increased to once a week or once per fortnight.

Parents in both North and South Kirklees said that they had experienced more difficulty in accessing Fusion sessions, partly because they started straight after school and organising transport could be difficult. There were also competing attractions with other after school activities and youth club sessions to be fitted in. Nonetheless, a number of parents were managing to ensure that their children attended Fusion sessions as well as Meltdown.

#### *Motivation*

One parent from South Kirklees described his fifteen-year old son's approach to controlling his weight in more detail:

*The healthier and happier he feels, the better a person he is...But when he puts the weight on he gets grumpy, and he can be out of hand...He's not as motivated. He gets within himself. (Name of son)'s like most people, really, you can eat the right stuff, but then you get fed up of it after so long, and then when no-one's looking, you know, he will have the stuff he shouldn't be having, and most people are like that.*

Some young people needed to be reminded all the time and helped to comply with exercise and diet guidelines. Young Pals could make an important contribution:

*...I think it's a great thing for kids, you know, it's good that it's there for kids who are putting on weight...to get other kids together to become friends and do things together as teamwork...I think if there's more days put on, and activities change from what they're doing, they'll enjoy it a bit more, and they'll come a bit more.*

### 2008

Most parents consulted in 2008 had been recommended to contact Young Pals by Health professionals, most frequently School Nurses, but also General Practitioners and Dieticians. Parents consulted welcomed contact from Health professionals and raised no objections to their raising concerns directly about their children being overweight. Most parents were already concerned themselves about these problems. Parents consulted were very concerned about their children's welfare, were knowledgeable about healthy lifestyles, highly motivated and keen to take advantage of the service provided by Young Pals. Most of them were very health-conscious with regard to their children's diet, both at home and at school. In many cases they had been looking for professional advice about children's weight management for some time. Parents who were overweight themselves were aware that this could be a barrier when seeking to address their children's weight problems. Parents held Young Pals staff (Physical Activity Development Officers) in high regard. Some parents recognised that, in spite of their best efforts, children still found ways of eating too much unhealthy food.

In one typical family an overweight six-year old boy and his four-year old (not overweight) sister were attending Young Pals sessions every week in North Kirklees, referred through the School Nurse. The mother described her son as...*not outgoing; if the attention's not on him he's one of those that gets left behind.* She described Young Pals as...*absolutely fantastic. (Name of PAC)'s lovely with them and they're very relaxed, enjoy themselves and have lots of fun...they really love it. (Name of son)'s weight's not increasing, just staying as it should with the good exercise he gets.* Both the mother and her husband were very much involved in supporting their children with regard to diet and exercise.

Another parent, whose ten-year old son had been attending Young Pals since it started, described the programme as...*brilliant. No complaints at all. (Name of son)'s been here since it started and I've seen a good improvement.*

Parents were relieved that Young Pals provided a setting where children with similar abilities met together to improve their fitness. One parent summed up a widely held view:...*It's really good that they're (the children and young people) all similar, athletic-wise, and they're not the last.*

Parents' views about the Young Pals staff were extremely positive. One mother in North Kirklees had missed a session through illness and really appreciated a phone call from the PAC to ask how she was...*which I thought was really good. It does give you that encouragement.*

One of the PACs in North Kirklees was described as...*fantastic. (You) cannot get a better trainer. She's got a lot of motivation and the kids like her as well.* The PAC in South Kirklees was commended for the changes she had introduced in the Fusion sessions and for her skill in handling children's behaviour problems. She was able to deal with extremely difficult behaviour exhibited by a boy with learning difficulties; and she patiently explained to other children how they needed to be aware of the needs of children with learning difficulties, and to include them in activities.

Parents described how their children regarded the PACs as providing authoritative advice, often more likely to be heeded than parental exhortations. Children would make an extra effort at their Reviews with their PAC. When PACs gave children specific advice about exercising at home, as an alternative to spending time in sedentary activities, it was likely to be taken seriously. One parent in North Kirklees spoke for many...*The instructors are great. They keep 'em in check, but they're really good with them.*

Parents (2008) were pleased that Young Pals welcomed attendance by other siblings not overweight themselves. One parent observed: *Exercise isn't just for people that are big; it should be for everyone to get fitter.*

There were also examples of the scheme successfully integrating children with moderate or severe disabilities. In South Kirklees two African-Caribbean boys, one

aged 9 attending a Special School with severe learning difficulties and speech delay, and his brother aged 6 who had moderate learning difficulties and behavioural problems, had been successfully integrated into Fusion sessions. Both boys were seriously overweight. His mother described the progress her older son had made...*He's come a long way 'cos we couldn't get him involved with anybody, and he wouldn't talk to anyone. But now he comes here and it's really helped him a lot...He'll see other children and know he's not the only one that's overweight.* His mother was encouraged because when he went home he was excited and said: *I want to lose some weight*, and he seemed to be succeeding in doing so. As noted above, the Physical Activity Development Officer had helped other children understand the boys' problems and ensure that they were included in activities...*She's really wonderful with the boys.* Another 8-year old boy, the boys' cousin had joined Young Pals specifically to provide support for the two boys. His mother commented: *He's got (name of helper) to explain, so he doesn't feel as if he's on his own. He isn't scared of anyone because (name of helper) is there, explaining activities such as volleyball and basketball.* The boy's cousin described the Young Pals staff as *wonderful* and *nice*. The boys had a 12-year old sister at home, also overweight. Their mother had provided a full range of physical activity equipment at home, although her capacity to take part herself was limited by her own disabilities.

Another parent consulted in North Kirklees, whose nine-year old daughter was making very positive progress at Fusion sessions, also commended the successful integration of her six-year old son who had special needs into Fusion sessions. Like his sister he seemed...*a lot happier*. Fusion sessions tired him out and made him sleep well, which was unusual, and very welcome.

Parents consulted in 2008 gave numerous descriptions of positive changes achieved by their children attending Young Pals including increases in self-confidence and fitness, improvements in diet and healthy eating, and examples of children taking on a range of other sports and activities. Examples are included below:

*I think it's brilliant, brilliant. He has lost weight. Socially, he's come on in absolute leaps and bounds. Confidence – he was very shy and very timid, his confidence has improved no end. It's been marvellous for him. He's understanding about nutrition more, and having a bit of a say in what he eats himself at home from what he's picked up here.* (Grandmother of 9-year old



boy) She had attended (and she commended) Adult Pals; and she helped run Fusion sessions in South Kirklees as a volunteer.

*(Name of Grand-daughter) needed some more confidence. Now, actually, she's got too much, I can't shut her up!. (Grandmother, North Kirklees).*

*(Name of son) has lost weight. He's doing all sorts, he plays rugby and everything. I'm trying to keep his meals healthy. (Mother of 9-year old boy, North Kirklees).*

*I asked: "Are you hungry now, or are you greedy hungry?" She answered truthfully: "I'm greedy hungry". I say, "What do you think you should have?" – whereas before she used to be "starving". (Mother of 10-year old girl).*

*(Name of Grand-daughter)'s a bit more outgoing, and she is losing weight...she just looks slimmer (and)...a lot more eager to join in. (Grandmother of 7-year old girl, North Kirklees).*

*I think she's had a problem with PE at school, simply because the other children can do a bit more than she can...she feels isolated, whereas at Pals she doesn't have that isolation. So it makes a lot of difference coming up here...She's come on...she's come out of herself. (Mother of girl aged 7, South Kirklees).*

*(Name of daughter) was very quiet and withdrawn. Coming here's really brought her out of herself. (Name of daughter) has grown, lost weight and gained self-confidence. (Mother of girl aged 9, now attending other classes and activities, North Kirklees).*

Other parents described successful attempts to change their children's eating habits. For example, one child had decided to try one thing different each week...*and her taste buds have changed.* Other parents described their children developing more stamina or becoming calmer (through being with other children).

Further evidence from parents who were overweight themselves was obtained in 2008. One mother had lost 10 pounds since her ten-year old daughter had been

attending Young Pals...*I thought if (name of daughter)'s going to do it, then we all have to do it.* An Asian parent commented...*With me being overweight, I don't want (my daughter) to get to the stage I'm at, so I want to try and get it through to her now.* Another parent with a very large six-year old son acknowledged that she herself had had *weight trouble* since childhood...*I've been to every slimming club known to man...there's room for improvement on both (mine) and my husband's part.* The couple were aiming for...*combined weight loss*, not helped when her husband brought home...*biscuits and buns.*

Some parents acknowledged that being overweight themselves could compromise their attempts to address their children's weight problems, particularly with regard to children adhering to strict diets. One mother who cheerfully acknowledged her own size had wanted to deal with her twelve-year old son's weight problem...*before it starts getting really bad.* Her son was attending Young Pals and was very involved in football, rugby and swimming, which were helping to improve his stamina. He hadn't yet lost weight, probably because he was still eating a lot. She had adopted a "softly, softly" approach...*If you try and shove it (exercise) down his throat, he'll say: "Well, you can't talk, look at the size of you", and I'll say: "Yes, but I don't want you to end up like me, that's why I'm trying to get you to lose weight now".*

Other parents were trying to set their children a good example. One mother in North Kirklees described how her young daughter had lost more than a stone, and was now happier with herself, eating healthily and reading food labels. Her mother had once weighed 14 stones herself (she had been a *rolly-poly*), but was now slim and athletic and a very positive role-model for her daughter. Seeing his daughter doing so well had given her father, who had weighed 18 stones, a kick-start to join Pals himself where he also had lost nearly a stone. The girl's mother said...*I'm really proud of her and she's really proud of herself.*

Other parents emphasised how they took responsibility for their children's lifestyle and behaviour. One parent said about her seven-year old son:...*I think he's got a general idea of what's good for him, (but) at the end of the day I do take responsibility for my children. Because he wanted to lose weight, that's why we've decided to come to Pals, to give him more support.* Another African-Caribbean parent had been encouraging her nine-year old daughter to attend Young Pals for the previous two months. Her daughter had needed quite a lot of persuasion:...*Once she's there she*

*enjoys it, but I've got to push her...(She's) nervous but soon makes friends. I just want her to be active and enjoy exercise instead of just lounging around. The mother was extremely keen on fitness herself. Although her daughter was starting to make some healthier eating choices, progress was limited and her daughter moaned about exercise. Her mother was persuading her to attend a gym – where she got a good work-out, - as well as Fusion sessions...I'm slowly building her up to reach my standard. I've got to push her to keep going. She'll thank me (one day)!*

### **Note on MEND Programme**

The MEND (Mind, Exercise, Nutrition, Do it! Programme), supported through external funding, was introduced in Kirklees in 2007. The programme runs for nine weeks, two sessions per week and includes both children, mainly those who are overweight, and parents. Children take part in a range of physical activities and both children and parents are part of an intensive education programme focusing on diet and nutrition. MEND has gradually been extended to cover the seven localities in Kirklees, with each aiming to run one programme per term. As part of a national initiative, MEND has its own independent evaluation. Connections between MEND and Young Pals are close. The same group of Physical Activity Development Officers run both programmes. (PACs receive specific training for delivering MEND). Some children attend both Young Pals and MEND. Fusion sessions are available to provide continuity when MEND programmes end. The Young Pals evaluators attended MEND sessions in the summer of 2008. This evaluation report focuses exclusively on Young Pals. Information obtained from participants at the MEND programmes is included in **Appendix (ii)**.

### **Views of Dieticians and School Nurses**

*This section is based on evidence from a focus group between six School Nurses and the two evaluators, and on individual interviews with two Kirklees Dieticians, one covering North and one South Kirklees, all in July 2007. This was updated in telephone interviews with one of the Dieticians and with three of the School Nurse Team Leaders in July 2008. Evidence in the section below was obtained in 2007 unless otherwise indicated.*

#### **Key Points**

- (i) Dieticians and School Nurses have welcomed and commended the Young Pals Programme. They emphasised the merits of a whole family approach.**
- (ii) Dieticians and School Nurses commented positively on changes introduced by KYP in 2007 from a referral procedure to one based on recommending children and young people to the Young Pals Programme. Their view was that following the changes, the Young Pals scheme was working “as well as it could”.**
- (iii) They have also acknowledged the limited time they have available to support children and young people with weight problems.**
- (iv) School Nurses welcomed the extension of the Young Pals Scheme through the provision of “taster sessions” in schools across Kirklees.**
- (v) School Nurses’ main concerns (2008) were about children whose parents resisted getting involved with programmes like KYP; and about the barriers in accessing the scheme experienced by Asian young people due to the (entirely proper) requirements for Mosque attendance after school.**

#### **Overview**

School nurses and dieticians were agreed about the crucial importance of tackling childhood obesity. Problems of obesity ranked high in school nurses’ priorities – they said that between 80 and 90% of their recall appointments were for overweight children. The two dieticians emphasised that only a small proportion of their time was available for clinics or other sessions for children with weight problems. Their experience had been that recommendations from general practitioners had dropped and clinic time for these children had therefore been reduced. This did not reflect the seriousness and prevalence of childhood obesity problems, for which the resources they were able to offer were limited. Three-monthly review clinic sessions were usually the most that Dieticians were able to offer; much more frequent contact with children with obesity problems was desirable, but not feasible (North Kirklees Dietician, 2008).

The experience of both school nurses and dieticians was that tackling obesity required a whole-family approach. The South Kirklees Dietician commented that it was her practice to routinely refer children and young people referred to her by GPs to Kirklees Young Pals, unless there were good reasons not to do so (for example if the child already had a well-developed activity programme (2008)). The North Kirklees dietician commended the MEND programme which involved the whole family. Sometimes, all the members of the family were overweight. However, problems could be equally intractable for one overweight child whose siblings did not share the problem.

Both dieticians and school nurses stressed how hard it was to achieve change in tackling problems of obesity. This could stem from resistance from parents who were anxious about contact with health professionals. Achieving change could also be made more difficult by lack of opportunities, (for example, for school nurses) for follow-up and contact. Notwithstanding Healthy Schools programmes, knowledge about food technology was scant. School nurses found it difficult to change eating habits ingrained at home, with ready access to fast food outlets. Take-up of (healthy) school dinners tended to be low. The South Kirklees dietician commented that parents might not want to eat “fast or unhealthy food” themselves, but because they felt that they had to cater for their children they sometimes took the easy option. She also commented that some children did not want their friends to know that they were trying to lose weight or that they were seeing a dietician.

The same dietician said that it would be possible to come up with the ideal diet for every child, but persuading them to follow it was not easy:

*When they're little (they're) totally dependent on the parents, and the parents have busy lives, and other things that they need to be thinking about, and very often, other children. You can see whole families that are all overweight, but very often it's just one child in the family of a number of children, and all the siblings have absolutely no problem with their weight at all, and can eat sweets and crisps and chocolate till it's coming out of their ears, and it's all around the house...it is very difficult. “Well, I can't stop so and so having it because he really needs it, so I've got to have it in the house”. “Well, Dad has a pack-up for lunch, and he always has crisps and he's not going to do*

*without, so it's always in the house". "So it's always a temptation for the child, and we're not going to change that. I think there are loads of issues as to why they don't take the advice on board".*

### *Views about Young Pals Programme*

Girls could be motivated to try to control their diet because of concerns about their appearance or about clothes size...*Being skinny is the in thing* – (South Kirklees dietician). Motivation could be more difficult for boys, although sport could be a positive factor. The prospect of serious diseases linked to obesity, such as heart problems and diabetes, lay too far in the future to make much impact on children and young people.

Dieticians had worked closely with Young Pals, for example running parallel clinics with senior colleagues from Kirklees Culture and Leisure Services. The dietician would prepare an assessment about dietary issues and Kirklees Culture and Leisure Services would advise on physical activity. These parallel clinics had been discontinued by July 2008, as take-up had been low, and also because the Physical Activity Development Officers were now competent to include advice on healthy eating alongside advice on physical activity (2008).

School nurses were also in frequent contact with the Young Pals programme, although they had not taken part in, or observed, Young Pals sessions. Both dieticians and school nurses commented positively on the benefits of the Young Pals programme for those young people who were recommended to the service. In cases where the programme was less successful, this was likely to be because children and young people continued to eat unhealthy food (North Kirklees Dietician, 2008).

The dietician for North Kirklees, who had previously attended Meltdown sessions where she had been well received by children and young people, commented that the programme helped children to realise their potential. Meltdown emphasised positive progress made by young people, and also included advice on healthy eating. Exercise and diet were given equal importance. Her reservation (2007) was that Young Pals sessions were not always well attended, and more perhaps needed to be done to measure children's perceptions about eating and exercise. It was important to set achievable objectives for children, helping them to hold their own.

The school nurses' view was that healthy leisure activities were available in Kirklees, but were not taken up sufficiently by overweight or obese children and young people. However, children accepted by Young Pals made good progress. A School Nurse Team Leader (2008) described children becoming more active, and some losing weight. Individual Activity Plans drawn up by Young Pals for children and young people were commended. One of the School Nurse Team Leaders (also 2008) welcomed Young Pals staff combining advice about physical activity and healthy eating in their programmes (2008). School nurses described the Young Pals Service as *very professional*, and gave examples of positive feedback they had received about Young Pals:

*The kids that I know that go to the Fusion and Young Pals really like it.*

*I've heard some good feedback. The ones I've spoken to that do attend do enjoy it once they get into it and make some friends.*

*There are a few that I know who are attending Young Pals – I can see the difference already.*

School nurses said that they would welcome monitoring and feedback from Young Pals about the number of children they referred who had taken advantage of the service (2007 and 2008). Their concerns, and those of the two dieticians, were more about children and young people not in contact with the programme at all. Dieticians focused exclusively on children who were medically referred. School nurses observed that while most parents appreciated that their children had weight problems, some did not wish to pursue a referral to Young Pals; and some parents were defensive and "in denial", and very sensitive about their children's weight problems (2008). School nurses thought that there could be scope for actively involving class teachers in identifying children who could benefit from the service.

Both dieticians and school nurses (2007) expressed a degree of frustration that attendance at the programme was completely voluntary, and that a more robust approach to encouraging attendance was needed with some families. In this context, the dietician for North Kirklees said that she would welcome working in a multi-agency team including a Clinical Psychologist and a Parenting Adviser to help deal

with intractable problems. School nurses and the dietician for North Kirklees both referred to the need to consider using Child Protection procedures in extreme cases. School nurses also commented on the need for earlier intervention; health visitors were well placed to identify overweight infants, and more investment was needed in training play groups and nursery staff so that they could provide sessions focusing on exercise. Schools had to have a primary focus on academic achievement, and there were problems in engaging overweight children and young people in pre-school and after school activities.

### *Contact and Recommendations*

It appeared that opportunities for direct contact between dieticians and school nurses were very limited. One of the dieticians would have welcomed an opportunity to locate a dietician in a school (or schools), but funding for such a post would have to be found. One problem was that dieticians were not able to pass on confidential information. The dieticians had considered whether more of their work with children should be based in community settings, away from hospitals. Some parents found it easier to go to a hospital clinic with their child, where attendance was not negotiable. Dieticians were open to the possibility of providing more community-based sessions, although logistical problems could arise in having to arrange after school or holiday appointments.

When School Nurses were consulted in 2007, they considered that there was scope for improving the effectiveness of recommendations into the Young Pals programme. Part of the school nurses' problem was that they did not have authority to refer children directly to Young Pals without parental consent. Chances of successful recommendations were much improved where school nurses contacted parents first and obtained their agreement to directly refer them to Young Pals, rather than leave parents to make the contact themselves. During 2007 the system of referrals to Young Pals was discontinued and replaced by a system based on recommendations: after obtaining consent from parents School Nurses recommended children directly to the Young Pals Service\*. School Nurse Team Leaders commented that the system had been "refined" and "improved" over the previous year and was now working as well as it could (2008). School Nurses undertook height and weight measurements for children in Reception classes and in Year 6 as part of the National



Child Measurement Programme, but parents were not sent this information unless they specifically requested it (2008).

There was also a suggestion from school nurses in 2007 that Fusion sessions could be located in schools, which would be more accessible. A year later (2008) School Nurse Team Leaders commented on the successful extension of the Young Pals Service providing taster sessions in schools, with the added advantage that these sessions were free. School-based sessions also provided valuable links between Young Pals and Schools' Sports Co-ordinators. An additional benefit was that schools were becoming *healthier*, providing healthier food, although more emphasis on food technology (for example labelling of foods) was required within the curriculum (School Nurse Team Leader Dewsbury, 2008).

\*Note: Kirklees Culture and Leisure Services have advised that School Nurses can recommend children and young people directly to Young PALS. They cannot, however, refer to the Dietician Clinics. This is an issue which School Nurses have raised consistently and one which PADT would like to see changed. Decision making here rests with the dieticians and could have funding implications.

#### *Asian Children*

School nurses observed that Asian children frequently had to attend the Mosque or the Madressah after school, which meant that they were not able to attend Fusion sessions. This was described as a main barrier to children and young people accessing Young Pals by two School Nurse Team Leaders for North Kirklees (2008). One of them commented that this resulted in a higher proportion of white children than Asian children accessing the service (see also evidence from Physical Activity Development Officers about introducing Saturday morning Fusion sessions for Asian children in North Kirklees – 2008). Their view was that some Asian families gave overweight boys a privileged status, and could therefore be less likely to recognise their obesity problems.

### ***Evaluators' Observations***

The evaluators' observations based on their attendance at Meltdown and Fusion sessions, contacts with children and young people, parents and carers and other professionals in 2007 and 2008 included:

- (i) Evaluators consistently observed Kirklees Young Pals Physical Activities Co-ordinators engaging positively and constructively with children and young people of all ages and abilities, and with their parents and carers
- (ii) Children and young people clearly enjoyed taking part in Meltdown and Fusion sessions, had taken on board advice about physical activity and healthy eating, and believed that they were benefiting from attending
- (iii) Children and young people who experienced difficulties with any parts of the programme received appropriate individual help
- (iv) Children and young people seemed happy to comply with physical measurements being taken to record their progress
- (v) The evaluators were impressed to observe that Kirklees Culture and Leisure Services staff ensured that children with special needs, including children with learning or physical disabilities, some of them severe, were successfully integrated into Meltdown and Fusion sessions, during their observation visits in both 2007 and 2008
- (vi) Kirklees Culture and Leisure Services staff were motivated to ensure that children and young people obtained maximum benefits from participation. Children and young people rated them very highly
- (vii) Parents and carers were welcomed to Meltdown and Fusion sessions and staff ensured that they received appropriate information, and that their concerns were addressed

- (viii) Evaluators saw increasing evidence of parents directly benefiting from education elements in the Fusion Programme introduced in 2007 / 2008
- (ix) Kirklees Culture and Leisure Services staff have been at pains to reduce stigma attaching to weight problems in all aspects of the Young Pals programme

### **Views of Kirklees Young Pals Staff**

*This section is based on evidence obtained from five permanent Physical Activity Development Officers (PACs) and two Managers for the service at a focus group held in March 2008, by when the PACs had been trained to deliver the MEND Programme which was taking up round about two-fifths of their time.*

#### **Key Points:**

- (i) **Staff were very clear about service objectives.**
- (ii) **Promotion of the Young Pals Service could take up 50% of their time.**
- (iii) **Fusion and MEND sessions were well integrated. Fusion now included more emphasis on parental involvement including education sessions. Staff observed both parents and children being enthusiastic about activities provided. Staff's level of confidence about achieving positive outcomes was high once children and young people had become actively involved in the programme. Their experience was that parents who were overweight themselves could be particularly receptive to advice.**
- (iv) **Staff knew that the impact of diet on children's weight was at least as important as the impact of physical activity; advice on both aspects had now been successfully integrated into the programme.**
- (v) **Recruitment of teenage girls (and boys) remained a challenge.**
- (vi) **Staff's concerns were about overweight children not being picked up by GPs or School Nurses; and about what they perceived as the Government's "softly softly" approach to tackling problems of childhood obesity.**

#### **Key Quote:**

***"The main aim of the whole team is to get more inactive young people more active, more often, with a view to health gain".***

### **Objectives**

The staff group were very clear about the objectives of Young Pals:

*...the main aim of the whole team is to get more inactive young people more active, more often, with a view to health gain.*

*...another more strategic aim is to target difficult to reach groups; isolated groups; people with health problems...overweight / obese young people, often in pockets of poverty.*

*...to get (children and young people) to enjoy physical activity which they may not be able to do in a school situation. Because they might not be the most talented children, they might not be given a chance to play for teams.*

*...to signpost (children and young people) on to, say, a football team, or a netball team or swimming, to improve their confidence and their basic skills...It's not just about coming to the sessions and the classes, it's a stepping stone to other things.*

*...we're also reducing the risk of children getting coronary heart disease and diabetes in the future. So we're more preventative as well as helping children who are already overweight.*

### *Recruitment and Marketing*

The staff team had put a premium on promoting Young Pals particularly since the summer of 2007, with a view to increasing participation and attendance. Recruitment could take up to 50% of the team's time. The team had been proactive in liaising with health professionals to promote the scheme and distributing leaflets in town centres and other localities. In one North Kirklees area, 1000 posters had been distributed, resulting in eight children starting the programme. Recruitment had to reach parents as well as children because parents frequently took the lead in deciding whether children would attend. Marketing had focused mainly on the 7 – 13-year age group, and the team identified an opportunity to focus recruitment drives on young people aged 13 – 16. Recruitment of teenage girls had been identified as a key issue, some of whom were particularly self-conscious about weight issues, and could be reluctant to be weighed. Girls had responded well to the team introducing

multi-activity sessions known as “the Groove” including using different instructors and with a focus on aerobics.

Team members commented that: *Some parents don't perceive their children as being overweight, so therefore they don't feel that they're suitable for the scheme.* Parents who were overweight themselves could be more receptive. Where parents were resistant, blockages could occur.

The staff team's view was that promoting their service was impeded by ambiguity about Government messages regarding childhood obesity.

*Sometimes we're too soft with the subject matter itself, and trying to be sensitive.*

Staff felt inhibited about giving clear and direct messages about the long-term health risks from childhood obesity. This was linked to reluctance from Government to confront problems of obesity directly.

*...with smoking or drugs you can be quite drastic, and you can be quite stern about it, whereas we have to take this “gently, gently” approach...we're almost blanketing it and making it kind of okay, and it's obviously not.*

Other health professionals had a key role in promoting the Young Pals Service and the staff team had prioritised building up contacts with them. Their concerns were that overweight children, or children with problems of obesity, could still be overlooked. GPs would not always pick up on these problems when dealing with childhood illnesses. School nurses saw children at long intervals, or those who had been recommended to them, with the result that children with weight problems in schools might not be seen by any health professional, and might not be aware of the Young Pals service. Some parents resented children being recommended for Young Pals (...*“Why are you saying my child's fat?”*). Physical Activity Development Officers were aware that some teachers were reluctant to recommend a child for Young Pals because of a potential backlash from parents. Teachers had concerns that they could undermine a child's self-confidence because of stigma about weight and body image.

### *Programme Impact*

The staff team had all contributed to the development of Fusion programmes now running alongside MEND. Fusion sessions now placed much more emphasis on parental involvement and incorporated education sessions on diet and healthy lifestyles for parents. Numbers of parents involved varied between localities. In one (South Kirklees), over 120 children had attended Fusion sessions between January and March 2008, and almost 100 parents, as well. The pattern was that parents were no longer dropping children off and leaving. The half-hour educational slot had proved popular... *What we're finding is that parents want to come along because the kids are enthusiastic about what they're doing.* The staff's view was that Fusion and MEND programmes running alongside each other worked well together. Families completing the intensive MEND nine-week programmes could be referred straight on to Fusion sessions subsequently. The staff team were positive about the impact of Young Pals on children and young people once they started to attend the programme:

*When we have that one-to-one meeting and they turn up to their first Fusion session, then you know you've cracked it. In the seven years that I've been here, I've got kids who are still coming. So once they latch on to the scheme and get to know what we're doing, then we are delivering.*

For some children, attending Young Pals could have a dramatic impact. One child lost a stone in about twelve weeks and the mother said... *I don't know what you said to him; I don't know what you've done, but he's so active now. It's really helped (you) being able to sit down and talk with him for that half hour.* For other children, simply attending Fusion sessions regularly constituted success. Children were extremely positive when they were able to tell the staff: *"I'm wearing a different top",* or *"I can fit in this top now".* Sometimes it took longer to see results. Progress would be apparent when children and young people eventually decided to make lifestyle changes, such as starting to go swimming, getting involved in other sports, or changing their diet.

Staff were alert to the needs of the South Asian community, particularly in North Kirklees which had the highest concentration of ethnic minority families. Separate

sessions were being run on Saturday mornings in Batley and Dewsbury, to provide alternatives to after school sessions which conflicted with Mosque attendance. The team had been particularly conscious of the need to make separate provision for South Asian girls. A separate group (*Team Sitara*) had been set up specifically for girls who did not want to take part in mixed sessions.

### *Future Developments*

The team had increased from two to four-and-a-half full-time staff delivering the Young Pals programme including Fusion and MEND sessions. Extending Fusion sessions into schools was now a main priority for the team.

Physical Activity Development Officers were very aware of research findings that diet was at least as influential as physical activity in achieving weight loss. Providing advice on diet and healthy living was now integrated into their roles as Physical Activity Development Officers. Taking account of the limited availability of dieticians to directly support the Young Pals programme, the team ideally wished to prioritise recruiting an additional member of staff with nutrition and dietetic expertise.

Team members also considered that opportunities for one-to-one personal training with young people could further enhance the programme, although this would be very resource-intensive.

### **Views of Strategic Managers**

*Evidence in this section was obtained through interviews with the Health Improvement Advanced Practitioner for Kirklees PCT and from the Physical Activity Development Manager for Kirklees Culture and Leisure Services in July / August 2008. In the section which follows the Kirklees Physical Activity Development Manager is referred to as KPADM; and the Kirklees Healthy Improvement Advanced Practitioner as KHIAP.*

#### **Key Points:**

- (i) Addressing the needs of overweight and obese children was a very high priority for Kirklees PCT. Future plans included more intensive interventions for children with the most serious problems.**
- (ii) The evidence base had improved since the introduction of the National Child Measurement Programme.**
- (iii) Kirklees PCT put a premium on the contribution made by Kirklees Young Pals to tackling childhood obesity.**

- (iv) ***The Kirklees Physical Activity Development Manager's view was that, for the future, the Young Pals scheme would place even more emphasis on diet and nutrition (perhaps 50%) as against promoting ethnical activity.***
- (v) ***Opportunities to focus on children and young people's emotional and mental health needs were being prioritised by both Kirklees MDC and Kirklees PCT.***
- (vi) ***A multi-agency approach was crucial. Schools had a key role in combating obesity.***

Both the Strategic Managers (KHIAP and KPADM) took a broad, multi-disciplinary view of their strategic contributions to combating childhood obesity in Kirklees. KHIAP took the lead from the PCT on managing obesity; and KPADM, in post for ten years, took the lead on managing physical activity, leading a multi-agency group from her base within the Local Authority. Kirklees Young Pals was an *evolving* programme. New elements were being developed continuously, so that the service provided by Kirklees Young Pals had changed radically by the end of the evaluation period (August 2008) compared with the beginning (September 2006)...*We try something, and if it doesn't work we change tack.* Both KPADM and KHIAP had been positively influenced by emerging NICE Guidelines.

KHIAP took a very positive view of Kirklees Young Pals including both Fusion and MEND Programmes. They were...*highly valued...a very valuable resource that we are very fortunate to have, and that other areas don't have.* Evidence from the National Child Measurement Programme (NCMP) was now, finally, starting to provide a firm basis for future planning. Compliance rates at both Reception and Year 6 in Kirklees had been high and levels of obesity for Kirklees were similar to national averages. Future plans included parents being routinely sent data from the programme (not before 2009). Eventually, differential evidence about progress within localities in Kirklees would become available.

Nonetheless, childhood obesity levels were rising rapidly, and the national target to achieve a return to 2000 levels by 2020 was *extremely ambitious.* The whole population was becoming heavier. Some children previously regarded as obese were now being categorised as simply overweight; shifting the goalposts in this way could cause confusion for health professionals. The Health Service was now committed to a population-centred approach, with plans to re-design services to meet



individual needs. Children's needs should be met using all appropriate resources available rather than, for example, trying to fit children into existing provision. The PCT had to prioritise preventative approaches and addressing the "*obesogenic environment*" which required the active involvement of Planning, Transport and Regeneration Authorities.

Both KHIAP and KPADM were very aware of the requirement to develop programmes responsive to Kirklees' ethnic minority populations. KHIAP was aware that the South Asian population was at risk of, for example, diabetes and heart disease at lower BMI levels than the white UK population. KPADM had already recognised that Fusion sessions needed to be timed to take account of requirements for Mosque attendance.

A £75 million National Obesity Social Marketing Campaign was being planned. KPADM was concerned about Government's core messages, recommending that the term "*obesity*" should be dropped and thereby signalling a *softly, softly* approach. Programmes developed by Paul Gately (Leeds Metropolitan University and Carnegie Weight Management) were now promoting a more hard-hitting, confrontational approach emphasising the extremely serious health problems linked to obesity.

The PCT recognised the difficulties of achieving behaviour change. KHIAP said...*Programmes that are sold about improving your health are no help in motivating people whatsoever (which)...comes as a shock to people working in health...It's about people wanting to be able to fit in (or) to be able to shop for clothes without feeling as though they stand out and (about) being able to make friends...and not be bullied...What parents are most concerned about isn't their children's health as such, it's their happiness.*

Delivery of the Young Pals service was now being mainstreamed. For the future, Kirklees was envisioning a tiered approach with services such as Young Pals widely available for children and young people with weight or obesity problems. GPs would provide a gateway for both preventative and acute interventions. More intensive interventions would include Day Clubs and Residential Programmes for children over the 98<sup>th</sup> centile, which were already being developed by Carnegie Weight Management Programmes, and adopted by some Health Authorities in the Region. Both the PCT and the Local Authority needed to commission new services to

respond to the challenges of obesity. KHIAP was confident that additional resources would be forthcoming from Central Government. As well as recognising the need for new funds, both KHIAP and KPADM were aware of the complex, deep-rooted changes in behaviour necessary to combat childhood obesity.

At a more local level, KPADM saw the future as including both Fusion and MEND programmes. She anticipated that children and families involved in the more intensive MEND activities were likely to show greater adherence to programme requirements. KPADM recognised the very positive contribution which both parents and children could contribute to programmes as supporters and motivators. Participants needed regular contact (10-week gaps were not helpful); and the Young Pals Programmes was placing considerable emphasis on following up children dropping out of programmes. Outcomes for participants involved in MEND were likely to be enhanced by the availability of Fusion sessions. Kirklees Young Pals staff had adapted their programmes to include healthy lifestyle, dietary and nutritional advice. Taking account of research evidence, even more emphasis (perhaps fifty per-cent) should be placed on diet and nutrition within Young Pals Programmes. Plans now included more focus on children's emotional needs, and there were opportunities for the Children's Community Mental Health Service to provide training for Physical Activity Development Officers in supporting children with mental health issues.

For the future, Kirklees Young Pals needed closer links and more investment and involvement by Education and Children's Services. Close links had been established with the Healthy Schools Programme, with its primarily preventative focus. Schools needed to be at the heart of programmes addressing the needs of children at risk of being overweight or obese. The Kirklees Local Area Agreement was now setting targets to reduce obesity for young people aged 13 and 14, as well as for children in Year 6.

## 4. Summary of Case Studies

The Physical Activity Development Officers were invited to complete case studies on children and young people with whom they had worked closely, in the spring of 2008. Four case studies were completed and these are summarised below. A format for the case studies was developed recording physical measurements, questionnaire data, review data and children's own views about their progress.

### *Case Study 1: White girl aged 11(F11/1)*

F11/1 joined Young Pals on a School Nurse recommendation with a view to becoming more active and finding new physical activity outlets. At her reviews, F11/1 appeared consistently highly motivated and her self-esteem increased steadily. F11/1, her older sister and her mother all attended and benefited from their involvement in the MEND programme. When she completed the Fusion programme, F11/1 was taking part in regular exercise. Young Pals and MEND had made a positive impact on F11/1 both physically and mentally. Her self-esteem had increased very significantly. F11/1's weight had decreased; she needed to carry on an active and healthy lifestyle to drop below the 91<sup>st</sup> centile.

### *Case Study 2: White boy aged 10 (M10)*

M10 was referred via Adult Pals. He wanted to become more active and to lose weight. To start with, M10 was apprehensive at Fusion sessions, lacking confidence to take part in all activities. By his first review, M10's attitude to exercise seemed much better. After 12 weeks on the scheme, M10 noticed that his stamina had improved and that he could run for longer without stopping. His mother had noticed that he was sleeping better. He was active for at least 30 minutes on five or more days per week. M10 achieved a weight loss of 2.5 kilograms and his BMI had also dropped noticeably. His Physical Activity Development Officer considered that more knowledge of a healthy diet would benefit M10 further.

### *Case Study 3: White girl aged 11 (F11/2)*

F11/2 also joined the scheme on a School Nurse recommendation, wishing to become more active and to lose weight. Her assessment and subsequent reviews indicated a marked rise

in her self-esteem. Her activity levels improved noticeably. By her second review, F11/2 had become much more conscious about achieving a healthy diet. Both F11/2 and her mother had been involved in and benefited from attendance at MEND. At her final appointment, F11/2's confidence and motivation remained very high. She was enjoying exercising with her friends and she felt she had been achieving her goal of one hour per day of physical activity. She felt that if she lost weight this would further improve her self-esteem. On holiday recently, F11/2's diet had been very unhealthy and her weight had increased. Her BMI rate was above the 98<sup>th</sup> centile. More one-to-one appointments were thought to be necessary to address dietary issues closely to ensure weight management.

*Case Study 4: White boy aged 6(M6)*

M6 also joined the scheme on a School Nurse recommendation, looking forward to playing fun games and becoming more active. By his first review, his level of motivation and confidence were improving. Further review data indicated that M6 was maintaining his activity levels through both structured and unstructured sessions on a daily basis. By his final appointment, M6's self-esteem score was very high. After a 48-week programme, M6's BMI had reduced slightly, although he remained above the 98<sup>th</sup> centile. It was important that he kept physically active and that his mother understood healthy eating concepts. M6 had completed a 48-week programme. If he relapsed and needed extra support, he would be put back on to the Young Pals scheme a second time. For the future, as well, a dietary intervention (MEND) might be required if M6 continued to be in the obese category.

## 5. Kirklees Young Pals School Based Taster Sessions

In the summer term of 2008, Kirklees Young Pals staff ran taster sessions in thirteen schools (Infant and Primary, and Junior) across Kirklees during lunchtimes. These were free of charge. The purpose was to introduce children who could benefit from the programmes to physical activity, with the objective of encouraging them to access local Fusion sessions. Questionnaires were sent to the participating schools towards the end of the summer term. Completed questionnaires were obtained from four schools. Three of them were Infant and Nursery Schools, and one was a Junior, Infant and Nursery School.

### *Questionnaire Summary*

#### Q1

Schools were asked how they selected children to participate. All four responded that the *school targeted specific children*. Two said that they selected children through a *letter from school*. One school said that the *School Nurse* identified children.

#### Q2

Schools were asked whether the sessions worked with the target population ie. inactive/over weight children using a 1 (low) to 10 (high) scale.

The four schools responded very positively with a mean score of 9.5.

#### Q2a

Schools were asked whether they had seen any changes in the children following their participation. All four schools observed *increased confidence* and *increased overall activity*. One school noticed *improvement in behaviour*, another school noted that children *made new friends*; and one school observed that children involved *joined school clubs*.

Q2b

Schools were asked why/whether it was difficult to target children to attend the sessions. Three noted *stigma* attaching to inactive or over weight children (one school stressed *over weight*). One school said that targeting was an *unpopular approach with parents*. No other problems in targeting children were identified.

Q3

Schools were asked whether overall they felt that Young PALS Fusion had benefitted them, again using a 1-10 scale.

The schools again responded very positively with a mean score of 9.5. Schools were asked to explain the benefits. Their responses were as follows.

*The children had a great time. (Name of Physical Activity Development Officer) is fantastic with the children and had loads of games that they loved.*

*It was an excellent way to discuss with parents the fact that children need to be active and stay active. We also managed to approach parents about their children being overweight and needing to be more active.*

*(KYP was)...able to offer free clubs to children who have not attended other activities for which we have had to charge – even when we have kept costs to a minimum.*

Q4

Children were asked in general how they would rate the instructor. One said *excellent* (this option was not offered); and three said *good*. They commented further as follows:

*Very organised and excellent with the kids.*

*Very patient. Good activities for children.*

*Some of the children had behaviour issues but (the Physical Activity Development Officer) was able to maintain a happy atmosphere and good pace.*

*The children were really excited at having (name of instructor) and talked about it all week.*

#### Q5

Schools were asked in general how they would rate the overall sessions. One said *excellent* (this option was not offered); and three said *good*. They commented further as follows:

*Focused and well under control.*

*Children really enjoyed the sessions.*

*The sessions were targeted well for each age group.*

#### Q6

Schools were asked whether they would consider a long-term sustainable session to be beneficial to the school, again on a 1 (strongly disagree) to 10 (strongly agree) scale. Two schools responded 10; and two schools responded 9 (mean = 9.5).

#### *Comment*

This small survey indicates very high satisfaction levels from schools about the taster sessions.

## **6. Conclusions, Discussion and Recommendations**

Tackling obesity, and childhood obesity in particular, is one of the most daunting public health challenges facing western democracies, including the United Kingdom. The size of the problem to be addressed has increased at an alarming rate over the past decade and experts now believe that childhood obesity may be 'set' by the time children reach five years of age. The origins of the increase in childhood obesity are complex, including adverse changes in children's diet and eating habits; lower levels of physical activity as children walk less and play out less; and increased levels of inactivity linked to increasing time spent by children watching television or engaging in computer or other screen-based activities. Hereditary factors can be crucial, and future childhood obesity is closely linked to high birth weight. Breast-feeding is known to protect against children becoming overweight or obese. Stress factors and disturbed sleep may also be linked to childhood obesity problems. The prevalence of childhood obesity is known to be much higher for South Asian children. Problems are compounded by parents' tendency not to acknowledge their responsibility for tackling childhood obesity; and their reluctance to acknowledge the links between childhood obesity and longer-term health problems.

Definitive research findings about the most effective strategies to combat childhood obesity are thin on the ground. Measuring children's level of physical activity has proved difficult because of reliance on self-report data. Interpretation of physical measurement data for children (heights, weights and BMIs) is difficult because of the need to factor in children's normal growth, alongside focusing on weight reduction. However, there is agreement amongst researchers that diet has a greater effect than physical exercise towards achieving weight reduction; although optimal results depend on a combination and maintenance of both. Recent research (Riley, 2007) has recommended focusing on obesity rather than healthy living, reducing television and screen time, promoting physical activity and reducing intake of fruit juices and certain types of fizzy drinks. "Softer" research findings have promoted the merits of school-based programmes encouraging physical activity, and engaging parents in physical activities and educational components of programmes.



*Kirklees Young Pals: Successes*

Given the challenges involved, the Kirklees Young Pals Programme has proved resilient and successful. The programme has been well led and highly adaptable. An initial focus on promoting levels of physical activity has been significantly amended in the light of more recent evidence to include an equal emphasis on the importance of diet and education. Future development will include an even clearer focus on children's emotional well being and positive mental health. The programme has been responsive to feedback from parents; and has put a premium on enhancing parents' and carers' levels of involvement. As the programme has expanded, opportunities have been taken to extend the service provided to Kirklees' seven locality areas. The Young Pals programme has successfully integrated Fusion sessions with the National MEND programme, with its particular emphasis on the involvement of the whole family. Fusion and MEND sessions have blended and interacted positively with each other. Kirklees Young Pals staff are particularly to be commended for their exemplary attitudes to reducing the stigma attached to obesity; and for their sensitive and successful integration of children with a range of disabilities into Young Pals sessions.

The programme has been particularly successful in adopting and implementing a multi-agency approach. At a strategic level, an effective partnership has been achieved between Kirklees MDC and Kirklees PCT; joint funding between the two agencies has been crucial in ensuring continuity and expansion of the programme. At an operational level, very effective alliances have been formed with health professionals. Kirklees Young Pals staff have been very involved in promotion of their scheme, raising awareness amongst professional groups, including General Practitioners. Contributions and advice from dieticians have been harnessed, where possible (although dieticians have acknowledged the limited time they have been able to commit to this area of work). Important changes were agreed between Kirklees Young Pals and health professionals, particularly School Nurses who refer the highest proportion of children and young people to the scheme, in September 2007, when the current recommendation-based scheme replaced an earlier referral-based system.

Links with schools are regarded as particularly important for tackling childhood obesity from now on. The Kirklees Young Pals programme has made an extremely

effective start in developing Taster Sessions, free of charge, in Junior, Primary and Infants Schools across the authority in the summer of 2008. This initiative has been well received by the schools involved. The Programme Manager (Physical Activity Development Manager) has fully recognised the importance of the programme's links with the Healthy Schools Partnership. Even closer links with schools, where professional staff are best placed to identify children with obesity problems at an early age, are likely to be needed. Strategically, the Programme Manager would now place equal emphasis on partnership work with Children's Services as with Health.

### *Research Findings*

The Programme Manager and her staff have recognised the importance of evaluation processes, particularly in relation to data collection. The evaluation would not have proceeded without their contribution. Their heaviest commitment has been regular collection of physical activity measurements to enable calculation of BMIs and centile data. Progress was slower in the first year of the evaluation and much more rapid thereafter in Year 2. Most findings have been based on data obtained between September 2007 and September 2008. Programme staff have encouraged involvement by children in measurement activities and reviews. Little evidence has been recorded of children objecting to these processes. Some children have even looked forward to them, although a few have sometimes seemed nervous before the sessions. The sensitive approach of the staff has been evident throughout recent taster sessions.

Roughly equal numbers of boys and girls have been involved in the programme, which has proved most popular with children aged 7 to 12. The proportion of young people from ethnic minority communities, and of South Asian origin in particular, has been high. These children have been over-represented on the programme, which is entirely appropriate given the higher propensity of children from these communities to obesity and associated health problems. Physical measurement data indicates that white UK children have shown a little more evidence of improvement than children from black or ethnic minority communities.

Clear evidence has been found that the programme has been effectively targeted towards children in the obese or the morbidly obese categories (which, again, is highly appropriate). Promotion of the scheme through leaflets and posters in schools

appears to have been successful in raising awareness about the availability of the scheme, and also in encouraging more self-referrals.

The scheme has placed an equal value on young people whose involvement has been restricted to initial assessment and subsequent reviews, and who have been signposted into various forms of physical activity; and on those children, slightly less than half, who regularly attend Fusion sessions. One of the clearest findings has been a statistically significant increase in self-esteem levels for over 70% of the children involved. A positive correlation has been found between numbers of Fusion sessions attended and higher levels of increase in self-esteem. Increases in self-esteem levels have been particularly clear for children aged below 7. Other positive outcomes for very young children have emphasised the importance of Kirklees Young Pals continuing to prioritise their involvement, with opportunities for preventing their problems becoming more serious as they grow older.

Measurement of children's attitudes to physical activity has produced important findings. Generally, children and young people involved in the programme have had very positive attitudes in this regard. This explains why differences (for example more positive attitudes) at subsequent data collection points, have been hard to detect (children's attitudes were positive in the first place). Children's attitudes compare well with those of normative samples. This finding underlines a widely shared view amongst professionals involved that children taking part in Young Pals have tended to be those with higher levels of motivation. Evidence from allied professionals has been that the scheme has been very beneficial for children who have become actively involved. These professionals have had much greater levels of concern – shared by Kirklees Young Pals staff - about other children and their families who have been in denial and who have refused to take advantage of the scheme.

The smaller group of young people with physical disabilities were found to have more positive attitudes to physical activity than those without such disabilities. A possible explanation is that young people with physical disabilities particularly welcomed opportunities for such activities which they may not have enjoyed previously.

It is also noteworthy that attitudes towards physical activity were more positive for children and young people below the 98<sup>th</sup> centile: children above this level in the

obese category may have found it psychologically daunting to remain positively focused on engaging in physical activity sessions.

Older participants in the Young Pals scheme tended to have more positive attitudes towards physical activities than normative samples. One possible explanation advanced is that older participants may have been more exposed to and more aware of positive health messages about the value of physical activity. As well, older participants who stayed involved with Young Pals needed to be positively motivated, as they were more likely to have to travel to sessions under their own steam (younger participants were more likely to be accompanied by parents and may also have had less choice about attending).

Relatively few differences have been found about the impact of the Young Pals scheme on boys and girls. There has been speculation that girls are more likely to be motivated to lose weight because of factors linked to dress and appearance; while boys may be more motivated by increasing opportunities to engage in sports. Forty-six per cent (46%) of the group increased their range of activities and 59% increased the frequency of activities. Girls appeared more likely to try more activities – possibly a more imaginative approach, although boys appeared more likely to increase their frequency of participation, regardless of exercise ‘type’.

One of the most important findings from the study has been that 57% of participants have recorded decreases in BMIs, which points to the success of the scheme for a majority of children and young people involved. Reductions were noted for children from the obese and morbidly obese categories. Improvements in centile scores were more evident for children aged 7 or below.

Children who have ceased attending the Young Pals programme have proved an importance source of evidence. Their families have provided positive feedback about sessions they have attended and about reviews. Out of the children who only attended assessments and reviews, 44% said that they were involved in physical activities elsewhere. This increased to 76% for children and young people who had attended Fusion sessions, which indicates that their commitment to staying engaged in physical activities may have been linked to their previous involvement in the scheme.

Children and young people have been very clear about programme objectives, as have the KYP staff themselves. Qualitative data has reinforced the research findings described above. Children and young people and parents and carers have commented positively on the benefits of the scheme. Improvements on self-esteem scales are paralleled by both children's and parents' accounts of improvements in their (children and young people's) level of confidence. Parents and carers have welcomed the non-stigmatising environment provided by Young Pals, where children can mix with others of similar levels of ability. Qualitative data has emphasised the high regard in which programme staff are held by both children and parents and carers. The staff's sensitive and caring approach for all children involved has been widely commended.

KYP staff have particularly acknowledged the challenges involved in enabling teenage girls to access the scheme and have adapted the programme to attempt to meet their needs. This area may require further attention.

### ***Recommendations***

- (i) Kirklees Young Pals, working in partnership with the PCT Obesity Programme Board, should continue to develop multi-agency partnerships including the Local Authority and the Voluntary Sector to tackle obesity strategically and to ensure effective implementation of the programme.
- (ii) Within this framework, closer partnership with Kirklees Children's Services and local schools, including the Healthy Schools Programme, is particularly recommended.
- (iii) Kirklees Young Pals should continue to seek to reduce barriers for South Asian young people and for teenagers, both girls and boys. A Social Marketing approach should be adopted to explore and understand barriers to accessing services for these groups.
- (iv) The Kirklees Young Pals Programme should continue to evolve and adapt in the light of new research findings, and taking account of feedback from young people and other stakeholders.

- (v) Research findings point to the effectiveness of the Kirklees Young Pals Programme impacting on younger children. Implementation of the Programme should continue to prioritise this group.
- (vi) Research findings from this evaluation should be disseminated widely in Kirklees; in the Yorkshire and Humber region; and nationally.
- (vii) Dissemination should include publication in professional journals, including those most widely read by professional colleagues involved. Guidance on protocols or publication should be sought from Kirklees NHS.
- (viii) Kirklees Young Pals should continue to prioritise marketing and publicity of the programme to ensure the widest possible uptake from children and young people who can benefit from the service.

*Development of a tiered approach*

- (ix) Kirklees Young Pals has been effectively targeted at over weight and obese children. A high proportion of them have been above the 98<sup>th</sup> centile. Kirklees Young Pals should continue to support this range of children through providing both Fusion sessions and MEND Programmes.
- (x) Additionally, more intensive services are required for obese children including day camps and residential facilities, the latter to be commissioned by Kirklees PCT.

*Hard to reach and resistant children, young people and families*

- (xi) Kirklees Young Pals Managers and their partners should consider urgently how take-up of the scheme can be encouraged by children and young people and their parents / carers who have so far proved resistant to taking part. Consultation with other health professionals and school-based staff is recommended to achieve optimal outcomes.

### *Government Policy*

- (xiv) Kirklees Young Pals Managers (both Kirklees MDC and PCT) should consider, in liaison with the Obesity Programme Board, how to influence Government policy to address issues of childhood obesity robustly; and to impart the clearest possible messages about longer-term health problems associated with childhood obesity.

### *Further Evaluation*

- (xv) The definition of “*doing other things*” in the follow-up questionnaire for non-attenders should be clarified before it is used again.
- (xvi) Discussions should be held with other providers, including Carnegie Weight Management about their basis for scoring physical measurements, including BMIs, in order to provide a basis for comparing outcomes with the Young Pals Programme
- (xvii) Future evaluation of Young Pals should be streamlined. Use of some measures, for example the attitudes to physical activities scale which has not revealed significant change, should be dropped. Key measures to retain include the Rosenberg Self Esteem Scale; and regular recording of physical measurements including height, weight, BMI and a new measurement for adiposity (body fat).
- (xviii) The evaluation methodology should be carefully revised and decisions made about whether activity outside Fusion sessions can be effectively quantified; and also to decide on what further qualitative data should be commissioned.

## References

- BBC News (2008). *Obesity 'set before age of five'*. Available from <http://news.bbc.co.uk/go/pr/fr/-/1/hi/health/7786229.stm> [Accessed 17th December 2008]
- Biddle, S., and Gorely, T. (2005). Couch kids: Myth or reality. *The Psychologist*, 18(5), 276 – 279
- British Medical Association (2005) *Preventing childhood obesity*. Available from <http://www.bma.org.uk>
- Brunton, G., Harden, A., Rees, R., Kavanagh, J., Oliver, S. and Oakley A. (2003). *Children and Physical Activity: A systematic review of barriers and facilitators*. London: EPPI-Centre, Social Science Research Unit, Institute of Education, University of London
- Carnegie Weight Management (Date Unknown). *Delivering Successful Weight Management for children and Families with Public Sector Partners*. Leeds Metropolitan University: Carnegie Weight Management
- Catalano, P. M. & Ehrenberg, H. M. (2006) *The short and long term implications of maternal obesity on the mother and her offspring*. *BJOG*, 113, 1126 – 1133
- Cole, T., Freeman, J., & Preece, M. (1995). Body mass index reference curves for the UK 1990. *Archives of Disease in Childhood*, 73, 25-29
- Department of Health (2004). *At least 5 a week: Evidence on the impact of physical activity and its relationship to health. A report from the Chief Medical Officer*. London: Department of Health
- Department of Health (2006). *Measuring Childhood Obesity – Guidance to Primary Care Trusts*. London: Department of Health
- Department of Health (2006). *Obesity Care Pathway and Your Weight, Your Health: Raising the Issue of Weight in Children*. London: Department of Health
- Department of Health (2007) *Kirklees Health Profile 2007*. London: Department of Health



Department of Health (2008). *Healthy Weight, Healthy Lives: A Cross Government Strategy for England*. London: Department of Health

Ebbeling, C. B., Pawlak, D. B., and Ludwig, D. S. (2002). Childhood obesity: Public health crisis, common sense cure. *The Lancet*, 360, 473 - 482

Eisenmann, J.C. (2006). Insight into the causes of the recent secular trend in paediatric obesity: Common sense does not always prevail for complex, multifactorial phenotypes. *Preventative Medicine*, 42, 329 – 335

Foresight Review (2007). *Tackling Obesities: Future Choices*. Available from <http://www.foresight.gov.uk>

Garn, S. M., and Clarke (1976). Trends in fatness and the origins of obesity. *Paediatrics*, 57, 443 - 456

Gortmaker, S. L., Petersen, K., Weicher, J., Laird, N. (1999) *Reducing obesity via a school-based inter-disciplinary intervention amongst youth*: Planet Health. *Archives of Paediatrics and Adolescent Medicine*, 151, 409 – 418. Cited in J. J. Reilly, (2007). *Childhood Obesity: An Overview* (*Children and Society*, 21, 390 – 396)

Hill, A.J. (2005). Fed up and friendless? *The Psychologist*, 18 (5), 280-284

Health Survey for England (HSE) (2006) Available from <http://www.dh.gov.uk>

Jebb, S. A., Rennie, K. L., and Cole, T. J. (2003). Prevalence of overweight and obesity among young people in Great Britain. *Public Health Nutrition*, 7 (3), 461 – 465

Jebb et al (1997). Tackling obesities: future choices' project. *Obesity Reviews*, 8 (s1), vi-ix

Kirklees Obesity Strategy (2007) – see Appendix

LeMura and Maziakas (2002). Factors that alter body fat, body mass and fat free mass in paediatric obesity. *Medicine and Science in Sports and Exercise*, 34 (3), 487 - 496

Mackett, R. L., and Paskins, J. (2008). Children's physical activity: The contribution of playing and walking. *Children and Society*, 22, 345 - 357

National Audit Office (2006). *Tackling Child Obesity – The First steps*. London: The Stationery Office

National Institute for Clinical Excellence (NICE) (2006) Obesity: Guidance on the prevention, identification, assessment and management of overweight and obesity in adults and children. Available from <http://www.nice.org.uk>

Reilly, J. J. (2007). Childhood Obesity: An Overview. *Children and Society*, 21, 390 - 396

Reilly, J. J., & Wilson, D. (2006). ABC of obesity: Childhood obesity. *British Medical Journal*, 333, 1207-1210

Robinson, J., & Rogers, M. (1994). Adherence to exercise programmes: Recommendations. *Sports Medicine*, 12, 39-52

Rosenberg, M. (1979). *Conceiving the Self*. New York: Basic Books

Rudolf, M., Christie, D., McElhone, S., Sahota, P., Dixey, R., Walker, J., and Wellings, C. (2006). WATCH IT: A community based programme for obese children and adolescents. *Archives of Disease in Childhood*, 91, 736 - 739

Sacher, P. M., Chadwick, P., Wells, C. K., Williams, J. E., Cole, T. J., and Lawson, M. S. (2005). Assessing the acceptability and feasibility of the MEND programme in a small group of obese 7 – 11 year old children. *Journal of Human Nutrition and Dietetics*, 18, 3 - 5

Schutz, R. W., Smoll, F. L., Carre, F. A., and Mosher, R. E. (1985). Inventories and norms for children's attitudes toward physical activity. *Research Quarterly for Exercise and Sport*, 56 (3), 256 - 265

Sport England (2006). *Physical Activity and Sport playing its part in delivering Choosing Health: A Resource for Strategic Health Authorities and Primary Care Trusts*. London: Sport England

Steinbeck, K.S. (2001) The importance of physical activity in the prevention of overweight and obesity in childhood: a review and an opinion. *Obesity Reviews*, 2, 117-130

Surkan, P.J., Hsieh, C-C., Johansson, A.L., Dickman, P.W., and Cnattingius, S. (2004). Reasons for increasing trends in large for gestational age births. *Obstetrics and Gynaecology*, 104, 720 - 726

Yorkshire and Humber Public Health Observatory (2008). *National Child Measurement Programme (NCMP) 2006/07: Results for 2006/07 data collection in Yorkshire and the Humber*. University of York: YHPHO



## Appendix (i)

### CHIK Programmes - Summary

#### Status report for each programme

Programme name	Obesity	
Strategic lead	Phil Longworth	
Programme/Operational lead(s)	Tim Fielding	
High Level Outcomes & Indicators	<p><b>Outcome:</b></p> <ul style="list-style-type: none"> <li>- Increase in weight management service provision.</li> <li>- Increase in uptake of weight management services.</li> <li>- 5-10% weight loss of those attending weight management services.</li> <li>- Increase in % of adults with a BMI recorded by their GP in the last 15 months.</li> <li>- Increase in the response rate of Reception and Year 6 pupils with height/weight recorded for NCMP.</li> </ul>	<p><b>Related Indicators:</b></p> <ul style="list-style-type: none"> <li>- 2007/08 BMI recording LES (LES and BMI recording indicator under review)</li> </ul>
Evidence based action required to deliver programme across Kirklees:	<p><b>Adults</b></p> <p>Currently using the ODS (organisational Development Service) Model to review and redesign obesity/weight management services across Kirklees. This process involves identifying the needs of the population and the services required to meet their needs. These services will need to compliant with the NICE (CG43) guidance, including:</p> <ul style="list-style-type: none"> <li>- Helping people assess their weight and decide on a realistic healthy target weight (people should usually aim to lose 5–10% of their original weight)</li> <li>- Aiming for a maximum weekly weight loss of 0.5–1 kg</li> <li>- Focusing on long-term lifestyle changes rather than a short-term, quick-fix approach</li> <li>- Being multi-component, addressing both diet and activity,</li> </ul>	<p><b>Children &amp; YP</b></p> <p>As with adults regarding the ODS process and the NICE guidance. In addition, services need to be family focussed, recognising and addressing the fact that the wider family is a significant determinant in a child's weight gain. Good practice is necessary throughout early years provision and schools to provide environment that encourage and enable healthy eating and physical activity, but also are able to identify and deal appropriately with children that are obese.</p>

	<p>and offering a variety of approaches</p> <ul style="list-style-type: none"> <li>- Using a balanced, healthy-eating approach</li> <li>- Recommending regular physical activity (particularly activities that can be part of daily life, such as brisk walking and gardening) and offering practical, safe advice about being more active</li> <li>- Including some behaviour change techniques, such as keeping a diary and advice on how to cope with 'lapses' and 'high-risk' situations</li> <li>- Recommending and/or providing ongoing support</li> </ul> <p>In addition the services will need to address the psycho-social determinants of weight gain and obesity. As well as obesity specific services this will require better coordination with existing mental health care pathways.</p>	
Additional action required in Key Localities (state which):	<p><b>Adults</b>                  Batley, Dewsbury, Spen:                  Appropriate engagement and representation in the ODS process and the development of appropriate services.</p>	<p><b>Children &amp; YP</b>                  Batley, Dewsbury, Spen and Huddersfield South: as for adults.</p>
Plan status: 1 - Signed off 2 - Well developed 3 - Early stages	1 – Programme plan signed off by Programme Group	
Programme structure:		
➤ Accountable group	Obesity Programme Group	
➤ Reports directly to	Finance and Performance via CHIK	
➤ Other relationships	Obesity Workstream Leads, Obesity Network, Regional Obesity Network, A&HC/CYP LPSB's as appropriate	
Key programmes links & current strength 1 – excellent 2 – needs strengthening 3 – not in place	<p><b>Key programmes:</b></p> <ol style="list-style-type: none"> <li>1. Food</li> <li>2. Physical activity</li> <li>3. Healthy schools</li> <li>4. Mental health</li> <li>5. Alcohol</li> <li>6. Long-term conditions</li> <li>7. Health trainers</li> <li>8. Better health at work</li> <li>9. Health intelligence</li> </ol>	<p><b>Current strength:</b></p> <ol style="list-style-type: none"> <li>1</li> <li>1</li> <li>1</li> <li>2</li> <li>2</li> <li>3</li> <li>2</li> <li>3</li> <li>3</li> </ol>

<b>Programme</b>	<b>Lead Officer</b>
1. Obesity	Phil Longworth
2. Food	Julie Tolhurst
3. Physical Activity	Alison Morby
4. Alcohol	Deborah Collis
5. Tobacco	Rachel Spencer
6. Sexual Health	Keith Henshall
7. Infant Mortality	Deborah Collis
8. Mental Health	Mike Hughes
9. Oral Health	Shahid Anwar
10. Accidents	James Williams
11. Healthy Schools & Colleges	Keith Henshall
12. Better Health at Work	Margaret Durkin
13. Self Care	Janine Bestall
14. Health Trainers	Mike Hughes
15. Social Marketing	Phil Longworth
16. Localities?	Mike Hughes
17. Health Intelligence	Deborah Collis

### MEND Programme – Summary of Data Obtained

Data was obtained from eleven children and young people and from sixteen parents / carers at four sites where the MEND programme was being run in Kirklees in June and July 2008. Each family received a MEND folder containing detailed information about the programme covering both physical activities and nutritional elements, which was commended by participants. The programme emphasised the importance of healthy eating and participants had clearly taken on board the advice provided including choice of foods, awareness of harmful ingredients and portion sizes. Parents consulted demonstrated high levels of awareness of the importance of both physical activity and of a positive approach to nutrition. Parents' expectation was that the impact of the programme was likely to be long-lasting. Some parents said that follow-up 4 – 5 weeks after the end of the programme would be beneficial.

Parents welcomed the opportunity for their children to be educated about the importance of food. One parent emphasised that it was important that their daughter was being educated...*because she's attending the sessions and not being told by her parents what she's supposed to do.*

Another parent said:

*I was relieved that there was such a thing they could come to and that they would be treated equally regardless of size or issues; to know there was somewhere...that could help.*

Another parent commented that...*Somebody offering me something he could go to was a Godsend.* As with Young Pals, both parents and children commented on increases in children's confidence, self-esteem and motivation. One of the programmes was run at a school in an outlying area of the Authority. A 12-year old boy attending the programme there had successfully learned how to handle bullying. He summed up the progress he had made:

*I've lost quite a lot of weight...I feel better and I've got more energy...I enjoy more sport now.* His mother added...*With everybody coming together, he knows he's...not*



*the only child who has a problem with his weight...there are other(s) in the same boat.*

Children attending a MEND programme in North Kirklees commented on the positive progress they had made. A 9-year old Asian girl said that her health was improving and she was taking more exercise. An 11-year old girl was making new friends and enjoying healthier food. She said: *When I run in PE...I normally go out of breath, but today we had a race with five of us, and I came first.* An 11-year old boy said that he was starting to slim down, enjoy himself and building up his confidence: *...You know what you can eat and what you can't.*

Parents particularly appreciated that attendance at MEND programmes was free, although several commented that buying healthy food was not a cheap option. The focus on nutrition was a hallmark of the programme, which could involve the whole family. A 14-year old Asian girl said that both her parents were eating more salads...*Dad especially, lives on tuna steaks, salad, fruit and vegetables,* after drastically changing his diet due to the MEND programme and a high cholesterol level. Her mother said that her daughter was...*motivated now. You feel so much more comfortable here. (Name of daughter) can ask questions because everybody's got the same problem.*

Two families participating in the MEND programme, both comprising two sisters and their mothers / carers, were consulted in North Kirklees. All of them were confident about maintaining the benefits from MEND because of their increased knowledge and understanding. One of the girls said that her whole family had become more active. All of them were looking forward to practical sessions, visiting the supermarket, and preparing meals approved by MEND. The families commended the MEND facilitators running children's activities which were age-appropriate, involving children in choosing activities and reinforcing progress through the use of "star charts". An 11-year old girl at the programme commented:

*I've lost three pounds...it's given me more confidence that I've lost weight...you know what the result is going to be if you don't (keep it up). If you go home and get a biscuit or something you're just going to gain that weight again, and you'll have to do it all again.* Her 8-year old sister said...*we're not spending most of our time snacking. We're going out playing tennis and trampolining.*

Their parents said that the crucial factor was how much food was eaten. One of them said...*I think of what I put on the plate, and I know adults have got a slightly larger portion size, but it's frightening when you see the amount.*

Although one parent who had attended the MEND programme with her two children described the teaching as *brilliant* – her children's eating habits had been radically altered and improved – other parents were critical of the nutritional instruction provided, particularly for younger children. Sometimes children did not understand the content and sessions were not sufficiently...*practical and hands-on*. Some sessions seemed not well prepared. Parents of two boys, aged 7 and 8, both said that the nutritional training was...*over their heads*. Another parent of a 9-year old boy, consulted at a Young Pals session in April 2008, who had completed the MEND programme, was somewhat aggrieved that her son had been excluded after misbehaving in an hour-long teaching session, which she thought was too much for him: *They're too young to have an hour of sitting still and being quiet and this is what got (name of son) into trouble because it went on too long*. Parents considered that teaching materials needed to be more child-friendly and age-appropriate.

# CHILD SELF-ESTEEM SCALE

(Adapted from Rosenberg Self-Esteem Scale for Adults, 1979)

Please circle a face for each question

1. I am happy with myself

Strongly Agree  
4



Agree  
3



Disagree  
2



Strongly Disagree  
1



2. Sometimes I think I am no good

Strongly Agree  
1



Agree  
2



Disagree  
3



Strongly Disagree  
4



3. I think there are lots of things about me that are good

Strongly Agree  
4



Agree  
3



Disagree  
2



Strongly Disagree  
1



4. I can do things just as well as other young people

Strongly Agree  
4



Agree  
3



Disagree  
2



Strongly Disagree  
1



**5. I feel I don't have much to be proud of**

Strongly Agree

1



Agree

2



Disagree

3



Strongly Disagree

4



**6. Sometimes I feel a bit useless**

Strongly Agree

1



Agree

2



Disagree

3



Strongly Disagree

4



**7. I am a worthwhile (good) person**

Strongly Agree

4



Agree

3



Disagree

2



Strongly Disagree

1



**8. I wish I could respect (like myself) a bit more**

Strongly Agree

1



Agree

2



Disagree

3



Strongly Disagree

4



**9. I think I am a failure (no good at things)**

**Strongly Agree**  
1



**Agree**  
2



**Disagree**  
3



**Strongly Disagree**  
4



**10. I am very positive about myself**

**Strongly Agree**  
4



**Agree**  
3



**Disagree**  
2



**Strongly Disagree**  
1



**Thank you very much for answering these questions.**

## ***ATTITUDES TO PHYSICAL ACTIVITY (<10 years)***

Physical Activity is any form of movement that involves your body. It could be anything from walking the dog or riding your bike, to playing your favourite sports or going to the gym.

The following questionnaire has been put together to work out what you think about physical activity. **There are no right or wrong answers - we're just really interested in what you think.**

### **How to complete this questionnaire:**

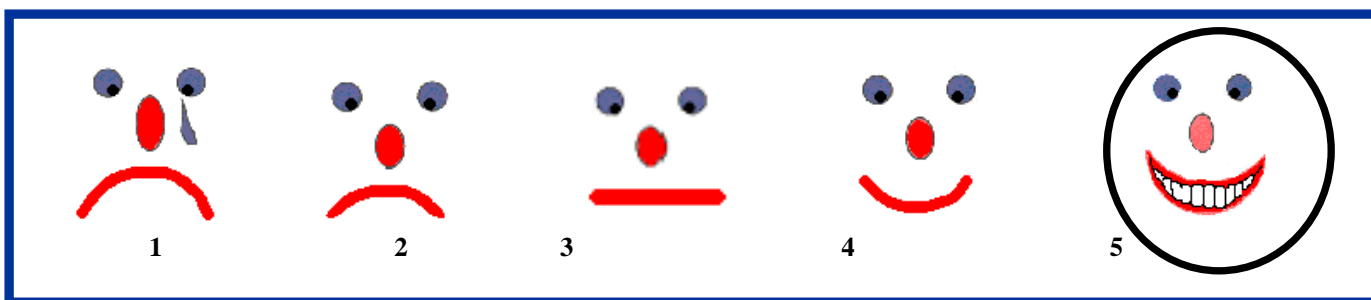
For each of these questions we would like you to think about the idea that is written in the box and choose one of the faces to show how you feel about the idea in the box.

### **For example:**

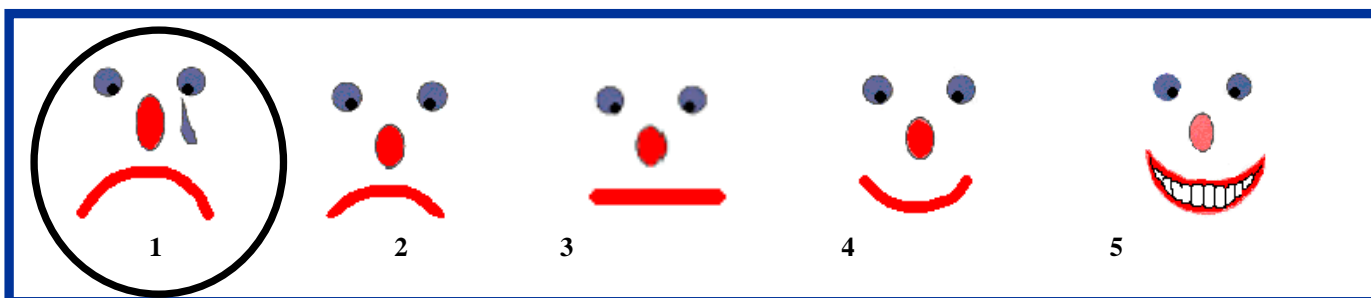
How do you feel about the idea in the box below?

**PHYSICAL ACTIVITY FOR SOCIAL GROWTH**  
Taking in part in physical activities which give you a chance to meet new people.

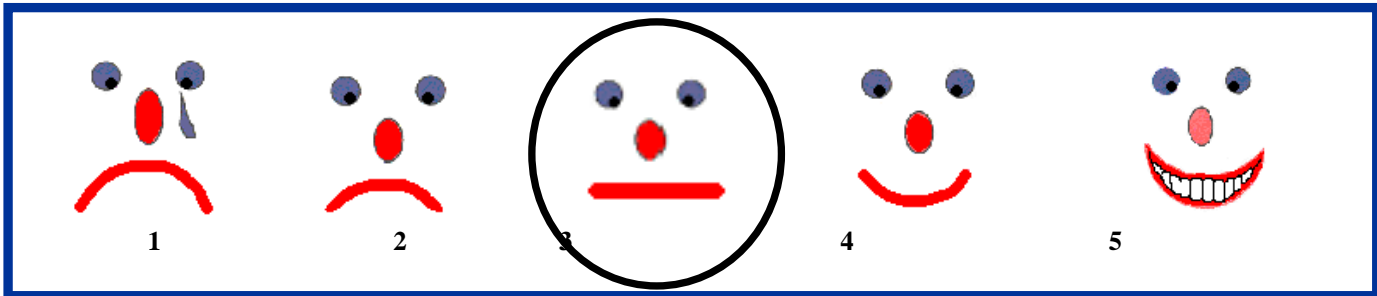
If you think the first idea is very good you would choose the very happy smiley face on the right hand side.



If you think it is a bad idea you would choose the very sad face on the left hand side.



If you thought it was neither good nor bad, you would choose the face in the middle.



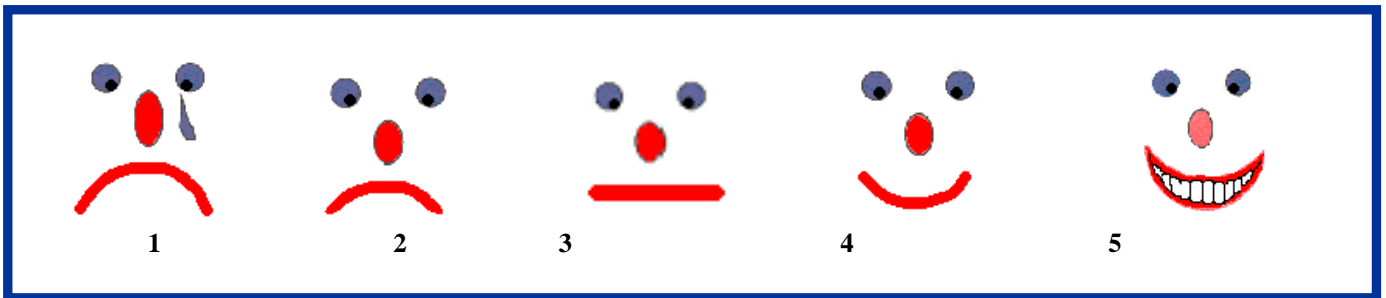
**ATTENTION** – If you do not understand how to fill out the questionnaire, please ask someone to show you the correct way. Please turn over to start the questionnaire.

How do you feel about the idea in the box below?

**PHYSICAL ACTIVITY FOR SOCIAL GROWTH**  
Taking part in physical activities which give you a chance to meet  
new people

Always think about the idea in the box - if you don't understand the idea in the box please tick  
here  and go to the next question

Please choose a smiley face to show how you feel about the idea in the box:



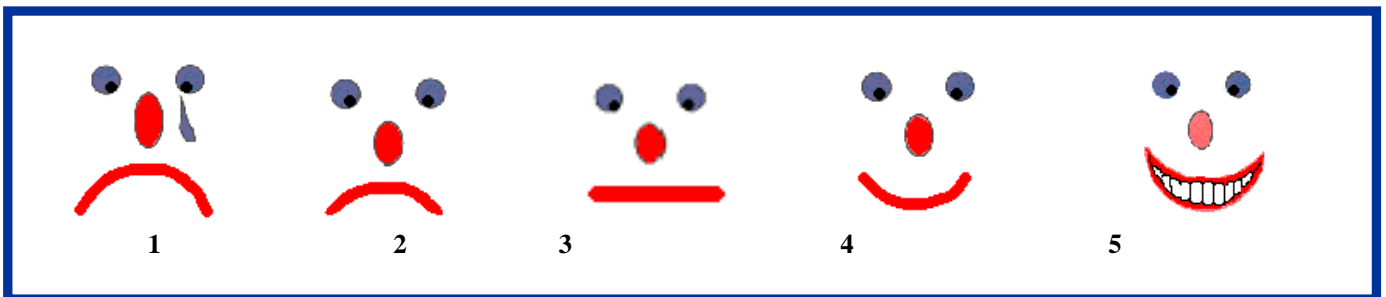


How do you feel about the idea in the box below?

**PHYSICAL ACTIVITY TO CONTINUE SOCIAL RELATIONS**  
Taking part in physical activities which give you a chance to be with  
your friends

Always think about the idea in the box - if you don't understand the idea in the box please tick  
here  and go to the next question

Please choose a smiley face to show how you feel about the idea in the box:

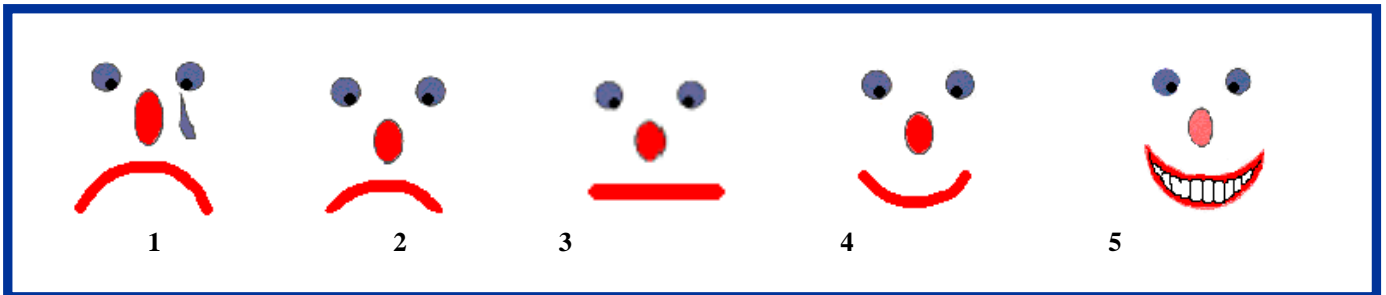


How do you feel about the idea in the box below?

**PHYSICAL ACTIVITY FOR HEALTH & FITNESS**  
Taking part in physical activities to make your health better and to  
get your body in better condition

Always think about the idea in the box - if you don't understand the idea in the box please tick  
here  and go to the next question

Please choose a smiley face to show how you feel about the idea in the box:



*Thank you for completing this questionnaire!*

### **ATTITUDES TO PHYSICAL ACTIVITY (> 10 years)**

Physical Activity is any form of movement that involves your body. It could be anything from walking the dog or riding your bike, to playing your favourite sports or going to the gym.

The following questionnaire has been put together to work out what you think about physical activity. **There are no right or wrong answers - we're just really interested in what you think.**

#### **How to complete this questionnaire:**

For each of these questions we would like you to think about the idea that is written in the box and then put a tick along each of the 5 lines to show how you feel about the idea in the box.

#### **For example:**

How do you feel about the idea in the box below?

<p><b>PHYSICAL ACTIVITY FOR SOCIAL GROWTH</b> Taking in part in physical activities which give you a chance to meet new people.</p>
---

If you think the first idea in the box is good, you would put a tick on the left hand side of the first line near the word good.

1. good (5)                      ... ✓ .....                      bad (1)

If you think it is a bad idea you would put a tick on the right hand side of the first line near the word bad.

1. good (5)                      ..... ✓ .....                      bad (1)

If you thought it was neither good nor bad, you would place a tick somewhere around the middle of the line.

1. good (5)                      ..... ✓ .....                      bad (1)

**ATTENTION** – If you do not understand how to fill out the questionnaire, please ask someone to show you the correct way. Please turn over to start the questionnaire.

How do you feel about the idea in the box below?

**PHYSICAL ACTIVITY FOR SOCIAL GROWTH**  
**Taking part in physical activities which give you a chance to meet**  
**new people**

Always think about the idea in the box - if you don't understand the idea in the box please tick here  and go to the next question

Please place a tick along each of the five lines to say how you feel about the idea in the box:

- |                    |       |             |
|--------------------|-------|-------------|
| 1. good(5)         | ----- | bad(1)      |
| 2. of no use(1)    | ----- | useful(5)   |
| 3. not pleasant(1) | ----- | pleasant(5) |
| 4. nice(5)         | ----- | awful(1)    |
| 5. happy(5)        | ----- | sad(1)      |

How do you feel about the idea in the box below?

**PHYSICAL ACTIVITY TO CONTINUE SOCIAL RELATIONS**  
Taking part in physical activities which give you a chance to be with  
your friends

Always think about the idea in the box - if you don't understand the idea in the box please tick here  and go to the next question

Please place a tick along each of the five lines to say how you feel about the idea in the box:

- |                    |       |             |
|--------------------|-------|-------------|
| 1. good(5)         | ----- | bad(1)      |
| 2. of no use(1)    | ----- | useful(5)   |
| 3. not pleasant(1) | ----- | pleasant(5) |
| 4. nice(5)         | ----- | awful(1)    |
| 5. happy(5)        | ----- | sad(1)      |

How do you feel about the idea in the box below?

**PHYSICAL ACTIVITY FOR HEALTH & FITNESS**  
**Taking part in physical activities to make your health better and to**  
**get your body in better condition**

Always think about the idea in the box - if you don't understand the idea in the box please tick here  and go to the next question

Please place a tick along each of the five lines to say how you feel about the idea in the box:

- |                    |       |             |
|--------------------|-------|-------------|
| 1. good(5)         | ----- | bad(1)      |
| 2. of no use(1)    | ----- | useful(5)   |
| 3. not pleasant(1) | ----- | pleasant(5) |
| 4. nice(5)         | ----- | awful(1)    |
| 5. happy(5)        | ----- | sad(1)      |

How do you feel about the idea in the box below?

**PHYSICAL ACTIVITY FOR THE RELEASE OF TENSION**  
Taking part in physical activities to reduce stress or to get away  
from the problems you might have

Always think about the idea in the box - if you don't understand the idea in the box please tick here  and go to the next question

Please place a tick along each of the five lines to say how you feel about the idea in the box:

- |                    |       |             |
|--------------------|-------|-------------|
| 1. good(5)         | ----- | bad(1)      |
| 2. of no use(1)    | ----- | useful(5)   |
| 3. not pleasant(1) | ----- | pleasant(5) |
| 4. nice(5)         | ----- | awful(1)    |
| 5. happy(5)        | ----- | sad(1)      |

*Thank you for completing the questionnaire!*

**Appendix (vi)**

**Kirklees Young Pals - Physical Activity Type and Frequency**

Which of the following **PHYSICAL ACTIVITIES** or **SPORTS** do you **USUALLY** do during a **TYPICAL WEEK**?

Record each activity only once, e.g., jogging in football - record in either jogging or football

**Please circle YES or NO.**

**Tick the frequency which applies for you. ✓**

How frequently do you do this activity?	Do you usually do this activity?	Once a day	Five times a week	Two - Three times a week	Once a week	Less than once a week
Walking (e.g., to school; walking the dog)	Yes No					
Swimming	Yes No					
Playing out with friends (e.g. street games, park)	Yes No					
Household jobs (e.g. cleaning the car, helping in the garden)	Yes No					
PE/Games class at school	Yes No					
Team Sports (e.g., football, rugby, cricket, netball etc.)	Yes No					
Cycling (e.g., for fun or cycling to school)	Yes No					
Exercises, e.g. sit ups, star jumps	Yes No					
Dance or dance mat	Yes No					
Skateboarding or Rollerblading	Yes No					
Jogging or Running	Yes No					
Activities with Brownies/Cubs, Guides/Scouts	Yes No					
Other activity (Please state which)	Yes No					