

# Preventing child obesity: a long-term evaluation of the HENRY approach

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## Abstract

Childhood obesity has reached epidemic levels, yet many health professionals lack confidence in working with parents around lifestyle change. HENRY (Health Exercise Nutrition for the Really Young) aims to tackle this through training practitioners to work more effectively with parents of preschoolers around obesity and lifestyle issues. We evaluated the long-term impact of HENRY training on health professionals' knowledge, skills and confidence in tackling obesity prevention. All practitioners trained 2007–11 ( $n=1601$ ) were invited to complete an online survey. 237 emails (14.8%) were undeliverable; 354 (26.0%) of the remainder completed the survey. A majority (67%) reported using knowledge and skills gained on a regular basis in their professional lives. Sessions on the importance of empathy and key parenting skills were considered particularly useful, with 78% and 74% respectively reporting regular use of these skills. Effects on respondents' personal lives were also reported: 61% applied the knowledge and skills at home, identifying for example, more shared family mealtimes and reduced portion sizes. The impact endures, with 71% of those undergoing training >12 months ago, stating that they continued to use concepts in their professional lives. The findings suggest that brief training can have a sustained impact on practitioners' professional and personal lives.

## Key words

Childhood obesity; lifestyle change; obesity prevention; professional skills; professional training

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## Introduction

Childhood obesity is one of the most serious public health challenges facing the 21st century. The rate of obesity among children in Britain is one of the worst in Europe, with one in four children aged four to five years being overweight or obese (National Child Measurement Programme (NCMP), 2011).

Obese children are likely to remain obese into adulthood (Baird et al, 2005; Venn et al, 2007) and are at increased risk of conditions including type 2 diabetes, hypertension and atherosclerosis (Juonala et al, 2011). Childhood obesity places a huge financial burden on healthcare systems even during primary school (Au, 2012).

Programmes tackling obesity prevention may be best targeted at pre-school children before excess weight gain and unhealthy behaviours are established (Edmunds, 2005; Skouteris et al, 2011). However, healthcare professionals have reported a lack of confidence in addressing lifestyle and weight issues with parents (Redsell et al, 2011; Story et al, 2002) and efforts to do so have been reported to be dismissive or judgemental (Edmunds, 2005). Recent reviews have highlighted the paucity of preventive programmes targeting pre-school children (Bond et al, 2009; Campbell and Hesketh, 2007). None have analysed the perspective of the healthcare provider delivering the intervention, nor undergone an evaluation of their impact beyond the first two years.

HENRY (Health Exercise and Nutrition for the Really Young) core training is a two-day course, which aims to enhance skills and help community and health professionals become more effective, sensitive and confident when working with parents of very young children around lifestyle change and obesity prevention (see Box 1) (Rudolf et al, 2010). Other obesity prevention interventions tend to target specific causative factors of childhood obesity, eg, physical activity (Reilly et al, 2006), parenting skills (Harvey-Berino and Rourke, 2003) or television viewing (Dennison et al, 2004).

HENRY, in contrast, has a multi-faceted approach that aims to provide practitioners with a toolbox of skills to enable more effective

interaction with parents of pre-school children in any contact setting.

Childhood obesity rates are highest in lower socioeconomic groups (Townsend et al, 2012) and HENRY has focused on Sure Start children's centres, which are, typically, situated in deprived areas. Initial evaluation suggests that health professionals report enhanced confidence following training (Rudolf et al, 2010). Interestingly, several also described steps they had taken to improve their personal lifestyle – an important finding as 60% of local authority and NHS employees are reported to have an unhealthy weight (Department of Health (DH), 2009). This personal experience of lifestyle change may enhance their effectiveness with parents (Perrin et al, 2005). Qualitative research confirmed that community and health professionals had made changes to both their personal and professional lives in the months following training (Willis et al, 2012).

While initial evidence is promising it is necessary to ascertain whether any effects upon health professionals' knowledge, skills and confidence endure in the longer term. We aimed to assess this through use of an online survey sent to all health professionals undergoing HENRY training since 2007.

## Methods

### Sample

Participants were course attendees who had given consent to be contacted for follow-up at the time of training and had provided their email addresses.

### Procedure

An online questionnaire was sent to all health professionals completing HENRY core training between 2007 and 2011. It was based on that used on completion of training courses (Rudolf et al, 2010); questions aimed to capture the impact of HENRY core training on professional practice. The questionnaire was piloted on 25 HENRY course leaders, who provided feedback and suggested slight modifications. Participants were asked to provide details of occupation, where and when

**Box 1. HENRY – Health Exercise Nutrition for the Really Young**

**The HENRY approach**

Three facets underpin the HENRY approach (for more detail see *Hunt and Rudolf, 2008*):

- Family partnership approach
- Solution-focused brief therapy
- Reflective practice

**Course content**

The training focuses on five key areas:

- Parenting skills
- Healthy eating behaviours
- Healthy nutrition
- Physical activity
- Emotional wellbeing

**Table 1. Thematic framework displaying key themes and sub-themes**

| Themes established <i>a priori</i>  |   | De novo themes  |
|---|---|---|
| <p><b>Parenting skills</b></p> <ul style="list-style-type: none"> <li>– Communication styles with children</li> <li>– Guided choice</li> <li>– Authoritative style</li> </ul>                         | <p><b>Healthy nutrition</b></p> <ul style="list-style-type: none"> <li>– Healthy choices</li> <li>– Healthy snacks</li> <li>– Portion sizes</li> <li>– Weight loss</li> </ul> | <p><b>Parental empowerment</b></p> <ul style="list-style-type: none"> <li>– Independence</li> <li>– Peer support</li> </ul>                                 |
| <p><b>Healthy eating behaviour</b></p> <ul style="list-style-type: none"> <li>– Eating as a family</li> <li>– Reduced television time</li> <li>– Feeding cues</li> <li>– Mealtime routines</li> </ul> | <p><b>Physical activity</b></p> <ul style="list-style-type: none"> <li>– Family focused</li> <li>– Parents from groups</li> <li>– Incorporate into routine</li> </ul>         | <p><b>Modelling a healthy lifestyle</b></p> <ul style="list-style-type: none"> <li>– Advocate to family and friends</li> <li>– Work–life balance</li> </ul> |
|   | <p><b>Emotional wellbeing</b></p> <ul style="list-style-type: none"> <li>– Time to relax</li> <li>– Impact on child’s wellbeing</li> </ul>                                    | <p><b>New service development</b></p> <ul style="list-style-type: none"> <li>– Delivery of existing courses</li> <li>– New courses</li> </ul>               |

training took place and examples of how the HENRY approach had influenced clients’ and practitioners’ own lives. Five-point Likert scales were provided to record health professionals’ change in confidence in discussing lifestyle and weight issues with parents (1: very little – 5: significantly improved; 3 corresponded to an improvement) and the extent to which knowledge and skills gained on the course had been used (1: never – 5: all the time). A covering email explained the purpose of the questionnaire with a hyperlink to the survey. A reminder email was sent two weeks later. Best practice guidelines were followed regarding the sending of mass emails (Koenig and Herrick, 2003). Advice was sought, confirming that formal ethics approval was not needed as the information was collected for service evaluation purposes.

**Data analysis**

When analysing quantitative responses the sample was split into two groups: short term (those completing HENRY core training

within the previous 12 months) and long term (those who attended >12 months ago). The five-point scale items were dichotomised, such that responses of ‘Never/Occasionally’ were grouped to indicate limited use of training, while ‘Regularly/Often/All the time’ were combined to indicate regular use of training. Data were compared between the two groups with the use of Chi-squared tests using 2x2 contingency tables. Statistical difference was set at the 5% level of probability. Quantitative data analyses were performed with use of IBM SPSS Statistics 19.0. No data were available on non-responders.

Responses to open-ended questions were examined inductively by constructing thematic categories. A framework analysis approach (Ritchie and Lewis, 2003) was adopted, which has been successfully applied elsewhere (eg, Staniford et al, 2011). This approach allows incorporation of themes established *a priori* while still permitting the emergence of *de novo* concepts. Familiarisation with data from open-response questions was achieved by repeated

rereading. Key concepts expressed in the data led to the creation of thematic categories; while the HENRY content areas (see *Box 1*) were considered as themes at this stage, new concepts were also detected and categorised. Coding was performed using the NVivo9 software package (QSR International, Melbourne, Australia). All coding was completed by one author (RB) and reviewed independently by a second author. As new concepts emerged these were grouped into themes, and where there was a difference of opinion the data was re-examined and a consensus decision was reached. Data were then placed in charts consisting of headings and sub-headings derived from the thematic framework (see *Table 1*).

**Results**

Emails were sent to 1,601 individuals; 237 were returned undeliverable and 362 of the remaining 1,364 completed the survey. Eight responses were excluded due to missing data, resulting in 354 participants included in the analysis (response rate 26.0%). Numbers were evenly split between short-term (i.e. trained within the last 12 months, *n*=173, 48.9%) and long-term (trained >12 months ago, *n*=181, 51.1%). Respondents were widely distributed in terms of their course location (*Figure 1*). A broad range of community and health professionals were represented: nursery nurses (14.5%), children’s centre workers (13.4%) and health visitors (12.6%) were among the largest groups, reflecting the proportions of professionals attending HENRY core training. The remainder (59.5%) comprised other health professionals, social workers and children’s centre staff.

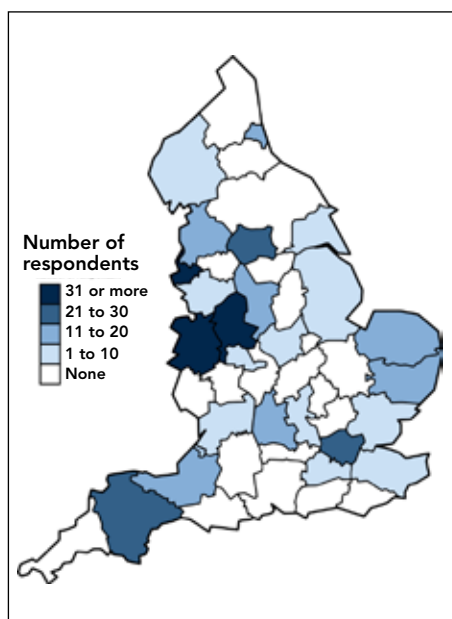
**Impact upon professional practice**

**Confidence**

The majority of respondents reported increased confidence in working with families around lifestyle and weight issues, indicated by a score of three or more on the five-point scale. Overall, 85.0% (147/173) in the short-term and 90.1% (163/181) in the long-term groups reported improved confidence (*Figure 2*). A Chi-square test indicated no difference in the responses of the two groups.

**Knowledge and skills**

Substantial proportions of respondents reported that they continued to use knowledge and skills gained in their professional practice. Overall, 64.0% of the short-term group used



**Figure 1. Location of HENRY core training courses**

the new knowledge and skills regularly, often or all the time. In the long-term group, this figure was 70.6%. The two groups did not significantly differ in the distribution of their responses.

When asked about the frequency with which they used key elements of HENRY, the components reported used most frequently were the value of empathy (78.1%), key parenting skills (73.7%) and healthy nutrition (72.2%). Response frequencies differed between groups on the use of key parenting skills ( $\chi^2(1; n=353)=6.67; p=.011$ ), healthy nutrition ( $\chi^2(1; n=353)=7.16; p=.009$ ) and physical activity ( $\chi^2(1; n=352)=4.31; p=.041$ ). In each case those in the long-term group reported using these components more frequently than those in the short-term group.

**Impact upon personal life**

An impact of the course upon respondents' personal lives was observed: 57.5% of the short-term group, and 63.9% of the long-term group reported that they used the knowledge and skills gained regularly, often or all the time. The specific components of the training that were used most frequently in their personal lives were healthy nutrition (71.3%), eating patterns (69.9%) and physical activity (68.2%). Chi-square tests revealed a significant difference in the responses to working in partnership ( $\chi^2(1; n=347)=8.22; p=.005$ ), and a marginal significant difference on key parenting skills ( $\chi^2(1; n=340)=4.11; p=.05$ ). In both instances, those in the long-term group reported using

these components more frequently than those in the short-term group.

**Qualitative results**

Data are presented in themes, beginning with the five HENRY content areas and followed by new themes identified through analysis. Participants described the impact of training in terms of their professional and personal lives. In addition, several provided examples of the influence of their work upon their client families, as illustrated in italics.

**Parenting skills**

Changes to parenting styles and the effect on behaviour were noted by several respondents as examples of the impact on client families. Increased quality and duration of family time was most notable, alongside control of behaviour through guided choice (a parenting technique recommended as part of the HENRY approach) and the setting and enforcement of clear limits.

*'Managing children's behaviour in a positive way through offering choices and setting clear limits.'*

*'Spend more time doing a family activity at weekends.'*

**Healthy eating patterns**

Maintenance of healthy eating patterns are a key component of the HENRY approach. Many participants highlighted how important this was in encouraging a more relaxed, family-centred approach to mealtimes. Other key factors that emerged included reducing television time, seated mealtimes, and awareness of hunger and fullness cues.

*'One family ate in front of the TV every night - since completing the HENRY course they all sit at the table and have quality family time.'*

*'Tuning into mealtimes has made mealtimes less stressful.'*

**Healthy nutrition**

Healthy nutrition was acknowledged by many respondents as having a notable impact on clients and families. Particular reference was made to portion size and the demonstrative resources provided on the course, and replacing snack choice with healthier alternatives.

*'We appear to see less sweets and crisps being eaten in our playroom.'*

*'Many of the parents that I consult with find the healthy plate and especially the portion size chart very useful.'*

**Physical activity**

Increased physical activity was noted by many respondents in both professional and personal responses. A wide range of activities were mentioned, from walking and more time in the park, to more purposeful fitness activities such as swimming or dancing. Commonly mentioned was an increase in the amount and regularity of exercise and partaking in such activities as a family.

*'[Families have] added more walking to school, nursery and the park into their routine.'*

*'[The group] meets up regularly to attend exercise groups or park trips.'*

*'All the family are doing something fitness-based recreationally.'*

*'[I] am engaging in a running programme from very little exercise.'*

**Emotional wellbeing**

Many respondents clearly recognised the importance of reflecting on the information concerning emotional wellbeing provided during HENRY core training. For some, this took the form of a softer approach and for others highlighted the need to have a more balanced relationship, taking time for themselves which would allow them to give more in return.

*'Another mum realised the importance of having time for herself to recharge her batteries.'*

*'Helped me to reflect and not be too hard on myself.'*

*'Some families have recognised the direct impact of their emotional health on their children's wellbeing.'*

**New themes relating to clients and families**

**Parental empowerment**

Several respondents reported that clients and parents had increased confidence and self-esteem as a result of attending the eight-week HENRY parenting course. In some cases this was transmitted beyond course attendees to their family and friends, illustrating how parents

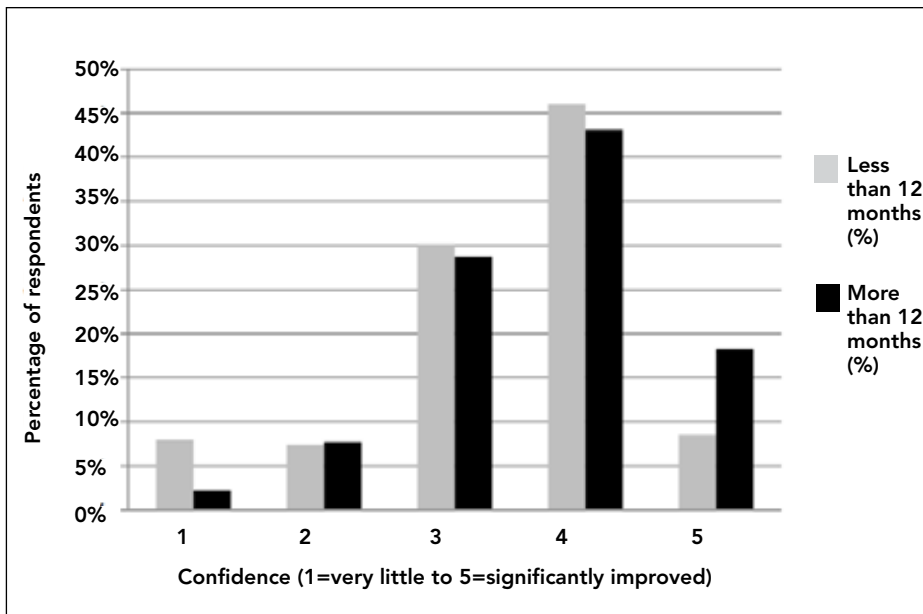


Figure 2. Impact of HENRY Core Training (within/outside last 12 months) upon respondents' confidence in discussing lifestyle and weight issues with parents

became advocates for a healthier lifestyle.

Shared group sessions were notable for the amount of interaction between parents, allowing them to see that others faced similar issues. This allowed parents to reach positive conclusions through mutual discovery and facilitated guidance rather than a more traditional teaching approach. In some cases this extended to forming peer networks ensuring continued mutual support after the course ended.

*'It has helped me to empower parents to help themselves more rather than being "too guided" by professionals.'*

*'It is great to see families building relationships with each other.'*

**New themes relating to healthcare professionals**

**New service development**

Following HENRY training many participants reported having altered their approach in the service they provided. This included having a greater awareness of how to engage with clients and making use of alternative methods of delivery and communication. New services introduced following training were focused on healthy nutrition and targeted recognising infant feeding cues, portion sizes and identifying healthy alternatives. They included cookery and smoothie-making courses, modifications to existing postnatal courses, and weaning courses to focus on

infant feeding cues and appropriate portion sizes.

*'Parents enjoy smoothie-making sessions that we like to run in school holidays for all the family to have a go.'*

*'I have created a "Healthy Lunchbox" course, aimed at a school with no working kitchen, so young people have to have lunchboxes. Some of the HENRY philosophy is evident in the course.'*

**Modelling a healthy lifestyle**

Many respondents made reference to themselves becoming role models for their clients. They reported involving their whole family in lifestyle changes, offering their children healthier snacks, reducing portion sizes and increasing family physical activity. They noted that they were educating friends and family. Many also commented about their increased credibility in advocating for families because of their first-hand appreciation of the challenges in tackling lifestyle change.

*'I have made small changes, which have been achievable and this has helped me to encourage families to make small steps too.'*

*'It defeats the objective if I do not present myself as a healthy looking individual to parents already struggling to set good eating habits.'*

*'Has motivated me to ensure that my family do a regular physical activity together at weekends.'*

**Discussion**

HENRY aims to prevent childhood obesity through equipping practitioners with a toolbox of skills necessary to discuss the often difficult topics of lifestyle and weight issues. Initial evaluation suggested the approach was highly valued and produced an increase in practitioners' confidence levels (Rudolf et al, 2010). The present work suggests that this impact is sustained in the long term. Health professionals continued to use the knowledge and skills gained during their training on a regular basis. Neither the course nor its delivery have changed over time; yet, significantly, more respondents using some of the knowledge and skills on a regular basis had trained more than 12 months previously. A potential explanation is that time is needed for skills to be fully embedded into practice.

Encouragingly, consistent with previous evaluation work (Willis et al, 2012), health professionals reported increased confidence in discussing lifestyle and weight issues with parents, attributing this to their HENRY training. Health professionals have reported a lack of confidence in recognising and addressing lifestyle and weight issues (Redsell et al, 2011; Story et al, 2002) so these findings are of particular importance. A substantial proportion of the sample (88%) reported that the training had heightened their confidence in this area. Numbers were equally high in both the short- and long-term groups, suggesting that the impact of training upon professional confidence is enduring.

The most pertinent aspects from the HENRY core training used in respondents' professional practice comprised the more emotional elements (the value of empathy and parenting skills) – areas not traditionally considered part of obesity prevention training. This is particularly relevant in light of evidence that parents often find professionals to be judgemental and dismissive (Edmunds, 2005); parenting skills are key to changing a family's lifestyle behaviours (Rudolf, 2009).

Our findings suggest that the HENRY approach truly addresses practitioners' needs, and it was particularly rewarding to see the additional impact upon staff members' personal lives. The aspects of the course that had greatest influence in this area included healthy nutrition, eating patterns and physical activity. As 60% of local authority and NHS employees are reported to be an unhealthy weight (DH, 2009), this is important, especially as our qualitative data suggests that

respondents felt that the changes they made helped increase their credibility as advocates. Parental empowerment and acting as role models to their peer group was another strong theme to emerge, another important feature for a successful obesity prevention programme (Bond et al, 2009).

Of particular note in the qualitative analysis was the emergence of *de novo* themes, which were amalgamations of the existing five HENRY elements and their underlying facets, bringing additional benefits not designed into the original course. For example, the family partnership approach and ongoing reflective practice in conjunction with the key HENRY area of parenting skills gave rise to parental empowerment. In turn, the five HENRY areas along with parental empowerment are likely to have led to modelling a healthy lifestyle. Finally, practitioners, by participating in the HENRY programme, picked up on the three underlying facets, particularly solution-focused and family partnership approaches, and have proceeded to use these to enhance existing services or create new services related to the HENRY key areas. This cascade of benefits that extend beyond the primary outcome of the training merits further study to be fully understood.

### Limitations

The evaluation has certain limitations. Our data are drawn from responses to an online survey, which inevitably relies on self report. This method was chosen to reach a large number of participants at distant locations. However, a high proportion of email addresses were invalid or likely to have been inactive, possibly due to the high turnover of staff in children's centres and other primary care settings. The response rate of 26%, although modest, is sizeable considering the length of time that had elapsed between training and the survey – for many participants this had been a number of years. Another important consideration is responder bias. It is possible, if not probable, that health and community professionals who completed our survey had a greater interest in the subject of childhood obesity and the work of HENRY than the non-responders.

### Conclusion

Health and community professionals reported an increase in confidence and continued to use knowledge and skills gained some years after they completed HENRY core training. They described implementing changes in both their professional and personal lives, with tangible

### Key points

- The literature shows that health professionals lack confidence when working with parents around lifestyle change
- HENRY offers a new approach to working with parents of infants and pre-schoolers to prevent obesity
- Practitioners completing an online survey up to four years after HENRY training reported increased self efficacy and ongoing use of knowledge and skills learned
- Empathy and parenting skills were topics that were considered particularly useful
- The impact of the training appears to endure in practitioners' professional work and in their personal lives

outcomes on families with whom they worked. It is hoped that this will contribute towards the achievement of the ultimate aim of the HENRY programme – to have a measurable impact on children's obesity levels.

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