



UNIVERSITY OF LINCOLN

QUALITATIVE EVALUATION OF FIT KIDS AND EXERCISE REFERRAL STAYING HEALTHY PROJECTS

FINAL REPORT

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Executive Summary

Scope of the Research

1. The evaluation by the University of Lincoln qualitatively reviewed Exercise Referral and the Fit Kids programme within Lincolnshire over the period September 2011 to March 2012. The research remit was to particularly determine the impact of the projects by exploring with service users their views on the projects from pre-programme involvement to immediate programme impact and medium and long-term effects when finishing the project. This has encompassed exploring the range and quality of the interventions together with the wide scope of outcomes and impact in terms of activity, health and social benefits.
2. In Exercise Referral telephone interviews were undertaken together with reviews of post scheme evaluation data. The parents of Fit Kids participants took part in the study through telephone interviews, surveys and discussions at Fit Kids sessions, to obtain a full family view of the project and its dynamics. The data from the evaluation demonstrates the impact and multiple outcomes of the projects and adds to the local and national evidence base.

Fit Kids

Project Engagement and Participation

3. Parents reported that increasing their child's activity and helping them deal with a child/children within the family who had weight/food issues were the primary motives for engagement. There was a general uncertainty of how to change patterns of eating and diet and who to approach for help, without making it a 'medical' issue, which might be more difficult for family relationships. Fit Kids was therefore providing what was seen as a gap in services.
4. Parents were anxious that their child did not encounter issues such as bullying, particularly when moving to senior school. For some parents engagement was about a review of family lifestyles including increasing their own activity and changing food patterns.
5. Parents considered that the absence of costs for the activity meant that for those on limited income there were no fiscal barriers to inclusion in the project.
6. The delivery of the exercise and nutrition elements of the project in a 'fun' way is central to engage and participate in the programme, breaking down barriers for those who had been too conscious and reluctant to take part in physical activity at school.
7. The role of the Fit Kids instructor as third party in delivering food and exercise messages reduces the difficulties and conflict that families have informing children about the need for changes in diet and activity levels.
8. Family involvement is central given that changes and impact are directed at the level of the family as well as the individual child.

Impact – Short and Medium Term

9. The Fit Kids programme has considerable impact in the immediate and medium term on the children and families taking part. Participants reported a range of inter-connected impacts in providing confidence and social skills for exercise, increased and continuing participation in activity both for the individual child and family in family, school and sports settings. Children and families were participating in a range of new physical activities or extending existing sport interests.
10. One of the most significant impacts on families was the change to a healthier diet and new awareness based on information given in the programme on the nutritional composition of foods. Children and families were trying different foods and changing shopping patterns to healthier choices. This has been extended in some programmes to practical cookery lessons for parents and children, which families have extended on completing the programme. Continuing weight loss (up to 2 stones) has been an outcome not just for the children but parents who have participated, with the stabilising of weight and no weight gain for others.
11. The impact on the child/families was equally about providing new opportunities to interact both within and outside family dynamics providing increased social confidence.

Recommendations include:

12. Analysis of LSP marketing campaign to understand more what are the advertising/promotional messages and channels that involve health professionals in the project and engage families given that gaining initial participation remains a difficult issue with under capacity in most schemes.
13. Continual networking with health professionals to advocate the scheme including determining whether details of Fit Kids sent with letters to parents following the review of children as part of the National Child Measurement Programme has effect.
14. Service users need to be 'tracked' for up to a year on leaving the project to build up an increasing evidence base of long term effect, this should form part of the 'contractual' part of participation and explained at the start of the programme.

Exercise Referral

Project Engagement and Participation

15. Participants reported that GP advocacy of the scheme varied and that on occasions they had been recommended by health professionals to do exercise without directly referring them to ER or suggesting other physical activity schemes.
16. Many reported that given the long-term health conditions for which they were referred, the 12-week period of Exercise Referral was about initial behaviour change and starting or increasing activity.
17. The one to one support of ER staff is valued in breaking down barriers to participation particularly for those who not been in a gym environment, were older or had medical conditions where monitoring and encouragement was central to increasing confidence and activity.
18. Choice of activity provides more opportunities for participation and inclusion and acts also as an incentive for continuation with ER providers at the end of the programme, as it represents 'value for money' in the ability to take part in a variety of activities including swimming, the gym and group classes.
19. Clients value the support of partner organisations, such as Pheonix Weight Management, which has provided an integrated approach to physical activity and changing lifestyles.
20. Having the ER scheme free is seen to remove financial barriers to inclusion in the scheme and finding out whether participants wanted to continue within gym/leisure centre schemes. Those schemes that have small charges contrarily considered that it had helped motivate them to attend and prepared them for budgeting for activity when the scheme finished.
21. Most clients are continuing activity within the gym/leisure centre; there is less emphasis on alternative exit strategies.

Impact – Short to Long Term

22. There is a wide range of impact from participation in Exercise Referral on activity levels and medical conditions. The effects on increased everyday activity and ability to carry out day-to-day tasks, such as housework and gardening was notable particularly amongst older participants, together with being 'energised' to take part in active recreation as well as other 'sporting' activities. Physical activity now a part of everyday lifestyle, including those who had started from a position of little or no regular exercise.
23. The impact on physical and mental conditions included many inter-related effects revealing that the outcomes are multiple and often more than the reasons for which they were originally referred. Impacts on physical well-being include examples of significant loss of weight/weight control, improvement in heart and circulation, respiratory, musculoskeletal and diabetic conditions. Pain management/control and the reduction of taking medication are also outcomes of continuing activity patterns started in Exercise Referral.

24. Mental wellbeing particularly in terms of improved confidence; ability to think through situations and reduced depression is reported as an immediate and long term effect of the Exercise Referral process.

Recommendations include:

25. Clients should commit at the start of the ER process to be involved in regular evaluation up to a year on leaving the project to build up an increasing evidence base of long-term effect. Some districts are already capturing a variety of post scheme data and this could be disseminated to demonstrate impact at a local and county level. Consideration particularly needs to be given to measures to track those who do not stay within gym/leisure schemes.
26. Review whether the recent introduction of a refundable administration fee (£10) by East Lindsey at the start of the programme does reduce the number of clients who do not start ER, or after a few weeks.
27. Analyse recent marketing campaigns to understand more what are the advertising/promotional messages and channels that encourage both health professionals to be involved and refer and participants to engage. Continue networking with health professionals to ensure that referral is advocated and appropriate. Integrated support for issues, such as weight loss, is instrumental to the overall impact of the project.
28. One to one structured support is central to the ER process particularly for those who have not been part of a gym environment, or used to physical exercise. Impact for many conditions is long term rather than short-term and this should be emphasised to ensure that clients do not drop out thinking it will be a 'quick fix'. Encouraging continuation of activity and alternative exit strategies for those not staying in gym/leisure centre facilities is therefore a priority.

Evaluation of Exercise Referral and Fit Kids ‘Staying Healthy’ Projects September 2011 – March 2012

1.0 INTRODUCTION

1.1 Background

During 2009-2011 the Community Operational Research Unit (CORU) undertook an extensive evaluation of six Choosing Health Physical Activity Projects including Exercise Referral, Fit Kids, Healthy Walks, Over 45’s Activators Projects, Vitality, New Age Kurling and New Age Bowls. This demonstrated both the extensive and different approaches across all age groups and abilities to increase levels of participation in physical activity across Lincolnshire. Exercise Referral and Fit Kids in their provision of structured 12 week programmes that participants are expected to regularly attend provide particular opportunities to understand further the nature of barriers, support and catalysts to engagement in physical activity and most importantly the varying levels of impact both immediate and in the long-term. From September 2011 to March 2012 CORU have further analysed Exercise Referral and Fit Kids within Lincolnshire to specifically evaluate impact in relation to the effect of the projects, by seeking to identify the experiences and impact on project participants. The research funding supporting approximately one day a week of the researcher’s time.

1.2 Methodology

Given that both Exercise Referral and Fit Kids have developed robust data collection systems based on the Exercise Referral audit and the toolkit for Exercise Referral managed on a parachute system by Brand4, the focus of this research has been on qualitative methods, to complement the quantitative data analysed by Lincolnshire Sports Partnership and explore the more complex areas in terms of impact that statistics alone cannot identify or determine. Qualitative methods therefore allowed the participant to record and reflect on a much wider range of factors and how the programme interacted with individual or family lifestyles and behaviour patterns both influencing and contributing to change.

The qualitative research methods used included a number of processes including

- Telephone interviews
- Reviews with service providers
- Observation of Fit Kids programmes
- Review of examples of Exercise Referral post programme surveys
- Qualitative survey of Fit Kids parents

All participants for telephone interviews were invited to be part of the research through Exercise Referral and Fit Kids co-ordinators and instructors and took part voluntarily with informed consent. Telephone interviews with former Exercise Referral participants mostly consisted of those who still had some contact with the exercise provider that they had undertaken the programme on, as they had continued membership or engagement with gyms or sports centres. This of itself indicates that following up and tracking exercise referral clients to determine long-term impact is difficult when the client leaves the point of contact with the activity provider of the Exercise Referral system. Those interviewed ranged from those who were in the first 3 months of leaving the activity to an interviewee who had undertaken exercise referral 3 years previously, which provided evidence into how the project

effected action both on immediately leaving the project and in the much longer term. A sample of post scheme surveys administered by the YMCA was also analysed to review how they compared with the data emerging from the telephone interviews.

Within the Fit Kids programme as participants were under 16 and the aim of the research was to find out the views and impact of the project on the family not just the individual child/children, the parents of those who had taken part were interviewed. Project co-ordinators found it much more difficult to obtain consent from parents willing to take part in the research compared to Exercise Referral. This reflected a number of factors which of itself indicates the greater difficulty for tracking within the Fit Kids project. The main difference being that most participants do not continue contact with the Fit Kids provider, compared to Exercise Referral where there is a progression for a large number of clients from exercise referral to continuing paid membership in the gym. Even where Fit Kids programmes have put on specific events to which former participants have been encouraged to attend to maintain contact and record post programme changes, project staff have reported that there has been limited and in some cases no attendance. As a project around which there is much sensitivity to attract parents in the first instance to attend, this also extended within the research, although those parents that took part in the research were both enthusiastic about the project and that the issues that it represented should be openly discussed. Those who consented to be interviewed were mainly those who had been on two or in some cases three sessions of the Fit Kids programme and therefore could reflect on the changes from the project over time.

To complement the interviews and obtain further views from parents on the value and impact of the project the researcher also observed Fit Kids sessions in West Lindsey, East Lindsey, South Holland, Lincoln and Boston and held discussions with parents attending. This provided the opportunity to see the wide range of activities and project delivery within the toolkit and gain first hand insight from parents of access and participation within the project for their child and family. A qualitative open comments survey was also administered in March to those participating in the January – March 2012 cohort to triangulate the views of those who had been interviewed and obtain extra data from those who preferred to take part in an anonymous survey. In addition to interviews, discussions and surveys with parents, the views of service providers was sought to understand the context in which the programme was operating and how it was effecting change. Present or past partners with the programme including a head teacher in an infant school and sports teachers in a secondary school were also interviewed to analyse the role of engagement and impact with the project beyond the individual/family.

The data obtained from these qualitative research methods and reported in the following sections is based upon interview questions and themes (contained in [Appendix 1](#)) agreed upon by service providers and management at an Exercise Referral and Fit Kids meeting in October 2012. Whilst the interviews were semi-structured to allow the participant to raise issues and details that were not contained in the interview schedule, the three broad areas of questioning were pre-programme activity levels and motivation for attendance, factors for adherence and completion and how this inter-related to the principal theme of impact and what change had been effected. What has been determined from the interview, observation and survey data is a rich picture of ‘cause’, ‘effect’ and impact that can be obtained only from direct dialogue itself, for unlike statistical evidence rather than seeking to reduce and categorise it opens up the complex and wide nature of how ‘lay’ respondents record effect. Many respondents for example, reported very ‘qualitative’ changes in lifestyles and everyday living that is difficult

to capture, but fundamental to long-term sustained impact. In addition to analysis by theme within both projects, three interviews from each project have been detailed into case studies to indicate the wide spectrum against which the projects both act and initiate change. The reports on exercise referral and fit kids are detailed separately in the next two sections.

2.0 FIT KIDS

2.1 Introduction

As the Lincolnshire Joint Strategic Needs Assessment Report (2011) and the recent report on the Lincolnshire Child Health Profile (ChiMat:2012) has identified the numbers of children who are overweight or obese in Lincolnshire is not only rising in parts of the population but compared to national figures the Lincolnshire levels of overweight and obese children exceed both that of the national and East Midlands rate. The consideration that obesity rises steeply from 9% at Reception to 20% in Year 6 is a matter of particular concern and in the indicators of health and well being within Lincolnshire is flagged up as being ‘significantly worse than the England average’. The following table indicates these trends.

Table 1: Children in Lincolnshire classed as obese or overweight in Lincolnshire Reception and Year 6 2008-11

Year Weighed	Obese 2008/09	Obese 2009/10	Obese 2010/11	Overweight 2008/09	Overweight 2009/10	Overweight 2010/11
Reception	9.9% England: 9.6%	10.8% England: 9.8%	9.4% (England 9.4%)	15% England 13.2%	15% England 13.3%	14.4% England 13.2%
Year 6	18.5% England: 18.3%	19.5% England: 18.7%	20.2% (England 19%)	16% England 14.3%	15.5% England 14.6%	15.1% England 14.4%

Source: NHS Lincolnshire and Lincolnshire Research Observatory Website (Accessed March 2012)

It is against this background of the need to reduce these levels of overweight and obese children within Lincolnshire and the public health issue that it represents that the Fit Kids programme instigated in 2009 continues to both increase levels of physical activity and help tackle the increasing problem of overweight and obese children within the county. Physical activity apart from the issue of obesity is increasingly recognised as central within public health policy given that children as the general population become increasingly sedentary and fail to take advantage of the wide benefits and prevention effect that physical activity provides in terms of both physical and mental health in areas such as cardiovascular disease, type 2 diabetes and cancer. Increasing levels of physical activity within children is therefore seen as essential given that studies have evidenced that patterns of behaviour are often established in early years and that those who do not engage in adequate levels of physical activity are less likely to participate in adulthood (Pate et al 2006; Steinbeck 2001). Whilst the percentage of children being offered at least 3 hours of sport/PE per week of 63% is ‘significantly better’ than the English average of 55% (ChiMat 2012) in view of the levels of overweight and obese children within Lincolnshire and the role played by physical activity in health outcomes, programmes that target children in primary school years have obvious potential to reduce both weight problems and inactivity in children and later adulthood.

Fit Kids as a programme that brings together family involvement, advice on nutrition and physical activity reflects international evidence including NICE guidance on child obesity (2006) incorporated in national programmes such as MEND that have determined that ‘the core elements of any initiative to address paediatric obesity should involve the whole family and include nutrition education, behaviour modification and promotion of physical activity’ (Sacher et al 2010). The intervention of Fit Kids and its wide role and intentions is therefore examined by the research in assessing its impact.

Unlike programmes such as Exercise Referral where the participant is the individual taking part, Fit Kids is a project where it is not just the individual child that is involved but the family in varying degrees of participation. Equally the child is dependent on the parents/guardians of the family both accessing the service and giving agreement and support for the child to take part, with as seen the active participation of the family central to the intent and rationale of the project. When reviewing the programme there are therefore multiple layers of intention and impact on both the individual child and the family to take into account.

2.2 Pre-programme: Motivation for Involvement in Fit Kids Programme

The original intention and motivation for families to get their child or in some cases children to engage in Fit Kids had varying and inter-related motivations which included concerns about weight, diet and levels of exercise to issues of confidence and potential bullying both within sports situations and at school.

2.2.1. Weight and food issues:

Parents related that one of the primary motives for engagement was to help them deal with a child or children within the family who had weight issues and that they were uncertain how to best change patterns of eating and diet to resolve the issue. Many were unsure of where to get help and were reluctant, for example, to go with the child to a GP to get ‘medical’ advice about it given that they did not want to make their child too sensitive about weight problems, so the blend of exercise and nutrition within an activity had attracted them to the project. One parent, for example, explained how she had thoroughly researched what programmes or activities that there were on the Internet and had found about the MEND programme and then saw an advertisement at a leisure centre advertising Fit Kids.

Parents who had children that they described as ‘chalk and cheese’ with only some being overweight and having eating problems found that it was difficult to ‘deal with’ in family dynamics and had therefore joined the programme as it offered a way to review the issues without making it obvious and divisive within family situation. As a parent related: *‘I have 2 children and one never knows when to stop eating and one who does (both attending programme). I didn’t know how to tell things about healthy living and lifestyles without upsetting her so it is really me being selfish in letting someone else do it for me. I need someone to tell her how to eat better and that it is not just me nagging’.*

The description of wanting to change their children from being a ‘fussy’ or ‘picky’ eater and ‘try new things’ was a constant theme in the discussions. For those children who were attending who were not overweight a motive for most of them was rather that eating patterns be improved, as one parent described the *‘main problem is not that he is overweight but food – he is a fussy eater – chicken nugget and chip man - won’t try anything – will say ‘I don’t*

like that' and won't try it. We thought that if he saw other kids trying it he might try it'. Similarly a parent commented in the Fit Kids survey of their reason for participation with an under-weight, rather than over-weight child who would only eat certain foods; 'It was more for me the parent! I the adult...needed to change my attitude towards food/cooking, secondary was my son. I felt he needed to be encouraged to eat more particularly vegetables, home cooking'.

Other parents who had or did have weight issues themselves were anxious that their child did not develop similar problems and encounter issues such as bullying. As a parent related; *'I have had weight problems myself so I do not want her to end up with the same problems as me – I am concerned that when she gets to senior school she will get bullied for being overweight and the problem will be worse to sort out – want to conquer it now... It is about controlling her eating now if not will lose it for ever – has to learn what is good and bad'*. For some the Fit Kids programme particularly fitted a change and review in their lives, as an example a parent who was on Exercise Referral and had got his child also involved in the Fit Kids programme considered that as a family they reached a point where they needed to consider issues of weight and exercise.

Where engagement with the programme had been initiated by influences outside of the family, such as referral by the school nurse it was about recognising that the family needed to start addressing issues of food and weight within the family with a parent commenting; *'As a parent you don't realise that what you are doing you are also doing it to you child in terms of what you are eating – you realise that if you eat crap than really what you are doing is letting her eat crap too'*.

2.2.2 Activity

Intertwined with the objective of wanting their children to eat healthier and try different foods was that they wanted them to be more active, although the majority of children had been involved in a range of after school and sport activities that they had supported them in doing such as football, swimming, gymnastics and biking. There was a concern that children were becoming more sedentary and spending more time particularly as they got older in pursuits such as computer games, the Internet, X-Boxes and watching the TV. As a parent related; *'We have become involved as we don't want him to keep sitting in front of the TV and the computer and the X-Box – we want him to be active'*. For those who were younger and in more isolated situations there was also the factor that they considered that it was difficult for them to safely play out and have opportunities to play with others.

Equally for those who did not want to take part in 'sport' within or outside of school for reasons of being conscious of their body image and finding it difficult to take part, or not interested in activities or being 'sporty' it was about seeking to build up their confidence, self esteem and engagement to participate both in activity and inclusion within groups.

2.2.3 Cost

Parents reflected that not having to pay for the Fit Kids programme removed any barriers that might exist for those who were in more difficult financial situations. Parents reported, for example, that being subject to seasonal employment in the coastal areas, or having low wages meant that money was 'tight' and this then became an 'extra' that they would find difficult to afford within a limited weekly budget. Overall however participants considered that if

required they would pay for the sessions as they found them valuable and had in cases been 'surprised' when learning about the project that no payment was required given that they had, for example paid for school and after school activities ranging from sessions at £4 to £25 a week for tennis lessons.

2.3 Programme Impact (Short and medium term) - Influencing Factors

2.3.1 Breaking down barriers to participation: Inclusion and 'Fun' Activity

That the exercise and nutrition elements of the Fit Kids programme is delivered in a fun way was considered to both engage and help participants to be involved within the programme. Whilst the children were 'playing' and having fun within Fit Kids they were exercising and joining in without being made conscious, as a parent commented 'they are exercising whilst having fun without realising that they are'. Hence those children who had previously found it difficult to take part in physical activity programmes at schools and been very conscious of themselves were participating and enjoying the experience. The use where possible of gyms and 'adult' exercise spaces was also seen to provide a different setting for exercise which equally provided participants with an opportunity to take part in activities and environments that were not part of any previous negative connotations.

2.3.2 Role of the Instructor

The role of the instructor in providing 'third' person and 'neutral' advice was seen as central given that they were neither a parent or an 'authority' figure with which the child was already associated, such as a teacher. With regard to nutrition and eating patterns particularly one of the most important factors and influences of the project was seen to be that messages were being given by someone apart from the family, so that they could be reinforced without it just being seen that the parent was constantly 'nagging'. As parents related; *'the most important part is that they could go on a programme and they could be influenced by someone else about food and exercise without us having to keep telling her about it. We did not have to keep nagging on our own'*. Similarly another parent considered that within the Fit Kids programme it helped having *'someone else to tell her rather than just me. It is not just mum being mean – but why I am saying it and what is in the food and drinks'*.

2.3.3 Family involvement

Family involvement within the project ranges from Boston's model where the parents participate in every aspect of the activity whether in cooking or physical activity and specific gym sessions for Fit Kids families as that held at the Trent Valley Academy (TVA) on Saturday mornings to those where parents attend for more specific sessions or reasons such as observing the Bleep test or food demonstrations. Parents considered that it was essential that families were involved given that the programme was not just about changes for the individual child, but that of the family and that where sessions had been undertaken jointly as at Boston and the TVA that it had the dimension of bringing families together to participate. As a parent reflected on the gym activity at the TVA; *'instead of lying on the settee every Saturday morning watching the TV they are here joining in, doing activity and interacting with their family and other children...I can also use the gym equipment which is good for me too – it is time out of my weekend but I think it is important to bring them. I hope I have set up a habit of exercise in their lives that will continue'*. An unintended but no less valuable consequence therefore of the project was that families were finding new ways to interact and

work together during the process of Fit Kids as expressed by another participant; *'It is helping me to do things with my daughter in a positive way, learning how to do things together'*.

Undertaking activities outside of the sessions such as the Food diaries although considered 'tedious' and 'time consuming' by some parents was also found to be helpful in demonstrating to parents and children eating patterns and where change was required as related by a parent; *'It did make us and her aware of just what she/we were eating and see what you are doing – as otherwise you find yourself blindly munching through the day and finding that you are eating double the calories that you should'*.

2.3.4 Family Learning/Realistic Steps

Parents considered that they and their children were learning and accessing specific exercise and nutrition advice and information that were applicable to them during the programme, which was not readily accessible even on the Internet and that they had often become confused by in generic health messages. Parents had for example, found it difficult to understand how BMI applied to children rather than adults and what portions and the 'Food Plate' really meant when applied to everyday cooking and eating.

Those who had taken part in dedicated cooking sessions at Boston also valued the specific advice and activities that they had for introducing healthier eating with their families. That the cooking sessions had started with making healthy versions of dishes such as pizzas and burgers was seen as a more realistic and 'excellent approach' in helpful steps to changing diets, *'rather than saying here is some salad and fruit'*.

2.4 Impact (Medium term)

From the survey and interview data a number of inter-related factors were determined in relation to the medium term impact which included as detailed below increases in stamina, energy and physical activity, activities taken part in and changes in nutrition and eating patterns, together with weight loss or the stabilising of weight gain. The changes were not just in the individual child but the impact generally on the family with changes in nutrition, activity and shopping patterns and family dynamics, such as the parents increased ability to control what the family was eating and interaction. Themes hence arising from the family's own views on benefits and impact in the medium term, contain examples from the data which have been reported by at least one parent and in many case multiple respondents. Details of the inter-related impact of the programme are illustrated in 3 examples of the case studies in [Appendix 2](#).

2.4.1 Activity

Confidence/Social Skills for Exercise:

In many cases the impact of Fit Kids was about building up the ability of the child to take part in more activity or exercise whether in the school setting, or after school clubs and sports activities and changing attitudes towards 'sport' and exercise:

- *She is much more confident and likes to get involved more*
- *She now enjoys doing activity*

- *She is now wanting to do exercise and that is their (Fit Kids) influence it has been about not just us doing something, but someone else and she has listened to them.*
- *It has changed her attitudes to physical activity and what she eats 100%.*
- *We have watched them change over their time here in their reactions to playing ball and team games – much more involved and participating*

Increase in Activity/Energy

Parents reported changes in increased patterns of activity, stamina and energy ranging from more inclusion and taking part in activity and games within school to increased levels of daily physical activity within the family and home environment to ‘sports’ settings:

- *(child’s name) physical fitness has improved*
- *They both have always enjoyed physical exercise but their stamina has increased and their skills enhanced*

Continuing Activity

Home and Family

The impact of Fit Kids on families was about learning how they could incorporate and encourage more activity into the family and lifestyles as much as outside and prescribed activity. Biking, walking and more playing outside all being examples of strategies that families had increased and learnt about since being part of the programme:

- *He is more likely to play outside rather than sit playing computer games.*
- *Now started power walking to school*
- *She is now aware of exercise being important. We have a dog and when it is a bit cold and wet she won’t say I won’t come but I need to come as it is important to exercise! She will also get on her bike and cycle – she wants to carry on exercising – so she will get on her coat and go on the trampoline even when it is cold.*
- *We now take part in activity in the house as well. I take them on family walks to encourage them to keep active and have said you do not have to go the gym to exercise... We do gymnastics in the house and I get them running in the garden.*
- *We have learnt things to do that you can do outside of clubs and will not involve any money as learning how to do things in the garden - games that you can play which require no money. You can do things which make it competitive and fun at no cost.*
- *We try and keep him as active as possible –we went sledging when it was snowing, we go on long walks and we have got him a new bike to make sure he does more biking*

School

Within school it was about building up confidence for some to take part, whilst for others it was about trying new activities including after school clubs.

- *Now taking part in PE at school – big difference*
- *She has tried new activities at school – hockey and table tennis*
- *Going to start going to one after school club and build up*

Sports Clubs and Activities

Following Fit Kids a number of participants had either started or increased a range of activities to be involved with including swimming, gymnastics, badminton, dancing, tennis, football and rugby club. Where children were already taking part in some activity such as swimming, it had in instances also encouraged them to do further activity in it such as rookie lifeguarding. For some new activity included taking part in family swimming or badminton sessions, not just the individual child, so that family levels of participation also were being increased. In some cases the parent themselves was taking part in new activity as following the child taking part in Fit Kids they wanted to address some of their own weight and health issues. One parent is now on an exercise referral programme and others reported that following taking part in the exercise at the Fit Kids sessions with their child they now felt that they had the confidence to take part in activity after so many years when they had not exercised, *'it has given me new confidence to take part in the exercise, which I have been doing for the first time and realise that I too need to lose weight'*. As a parent also related *'I have also become more active and now realise that I can join in and enjoy more activities with my child'*. Overall parents reflected that the long-term impact of being part of Fit Kids was making them *'try to do much more as a family'* in terms of activity.

2.4.2 Nutrition/Food

The effect of the programme on improving diet and patterns of eating within families had had a variety of impact ranging from the introduction of more healthy diets, to the child now trying different foods, awareness of nutrition and food ingredients when shopping and cooking and an ultimate effect on weight loss or stabilisation.

Buying and eating different/more healthy foods

Parents reported that one of the most significant effects of Fit Kids was the changes to a healthier diet and particularly that the programme had made them as much as their child/children aware of the need for change and empowered them to do so as the following comments reflect:

Learning about food:

- *We have learnt that what we thought was healthy isn't healthy and vice-versa. Particularly in things like fat content it is not what we think.*

- *Totally changed on what we buy and eat – changed our shopping habits*
- *We are more conscious of eating and drinking patterns and seen an improvement in them, ... (child's name) is more aware of how much water she has drunk during the day*
- *She realises about junk food like McDonalds, chicken nuggets and it has highlighted for her what is in snacks as well – like biscuits and crisps, as well as what is in milk shakes, fizzy drinks like lemonade*

Trying different food/changing patterns

- *Both children are willing to try different foods and have discovered numerous new fruits and vegetables that they enjoy.*
- *Eating patterns have improved loads, we are eating more vegetables*
- *She will go in the kitchen and get an apple and a piece of fruit instead of a biscuit or to look for a packet of crisps.*
- *We have really concentrated on a balanced healthy diet. In fact my son constantly reminds me to put fruit/vegetable on our plates – result! He says mum no chocolates.*
- *Instead of chips 3 times a week it is now once she realises and is happy with that. She will also now eat a breakfast at weekends – used to be lapse about that then would start snacking. She will now eat a mixture of foods.*
- *The eating patterns have changed – we are eating much more fruit than we were. It has helped us to change the eating habits with her – instead of saying OK go and help yourself to get a biscuit we now don't.*
- *More aware now of what she is eating and her eating of fruits/vegetables has improved a lot – more conscious of portion sizes and what we should be eating. We eat brown bread now instead of white and stopping using sugar so much, as well as drinks that contain it.*

The impact in regard to diet in shopping and food choices was therefore on the whole family, as epitomised in the following comment by a parent, *'I've really changed my mind set in regards to diets instead of a chocolate bar, for example, I reach for sunflower seeds.'* Moreover, even where families still struggled to change eating patterns there was a recognition that they had learnt a lot and now felt more able to challenge and change eating habits that had been established within the family as a parent reflected: *'For families and parents it is so easy to give in – lets have fish fingers and chips but now we restrict that and say – that's a treat for a certain night. So although the food patterns have not changed enormously it is just about being more aware and restricting about what we eat and when.'*

2.4.3 Practical skills

Where children had been involved in practical cooking sessions parents considered that there had been an additional impact in getting them interested in cooking nutritious and healthy food that had continued when leaving Fit Kids and would they felt have an impact in the future:

- *He is still really interested in cooking – we are going to buy him a beefburger press so we can make healthy burgers together – made him more conscious about food.*
- *Can now say to him – remind him when he is eating – what did they say at Fit Kids? He has more experience in eating healthy and he has learned to cook some things that should stay with him to being an adult.*

It had also had an important effect for those parents who had limited cooking skills and knowledge as one parent who stated; *'I can't cook anything from scratch except Yorkshire pudding so this is really helping me'*. Parents therefore reported that following the programme particularly in the case of Boston where parents had been actively involved in the cookery sessions that they were trying to do more home cooking that for included, *'trying to adapt recipes to make them lower fat'*.

2.4.4 Weight Loss

Parents reported that in some cases there had been continuing weight loss by the child with some significant weight loss ranging from 4lbs to 12lbs. For many of the parents the concern was that the child did not put on more weight that it 'slowed down' with weight gain stabilising and this was achieved in most cases. As a parent reported, *'we were concerned that she would keep putting the weight on and this has stopped this. She now knows what is good and that it is part of her self control and she knows now what is good to eat and why'*. The fact that children and the family were now mostly aware of how to eat healthier was felt to be the main benefit and that from that continuing weight loss would result. In instances because of the changes in family diet parents were themselves losing weight, in one case a parent had lost 2 stone and in another a parent had both lost 1 stone in weight and no longer had a trapped nerve. As a family member commented *'it has been eye opening for us all'*.

2.4.5 Social Consequences

Parents also reflected that one of the consequences arising from being part of the programme was that both their children and they had made new friends and found new activity. In the case of one parent being part of the programme had given them the confidence to take up an English course and given her *'new self confidence within the family about how we can change learning about what we need to do as a family'*.

2.5 Issues Arising: Challenges for delivery

2.5.1 Under-Capacity

Whilst the families who participate in Fit Kids and continue to the end of the programme record positive outcomes from the project the problem remains as discussed in previous reports (Jackson 2010, 2011) of the difficulty of getting families engaged in the project, with continuing under-capacity within districts. This despite there being a number of routes into the project including leaflets being distributed within schools and specific promotion by some schools, advertising at local sports facilities and within local newsletters together with referral by school nurses and 'word of mouth' by some parents.

This was considered by parents, programme leaders and teaching staff to remain the continuing difficulty of the sensitive nature of the project and parents' willingness and ability to engage in the project. As an example of the difficulty of engaging parents 2,000 letters were sent out by Boston to advertise the project to parents, which engaged only 6 children attending in the Spring term. Even where school nurses are involved out of 10 children being referred to the West Lindsey programme in the Spring term only 2 started and continued with the programme due to various problems including transport, family health issues and families not wanting to participate in the scheme. Several schemes had consequently not been able to run due to the difficulty of getting parents involved in the project which affected all districts including, for example Kirton at Boston, Sincil Bank in Lincoln, Louth and a school within West Lindsey that had previously taken part.

Parents and school participants reflected that one of the main barriers to participation is the need for parents to recognise the need for support and to act on it. A head teacher of a school which had been actively involved in the project but had not been able to recruit in the last term reported that one of the main problems was getting those who could most benefit from the project to attend, that whilst the children were themselves enthusiastic on speaking to their parents most did not want to take part and this consequently meant the child could not participate. A further consideration was that as children got older and walked to school on their own there was less interaction with parents and involvement with the school combined with the parent more likely to work, all of which meant it was more difficult to engage the parent compared to the first years at school when there was more school interaction. Generally participation by schools remains that of distributing leaflets about the programme, or the use of facilities, rather than direct involvement in terms of referral because of the sensitive nature of the project and seeking to identify specific pupils and families. Schools that had been directly involved considered that their main motive was concern about rising obesity levels in their areas, the lack of adequate nutrition for some of their pupils and how it related to issues such as bullying and concentration within the school.

The problem also arises that as some families and children do not complete the project, smaller remaining numbers making it sometimes difficult for team games which was emphasised in observation of the programme by the large halls in which some of the activities take place in, although in cases this was overcome by the participation of parents, which of itself was a positive adaption. As parents commented in the survey of what could be improved:

- *'Few more people would be nice'.*
- *'If more children were encouraged to come'.*
- *'More children on each course as some weeks there would only be 3-4 children-attending making it difficult for team games.'*

Another issue recorded by parents was that for those particularly working there were difficulties sometimes in getting children to the project and attending given that most sessions started around 4pm, before they left work and therefore they had to get other family members such as grandparents involved. Those with more than one child also found that it could be difficult to accommodate all the different needs of the family but most schemes were able to include other siblings when applicable to overcome this problem.

Discussion/Recommendation: Gaining Access/ Engaging in Programme

The Lincolnshire Sports Partnership are already running an increased marketing campaign with reference to Fit Kids including leaflet drops, press releases, a new website, newspaper adverts and most importantly a dedicated video compiled recently. The briefing of all health professionals and the increasing links at programme and district level with school nurses who will now have full details of the programmes and details of the courses and contacts for each of the districts to support referrals is to be welcomed in supporting links within the referral process and input from health professionals, improving current systems of networks. This in itself however does not necessarily reduce the barriers that may still exist in parents recognising and wanting to take part in the programme, which has been reported by all stakeholders in the project. Hence the important role of advocates of the programme, which might include more 'champions' of the project from parents who have already taken part, which parents might more easily identify with than advice from more 'distant' health professionals.

Analysis of the effects of the Lincolnshire Sports marketing campaign should therefore be undertaken to understand more what are the advertising messages and channels that involve health professionals in the project and engage families. At a local level networking with health professionals and schools remains important given their links into the project, with school nurses particularly being an important source of referral.

2.5.2 Exit Strategy

Within some districts programmes have had children repeating the programme. Whilst this indicates value in the programme and that for some children because of problems of confidence, or severe weight problems, more time may be required for long-term impact, there is also a concern that parents and children could become dependent on the project and not seek other alternatives. At the March workshop it was established that children should undertake no more than 2 sessions with the programme and that priority would be given to those children who had not yet participated. Whilst under-capacity in the programme has not made this an issue the recommendation is that all schemes ensure a robust exit scheme for their families, which may include a range of possibilities from organised 'sports' activity to increased activities as a family.

2.5.3 'Tracking' impact

The research has confirmed that seeking to track participants once they have left the project is extremely difficult, with those undertaking two or three sessions of Fit Kids mostly still being in contact with the project despite events and initiatives by most districts to maintain links. The need for tracking hence needs to be emphasised as part of the commitment to the project in project documentation when joining the programme and throughout parent sessions, most particularly in the last weeks of attendance.

2.5.4 Training

Some programme leaders reported that they found some of the nutrition issues that individual participants had was beyond their training particularly as they mostly came from a sports coaching background. Access to a specific nutritional adviser within the project was therefore seen as something that would be beneficial to the programme or more training in this area.

2.6 Development and Changes?

Whilst the project continues to have considerable value at the individual and family level and impact in the short and medium term as found in the research, its role at a county level in terms of impact could be further extended by consideration of how the role and function of Fit Kids could be developed.

2.6.1 Age group

Families and schools both considered whether the Fit Kids programme could be extended into other age groups given that the issue of lack of physical activity and weight problems can have already become well established by the age of 7 and that the problems further increase after 11 years. In practice other age groups are already involved in the programme as siblings or a family approach to the issue and whilst this may require different delivery programmes, this from observation is already working in a number of schemes.

2.6.2 Partnerships and Networking

Consolidating and developing the remit of Fit Kids remains a constant challenge. At the local level some schemes have already expanded the direct reach of the project in networking and partnerships. Schools such as the Trent Valley Academy have already adapted part of the Toolkit for some of their year groups (30 students presently in Year 7) with reported beneficial effects on their students in terms of diet and activity. East Lindsey are presently having discussions with the probation service about 'at risk' families. Schemes such as the 'Food Dudes' programme devised and evidenced by Bangor University have demonstrated how innovative food messages, (as could be adapted from Fit Kids), can be incorporated within schools and provide generic support to change.

Networking with parallel projects such as the Superkids programme that is offering weight management for 4 to 7 year olds in specific areas and delivered through school nurses being important potential links for building capacity within projects. The sending of details on Fit Kids with letters sent to parents following the review of children, as part of the National Child

Measurement Programme, equally is important given that presently the age range of children on the schemes do not directly relate to the NCMP measurements at reception and Year 6.

Schools and parents stated that they are already involved in a number of other initiatives targeted at nutrition, with examples of parental lunchbox sessions and talks on ‘nutrition’, together with specific interventions for targeted groups such as breakfast clubs, schools meals and ‘food’ events. The latter including funded opportunities for parents being invited to cooking sessions at schools and then taking part in the meal afterwards, which have been found to be particularly successful. At the local level there are consequently potential opportunities for further networking with schools where initiatives are already taking place.

Conclusion and Recommendations

The Fit Kids programme is having a considerable impact in the immediate and medium-term on those children and families taking part. It is particularly filling a gap in services for those parents who want support to deal with family issues of weight, nutrition and encouraging physical activity, in a fun and informative process, without having to approach it in a more formal medical and professional route which might of itself add, rather than reduce the problem. The ability to negotiate difficult issues within family dynamics and support changes in activity and food patterns through a third party being particularly valued. The following remain the main issues to consider in relation to the development and wider impact of the project:

- Service users need to be ‘tracked’ for up to a year on leaving the project to build up an increasing evidence base of long term impact; this should form part of the ‘contractual’ part of participation and explained at the start of the programme.
- Continual networking with health professionals to advocate the scheme including determining whether literature on Fit Kids sent with letters to parents following the review of children as part of the National Child Measurement Programme has effect.
- Analysis of LSP marketing campaign to understand more what are the advertising/promotional messages and channels that involve health professionals in the project and engage families given that gaining initial participation remains a difficult issue with under capacity in most schemes.
- Strategic consideration of how the Fit Kids programme relates to other initiatives within schools and health interventions as NCMP measurement and parallel projects such as the Superkids programme to build capacity and impact between projects. Consider how the ‘good practice’ learnt from the Fit Kids programme can be ‘rolled out’ to schools and other partner organisations in adaption, hence reaching a further population audience than just those taking part.
- More research is required with families to understand more of the barriers and opportunities for engaging them in programmes, particularly more hard to reach groups – learning what are the ‘advertising/promotional messages that ‘work’ and what they are most likely to engage in

3.0 IMPACT OF EXERCISE REFERRAL

3.1 Introduction

The benefits of an active lifestyle are well documented and evidenced in research and government advice. As 'Start Active, Stay Active' (2011) reports 'we know enough to act on physical activity. The evidence for action is compelling'. This includes research that has established that inactivity effects 20 chronic conditions with an estimated direct cost of £1.06 billion on coronary heart disease, stroke, type 2 diabetes, colorectal and breast cancer and £1 billion on estimated costs of premature death for those of working age (Start Active, Stay Active 2011). Hence as the BHFNC (2009) state 'the potential health gain by increasing population physical activity levels is arguably today's best buy in public health', with an assumed correlation that the 'greater the volume of physical activity the greater the health benefits that are obtained' (Start Active, Stay Active 2011).

Whilst Start Active, Stay Active (2011) provides generic guidelines on recommended amounts of physical activity along the life course for all age groups, within the general population the needs of particular individuals to support and increase participation in physical activity may require specific intervention. The setting of primary care was recognised as an important point of intervention to promote physical activity and exercise referral remains from the late 1980s one of the most 'popular' strategies to engage in increased active lifestyles for those who are more sedentary and who have medical conditions for which exercise would be most beneficial.

Since its inception the effectiveness of the exercise referral programme has nevertheless been subject to scrutiny particularly with reference to long-term impact. Research such as that of Riddoch et al (1998) critiqued that exercise referral programmes are 'not necessarily effective in increasing long term physical activity'. The NICE review of exercise referral using randomised trials and mainly measuring levels of physical activity further concluded that exercise referral had short term positive effects on levels of activity (6-12 weeks post ER), but were less effective over the long term (over 12 weeks post ER) and the very long term (over a year post ER). However, as argued in the BHFNC Toolkit (2010) 'in order to understand an exercise referral scheme in its entirety ... research has to embrace and recognize the intervention complexity', hence Riddoch et al (1998) further found that compared to empirical data from controlled research a review of case studies from exercise referral revealed a much wider range of impact; *'the experimental data suggested small, positive effects and the case studies suggested wider-ranging and more significant effects'*. Hence the nature of impact collated in this review of exercise referral in Lincolnshire concentrated on building up 'case studies' and comprehensive accounts of the experience and effect of exercise referral from telephone interviews with participants who were in the short term phase of leaving the intervention (6-12 weeks) to long term (over 12 weeks) and the very long term (over 1 year). This resulted in determining multiple dimensions of outcomes from exercise referral based in the individual's patterns of active living, active recreation and sport participation and the complex interaction of effect on physical, mental and social outcomes.

3.2 Pre-programme - GP referral?

Of those interviewed (n=27) a significant number reported that although their GP had been willing to refer them and the Exercise Referral process had been dealt with efficiently, they had learnt about the scheme mainly through ‘word of mouth’ as friends and family who had been on the scheme previously and had to ask the GP about Exercise Referral and if they could be referred. More are also accessing Exercise Referral through the route of other health professionals such as nurses, weight management and physiotherapy teams who often have a more direct health promotion remit and longer time with the patient than in a GP consultation to talk through issues of exercise and health prevention. Similarly clients reported that GPs and hospital consultants had told clients that they needed to take up more exercise but had not directly referred them, or suggested Exercise Referral or other activity programmes such as Health Walks. Clients also related that they had come to Exercise Referral after trying other treatments for various conditions, which failed to sort out the health problem with the approach being ‘*we have tried everything else so why not?.*’ A comment on a YMCA post-evaluation survey reflected that more people could be made aware of Exercise Referral by their GPs both to provide more opportunities for participation within the population and earlier in certain conditions, or those with ‘lifestyle’ risks; ‘*I found out about the scheme from Phoenix Weight loss not my GP. My GP never mentioned it even though I’ve been overweight for years. Get more GPs on board*’. All therefore stressed the need for more ‘advertising’ about it.

Recommendation/discussion

The level of direct referring by GPs suggest that GPs should be more involved in Exercise Referral promotion and act earlier in health conditions – there is a need for constant promotion of the programme both for GPs and clients. The profile should be raised by distribution of the recent promotional film on physical activities including Exercise Referral and a general marketing drive by the LSP. Exercise Referral requires constant endorsement by GPs and support health professionals such as nurses who are directly involved in health promotion and support.

It is perhaps not surprising that the Marisco centre which has a gym attached to the GP practice should have the largest numbers of referrals by a GP practice within Lincolnshire, given the close and physically visible connection that results between the Exercise Referral programme and the GP centre. It is an obvious model of good practice and joint intervention but networks and centres for financial and physical space reasons do not have to just be physical representations, but do need constant negotiation and reinforcing between programme managers, Exercise Referral service providers and health professionals.

3.3 Programme and Post programme (Short and long term impact)

12 week programme - need for continuation?

Many considered that a 12 week programme for some of the more long-term conditions that they were suffering from was not enough – that they had often just begun to start to address a health issue, or ‘see the benefits’ at the end of the first 12 weeks hence the need to continue. For many who had not been active at the start of the programme, routine activity was now

part of their lifestyle with the realisation that if they did not continue they would return to the original position of activity and lifestyle at the start of the programme. Most also considered that changing behaviour and lifestyle and extending activity goals within Exercise Referral was not a necessarily easy option and was in many cases 'bloody hard work'. As a client considered of the immediate and gradual 'impact' of Exercise Referral for which they had been referred for complications following an operation which had left her with reduced functions in her lower back and leg, for which she had had both acupuncture and physiotherapy and with limited success:

'After 12 weeks I felt there was really no change that it was not working – I didn't notice a lot of difference to do with my leg it was still aching. However, I continued at the gym and am starting to now see a difference. It was in the 'second phase' (gym membership post ER) that I started to notice that I was improving. The first 12 weeks seemed to be about getting my body used to exercise – loosening the body up/warming up where you are pleased and where you start to see a difference. I am seeing the benefits now at 6 months more than the initial phase of 12 weeks'.

Hence there was a consideration by some clients that a number on exercise referral were 'dropping out' because they thought it was going to be an 'instant fix' in terms, for example of weight loss and were not giving sufficient time to begin to sort out a health problem, or get back to exercise, that the 12 weeks of exercise referral was really about starting the process of change and the support that they received that continued in the longer term.

3.4 Influencing Factors - Motivation to Continue

The impact that clients still nevertheless felt in the process of Exercise Referral was in many cases what motivated them to continue with Exercise Referral and activity at the end of the programme and was subject to a number of influencing factors detailed below:

Reason for taking part

The specific condition or illness/life incident such as a stroke or heart attack that had caused the client to take part in Exercise Referral was important in motivation and often remained the most important influence and motive for continuing activity and change in lifestyles.

Breaking down barriers to participation

Those clients who had entered into exercise referral with low levels of activity and particularly no previous experience of gyms were supported in a setting that previously many had considered would not be suitable for them, due to preconceived assumptions that they were for example too old or not the right body shape to exercise either in a swimming or gym environment. A 69 year old client, for example, who was referred following complications following a fall on the ice and a broken ankle in 2011 continued gym membership now going 4 days a week to the leisure centre for swimming and gym sessions having overcome misconceptions that the 'gym would be all about young men lifting weights'. Other similarly reflected that they had got to Exercise Referral and found that there were 'people my size and age there', 'I thought that it would be about macho blokes but instead it was older people with walking sticks etc and thought if they can manage it then so can I'. For those with particular conditions such as Parkinsons Disease, being partially blind or having limited conditions that necessitate being in a wheelchair, or using walking sticks, exercise could still

be facilitated, where clients could for example walk and run on the machines that they could not safely do in an outdoor environment. Barriers of perception and situation are therefore broken down resulting in increased and continuing participation at the end of the programme.

Support and small steps - realistic pathways to change

The 1:1 support and encouragement provided by Exercise Referral staff was also recognised as central given as discussed that often change is not initiated easily or immediately in many cases and that the client has to be supported to change in small steps. As a client explained of the changes that had been initiated and supported following a heart attack that he had been supported in a 'safe' exercise environment to build from 20 minutes of exercise in 2011 to support within Exercise Referral and now continuing with membership to 2 hours of exercise at the gym and 'massive changes in what I can do' including now being able to run 11½ km an hour compared to 6km an hour. That clients could in most cases continue to exercise if they wanted in organisations where they had undertaken Exercise Referral meant that there was a continuity of support that they valued. Although not formally still part of Exercise Referral they could still ask Exercise Referral staff with whom they had developed a rapport for advice and obtain encouragement to develop and increase capacity beyond the Exercise Referral stage.

Choice of activity

Choice of activity within an Exercise Referral scheme was also valued and added to the incentive to continue in schemes. This included not only the ability to take part in, for example, gym and swimming activity but also the opportunity to participate in different classes and group exercise, which allowed a social as well as individual dimension to activity undertaken. This not only added to the physical and social profiles of the activity but as seen provided a sense of being extremely good value for money, which of itself engendered motivation to continue.

Integrated approach

Clients reported that having the support of partner agencies such as Phoenix Weight management when undertaking exercise referral was invaluable as a holistic approach to issues such as weight loss and lifestyle changes including eating patterns, with an ensuring of a wide array of impact both in the short and long term.

3.5 Exit Strategy – Finance

Interviewees were generally continuing with gym membership or being a casual user, which is the most popular exit route from Exercise Referral across the county. Finance was given as the main issue in not being able to continue at the gym, particularly those who were pensioners or unemployed. Having the first 12 weeks free meant that there were no barriers to participation in terms of monetary issues, as clients explained it also provided them with the opportunity to 'try' going to a gym or an exercise activity to see whether it was 'something that you wanted to do' and benefit from before commitment to paying.

Those who had really enjoyed the gym and benefited and felt that they could no longer afford to continue found it difficult sometimes to find alternatives not only to what the gym provided – but also the motivation and support provided by Exercise Referral staff. One client had bought herself a cross trainer to continue working out at home and another stated that they could continue to do exercise at home but this that would not have the same social context and opportunity for exercise that they had found in the gym, it was something that they had become used to and part of their lifestyle, but that travel costs and the cost of the gym even subsidised within their pension was prohibitive.

Other clients however stated that whilst it may difficult to continue funding the gym it was a choice that they made and central to their lifestyles and health needs and not something that they would give up even if on pension credits or unemployed. Those who had originally paid subsidised fees for Exercise Referral as in the case of Lincoln (£15 for 3 months) found that it had helped motivate them to attend and it still was a reasonable amount to pay. It had also got them into a system of budgeting for exercise activity when the Exercise Referral programme finished even if they had to pay more. Moreover given the opportunity that some schemes provided in the range of activity as swimming and classes, as well as the gym it was excellent value for money and not necessarily prohibitive. As a client related who was long term unemployed and had joined the gym at the end of the programme; *‘The fact that it was subsidised did help in the beginning – as it gets you in the zone and when you are long term unemployed like me it is important. It also means that you don’t have an excuse not to do it – could say oh I can’t pay that as an excuse, but think that the £15 (3 months) is reasonable could easily spend that instead on a pack of Mars Bars for a month. This is something that really helps so you justify it in terms of paying. It is definitely value for money when you think that you can get the swimming and the classes in with it as well which by itself would be costly to do’.*

Recommendation and Discussion

There is a need to ensure a viable exit strategy for those not continuing with the gym and structured activity and feed into parallel activities, such as health walks. Whilst the continuation of activity in every day lives is the ultimate objective of Exercise Referral rather than specific activity and continuation with Exercise Referral providers, the emphasis appears to be placed on this as the preferred follow up for most clients. The placing of an initial subsidised cost for the Exercise Referral programme does not from the data indicate of itself any differences in completion rates amongst districts. However, in terms of continuing activity it does prepare the client for costs of exercise activity should they wish to continue post programme and reduces the dilemma and disengagement that some clients are experiencing at the end of the programme when analysing whether they can afford to continue. Indeed early in the programme it would seem beneficial both to the client and long term effect to discuss what parallel activities are or could be undertaken besides Exercise Referral.

As a parallel consideration given the number of clients that drop out before starting Exercise Referral and the administration costs that this involves in lost time and paperwork, East Lindsey are to introduce a £10 administration cost at the start of the referral process, refundable on completion of the 12 week programme. This similarly would seem to represent a functional way of getting clients to consider their commitment to Exercise Referral and a more long-term view of participation from the beginning of the process.

3.6 Impact

Districts are already gathering a variety of data on the immediate impact of the project using a variety of criteria, some of which is collated in a routine and systematic method. The heelers programme within East Lindsey, for example have over a 5 year period gathered the following data on 3847 patients:

East Lindsey – Programme Change and Impact

Out of 3847 clients, the following changes are recorded in terms of average statistical change:

- Average statistical changes:
 - Weight Loss = 4.8kg
 - BMI reduction = 2.1
 - Peak Flow Increase = 37.8
 - BP Reduction = 6.4/3.6
 - Self Confidence Increase = 92%
 - Prescribed Medication Reduced = 8.6%
 - Reduced GP's Visits = 49%
 - Improvement in Pain Management = 79

Similarly districts are collating different forms of impact data once clients have left the programme at intervals that range from 3 months post programme to a year. Mostly service providers have reported and the research has confirmed that it is difficult to track those who do not continue within exercise referral settings. The following is an example of impact of post programme surveys within the YMCA project from a sample analysed by the researcher, where respondents could record multiple effects.

YMCA – Post programme impact

Feel healthier	94%	More energy	77%
Lost weight	65%	More confidence	41%
Improved Eating	35%	Sleeping better	30%
Reduced Stress	18%		

Within the research of telephone interviews the wide nature of impact was recorded including the following:

- Participants now 'energised' – able to feed new levels of fitness/activity into everyday living – patterns changed
- Able to do longer periods of activity – increased levels of exercise (some from position of little or no regular exercise)
- Changed eating patterns/nutrition – lost weight
- Reduction in medication – ie blood pressure
- Taking up new activity – ie health walks, Zumba
- Increased confidence – ie exercising within gym environment

- Improve chronic muscle-skeletal conditions – ie improved mobility and ability to walk further
- Helped conditions pre/post operation ie getting weight down for knee operation
- Improved mental well being – ie social side of exercise reduced feelings of isolation
- Inclusion – exercise for those ie partially sighted, limited movement (ie Parkinsons disease)

Given the richness of the interview data the discussions about the medium and long term impacts of the scheme have been analysed using categories emerging from the interviews together with categories of examining activity patterns from DoH (2011) strategy to demonstrate the different and inter-related forms of impact found through the research. In particular to reflect the emphasis now within policy and strategy on the importance of ‘doses’ of activity within everyday life and recreation, as much as organised physical activity and sport. The impact that exercise referral has on everyday activity and recreation, ultimately resulting in the effects on physical and mental well-being, as explored in the following examples from the interviews. The data is therefore themed within the table with more detailed examples from the respondents themselves in [Appendix 3a](#). Examples of case studies from the interviews are also given in [Appendix 3b](#) to demonstrate both how the nature of impact within the programme is multiple and often one of inter-action. Each example given in the following table has been reported by at least one telephone interview and in many cases by multiple respondents.

3.7 Summary of impacts of Exercise Referral (described during telephone interviews with participants)

Impact Type	Aspect	Examples (summarised) coming from telephone interviews with participants completing the programme.
Impacts on Knowledge to Act:	Categories emerging from interviews...	
Accessing Detailed Guidance/Advice	Impacts on activity planning / knowledge of safe exercising	<p>Accessing specialist and personalised support and advice:</p> <ul style="list-style-type: none"> • One-to one support – personal targets, improving fitness levels • Knowledge of equipment – safe exercising (for personal circumstances) • Focussed exercise planning – e.g. ‘rebuilding after an operation’ • Starting slow and building up – ‘safe’, ‘gradual’, ‘at my pace’
	The impact of dietary advice through scheme	<ul style="list-style-type: none"> • Individualised dietary advice, support and general encouragement • Combining with phoenix weight management/other programmes increasing impact
Removing barriers to access	Impact of experiencing & relating to gym environments	<ul style="list-style-type: none"> • Gentle introduction to gym environments. • Breaking down fears about going to gyms / finding ‘people like me’ / overcoming initial concerns. (‘Good to find people my own age and size there’)

Impact Type	Aspect	Examples (summarised) coming from telephone interviews with participants completing the programme.
		<ul style="list-style-type: none"> • Welcoming, sociable, at flexible times – building ‘confidence’ to take part
Understanding long-term changes	Understanding stages & transitions	<ul style="list-style-type: none"> • Understanding the need to persist and continue in exercise to achieve full benefits. Programme establishing objectives; longer time required to achieve sustainable impact • ‘Going to the gym requires making a conscious effort’. Increasing motivation to do ‘just a bit more’ with ER support Learning/Discovering the impact of exercise and building routine/rhythm into daily life – understanding the impact of stopping exercising • Discovering ‘what works’ for individual, ensuring transition/continuance after ER session into paying for gym
Impacts on Physical Activity Levels:	<i>Categories taken from the ‘Start Active, Stay Active’ report, (DoH, 2011)...</i>	
1. Everyday Activity	Impact on improving everyday activity levels, e.g.: active travel (cycling/walking) Heavy housework Gardening DIY Occupational activity (active/manual work)	<p>Examples given in interviews include:</p> <ul style="list-style-type: none"> • Cross-over to other physical activity – e.g. ‘walking rather than using car’ / walking the children to school • Ability to do/increase everyday essential tasks such as housework, looking after children • Ability to do/increase amount of gardening / DIY • Ability to walk to shops/uphill without being out of breath • Walking up stairs instead of using lift • No longer using a mobility scooter or requiring social services to install a walk-in shower due to increased mobility’ • ‘Improving everyday fitness’ / ‘getting out of the house’ • Reduction in fear of injury and falling in doing everyday tasks • Ability to return to work
2. Active Recreation	Impact on active recreation, e.g.: Recreational walking Recreational cycling Active play Dance	<p>Examples given in interviews include:</p> <ul style="list-style-type: none"> • Buying bikes/increased cycling • Increased individual walking/ walking with dog/ taking children on family walks • Increased playing with children
3. Sport	Impact on levels on sport participation, e.g.:	<p>Most respondents interviewed had taken up gym membership after the end of the programme 92% (n=27)</p> <ul style="list-style-type: none"> • the remaining 8% (2) stopped for financial reasons

Impact Type	Aspect	Examples (summarised) coming from telephone interviews with participants completing the programme.
	Sport walking Regular cycling (>=30mins per week) Swimming Exercise and fitness training Structured competitive activity Individual pursuits Informal sport	(but wanted to continue) <ul style="list-style-type: none"> • 66% (n=18 of respondents reported now going to gym at least 2 times per week. Many of these are going for more than 3 times per week. • At least one person has been attending for 3 years following the scheme. Another person goes at least 6 days per week and another goes twice a day. • Subsidised ongoing membership fees and the initial funding of gym membership were highlighted by most interviewees as an important element of the scheme's success and attraction to continue. Other sporting activities that participants had joined since being part of ER with regular additional activity included: <ul style="list-style-type: none"> • Swimming and Aqua aerobics • Pilates • Organised health walks • Zumba
Impacts on physical and mental wellbeing	<i>Categories emerging from interviews...</i>	
1. Physical Wellbeing	1a. impacts on weight control/introduction of sustainable diets	Examples given in interviews include: <ul style="list-style-type: none"> • Loss of weight including substantial weight losses of 3 to 5 stones • Stabilising weight gains • 'Reduced waist measurements and going down dress sizes –ie 16-18 to 10-12 • Loss of body fat ie 6% if not necessarily weight loss • Reduced BMI • Impact on sustainable changes to diet including balanced diets and calorie control
	1b. impacts on increased fitness	Examples given in interviews include: <ul style="list-style-type: none"> • Improved breathing', resting heart rates and everyday fitness • Aiding/speeding up post-operation recovery • Improving muscle tone • Improving energy levels
	1c. impacts on physical / medical conditions	Examples of improvements for particular conditions include: <ul style="list-style-type: none"> • Circulation problems • Arthritis • Asthma • Blood Pressure • Diabetes • Heart problems including post heart attack

Impact Type	Aspect	Examples (summarised) coming from telephone interviews with participants completing the programme.
		<ul style="list-style-type: none"> • Musculoskeletal conditions restricting mobility • Parkinsons disease/ME • Health Prevention – ie Risk of stroke and heart attack
	1d. impacts on pain management/ prescription or clinical treatments	Examples given in interviews include: <ul style="list-style-type: none"> • Pain control • Diabetes control • Blood pressure • Reduction in the number of GP visits
2. Mental Wellbeing	1a. impacts on confidence and attitude	<ul style="list-style-type: none"> • Improved ‘mindset’ / ‘ control of future’ / ‘hope’ • ‘Clearer thinking and attitudes’ • Respite/help from caring (for adults and children)
	1b. social impacts	<ul style="list-style-type: none"> • Ability to ‘get out of the house’ • ‘Emotional Health’ and social aspects of exercise
	1c. impacts on mental health and wellbeing	<ul style="list-style-type: none"> • Impact on confidence and reduced panic attacks • Impact on depression
Overall impact on long term behaviour	<i>Categories emerging from interviews...</i>	
Routine physical activity changes	Impact of making activity part of daily life	<ul style="list-style-type: none"> • Individual addicted to exercise’ / ‘hooked on it’ • Much more active than previous lifestyle - ‘Part of what I do –‘exercise now part of my lifestyle’

3.8 Impact: Discussion and Recommendation

Any future determining of impact needs to take into account the wide spectrum of reasons for entry into Exercise Referral programme which has been evidence by the research and that there often inter-related reasons for taking part that will not necessarily be captured within any data system. The referral reason given by the health professional equally may not correspond with the main motive for the participant or what emerges as important during the ER process. The wide range of reasons for participation in the project has to be reflected when determining what criteria to include within an assessment of impact, whilst recognising that not all criteria will apply to the individual. Obesity may, for example, be one of the main generic reasons for referral but this does not apply to all clients, and those participants who have been referred for this reason may still place a higher value on other objectives, such as getting fit or self confidence, rather than weight loss as an intermediate goal. It is therefore establishing a model of impact analysis that takes into account the objectives of the individual and the range of issues that may have facilitated participation, which need to be balanced in assessment models. Moreover, as evidenced by the research many of the factors that have impacted on the individual, relate to active recreation and increased ‘doses’ of active living in the context of everyday life.

As part of the subsidising or provision of free places within Exercise Referral clients should commit at the start of the process to be involved in regular quarterly evaluation of impact for a year from finishing the Exercise Referral programme. This should then provide a substantial body of reference as to the long term impact of the programme, devising a system whereby

both quantitative and qualitative ‘measures’ of impact in the areas of active living, recreation and sport and the effect on physical, mental and social outcomes can be assessed. Given that present post evaluation schemes rely mostly on those still within exercise referral settings consideration needs to be given to how to include those who do not remain in contact with gyms/leisure centres as part of the evaluation system.

3.9 Conclusion and Recommendations

Exercise referral is having a widespread effect on impact in the individuals participating within the scheme from its ability to break down and challenge barriers to participation within people of varying ages, ability and ‘activity’ background, supporting change within the term of the programme to long term changes most particularly in the ability of increasing activity and ability to function in everyday life. This having an ultimate effect on health profiles in terms of physical and mental well-being and ability to deal with chronic illnesses and those that arise from pre and post-operative problems.

The following remain the main issues to consider in the future planning and evaluation of the exercise referral programme:

- Analyse recent Lincolnshire Sports Partnership marketing campaign to understand more what are the advertising/promotional messages and channels that encourage both health professionals to be involved and refer and participants to engage. Continue networking with health professionals to ensure that referral is advocated and appropriate.
- Integrated support for issues such as weight loss as Phoenix weight management have provided an added value to the programme and been instrumental in the total impact of the programme.
- Clients value a wide range of activities to be involved with within exercise referral, such as different classes, swimming and gym sessions, group and individual activity. This not only meant that the individual could find something to ‘hook’ them into the project but it became value for money in continuing with the activity, particularly for those on more limited money.
- The one to one support within the programme is central particularly for those who had not been part of a gym environment, or used to physical exercise. Emphasising that many of the effects will be long rather than short term is essential to ensure that clients do not drop out through thinking that it will be a ‘quick fix’.
- Alternative exit strategies for those who do not continue with exercise referral settings should be advocated throughout the programme, particularly for those who cannot afford to continue, as this can lead to disengagement from the individual and not build on opportunities for other activity that could be free and just as beneficial in terms of everyday activity and recreation. Getting participants to pay at least a refundable administration fee at the start of the programme, as proposed recently by East Lindsey, to be repaid on completion would perhaps reduce the high number of participants who do not start the programme and provide an incentive to finish. Participants equally considered that in some cases a nominal payment for exercise referral would itself make them aware from the

beginning of the commitment to the programme and indicate from an early stage whether they could include it as part of their weekly budgets.

- Clients should commit at the start of the ER process to be involved in regular evaluation up to a year on leaving the project to build up an increasing evidence base of long-term effect.
- Some schemes are already capturing a variety of post scheme data and this could be disseminated to demonstrate impact at a local and county level. Consideration particularly needs to be given to measures to track those who do not stay within gym/leisure centre schemes.

APPENDIX 1 – TELEPHONE INTERVIEW QUESTIONS

Fit Kids

Themes for Telephone Interviews – Qualitative Data

Pre-programme Experience

What is the motivation to take part?

What are the levels of activity before participation?

Factors for adherence/completion (internal and external to programme design and activity)

What factors have helped to continue the programme?

What factors if any have made it difficult to take part/continue?

How important is family involvement?

What changes/additions if any should there be to the programme?

Impact/Causes of Change

What is the impact/change?

- Physical
- Emotional
- Lifestyle

Has there been an increase in activity?

What has influenced the changes (if any?) - would they have happened without the intervention?

What impact has the programme had on the individual and their families?

Wider Impact/Sustainable Input?

Has it motivated/initiated taking part in new activity, changes in school/leisure etc

Are the changes sustainable – will the impact continue or what makes it difficult to continue?

What further support/intervention if any is required – ie health professional advice

TELEPHONE INTERVIEW QUESTIONS

Exercise Referral

Pre-programme Experience

What is the motivation to take part? How important is the role/advocacy of the health professional referral? Were there any alternatives presented to an exercise referral intervention?

What are the levels of activity before participation?

Factors for adherence/completion (internal and external to programme design and activity)

What factors have helped to continue the programme?

What factors if any have made it difficult to take part/continue?

What changes/additions if any should there be to the programme?

Impact/Causes of Change

What has influenced the changes (if any?) – would they have happened without the intervention?

What is the impact/change?

- Physical
- Emotional
- Lifestyle – eating patterns etc

Has there been an increase in activity?

Who has it impacted on?

Individual –wider family?

Wider Impact/Sustainable Input?

Has it motivated/initiated taking part in new activity? –

Are the changes sustainable – will the impact continue or what makes it difficult to continue?

What further support/intervention if any is required – ie health professional

APPENDIX 2 – CASE STUDIES - FIT KIDS

Case Study 1

Pre-programme

We had just moved to Lincolnshire and my three children were not very active. We had been in a big city where you could not really walk. We had moved to the countryside to get a bit fitter and have a better life. We saw it advertised and thought it would be really good for all 3 of them, although only one of them was then part of the age range 7-11 but they said that we could come along as a family so that my older and youngest child could take part. The middle child was not over-weight or under-weight, but did eat a lot of junk food – so we thought we could do with some help with healthy eating.

Programme

The children all really enjoyed the programme and joining in. Besides the exercise being fun the important point was learning about food and nutrition. I had got to the stage where I just didn't know what to do in changing our food habits. We would make sure they ate things like yoghurts and fruit and vegetables and ensuring that things were low in fat. What we hadn't realised until we came on the programme is how food may have been low in fat but it was high in sugar – so they were getting food that was very high in calories from the sugar even if it was low fat. You think that the food is healthy but actually it isn't. So learning about food and looking at the food labels has changed my life. Fit Kids is not about just doing exercise but educating the parents about how to change food patterns and eat healthier. It is so educational for the parents of how to lose weight – it has changed my way of shopping.

Impact – Post Programme

Food – Fit Kids has totally changed what we buy and eat – changed our shopping habits.

Weight – My eldest lost half a stone during the programme and a stone since finishing the programme. My youngest lost 4lbs and the middle one did not lose weight but eats much better – cut down on things like cake and crisps and eats yoghurt instead, not things high in sugar. We all eat better – changed our way of eating.

Activity – Since finishing Fit Kids the children have joined a lot of activity groups as dancing clubs where previously they were not interested in joining. They are totally changed about taking part in activity, which would not have happened without. We go as a family for long walks, such as to the parks. It has changed our lifestyles totally and we have lost weight too – do much more activity as a family.

Case Study 2

Pre-programme

I got my child involved with the programme as I have had problems with weight and keeping it in check. My child is already one of the tallest in the school and 10 stone so really conscious about their figure. She did not want to have anything to do with sport, as she was very conscious of being bigger. On the last sports day she broke down in tears as she found it so difficult to take part – which was heart breaking and I thought we are not going to do that again. That I would rather keep her off school than go through what was for them a humiliating experience. She did not like sport and I was concerned about bullying particularly before they go to senior school.

I saw the advert in the newsagents about it and thought that really was what I was looking for. I would not go to the GP about it – as I think it would have been something that would have been difficult to go to the GP to talk about, it would have made them even more conscious and sensitive about it. They also would have probably said she had to lose a certain amount of weight and wanted us to go back about it to be re-weighed and that would have been difficult and another pressure if that did not happen. Going to the GP would therefore have added to the stress by having to see him again – this is something that I wanted to deal with myself as I thought that would be better for us.

Programme

At first she did not want to go – resisted it and I had to push her to go – but she has really enjoyed it being in the gym and doing the games. They definitely get them active in a fun way. Having the family involved is important as we need to get involved giving encouragement but we need to understand when to back off and leave it to the instructors. Has provided me with information that I just could not find on the Internet, for example I can look at BMI as adults and calories but how does this apply to children? What diets should you give/what portions – what calories were appropriate? The fitness instructors could give me all this information.

Impact

Self esteem/Confidence – It has had a very good effect – she is now relaxed about herself and the way that she looks and her self esteem has improved so much. She has not lost that much weight but I am thinking mainly about the future most of our family have had to battle against weight problems myself included and I want to nip it in the bud for her now – make sure that she does not end up bigger.

Food – We are more conscious of food from doing the food diaries – knew about healthy eating, but it has just provided us with some more detailed information that we can use. When we go shopping they are much more conscious of what is in the foods and look at the labels. As a family we discuss more about food and it has opened the conversations – we are back on track. The discussions at Fit Kids has made me realise that I should cut down on the portions that they had and also how to be tougher with the children about what they eat and how much. It has opened my eyes and made me stop and think about things like biscuits – before they would say can I have a biscuit and you would say yes – but now I say – no – ‘no you have had

your treats and that's it'. Or previously they would have dinner then say can't I have some bread before going to bed as we are hungry and I would say yes – but now I say no. I've also got to re-arrange when we have dinner – as sometimes they could have dinner really early and then they would be hungry later on – so now we have dinner later so that they don't snack later on. Instead of buying them sweets I bought them the other day a bunch of daffodils and they found that really cool.

They are also more aware of things such as fizzy drinks and drink a lot more water rather than 'squash' – only have coke if they are out. At breakfast she will have either two pieces of toast or some cereal or scrambled egg – whereas before she would have all of them. So there has been a cutting down from the food diaries –the fitness instructors have commented on the food diaries and that has been very helpful.

Activity – the younger sibling is now attending – they really look forward to the sessions. When the weather is better hope that they can get out on their bikes and go walking and keep more active. Participant on second Fit Kid programme with the consideration that they needed another 12 weeks to build up confidence, she is much happier and confident to go this time, rather than unsure about going.

Case Study 3

Pre-programme

My son is overweight and when my daughter brought an advert home about it from school we thought that my son could benefit from the opportunity of having some more exercise. He is quite active doing basketball and football but we thought this would be really helpful to him and it was.

Programme

The programme was very good as it provided exercise in a really fun way – so that he could do games like British bulldog and running around in a way that not anything else provides – it wasn't that you had to be part of a club or a team but you could just join in – in what was great fun in games around the hall. He then did have another 12 weeks to help him as we really can't find anything that fits this sort of exercise anywhere else – he has found it just so enjoyable in the gym/swimming and with the other children.

The cooking part was also excellent very informative for us as parents too, how to cook healthy and difficult things like health and safety – like teaching them how to use and handle knives/wash hands. The approach was also very good starting with pizzas and burgers and how you can do them healthy – rather than saying here is some salad and fruit. We have learnt things too like how to use wheat flour in pizzas, which has filtered back into the family.

Found that having the 6 months of Fit Kids and 2 programmes did really help, in the first weeks you are just beginning to start new habits but by 6 months it is becoming more a habit and changing behaviour.

Impact

Food – Can now say to him – remind him when he is eating – what did they say at ... He has more experience in eating healthy and he has learned to cook some things that should stay with him to being an adult.

Weight – he has stayed basically the same weight at the moment, but he has not put any more on and once a month we weigh him to see what is happening.

Activity – he is active as much as he can be – now joins in school activities/after school as football club. We go swimming once a week and we now take him to the children's gym in town so he can continue the activity. We live near a very busy road so he can't go out on a bike and there are no other neighbours/children around, so for activities we have to take him somewhere like school/organised activity – otherwise he bikes around the drive and garden, or we go on a family bike ride make it family time.

APPENDIX 3a: Extracts/Examples from Interviews – The Impact of Exercise Referral

The interview data reported and analysed below details more fully the impacts summarised in the previous section and indicates how in the long term exercise referral continues to have a significant impact on everyday activity and recreation and increasing the levels of activity, which of itself has an impact on physical and mental well being in a number of inter-related factors.

Everyday Activity and Active Recreation

- I now walk most places – the car stays in the garage for weeks – including walking 25 miles with a club that I belong to even if I am much slower than many and it can take up to 6 hours to do it. It has got me active (going to gym following ER), otherwise I would not be doing exercise besides gardening. We live in a bungalow so don't use stairs, so this helps me to keep active (client recovering from effects of stroke and weight issues resulting from stroke)
- Have much more energy for doing housework – can also walk the dogs now if slowly. Have been on pain killers for the last 5 years and this is really helping me to cope with it. I am now walking up and down stairs when I used to use the lift and am out of the motability scooter. It is breaking the cycle that I was in - people said this is the best you are going to be and that is not so anymore. I am in a different place and see things differently. (client with arthritic conditions)
- I have a lot more energy for walking and housework – so much more energy during the day. Before Exercise Referral could not do any heavy housework like vacuuming – now I can. Used to be puffed out going to the shops but now can walk much more. (client with weight problems)
- Before Exercise Referral I was struggling to do certain things but now I have more energy it is very noticeable. No longer breathless when going up stairs. It has helped me change my life and made me a lot more active, which would not have taken place without Exercise Referral (client with weight problems)
- It has improved my fitness a lot I now have the ability to walk up the stairs without being puffed out (client with diabetes and weight problems)
- At the time that I started at the gym I could not be bothered to do anything – I couldn't even be bothered to walk the children to school – I would take the car and that is only a 5 minutes walk away. I am so much more active than I was – I walk rather than taking the car - like walking to school with the children (client severe weight problem)
- I have noticed the difference – I am able trek around London all day and would not be able to do that before. Had back surgery so it is difficult for me to keep on my feet a lot but the exercise has helped that. On holiday I went to the gym on the boat and I wouldn't before have had the motivation to do that (client with diabetes/weight problem)

- I am able to do more housework. I am now active in the garden, which I couldn't do before and I can touch my toes again! I also sometimes take the dog for a walk, which I also didn't do before. Life is more fun.
- I am walking in between taking the children to school and in the half term taking them for walks. Now have so much energy – was losing energy. Now do even the housework more – used to come in and have no motivation to do housework or for other stuff. I have more energy to do things with the children – before just used to sit down – used to say let me just sit down – didn't have the energy - now make the most of being with them. Now I have energy – if I have something to do I do it straight away. The benefits are definitely the feel good factor.
- Walking a lot more. I am now not daunted by going up a flight of stairs will use them now rather than taking the lift- actually want to be less lazy. It has helped everyday life and more active because of - the gym has helped.
- I also got a new bike to do more cycling. I like also to do lots of DIY – so quite active like that. (cardiac client)
- I now walk much more, rather than taking the car

Increased Structured Activity/Level of Activity

- Taking part in aqua aerobics, now have the confidence to take part in that too – as used before to go swimming really early in the morning as was really conscious about taking part.
- Joined the Tuesday walking group as the Exercise Referral instructor mentioned about this. Have also joined Pilates which has helped the cramp that I was getting all over my body.
- Without exercise I would be a vegetable and put more weight on. You get into the rhythm of doing exercise and then its becomes routine for you. I am now trying to do more and improve my fitness levels. Go swimming twice a week and the gym twice a week and considering doing aqua aerobics (diabetes and weight problems).
- I go on health walks 3 times a week and the gym usually three times a week, I am so much more active and that is also keeping my weight down. The more exercise you do the more it is good for you. Will also take myself out on walks. The health walks are also very good as they are social and you meet lots of people, which is enjoyable.
- At first I could only do about 20 minutes of exercise but now I can do 2 hours of intensive exercise – every few weeks you build up and take it further what you can do. Over the last year with exercise referral and continuing at the gym for 2 hours twice a week there has been massive changes in what I can do. Before all I could do was run for 20 minutes. Going to the gym has helped me get much fitter and part of my everyday life. (cardiac patient)

- It has (ER and gym membership) gradually built up my ability to exercise from 20 minutes of exercise at the start to 1 hour of doing exercise 3 times a week, making it part of my weekly routine (client with arthritic knees).
- Going to the gym has helped me get much fitter and part of my everyday life. The gym is part of my everyday life and part of my lifestyle change.

Physical conditions

Musculoskeletal

- The exercise has helped my sciatica and movement both in my leg and neck and stopped it from deteriorating further (previously had physiotherapy treatment which had not helped)
- It is making a difference and has strengthened my muscles Having Parkinsons Disease is about a mindset and how you cope with it – that you won't end up as a cabbage – so you want to keep on top of it and control it and the exercise is an important part of that. It is helping me keep an active life.
- It has got me back walking as I was scared after my fall on the ice of doing more damage. Compared to last year I can now walk quite far which is something that would not have happened without the Exercise Referral and continuing at the gym, was struggling to walk anywhere. It has also helped my shoulder and the problems that I had with it, don't suffer from it as much as I used to. It has helped a lot. I can now do things a lot easier and my walking is better (client had fall on ice with complications of broken ankle).
- It has helped a lot. I can now do things a lot easier and my walking is better – I am not thinking I am stuck like this forever. (client had operation for slipped disc which left post operative complications including a trapped disc and problems with pain in her lower back and leg for 10 months which was not reconciled by physiotherapy or acupuncture)
- Lost 2 stones in weight from going to the gym, so I have got down to the weight that I need for an operation on my knees and it has helped my mobility, just now waiting for the operation, so I can get back to work.

Cardiovascular

- It has really helped me after my heart attack. My exercise routine is now very important, having the exercise twice a week at the gym helps to counteract the effects of my condition, medication helps to block it out a bit but this also helps...It has helped me with all the cardiovascular exercise that I need to do in a safe environment where somebody understands what you can and can't do – when you have a heart attack you want to be sure of what you are doing.

- My resting heart rate has come down from over 100 to 85bpm, which still is poor but much better than it was when I first started and want to get it down further. By controlling my weight and my diet together with the help of Phoenix weight management I am hopefully reducing my risk of a stroke or heart attack.
- Had a stroke and still recovering and this is really helping me get back into activity and reduce the weight that I have put on and my risk also of diabetes.

Respiratory:

- Had asthma and wanted to lose a lot of weight as the nurse said that I had a lot of body fat. I am not getting so breathless with my asthma and have so much more energy to do things. It also helps me to get out of the house.
- I have asthma and my breathing has improved since going back to the gym.
- I am now a lot more active on such things as the cross trainer – at first I would be red in the face and out of breath but now it has really helped me to stop being out of breath.

Diabetes

- My diabetes is much more controlled and I have lost weight
- I have lost some weight but main thing has been the increased fitness, which has helped control my diabetes condition

Weight/Nutrition

- I have changed my eating habits and my lifestyle – eat more healthier as well as regularly exercising
- I have lost 6% body fat – if not losing too much weight.
- Feel a lot healthier and even though I have not lost weight have reduced 3% of body fat which the nurse is really happy with – says that this is as important as actually losing weight
- Lost some weight – 2/3 dress sizes down – feel so much better including my body shape
- The posters at the gym about food and how many calories in different foods have also been very good for stopping me eating more – I look at how much I have lost in the gym and if it says 230 calories for a chocolate I think do I want to eat a Mars Bar when I just burned that off in calories? Why give up everything I've just worked for to eat a mars bar? I am now motivated to say that I will not eat that Mars Bar!

- I have lost 2 stones in weight. Still going to the gym on a usually daily basis – I am hooked on it. I am healthier in myself and the clothes are fitting better as I lose weight – lost inches around my body.
- Am losing weight and feeling so much better for it. Have also cut down on portion sizes wanting to eat healthier. Can see the benefits from improved fitness. I am eating better and healthier and exercise is now embedded in my lifestyle.
- I am eating a lot less and much more healthier food – my eating habits have changed and with the support of Phoenix (weight management) the exercise is really helping. The weight is coming off and I have noticed it particularly in my clothes.
- I feel much fitter – my triceps are developed more – I have more muscles rather than fat. I have lost weight over the last 6 months (1 and a half stone) and my wife who has also joined Exercise Referral has lost a stone.
- I eat a lot healthier it used to be chips, chips, chips and kebabs but now it is about a slice of toast in the morning and salad for tea. The children look differently at me – they say that I have lost my second stomach. I have lost 5 stone. (was 25 stone)
- Have gone down from 20 stone to 18 and a half stone – lost a lot of weight in first couple of weeks and then keep losing a bit more which is good. I am eating more fruit and vegetables to keep the weight down. (weight/restricted sight)
- I have lost 2 stone and 8 inches off my waist so this has really helped me to be much fitter.

Clinical Treatment

- My health has improved so much I have been taken off two tablets

Mental Well-being/Social isolation

- There is an ability to think clearly doing exercise and a general improvement in one's thinking and attitudes. There has been a positive impact on physical and emotional health and lifestyles.
- It has made me a better person. I have continued with going to the gym as not only is it about my weight, but I also really like the social side of being at the gym. It has changed my lifestyle.
- I had no energy and was very down – wanted to stay in a corner – had no motivation to do anything. Previously I wasn't motivated all but it has woken up something inside of me and got me going. I feel much better about myself and as I have reduced dress sizes and lost weight feel so much happier about the way I look. My husband now also goes to the gym

- The benefits are definitely the feel good factor. Exercise is fitting into my life and the exercise is really making me feel so much better. Would like to do aqua-aerobics and keep up the gym. Stopped watching soaps and got out of the house. (spinal problems/weight)
- There has been weight loss – the weight is coming off and there is a change in how I feel – feel much happier, although it is gradual
- The exercise has really helped – I do not feel weary any more – it has also boosted my confidence – have something to do and look forward to (restricted sight/weight)

APPENDIX 3b: EXERCISE REFERRAL CASE STUDIES

Case Study 1

Pre-programme

I went to have a 'MOT' with the nurse having blood tests and a general review of my health. The nurse found that my blood pressure was high and that I had high cholesterol and general problems that needed 'sorting out', so referred me to the exercise referral scheme. I was told that I needed to seriously address lifestyle issues. At the time that I was referred last July (2011) I wasn't doing any exercise and my diet was really bad – I would come down in a morning and have a big fried breakfast of bacon and eggs and 'all the works'. I also had problems with walking as I have 'poorly' feet and knees. I have paid to continue in the gym since being part of Exercise Referral.

Programme

I became addicted to the gym. I was initially apprehensive as I had not been part of a gym but they put me at my ease when I started there. The support has been very good showing you what you can do. I can go during the day which I have found very helpful – don't go during any busy times. The instructors motivate you by giving you targets and supporting you to achieve them. You think I can't do it – but they motivate you to do more. It is a totally different way of exercise by being at the gym – so much more than you can do at home. Had Wii sport but that is about it that I was doing and this is totally different.

Feel that the payment of £15 for the gym (exercise referral for 3 months) and then the membership fee is good value for being part of the Exercise Referral programme and then continuing, very good value when you consider that I use it every day!

Impact

I have lost 3½ stones in weight – lost a lot in the beginning and they advised me to lose gradually. I am still losing weight by going to the gym and keeping it up – otherwise would be putting the weight back on. I have gone from 17 stones to 13½ stones and lost 3 inches on waist.

It has also really helped strengthen the muscles in my legs and knees and my circulation is so much better in my legs. By going on things like the treadmill I can do walking and running that I can't do outside of the gym – I can run/walk in the gym but not outside so this is really helpful for me. I am much more muscular and toned from all the exercise that I do – I feel really great. I am more active and have moved up the chest pulls that I can do every 10 minutes and the weights.

I am still going twice a day to the gym for 2 hours a day – I am addicted to it. Instead of sitting in watching TV all the day I have the gym – I go early morning and then 2 hours in the early afternoon. I feel so much better and get a buzz from it. The second phase of the gym (post exercise referral) is about keeping going and improving what you have achieved. It has been a real change in lifestyle. I have a totally different diet – if I have eggs now they are poached not fried and no more fried breakfasts – have things like chicken breasts as they are

much better for you. Eat brown bread or seeded and more fruit than before but you have to have the motivation to change and mine was my health. It gets me out twice of the day away from the flat and provides something really positive for me in my life. With this changed lifestyle it will I think have an effect on my blood pressure and cholesterol.

Case Study 2

Pre-programme

I was referred to Exercise Referral by an occupational therapist as I have ME and chronic fatigue syndrome for the last couple of years and they thought that the exercise would help me as I was not in a good condition, felt very tired and with a loss of confidence. Before ME I used to be fairly fit – used to ride a bike, play golf and go swimming and to the gym, so it was a big learning curve to find myself unable to exercise, that I had to stop all that. I went on exercise referral which I finished in June (2011) and have continued at the gym since then.

Programme

The one-to-one support was crucial to re-engage me in exercise and know that the support was always there. I had lost a lot of confidence and it was about finding exercise suitable for me. So they started me with things like a bouncy ball and movement with that as with lots of the electrical equipment like the bikes I was not strong enough to use them. It was about gradually building me up to use different things. The programme also changed and was added to over the 12 weeks as to what I could do and to maintain interest. I can now do 30 minutes from 15/20 minutes of exercise but this is really good for me and I have to take breaks during the exercise. I have good days and bad days and I have sometimes to make myself go – but the support is there. There is no magic tablet to getting me better.

The programme was also important as I had got so I would not go out of the house and this was about getting my confidence back – was a very big step for me. Had panic attacks when I first went into the gym but the staff really helped. Now feel really relaxed in the gym and that too is really important.

I want to get fit enough to now do some lengths in the swimming pool when just getting in and out of the pool was in itself a big achievement. Will not give up my golf equipment as hope to get back to it – won't give up the bike either still in the shed as one day I will use it.

The subsidising of Exercise Referral is really good, I now have had some of my benefits stopped so the subsidy helped but I think the membership fee is also good. I have to be really careful but think that the benefits I get from it are really important and it could be more. I don't drink or smoke and this really helps me for what money it is. Think maybe that it could be for 24 rather than 12 weeks as you are just getting into the system at the end of 12 weeks.

Impact

It was important to continue at the end of the 12 weeks as I thought well I have come so far and I cannot give up now. Go once or twice a week now regularly to the gym and a Pilates class. The important thing for me is also the confidence that it has given me – to be able to get out of the door and have the confidence to do so. I have been bed bound and using a wheelchair so to be independent enough to get in the car and to the gym is in itself a big step

forward. I still get very tired only been there 40 minutes but it is about getting me out and doing something. That I still have the support of the Exercise Referral team is really good for my confidence and continuing to develop. It has been a real confidence boost taking part in Exercise Referral.

Case Study 3

Pre-programme

I have moved to Lincolnshire and went to the GP about being a new patient. He looked at my measurements and height and said that if I did not lose some weight that I would be at risk of diabetes following a glucose intolerance test as I was over-weight and needed to lose about 2 stone. I was therefore referred by the GP in 2010 to exercise referral and also saw the nurse/phoenix weight management about dieting as well – given the British Heart Foundation advice to follow. Before that I had not been very active although always been supportive of my family doing sport and now my grandchildren.

Programme

The one-to-one support was very helpful – when you are older and elderly you feel vulnerable but when you got to the gym you realised that there was nothing to be afraid of. It is great to be exercising amongst lovely heart-warming people. You can say I have a bad shoulder today and they will understand about the aches and pains that you have and help you exercise appropriately. They treat you with respect and are the right people for the job. I started by doing 3 to 10 minutes of exercise and extending that to a longer time. They were helpful too with losing weight and didn't want me to lose too much quickly.

I am on pension's credit but think that it is important to continue and pay the gym membership as it is making me so much better. I don't have things like sky television, so this is the thing that I want to spend my money on and it's a reasonable amount to pay.

Impact

I have lost 2 stone in weight mostly over the first 6 months (from starting ER). I did have a BMI of 36 and was 11sts 10lbs and then have gone down to 9sts 5lbs and a BMI of 25. I was also told about the health walks, which has also helped. I had been taking blood pressure tablets (can't remember name) and had had them reduced – on a health walk I collapsed and they found when I got to hospital that my blood pressure had got so low that I did not need to take the blood pressure tablets any more. This reducing of blood pressure was the result of the exercise, weight loss and change in diet. I also used to be on Diclofenac for back problems following a car accident – but no longer take these and also no longer take HRT. So I am off all drugs due to exercise and all the factors that have helped.

The loss in weight has had a considerable effect on my lifestyle I have gone down in dress size from 16/18 to 10/12 – people on the walks have also been very supportive encouraging me and then saying don't lose too much weight! I have gradually crept up to 9sts 10lbs so want to keep exercising as I want to get down to 9sts 5lbs again. I go on a health walk every week and go to the gym at least 3 times a week and try to do 5 times a week if I can. I can now walk up to 7 miles and also do things like trying to walk up the stairs as much as possible.

REFERENCES

- BHFNC (2010) *A Toolkit for the Design, Implementation & Evaluation of Exercise Referral Scheme Guidance for Referring Health Professionals, Exercise Referral Professionals & Exercise Referral Scheme Commissioners*, Loughborough University
- Department of Health (2004). *Choosing Health? Choosing Activity: a Consultation on how to Increase Physical Activity* London: The Stationery Office
- Department of Health. *Choosing Activity: a Physical Activity Action Plan* (2005) London: The Stationery Office
- Department of Health (2004) *At least 5 a week; evidence on the impact of physical activity and its relationship to health*, Chief Medical Officer, Department of Health
- Department of Health (2008) *Healthy Weight, Healthy Lives (2008) A Cross Government Strategy for England*
- Department of Health (2009) *Be active Be healthy, A plan for getting the nation moving*, Department of Health
- Department of Health (2010) *Healthy Lives, Healthy People Our Strategy for Public Health in England*
- Department of Health (2011) *Start Active, Stay Active, A Report on Physical Activity for Health from the four home counties*
- EPPI Centre (2008) *Schemes to promote healthy weight among obese and overweight children in England*
- Gidlow C., Johnston L., Crone D., Morris C., Smith A., Foster C., James D., *Socio-demographic patterning of referral, uptake and attendance in Physical Activity Referral Schemes* Journal of Public Health 2007 29(2): pp107-113
- Lincolnshire Joint Strategic Needs Assessment Overview Report (2011)
- Lincolnshire Public Health Annual Report (2010) NHS Lincolnshire and Lincolnshire County Council
- Lincolnshire Public Health Annual Report (2011) NHS Lincolnshire and Lincolnshire County Council
- Marmot M., *Fair Society, Healthy Lives The Marmot Review*, Strategic Review of Health Inequalities in England post 2010
- NICE (2005) *A rapid review of the effectiveness of exercise referral schemes to promote physical activity in adults*. London; NICE

NHS Lincolnshire (2011) Lincolnshire JSNA: Childhood Obesity and Weight Problems

Pate, R.R., Davis, M.G., Robins, T.N., Stone, E.J., McKenzie, T.L., & Young, J.C. (2006). Promoting physical activity in children and youth: A leadership role for schools. *Circulation: Journal of the American Heart Association*. 114, 1214-1224.

Riddoch, C., Puig-Ribera, A. & Cooper, A. (1998) *Effectiveness of physical activity promotion schemes in primary care: A review*. London: Health Education Authority

Sacher PM, Chadwick P, Kolotourou M, Cole TJ, Lawson M, Lucas A, Singhal A. (2009) *Preventing and controlling childhood obesity using a family and community-based approach: MEND*. *Applied Physiology, Nutrition, and Metabolism*. 2009; 34

Tapper, K., Horne, P., Fergus, C., (2003) *The Food Dudes to the Rescue*, *The Psychologist*, volume 16, No 1