****cid:image001.jpg@01D1A5EC.BDCA1F20

**Independent evaluation of the North East Hampshire and Farnham Vanguard**

**Pre-Diabetes Education Programme**

**Final Report. March 2017.**

**Contents**

**Abstract 2**

**1. Background and overview of the service 3**

**2. Aims and objectives 3**

**3. Methods 4**

**4. Results 4**

**5. Service costs 10**

**6. Conclusion 10**

**6. Appendices 13**

The author of this report is Dr Catherine B Matheson-Monnet, Senior Research Fellow, Centre for Implementation Science, University of Southampton.

Tim Benson provided the analytics and graphs for R-Outcomes

Claire Fleming, Wessex AHSN carried out the telephone interviews.

Julia Thompson, Wessex AHSN provided the graphs for the quantitative questions of the telephone interviews.

Philippa Darnton, Programme Lead for Spread and Evaluation, Wessex AHSN provided a draft Executive Summary

**Abstract**

**Background**

This report reviews the first two courses of a six week pre-diabetes education course offered as part of a Wessex Vanguard Programme.

**Aims and objectives**

The evaluation explored the impact of the course on participants’ knowledge, skills and confidence to self-care for their condition. It also sought to understand the drivers and barriers to course participation. The course was initially meant to focus on how to avoid diabetes, but due to the breadth of selection criteria and the profile of those who attended, the course offered was a generic well-being course (yet 14 out of 22 appear to have pre-diabetes – see appendix 1).

**Methods**

The evaluation comprised before and after paired samples of self-reported outcomes surveys of personal well-being, health confidence and self-care (R-Outcomes, n=23), telephone interviews (n=10) and postal surveys to examine the drivers and barriers to starting and completing (n=19).

**Results**

The results from the postal and telephone surveys suggest that at least 14 out of 22 respondents (64%) who completed the course had pre-diabetes.

The analysis of self-reported outcomes (R-Outcomes) found substantial positive changes before and after the course in relation to health confidence and self-care.

Of 34 people who started the course, 22 completed four or more sessions, of which and seven out of ten who took part in the telephone survey agreed that the course had provided them with a good understanding of how to reduce the likelihood of developing diabetes and how to make better lifestyle choices, and that they were likely to use the competencies learnt in their daily life. Informative and supportive group discussions were identified as important to their learning.

Twelve out of 22 people who attended four or more sessions completed a postal survey asking them the reasons for attending. Key reasons for completing 4 or more sessions were health related (39% of responses) and course related (30% of responses). Both positive and negative comments about the course and tutors were made. Nine out of twelve (75%) underlined preventing diabetes as a reason for undertaking the course.

Out of the twelve people completed less than four sessions, six completed a postal survey asking them about the reasons for attending. Key reasons for attending less than four sessions were lack of relevance to needs (38% of responses) and deficiencies in the course (38% of responses). Four out of six (or two thirds) indicated preventing diabetes as a reason for undertaking the course.

**Conclusion**

Because Happy, Healthy, at Home decided that only those who attended the first two courses would be surveyed, the evaluation is necessarily limited. The impact on use of health services (GP appointments, A&E attendance, acute hospital admissions) was not investigated due to the small sample and governance difficulties in accessing such data.

1. **Background**

Pre-diabetes is a condition where blood sugar levels are abnormally high (elevated fasting or post-load blood glucose levels) but lower than the threshold for diagnosing diabetes. It is estimated that around 5-10% of people with pre-diabetes will go on to develop [type 2 diabetes](http://www.nhs.uk/conditions/Diabetes-type2/Pages/Introduction.aspx) in the future (Mainous *et al*, 2014). Five million people are at risk of diabetes in the UK (DoH, 2016, p9) and one in three adults has pre-diabetes (NHS Choices, 2014).

Systematic reviews in healthcare or community settings have shown that supporting self-care can increase motivation to eat well and exercise, improve clinical outcomes and decrease health services usage (Duke *et al*, 1990; Deakin *et al* 2005; 2006; De Silva, 2011; DoH, 2016). Meta-analyses of diabetes prevention ([Norris et al, 2002, 2005](http://onlinelibrary.wiley.com/doi/10.1111/j.1752-9824.2011.01092.x/full#b38), [Gillies et al, 2007](http://onlinelibrary.wiley.com/doi/10.1111/j.1752-9824.2011.01092.x/full#b17)) and other key studies ([Knowler et al, 2002](http://onlinelibrary.wiley.com/doi/10.1111/j.1752-9824.2011.01092.x/full#b27), [Lindstrom et al, 2006](http://onlinelibrary.wiley.com/doi/10.1111/j.1752-9824.2011.01092.x/full#b31); [WHO, 2010](http://onlinelibrary.wiley.com/doi/10.1111/j.1752-9824.2011.01092.x/full#b56)) identified lifestyle modification interventions to be effective in preventing or slowing progression to type 2 diabetes. Interventions range from intensive long-term individualised face to face educational programmes with trained staff (Rothenberger, 2011) to self-administered lifestyle intervention with potential for dissemination in community settings (Aguiar *et al*, 2014, 2016). However, little is known of the impact of short term group based self-care educational programmes in community settings.

A series of six-week courses for patients at risk of developing diabetes was commissioned to improve their knowledge, skills and confidence so they could make informed decisions about lifestyle. GPs had been informed to select patients at high risk of diabetes, i.e. with elevated fasting glucose levels, but not meeting the threshold for diabetes. However, the providers of the course said that due to the profile of those who attended, the course was a generic well-being course (14 out of 22 who completed the courses indicated in their responses that they had been identified as having pre-diabetes – see appendix 1)

1. **Aims and objectives**

The aims of the evaluation of the first two courses were:

1. To compare self-reported outcomes of personal well-being, health confidence and health management at the beginning and end of each course (using R-Outcomes).
2. To ascertain the views of a sample of patients about the tutors, support materials and the content of the course to ascertain the extent of knowledge, skills and confidence acquired, as well as suggestions for improvement;
3. To better understand the drivers and barriers to participation, i.e. why people had decided not to enrol, enrolled but didn’t start the course, partially completed (<4 sessions) or completed (>4 sessions)
4. **Methods**

The evaluation methodology comprised:

1. Paired samples (n=23) of a survey of personal well-being, health confidence and health management of those who completed the course (n=22).[[1]](#footnote-1) See Table 1.
2. A telephone survey gathering both quantitative data and qualitative data of a sample of 10 patients who had attended >4 sessions (45.4% of those who completed the course)[[2]](#footnote-2)
3. A postal survey gathering both quantitative and qualitative data sent to 38 people, of which 19 responded: one that had enrolled and not started the course; six that started the course but attended <4 sessions and 12 that had completed the course or attended >4 sessions.[[3]](#footnote-3)

Table 1 Course participation

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Course** | **Enrolled** | **Started** | **Completed**  **< 4 sessions** | **Completed**  **≥4** sessions |
| 12.09.16 to 17.10.16 | 18 | 16 | 4 | 12 |
| 04.10.16 to 08.11.16 | 20 | 18 | 8 | 10 |
| Total | **38** | **34** | **12** | **22** |

Table 2 R-Outcomes surveys

|  |  |  |  |
| --- | --- | --- | --- |
| **Course** | **Survey at first session** | **Survey at last session** | **Matched responses\*** |
| 12.09.16 to 17.10.16 | 18 | 12 | 12 |
| 04.10.16 to 08.11.16 | 14 | 12 | 11 |
| Total | **32** | **24** | **23** |

\*Matched responses varied according to questions and ranged from n=16 to n=23

Table 3 Other surveys

|  |  |
| --- | --- |
| **Survey** | **n** |
| Telephone survey on effectiveness | 10 |
| Postal survey: Why they completed the course | 12 |
| Postal survey: Why they did not complete the course | 6 |
| Postal survey: Why they did not start the course | 1 |

**3.1 A summary of the R-Outcomes methodology**

**R-Outcomes PROMs**

Information was collected for this review using the R-outcomes measures. These are a set of validated short generic patient reported outcome measures (PROMs) being used by Wessex AHSN to evaluate innovations and new services. This review used four of the R-outcomes measures. All the results show mean scores on a 0-100 scale. If all respondents choose the best response, the score in 100. If they choose the worst, the score in 0.



**HowRu – Health Status**

People record how they feel physically and mentally and how much they can do in terms of loss of function and independence. It asks how are you today? – meaning the past 24 hours. It has been validated against other measures including SF12 and EQ-5D.



**Health Confidence Score**

This score monitors people’s confidence in their ability to manage their own health and engage with health care providers. The first two questions address personal capability, while the second pair are informed by provider engagement. This measure is closely associated with the concepts of empowerment, perceived self-efficacy, activation and engagement.



**Personal Wellbeing**

This is a short generic measure of happiness or subjective wellbeing and is closely based on the Office of National Statistics personal wellbeing questions used in the Annual Population Survey.



**Self-Care**

These questions focus specifically on aspects of self-management, diet, exercise and overall.

1. **Results**
   1. **R-Outcomes survey pre and post course *regarding* personal health status, well-being, health confidence and self-care**

|  |  |  |
| --- | --- | --- |
| Figure 1 Health Status before and after |  | **Health Status**  No significant or near-significant change in health status following course |
| Figure 2 Personal wellbeing before and after |  | Personal Well-being  5-point improvement in *what I do in my life is worthwhile* and 8 point improvement in I was happy yesterday. |

|  |  |  |
| --- | --- | --- |
| Figure 3 Health confidence before and after |  | **Health Confidence**  11 point improvement in *I can look after my health.* 7-point improvement in *I can get the right help if I need it.* |
| Figure 4 Self-care questions before and after |  | **Self-care**  18 point improvement in *I manage my diet well*  10 point improvement in *I manage my physical activity well*  14 point improvement in *My self-care helps me live as I want* |

As a rough guide: a score of over 80 is good, 60-79 is fair, 40-59 is poor and under 40 is bad. Hence, health status was good both before and after. Personal well-being was fair.

Improvements were seen in measures of health confidence and self-care. In particular, all three self-care questions showed substantial improvement. A score of 43 for I manage my diet well is poor. An improvement to 61 is an excellent improvement, but is still not a good score.

The results for health confidence are broadly in line with the telephone survey of the effectiveness of the course with 70% of respondents agreeing that the course had provided them with a good understanding of how to reduce the likelihood of getting diabetes and how to make better lifestyle choices.

The results for health confidence are broadly in line with the telephone survey of the effectiveness of the course that showed that 70% of respondents (n=7) agreed that the course had increased their ability and confidence to look after their health. See Figure 3.

The total number of valid responses for self-care (n=16 for q1, n=19 and 18) was lower than for the questions on health confidence (n=21 for q1, n=22 for q2, n=23 for q3 and n=22 for q4). The self-care question with the greatest improvement (I manage my diet well) had the fewest valid paired samples (n=16). See figure 4.

**4.2 Telephone survey (n=10)**

**Qualitative data**

*What most helped my learning*

A thematic analysis of the responses to this question shows 19 different items underlined by the respondents, which can be divided into three categories: group interactions/discussions (n=10), good tutors/courses (n=6); and nothing (n=1 or 6%). Informative and supportive group discussions with peers were identified as most helpful to their learning. See appendix 9 for more details.

*How the course could be improved*

A thematic analysis of the responses to this question shows 22 different items that can be divided into five categories: more specific focus about diabetes (n=14) better/more consistent information about the content of the course (n=4); other (n=4); and all information to be made available in the handouts (n=2). Information about the content of the course should be included with the letter from the GP practice. See appendix 10 for more details.

**Quantitative data**

The respondents were extremely satisfied with the tutors: All agreed that tutors were knowledgeable, approachable, enthusiastic and encouraged involvement from all learners. Most of respondents (7 out of 10) agreed that the course had provided them with a good understanding of how to reduce the likelihood of getting diabetes and a how to make better lifestyle choices. See figure 5 and appendix 8 for more details.

Although no respondent strongly agreed, most of respondents (7 out of 10) agreed that the course had increased their ability and confidence to look after their health and well-being and that they were likely to use the competencies learnt on the course in their daily life (7 out of 10).Five respondents (50%) strongly agreed and three respondent agreed (30%) that they would recommend the course to others. See figure 5 and appendix 8 for more details.

***Figure 5: Responses to Q2-Q12***

|  |  |
| --- | --- |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

The question that showed the highest agreement was the course had given a good understanding of how to make better lifestyle choices with 7 out of 10 agreeing and with nobody disagreeing. Eight out 10 respondents would recommend the course to others.

* 1. **Postal survey to better understand why some enrolled but did not start (n=1), some only completed <4 sessions (n=6) and ≥4 sessions (n=12)**

*Enrolled but did not start (n=1)*

What the course is about needs to be clarified.

*Completed <4 sessions (n=6)*

Respondents were asked to select reasons for completing the course from a list of pre-selected 12 items, including ‘other’ and free text to provide more information.

Table 4 Reasons for attending

|  |  |
| --- | --- |
| **Reasons for attending the course** | ***n*** |
| Number of responses | 6 |
| No of reasons | 14 |
| Health reasons | **8** (57%) |
| * Prevent diabetes | 4 |
| * Better health | 2 |
| * Live longer | 2 |
| Course-related reasons | **5** (36%) |
| * Interesting | 2 |
| * Good tutors/content | 2 |
| * Good supporting materials | 1 |
| External reasons | **1** |
| * Suitable time | 1 |

Table 5 Reasons for not completing

|  |  |
| --- | --- |
| **Reasons for not completing the course** | ***n*** |
| Number of responses | 4 |
| Number of reasons | 8 |
| Not relevant to needs | **3** (38%) |
| Course related | **3** (38%) |
| * Unsatisfactory content | 2 |
| * Unsatisfactory tutors | 1 |
| External reasons | **2** (25%) |
| * Location not suitable | 1 |
| * Other commitments | 1 |

Reasons for attending were: health related (n=8 or 57%), including preventing diabetes (n=4); course related (n=5 or 36%); and external (n=1 or 7%). i.e. access and time. Reasons for not completing the course were: ‘not relevant to needs’ (n=3 or 38%),course related (n=3 or 38%); external factors (n=2 or 25%) i.e. access and time. See Table 5.

The qualitative comments indicate that the respondents were aware that the course content was not specific to pre-diabetes. Recommendations were: provision of course information at the time of referral to the service would help patients decide if they should attend the course; and a more advanced level of information, but not assuming any prior knowledge about diabetes.

*Those who had completed ≥4 sessions (n=12)*

Respondents were specifically asked to select reasons for completing the course from a list of pre-selected 12 items, including ‘other’ and free text to provide more information.

Table 6 Reasons for completing

|  |  |
| --- | --- |
| **Reasons for completing the course** | ***n*** |
| No of responses | 12 |
| No of reasons (total) | 61 |
| Health Reasons | **24** (39%)  9  6  6  3 |
| * Prevent diabetes |
| * Better health |
| * Feel better |
| * Live longer |
| Course-related reasons | **18** (30%)  7  4  5  2 |
| * Good tutors |
| * Good supporting materials |
| * Interesting |
| * Good course content |
| External reasons | **14** (23%)  10  4 |
| * Easy access/suitable time |
| * Meeting new people |
| Relevant to needs | **3** (8%) |

The main reasons for completing the course were health reasons (n=24 or 39%) including preventing diabetes (n=9 or 15%) followed by course related reasons (30%) and external reasons (n=19 or 31%). Nine out of twelve (75%) respondents who completed the course and filled in the postal survey underlined pre-diabetes as one of the reasons for undertaking the course.See Table 6.

Positive comments were ‘brilliant’/’helpful course’; ‘good tutors’ and ‘helpful group discussions’. Negative comments/suggestions for improvement were: ‘learnt little’; ‘waste of time’; ‘did not touch on diabetes or hardly at all’; ‘details for the course should be attached to the GP letter’; and ‘better support materials for reference later on’. See appendix 11 for more details.

When asked whether they would recommend the course to family and friends, seven out of ten respondents (70%) said yes and three said no (30%). See appendix 11 for more details.

1. **Service costs**

The cost of the service was £66,000. This evaluation did not include an economic analysis, as the impact on use of health services in patients with pre-diabetes may not be evident for a few years. An analysis of the impact on primary care activity (e.g. demand for GP appointments) was considered, but governance arrangements for access to primary care data did not facilitate an analysis of this activity.

1. **Conclusion**

**Key findings**

The analysis of self-reported outcomes (R-Outcomes) found positive changes between the matched ratings at the first and last session of each course, especially in relation to health confidence and self-care. These results align with evidence from systematic reviews that supporting people to look after themselves can improve their motivation, the extent to which they eat well and exercise (De Silva, 2011).

The results also align with the results of the telephone survey undertaken with those who had attended four or more sessions i.e completed the course. Of 34 people who started the course, 22 completed four or more sessions, of which and seven out of ten who took part in the telephone survey agreed that the course had provided them with a good understanding of how to reduce the likelihood of developing diabetes and how to make better lifestyle choices, and that they were likely to use the competencies learnt in their daily life. Those who participated in the telephone survey also identified Informative and supportive group discussions as important to their learning.

Nine out of twelve (75%) people (out of the 22 who had completed the course) underlined preventing diabetes as a reason for undertaking the course. Four out of six (67%) (out of 12 people who had not completed the course) indicated preventing diabetes as a reason for undertaking the course.

Reasons for not completing the course: ‘not relevant to needs’ (n=3 or 38%); course related (n=3 or 38%); and external factors (n=2 or 25%). Reasons for completing the course: health reasons (n=24 or 39%) including preventing diabetes (n=9 or 15%); and course related reasons (n=18 or 30%); external reasons (n=14 or 23%); not relevant to needs (n=5 or 8%)

Combining postal and telephone surveys, at least 14 out of 22 respondents (64%) who completed the course had pre-diabetes. Assuming that only one respondent who took part in the postal survey was involved in the telephone survey, the views of 19 out of 22 who completed the course have been taken into account, albeit not to the same extent. Both positive and negative comments about the course and tutors were made in both telephone and postal survey.

Suggestions were provided by participants of ways to improve the course, for consideration by the commissioners.

**Limitations**

It is not known how GP practices selected the patients who could benefit from the courses. Because only those who attended the first two courses were surveyed, the evaluation is necessarily limited.

Only a limited sample of those who attended 4+ sessions were contacted to take part in the telephone survey [n=10 or 45.4%] to evaluate the effectiveness of the course. 12 out of 22 attendees [55%] completed the postal survey on reasons for starting, attending part of the course and completing the course.

One respondent who took part in the telephone surveyed said having only attended three times rather than 4+. There was one more paired sample than recorded as having completed the course, which may be due to the way in which records were kept or to the fact that respondents completed multiple records.

1. **Recommendations**

Course provision

The feedback from course participants suggests that the following measures could improve the participant experience and satisfaction with the course:

1. provision of course information at the time of referral to the service to help people decide if they could benefit from attending the course.
2. continuing to provide informative and supportive group discussions with peers, but combined with a more advanced level of information and a more specific focus on how to prevent diabetes while not assuming any prior knowledge.
3. reference materials of all information presented at the course for all who attended

Future evaluations

In-depth semi-structured interviews of the experience of a sample of respondents could provide illustrative case studies.

It would be useful to find out how GP practices selected patients to be invited to the course. .

Providing that the necessary information governance arrangements could be achieved, the impact of the course on symptoms and clinical outcomes, and on health services usage over the longer term, would provide valuable insights.

Advice to commissioners

Whilst acknowledging the limitations of this evaluation and its review of only two of six courses, the following suggestions may be helpful in future commissioning decisions about this type of intervention:

1. Clarity within the contract specification of the extent to which such a course is specific to the needs of those with pre-diabetes and/or a more generic course to improve self-management in people with long term conditions, and the level of information that will be provided (i.e. whilst not assuming any prior knowledge)
2. Provision of course information for potential participants that enables them to understand the expected outcomes of the course and course content
3. Data collection for evaluation purposes planned and implemented at the start of the programme (this provider did not have any measures in place other than course satisfaction questionnaires)
4. Patient selection criteria for GPs

**References**

[Aguiar EJ](https://www.ncbi.nlm.nih.gov/pubmed/?term=Aguiar%20EJ%5BAuthor%5D&cauthor=true&cauthor_uid=25092484), [Morgan PJ](https://www.ncbi.nlm.nih.gov/pubmed/?term=Morgan%20PJ%5BAuthor%5D&cauthor=true&cauthor_uid=25092484), [Collins CE](https://www.ncbi.nlm.nih.gov/pubmed/?term=Collins%20CE%5BAuthor%5D&cauthor=true&cauthor_uid=25092484), [Plotnikoff RC](https://www.ncbi.nlm.nih.gov/pubmed/?term=Plotnikoff%20RC%5BAuthor%5D&cauthor=true&cauthor_uid=25092484), [Young MD](https://www.ncbi.nlm.nih.gov/pubmed/?term=Young%20MD%5BAuthor%5D&cauthor=true&cauthor_uid=25092484), [Callister R](https://www.ncbi.nlm.nih.gov/pubmed/?term=Callister%20R%5BAuthor%5D&cauthor=true&cauthor_uid=25092484) (2014) The PULSE (Prevention Using LifeStyle Education) trial protocol: a randomised controlled trial of a Type 2 Diabetes Prevention programme for men. [C*ontemp Clin Trials*.](https://www.ncbi.nlm.nih.gov/pubmed/25092484) 39, 1, 132-144. DOI: 10.1016/j.cct.2014.07.008.

[Aguiar EJ](https://www.ncbi.nlm.nih.gov/pubmed/?term=Aguiar%20EJ%5BAuthor%5D&cauthor=true&cauthor_uid=26526160), [Morgan PJ](https://www.ncbi.nlm.nih.gov/pubmed/?term=Morgan%20PJ%5BAuthor%5D&cauthor=true&cauthor_uid=26526160), [Collins CE](https://www.ncbi.nlm.nih.gov/pubmed/?term=Collins%20CE%5BAuthor%5D&cauthor=true&cauthor_uid=26526160), [Plotnikoff RC](https://www.ncbi.nlm.nih.gov/pubmed/?term=Plotnikoff%20RC%5BAuthor%5D&cauthor=true&cauthor_uid=26526160), [Young MD](https://www.ncbi.nlm.nih.gov/pubmed/?term=Young%20MD%5BAuthor%5D&cauthor=true&cauthor_uid=26526160), [Callister R](https://www.ncbi.nlm.nih.gov/pubmed/?term=Callister%20R%5BAuthor%5D&cauthor=true&cauthor_uid=26526160) (2016) Efficacy of the Type 2 Diabetes Prevention Using Life Style Education Program RCT. [*Am J Prev Med*.](https://www.ncbi.nlm.nih.gov/pubmed/26526160) 50, 3, 353-64. DOI: 10.1016/j.amepre.2015.08.020.

[Bodenheimer T,](http://jamanetwork.com/searchresults?author=Thomas+Bodenheimer&q=Thomas+Bodenheimer) Lorig K, Holman H, Grumbach K (2002) Patient Self-management of Chronic Disease in Primary Care. *JAMA* 288, 19:2469-2475. DOI:10.1001/jama.288.19.2469.

Deakin TA, Cade GE, Williams R and Greenwood DC (2006) Structured patient education: the Diabetes X-PERT Programme makes a difference, *Diabetic Medicine*, 23, 9, 944-954

Deakin TA, McShane CE, Cade JE and Williams R (2005) Group based training for self-management strategies for patients with type 2 diabetes mellitus, *Cochrane Database of Systematic Reviews*, 2, CD003417

Department of Health (2016) *A mandate from the Government to NHS England: April 2016 to March 2017. Presented to Parliament pursuant to Section 13A(1) of the National Health Service Act 2006.* <https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/494485/NHSE_mandate_16-17_22_Jan.pdf> [Accessed 24 January 2017]

De Silva D (2011) *Evidence: Helping people help themselves. A review of the evidence considering whether it is worthwhile to support self-management*. Health Foundation. <http://www.health.org.uk/sites/health/files/HelpingPeopleHelpThemselves.pdf> [Accessed 28 January 2017]

Duke SA, Colagiuri SA, Colagiuri R (1990) Individual patient education for people with type 2 diabetes mellitus, *Cochrane Database of Systematic Reviews*, 1, CD005268

Gillies CL, Abrams KR, Lambert PC, Cooper NJ, Sutton AJ, Hsu RT & Khunti K (2007) Pharmacological and lifestyle interventions to prevent or delay type 2 diabetes in people with impaired glucose tolerance: systematic review and meta-analysis. *British Medical Journal* 334, 299.

Knowler WC, Barrett-Connor E, Fowler SE, Hamman RF, Lachin JM, Walker EA, Nathan DM & Diabetes Prevention Program Research Group (2002) Reduction in the incidence of type 2 diabetes with lifestyle intervention or metformin. *New Eng Journof Med* 346, 393–403

Lindstrom J, Ilanne-Parikka P, Peltonen M, Aunola S, Erikdsson JG, Hemio K, Hamalainen H, Harkonen P, Keinanen-Kiukaanniemi S, Laakso M, Louheranta A, Mannelin M, Paturi M, Sundvall J, Valle TT, Uusitupa M & Tuomilehto J (2006) Sustained reduction in the incidence of type 2 diabetes by lifestyle intervention: follow-up of the Finnish Diabetes Prevention Study. *Lancet* 386, 1673–1679.

Mainous III AG, Tanner RJ, Baker R, et al (2014) [Prevalence of prediabetes in England from 2003 to 2011: population-based, cross-sectional study](http://bmjopen.bmj.com/content/4/6/e005002). *BMJ Open*, 4, 6. Available at <http://dx.doi.org/10.1136/bmjopen-2014-005002> [Accessed 29 January 2017]

Norris SL, Nichols PJ, Caspersen PJ et al (2002) Increasing diabetes self-management education in community settings: a systematic review, *American Journal of Preventative Medicine*, 22, 4S, 39-66

NHS Choices (2014) One *in three adults has pre-diabetes*. 19 June. Available at <http://www.nhs.uk/news/2014/06June/Pages/One-in-three-adults-in-England-has-prediabetes.aspx> [Accessed 28 January 2017]

Norris SL, Zhang X, Avenell A, Gregg E, Schmid CH & Lau J (2005) Long-term pharmacological weight loss interventions for adults with prediabetes. *Cochrane Database of Systematic Reviews* 2, 1–97

Rothenberger CD (2011) Chronic Illness Self-Management in prediabetes: a concept analysis. Journal of Nursing and Healthcare of Chronic Illness, 3, 2, 77-86. DOI: 10.1111/j.1752-9824.2011.01092.x

World Health Organization (2010) *Diabetes*. Available at: <http://www.who.int/dietphysicalactivity/publications/facts/diabetes/en/> [Accessed 25 January 2017].

**Appendices**

**Appendix 1**

**Structure of the six-week healthier lifestyle choices and self-management education**

|  |  |
| --- | --- |
| **Number** | **Content of sessions** |
| 1 | What is self-management? Balancing life with a long-term condition. Goal-setting. Planning for action |
| 2 | What we believe about our long-term condition Pursed-lip breathing. Dealing with exercise. Being thankful. Planning for action |
| 3 | Handling challenging or unhelpful emotions. Breathing. Becoming and staying active for everyone. Muscle relaxation. Planning for action |
| 4 | Eating well for our health. Introduction to mindfulness. Communicating with family and friends. Problem-solving. Planning for action |
| 5 | Recognising and managing fatigue. Being positive, pacing. Managing our medication. Planning for action |
| 6 | Setting the agenda with the healthcare team. Making choices, deals and decisions. Recognising and managing setbacks. Becoming a resourceful self-manager. Sharing our successes and setting longer-term goals |

**Appendix 2**

**Questionnaire for the telephone survey to evaluate the course**

Author: Dr Catherine B Matheson-Monnet

**NEHF Happy, Healthy at Home Vanguard Evaluation Farnham Locality:**

**healthier lifestyle choices and self-management EDUCATION**

**Telephone survey**

Q1 What most helped your learning in this course?

*To what extent do you agree with the following statements?*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Strongly agree | Agree | Not sure | Strongly disagree | Disagree |

Q2 The tutors encouraged involvement from all learners

Q3 The tutors were approachable

Q4 The tutors were knowledgeable

Q5 The tutors were enthusiastic

Q6 The support materials were useful

Q7 The course has given me a good understanding of how to reduce the likelihood of getting diabetes

Q8 The course has given me a good understanding of how to make better lifestyle choices

Q9 The course has improved my ability and confidence to look after health and well-being

Q10 The course has provided a sound basis for future learning

Q11 I will use the competencies learnt on this course in my daily life

Q12 I will/would recommend this course to others

Q13 How can this course be improved?

Q14 Any other comments?

**Appendix 3**

**Questionnaire for those who decided not to enrol on the course**

Author: Dr Catherine B Matheson-Monnet

**NEHF Happy, Healthy at Home Vanguard Evaluation Farnham Locality healthier lifestyle choices and self-management EDUCATION**

The course (6 weeks or 3 weeks) was delivered by Self-Management UK (Charity) and focussed on healthier lifestyle choices and self-management.

The questionnaire survey is intended for patients who completed part of the course or all of the course or for those who decided not to enrol on the course.

**If you decided not to enrol on the course**

Q1 What would you most like to say about why you decided not to enrol for the course?

Q2 Is there anything that could have been done to ensure that you enrolled in the course?

Q3 Reasons for not enrolling on the course (in ranking order)

* 1. Cannot take time off
  2. No access to transport
  3. Location not suitable
  4. Time not suitable
  5. Not relevant to my needs
  6. Not interested
  7. Tutors unsatisfactory
  8. Course content unsatisfactory
  9. Supporting material unsatisfactory
  10. Unwell
  11. Other commitments
  12. Other – please specify

Free text if you want to add comments

Q4 How did you hear about the course?

**Appendix 4**

**Questionnaire for those who completed part of the course**

Author: Dr Catherine B Matheson-Monnet

**NEHF Happy, Healthy at Home Vanguard Evaluation Farnham Locality healthier lifestyle choices and self-management EDUCATION**

The course (6 weeks or 3 weeks) was delivered by Self-Management UK (Charity) and focussed on healthier lifestyle choices and self-management.

The survey is intended for patients who completed part of the course or all of the course or for those who decided not to enrol on the course.

**For those who completed part of the course**

Q1 What would you most like to say about why you decided to attend the course?

Q2 What would you most like to say about why you decided not to complete for the course?

Q3 Is there anything that could have been done to ensure that you completed the course?

Q4 Reasons for completing part of the course (enablers in ranking order)

|  |  |
| --- | --- |
| 1. Prevent diabetes 2. Feel better 3. Better health 4. Live longer 5. Interesting 6. Relevant to my needs 7. Good tutors | 1. Good course content 2. Good supporting material 3. Easy access 4. Suitable time 5. Meeting new people 6. Other – please specify |

Free text if you want to add comments

Q5 Reasons for NOT completing the full course (in ranking order)

|  |  |
| --- | --- |
| 1. Cannot take time off 2. No access to transport 3. Location not suitable 4. Time not suitable 5. Not relevant to my needs 6. Not interested | 1. Tutors unsatisfactory 2. Course content unsatisfactory 3. Supporting material unsatisfactory 4. Unwell 5. Other commitments 6. Other – please specify |

Free text if you want to add comments

Q6 Would you recommend the course to family and friends? Yes/no

Q7 How did you hear about the course?

**Appendix 5**

**Questionnaire for those who completed the course**

Author: Dr Catherine B Matheson-Monnet

**NEHF Happy, Healthy at Home Vanguard Evaluation Farnham Locality**

**healthier lifestyle choices and self-management EDUCATION**

The course (6 weeks or 3 weeks) was delivered by Self-Management UK (Charity) and focussed on healthier lifestyle choices and self-management.

The survey is intended for patients who completed part of the course or all of the course or for those who decided not to enrol on the course.

**For those who completed the course**

Q1 What would you most like to say about why you decided to attend the course?

Q2 Reasons for completing the course (in ranking order)

1. Prevent diabetes
2. Feel better
3. Better health
4. Live longer
5. Interesting
6. Relevant to my needs
7. Good tutors
8. Good course content
9. Good supporting material
10. Easy access
11. Suitable time
12. Meeting new people
13. Other – please specify

Free text if you want to add comments

Q3 Would you recommend the course to family and friends? Yes/no

Q4 How did you hear about the course?

**Appendix 6**

**R-Outcomes**

**NEHF Happy, Healthy at Home Vanguard Evaluation Farnham Locality**

**Pre and post postal survey for those who attended the**

**healthier lifestyle choices and self-management EDUCATION**

### Please fill in this short survey.  It will only take a couple of minutes.

### We are asking people who start the course to complete a short survey now, with a follow-up at the end.  These questions will help us to evaluate the benefits of the project, as they affect you.

### We hope you find it interesting. Please add any comments in the comment box at the end.

### All answers are confidential and no identifiable data will be shared with anyone.

## Part 1 How you feel ***This question is about how you feel today. How are you today? (past 24 hours)***

Choose one response for each line

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | None | A little | Quite a lot | Extreme |
| Pain or discomfort | ⭘ | ⭘ | ⭘ | ⭘ |
| Feeling low or worried | ⭘ | ⭘ | ⭘ | ⭘ |
| Limited in what I can do | ⭘ | ⭘ | ⭘ | ⭘ |
| Require help from others | ⭘ | ⭘ | ⭘ | ⭘ |

#### **This question is about your overall wellbeing.**

#### **How much do you agree:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Strongly agree | Agree | Not sure | Disagree |
| I am satisfied with my life | ⭘ | ⭘ | ⭘ | ⭘ |
| What I do in my life is worthwhile | ⭘ | ⭘ | ⭘ | ⭘ |
| I was happy yesterday | ⭘ | ⭘ | ⭘ | ⭘ |
| I was NOT anxious yesterday | ⭘ | ⭘ | ⭘ | ⭘ |

#### **This question is about how confident you are in managing aspects of your health.**

#### **How much do you agree:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Strongly agree | Agree | Not sure | Disagree |
| I know enough about my health | ⭘ | ⭘ | ⭘ | ⭘ |
| I can look after my health | ⭘ | ⭘ | ⭘ | ⭘ |
| I can get the right help if I need it | ⭘ | ⭘ | ⭘ | ⭘ |
| I am involved in decisions about me | ⭘ | ⭘ | ⭘ | ⭘ |

#### **This question is about aspects of managing your health How much do you agree:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Strongly agree | Agree | Not sure | Disagree |
| I manage my diet well | ⭘ | ⭘ | ⭘ | ⭘ |
| I manage my physical activity well | ⭘ | ⭘ | ⭘ | ⭘ |
| My self-care helps me live as I want | ⭘ | ⭘ | ⭘ | ⭘ |

## Part 2 About you

#### **What age group are you?**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ⭘ | Under 20 |  | ⭘ | 60-69 |
| ⭘ | 20-29 |  | ⭘ | 70-79 |
| ⭘ | 30-39 |  | ⭘ | 80-89 |
| ⭘ | 40-49 |  | ⭘ | 90-99 |
| ⭘ | 50-59 |  | ⭘ | 100 + |

#### **Are you male or female**

|  |  |
| --- | --- |
| ⭘ | Male |
| ⭘ | Female |

#### **How many different types of prescribed medicines do you take each day?**

|  |  |
| --- | --- |
| ⭘ | None |
| ⭘ | 1 or 2 |
| ⭘ | 3 to 5 |
| ⭘ | 6 to 9 |
| ⭘ | 10 or more |

#### **Please confirm whether this is completed at start or end of course**

|  |  |
| --- | --- |
| ⭘ | Start of course |
| ⭘ | End of course |

### **Please add any comments to explain your answers (optional):**

## **Thank you, this is the end. Your response is very important to us.**

**Appendix 7**

**Demographic profiles of respondents**

**Profile of those surveyed before the beginning of the first course**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Age groups** | **Gender** | **Number** |  | **Age groups** | **Gender** | **Number** |
| 40-49 | m | 0 |  | 40-49 | f | 1 |
| 50-59 | m | 0 |  | 50-59 | f | 1 |
| 60-69 | m | 3 |  | 60-69 | f | 3 |
| 70-79 | m | 3 |  | 70-79 | f | 1 |
| 80-89 | m | 2 |  | 80-89 | f | 3 |
| 90-99 | m | 1 |  | 90-99 | f | 0 |
| **Total** |  | **9** |  |  |  | **9** |

**Profile of those surveyed at the end of the first course**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Age groups** | **Gender** | **Number** |  | **Age groups** | **Gender** | **Number** |
| 40-49 | m |  |  | 40-49 | f | 1 |
| 50-59 | m |  |  | 50-59 | f |  |
| 60-69 | m | 2 |  | 60-69 | f | 4 |
| 70-79 | m | 1 |  | 70-79 | f |  |
| 80-89 | m |  |  | 80-89 | f | 3 |
| 90-99 | m | 1 |  | 90-99 | f |  |
| Total |  | **4** |  |  |  | **8** |

**Profile of those surveyed at the beginning of the second course**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Age groups** | **Gender** | **Number** |  | **Age groups** | **Gender** | **Number** |
| 40-49 | m | 0 |  | 40-49 | f | 0 |
| 50-59 | m | 1 |  | 50-59 | f | 1 |
| 60-69 | m | 2 |  | 60-69 | f | 2 |
| 70-79 | m | 3 |  | 70-79 | f | 2 |
| 80-89 | m | 0 |  | 80-89 | f | 3 |
| 90-99 | m | 0 |  | 90-99 | f | 0 |
| **Total** |  | **6** |  |  |  | **8** |

**Profile of those surveyed at the end of the second course**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Age groups** | **Gender** | **Number** |  | **Age groups** | **Gender** | **Number** |
| 40-49 | m | 0 |  | 40-49 | f | 0 |
| 50-59 | m | 1 |  | 50-59 | f | 1 |
| 60-69 | m | 1 |  | 60-69 | f | 2 |
| 70-79 | m | 3 |  | 70-79 | f | 2 |
| 80-89 | m | 0 |  | 80-89 | f | 1 |
| 90-99 | m | 0 |  | 90-99 | f | 0 |
| **Total** |  | **6** |  |  |  | **8** |

**Appendix 8**

**Telephone survey: responses to Q2-Q12**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Question** | **Strongly agree** | **Agree** | **Not sure** | **Disagree** | **Strongly disagree** |
| The tutors encouraged involvement from all learners (n=10) | n=6 [60%] | n =4 [40%] |  |  |  |
| The tutors were approachable (n=10) | n =8  [80%] | n =2 [20%] |  |  |  |
| The tutors were knowledgeable (n=10) | n =6 [60%] | n =4  40%] |  |  |  |
| The tutors were enthusiastic (n=10) | n=7  [70%] | n =3  [30%] |  |  |  |
| The support materials were helpful (n=10) | n =1 [10%] | n =7 [70%] | n =2  [20%] |  |  |
| The course has given me a good understanding of how to reduce the likelihood of getting diabetes (n=10) | n=3 [30%] | n =4 [40%] | n =1 [10%] | n =2 [20%] |  |
| The course has given me a good understanding of how to make better lifestyle choices (n=10) | n =1 [10%] | n =6  60%] | n =3 [30%] |  |  |
| The course improved my ability and confidence to look after my health and well-being (n=10) |  | n=7 [70%] | n=1 [10%] | n=1 [10%] | n=1  [10%] |
| The course provided a sound basis for future learning (n=10) | n =1  [10%] | n =5  [50%] | n =2  [20%] | n =2  [20%] |  |
| I will use the competencies learnt on this course in my daily life (n=10) | n =2  [20%] | n =5  [50%] | n =2  [20%] | n =1  [10%] |  |
| I will/would recommend this course to others (n=10) | n =5  [50%] | n =3  [30%] | n =2  [20%] |  |  |

**Appendix 9**

**What most helped learning (n=10 respondents)**

|  |  |
| --- | --- |
| **Items mentioned by 10 respondents (total n=17)** | **Category, number, %** |
| Meeting others and having an open discussion with group work | Group interactions/  discussions [n=10 or 59%] |
| Very social, everyone contributed to a free flowing discussion |
| Good to be with other people with different views and opinions |
| Group discussions and interactions |
| Good to have a chance to meet other people |
| Discussing issues with others |
| Being with others |
| Good to have people who were sympathetic and able to have adult conversations on the issues discussed |
| The group discussions gave ideas that I hadn’t thought of independently |
| Nice to be able to talk to people. Difficult to access GPs. |
| Could ask the tutors questions and get good answers | Good tutors/course  [n=6 or 35%] |
| High praise to the tutors as it was clear they had done a lot of preparation and the presentation was good. I have been checking food labels more since the courses |
| I have started to look at food packaging more and planning for my lifestyle |
| Made good use of the time – gave lots of information given the two hour period |
| Good course |
| The information charts on the walls |
| Nothing | Nothing [n=1 or 6%] |

**Appendix 10**

**Telephone survey: how can the course be improved (n=10 respondents)**

|  |  |
| --- | --- |
| **Items mentioned (total items n=24)** | **Category, number, [%]** |
| Didn’t cover diabetes – was very broad and covered lifestyle. | A more specific focus about diabetes [n=14 or 58%] |
| [Only] reinforced prior knowledge, no link to diabetes |
| [Only] reinforced my existing knowledge |
| I’ve had to make lots of lifestyle adjustments already so I did not learn much that I didn’t know already |
| I’m not sure why I went on the course, as it just confirmed what I knew already. |
| I have already had lots of information on diabetes from a specialist nurse so only attended 3 of the 6 sessions |
| Emphasis was not on diabetes but all round well-being |
| More specific to diabetes. Don’t assume people have understanding of diabetes before they attend |
| The GP letter stated diabetes but this course wasn’t really about diabetes and more about well-being |
| Needs to include more in-depth information on diabetes |
| It was not about diabetes. The course is there to help me live longer and to not develop diabetes/other illnesses |
| Wide range of people attending who all have different needs meant it was a broad discussion |
| Different to what was expected as it was not about diabetes |
| Didn’t complete course – not relevant information on diabetes |
| Was identified by GP surgery as high risk for type 2 diabetes but the course was not as expected; if the course contents had been sent out I would not have attended | Better/more consistent information about the content of the course [n=4 or 17%] |
| Not many people knew why they were there. |
| Felt misled on the contents of the course |
| Felt misled about the course |
| Logistics of the room – lots of moving around | Other [n=4 or 17%] |
| Audibility was sometimes an issue – suggested speakers/microphones |
| Also queried the provision of biscuits during breaks considering the reason these people were offered this course |
| Offer a refresher course more specific to diabetes |
| Would have liked to have the wall chart information given in the handouts | All information to be made available in the handouts [n=2 or 8%] |
| The information on the charts and flip pads was useful but not included in the handouts |

**Appendix 11**

**Comments from those completed the course and the postal survey**

|  |  |
| --- | --- |
| **Positive comments** | **Suggestions for improvement** |
| The tutors were good and certainly made it very interesting, | The course did not touch on diabetes or hardly at all |
| It was a brilliant course. Well done to the two ladies who led the course | It would have helped if the details for the course were attached to the GP letter. I would have considered the benefits before signing on |
| Having suffered with anxiety and depression all my life, I found this course brilliant. I am now able to control anxiety with ease. Why I had to suffer for 60+ years I do not know | Needs better paperwork about what we covered on the course to read later |
| Tutors were very good and enthusiastic. | I learnt little since my diet is good. I am very fit. I have one and a half acres of garden and my planning and achievement are good. |
| A very helpful course | Some of those who attended the course were unable to complete the course due to the lecture room being upstairs at times and there being no lift in the building. |
| The main benefit was listening to other attendees' comments/problems. made sure I was available to attend all sessions | I was hopeful I would learn something useful. I didn't. Neither was I the only one who felt like this. The whole exercise was a total waste of time, money, resources. It began with the assumption by tutors that we were all depressed at the news of our condition! At the end of the first session after others had left I remembered Tracey and David said that it was not for me as I was not depressed. I ate modestly and healthily and had a really nice life that I enjoyed doing what I was doing. They persuaded me to come again. I found some of the things were we asked to do childish (i.e. name places locally where sports were available!). Each week began with Tracey sharing what sort of week she had had with teenage daughter (difficult) and how she was dealing with depression! |

1. The first course had 12 paired samples before and after: four males and eight females. The age range spanned 40-49 to 90-99. Two people took no medicine; four took 1-2 medicines per day; five took between 3 and 5 and one between 6 and 9. Broadly speaking, the older the people the more medicines they took. The second course had 11 paired samples (but 10 completed the course): four males and seven females. The age range spanned 50-99 to 80-89. Three people took no medicine; three took 1-2 medicines per day; two took between 3 and 5 and five between 6 and 9. Broadly speaking, the older the people the more medicines they took. The number of people who completed the course was 10, so the sample included someone who had not completed the course or the recording of those who completed the course i.e. four or more session was inaccurate. [↑](#footnote-ref-1)
2. The telephone survey was undertaken on 15 November 2016 by one Wessex AHSN researcher who took notes. One respondent who took part in the telephone survey only attended three times rather than 4+. [↑](#footnote-ref-2)
3. The survey questionnaires were sent by post at the end of November 2016 by Self-Management UK with a self-addressed envelope for return. Nineteen questionnaires were returned between 14 and 19 December [↑](#footnote-ref-3)