Promoting lifestyle behaviour change and well-being in hospital patients: a pilot study of an evidence-based psychological intervention

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ABSTRACT

Background Lifestyle risk behaviours show an inverse social gradient, clustering in vulnerable groups. We designed and piloted an intervention to address barriers to lifestyle behaviour change among hospital patients.

Methods We designed our intervention using effective components of behaviour change interventions informed by psychological theory. Delivered by a health psychologist based at the Royal Free London NHS Foundation Trust, the 4-week intervention included detailed baseline assessment, personalized goal setting, psychological skills development, motivation support and referral to community services. Primary outcomes were feasibility and patient acceptability. We also evaluated changes to health and well-being.

Results From 1 July 2013 to 31 September 2014, 686 patients were referred, 338 (49.3%) attended a first appointment and 172 (25.1%) completed follow-up. Furthermore, 72.1% of attenders were female with the median age 55 years and poor self-reported baseline health. After 4 weeks, self-efficacy, health and well-being scores significantly improved: 63% of lifestyle goals and 89% of health management goals were fully achieved; 58% of referrals to community lifestyle behaviour change services and 79% of referrals to other services (e.g. Citizen’s Advice Bureau) were accepted; 99% were satisfied/very satisfied with the service.

Conclusions Our hospital-based intervention was feasible, acceptable and showed preliminary health and well-being gains.

Keywords evidence-based medicine, health behaviour, health promotion, lifestyle

Background

Lifestyle risk behaviours such as smoking, poor diet, lack of exercise and alcohol misuse contribute to a substantial burden of disease and disability worldwide. In the UK, around 70% of people engage in at least two of these behaviours,¹ which tend to cluster in society’s most vulnerable groups.² In these populations, lifestyle risk behaviours have a multiplicative, rather than additive, effect on poor health outcomes.³

While there is good evidence that making positive lifestyle changes such as eating a healthier diet and quitting smoking...
can have a major impact on population levels of chronic illness, the best approach to lifestyle behaviour change on an individual level remains unclear. Interventions designed to change behaviour may fail to achieve desired results, and there is a paucity of evidence for the impact of health promotion interventions among low-income groups. In addition, many current behaviour change services target only one risk behaviour such as smoking or being overweight. These services may fail to meet the needs of patients with multiple vulnerabilities, such as low levels of health literacy, reduced psychological capability and entrenched cultural and social barriers to health.

An acute hospital trust has unique access to members of the local population who might not be registered with a GP or engage readily with community services. Some evidence suggests that hospital patients might be more motivated to engage with lifestyle behaviour changes given that their health is already compromised (perhaps by modifiable lifestyle factors) and they are a captive audience for health promotion messages. Experiencing a major life event such as going into hospital has been identified as a catalyst for initiation of healthy behaviours and thus an ideal opportunity for intervention. Although lifestyle behaviour change interventions for patients with long-term conditions have not traditionally been part of hospital care, healthcare organizations’ responsibility to promote health and well-being alongside treating disease has increasingly been recognized in government policy and through initiatives such as ‘Making Every Contact Count’.

We therefore designed and piloted a psychological intervention to address barriers to lifestyle behaviour change among adults attending the Royal Free London NHS Foundation Trust. This study aimed first to assess feasibility of delivering this intervention in an acute trust setting and its acceptability to patients. Second, we aimed to evaluate preliminary changes to lifestyle behaviours and measures of self-reported health, well-being, perceived control and intention after 4 weeks.

**Methods**

**Intervention development**

The intervention was developed by a health psychologist based at the Royal Free after a review of the evidence for effective components of lifestyle behaviour change interventions informed by psychological theory. This included guidelines on behaviour change intervention development from the National Institute of Health and Care Excellence (NICE) and the taxonomy of behaviour change interventions, which highlighted the need to personalize an intervention to an individual’s needs and circumstances, help people to develop skills to regulate their behaviour and provide social support for behaviour change plans. We followed the framework of the Behaviour Change Wheel (BCW) in designing our intervention. According to this approach, behaviour change results from complex interactions between an individual’s capability, opportunity and motivation to change. This ‘COM-B’ system forms the hub of the BCW. It is encircled by ‘intervention functions’, which are factors that may need to be addressed to enable behaviour change, for example adverse social or environmental conditions or lack of education and training. The outside of the BCW contains seven categories of policy that may be relevant to influencing these factors, Supplementary data, Figure S1.

**Evidence behind intervention content**

Content of the intervention was informed by third wave cognitive behavioural therapy approaches, which support acquisition of the skills needed to achieve psychological flexibility and acceptance. These include using mindfulness techniques to enable patients to identify their core personal values and subsequently commit to set and action specific goals to facilitate behaviour change. There is good evidence that promoting a patient’s self-efficacy and ability to self-regulate helps them to achieve behavioural goals. In addition, using this type of skills-based programme consistently achieves reductions in stress, which enables initiation and maintenance of behavioural change.

We also incorporated aspects of the taxonomy of behaviour change, for example exploring perceived consequences and problem solving to help people to reflect on and resolve ambivalence around behaviour change before setting behavioural goals.

**Structure of intervention**

The core intervention which we named ‘Well at the Free’ comprised a 4-week programme summarized in Table 1. It was delivered in a hospital clinic setting by an experienced band 8a health psychologist trained in third wave cognitive behavioural therapy approaches as part of psychology training, assisted by a band 5 health adviser. The intervention included an initial face-to-face consultation lasting up to an hour, during which baseline measures of health, lifestyle, well-being were taken and a personalized assessment and plan made. There was a motivational telephone call after 1 week, a further 20 min face-to-face consultation in week 2 and a final follow-up consultation in week 4 either by telephone or in person. All patients received a telephone call at 3 months to monitor progress and outcomes. The intensity and duration of intervention were flexible and varied depending on patient need.
The lower level intervention (tier 1) comprised brief motivational support and onward referral to community behaviour change services. The highest intensity intervention (tier 3) was reserved for smaller numbers of patients with complex needs, e.g. diabetic retinopathy patients who required intensive support to improve blood sugar control thus reduce risk of sight loss. Supplementary data, Appendix 1 gives further information on the intervention. Setting up the programme involved salary costs for the two staff members and around £9000 for furniture, space design, branding, signage, promotional materials and six in-house Citizen’s Advice Bureau sessions.

### Inclusion and exclusion criteria

Those eligible to receive the intervention were

- aged 18 or over;
- attending any department of the Royal Free, although we initially focussed on antenatal clinics, musculoskeletal outpatients and diabetic ophthalmology and podiatry clinics as these were settings where lifestyle factors directly impacted on health;
- Identified by their treating clinician as needing additional support around lifestyle issues.

People experiencing significant anxiety or depression, defined as scoring above standard cut-offs on the Generalized Anxiety Disorder Assessment (GAD-7) or Patient Health Questionnaire-9 (PHQ-9) were offered referral to Improving Access to Psychological Therapies (IAPT) and/or their GP for talking and pharmacological therapies, as they would require further specialist treatment before being able to benefit from the intervention. Both the GAD-7 and PHQ-9 have been validated against DSM IV criteria ascertained from structured interviews by mental health professionals. The GAD-7 had 89% sensitivity and 82% specificity for diagnosing generalized anxiety disorder while the PHQ-9 diagnosed major depression with 88% sensitivity and 88% specificity. Both measures had good internal consistency (Cronbach’s α = 0.92 and 0.89).

### Table 1: Overview of structure and content of ‘Well at the Free’ intervention

<table>
<thead>
<tr>
<th>Session</th>
<th>Timing</th>
<th>Duration</th>
<th>Type of consultation</th>
<th>Purpose</th>
<th>Example content</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Baseline</td>
<td>40 min to 1 h</td>
<td>Face to face</td>
<td>Assessment, goal setting and initiating onward referrals</td>
<td>Personalized assessment structured around the COM-B model, Completion of various validated scales, Goal setting, Referral to community services, Referral to mindfulness/ACT</td>
<td></td>
</tr>
<tr>
<td>2 1 week</td>
<td>10 min</td>
<td>Telephone</td>
<td>Motivation support</td>
<td>Assessment of perceived control and intention, Exploring discrepancies with target goals, Promotion of self-efficacy, e.g. through feedback on behaviour and outcomes, self-monitoring, review of behavioural goals and action planning</td>
<td></td>
</tr>
<tr>
<td>3 2 weeks</td>
<td>20 min</td>
<td>Face to face</td>
<td>Motivation support</td>
<td>Assessment of perceived control and intention, Exploring barriers to change, Promotion of self-efficacy (described above), Monitoring uptake of community services</td>
<td></td>
</tr>
<tr>
<td>4 4 weeks</td>
<td>10 min</td>
<td>Telephone or face to face</td>
<td>Motivation support and outcomes monitoring</td>
<td>Assessment of standard of health, well-being, resilience, self-efficacy, perceived control and intention, Further exploring discrepancies/barriers, Promotion of self-efficacy (described above), Monitor uptake of community services, Monitor achievement of goals</td>
<td></td>
</tr>
<tr>
<td>5 3 months</td>
<td>5–10 min</td>
<td>Telephone</td>
<td>Outcomes monitoring</td>
<td>Monitor achievement of goals, Promotion of self-efficacy (described above)</td>
<td></td>
</tr>
</tbody>
</table>

ACT, acceptance and commitment therapy.

*aSee Supplementary data, Appendix 1 for further details.*
Data collection

A password-protected Microsoft Access database was used to collect data on referrals to the service, patient assessments, goal setting and achievement and referrals to community services. Patients completed a battery of standardized instruments to assess aspects of lifestyle, health, well-being and self-efficacy (Table 2). The measures chosen have been extensively validated and are widely used in both clinical practice and population health research.18,19,21–28 Short forms were chosen for ease of completion and interpretation.

Goals set across five domains—lifestyle behaviour change, health management, coping/resilience, social and environment—were recorded and their achievement after 4 weeks and 3 months classified on a three-point scale ‘fully achieved’, ‘partially achieved’ and ‘not achieved’. The primary outcome measures in this pilot were (i) feasibility, assessed by total number of referrals, total attending and total completing 4-week follow-up as well as numbers of onward referrals to community services, and (ii) acceptability, measured by a patient experience questionnaire given at the end of the initial

Table 2 Description of standardized instruments used in patient assessments

<table>
<thead>
<tr>
<th>Instrument</th>
<th>What is measured</th>
<th>Description</th>
<th>When used</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Practitioner Physical Activity Questionnaire (GPPAQ)21</td>
<td>Physical activity</td>
<td>Four-level physical activity index to classify patients as active, moderately active, moderately inactive and inactive</td>
<td>Baseline</td>
</tr>
<tr>
<td>Fast Alcohol Screening Test (FAST)22</td>
<td>Alcohol misuse</td>
<td>Four-item screening test for alcohol taken from the AUDIT to give a score out of 16 (3+ is positive)</td>
<td>Baseline</td>
</tr>
<tr>
<td>Two-item smoking status questionnaire</td>
<td>Smoking status</td>
<td>Two questions to classify patients as current, ex or never smokers</td>
<td>Baseline</td>
</tr>
<tr>
<td>How healthy is your diet?23</td>
<td>Diet</td>
<td>Questionnaire covering meal frequency, consumption of fruit and vegetables, fat, carbohydrates, sugar, salt and fluids</td>
<td>Baseline</td>
</tr>
<tr>
<td>Pittsburgh Sleep Quality Index24 (question 6 only)</td>
<td>Quality of sleep</td>
<td>Sleep quality over the past month categorized as very good, fairly good, fairly bad, very bad</td>
<td>Baseline</td>
</tr>
<tr>
<td>EQ-5D25</td>
<td>Quality of life</td>
<td>Five domains of quality of life assessed on a 3-point scale (1 = no problem, 2 = some problems, 3 = extreme problems). Domains are mobility, self-care, usual activities, pain/discomfort and anxiety/depression</td>
<td>Baseline</td>
</tr>
<tr>
<td>Standard of health score (part of EQ5D)</td>
<td>Standard of health</td>
<td>Visual Analogue Scale 0–100 where 0 = worst imaginable health and 100 = best imaginable health</td>
<td>Baseline, 4 weeks</td>
</tr>
<tr>
<td>Warwick-Edinburgh Mental Well-being Scale (WEMWBS)26 short version</td>
<td>Well-being</td>
<td>14 item scale with five response categories, resulting in an overall well-being rating of low, below average, average or above average</td>
<td>Baseline, 4 weeks</td>
</tr>
<tr>
<td>Patient Health Questionnaire (PHQ-9)19</td>
<td>Depression</td>
<td>Nine item questionnaire to give a score out of 27. Scores map to the following categories: none, mild, moderate, moderately severe or severe depression</td>
<td>Baseline if well-being rated below average/low</td>
</tr>
<tr>
<td>Generalized Anxiety Disorder Assessment (GAD-7)18</td>
<td>Anxiety</td>
<td>Seven item questionnaire to give a score out of 21. Scores map to the following categories: none, mild, moderate or severe anxiety</td>
<td>Baseline if well-being rated below average/low</td>
</tr>
<tr>
<td>Work and Social Adjustment Scale27</td>
<td>Resilience and self-efficacy</td>
<td>Five-item measure to assess impact of health and well-being on ability to function across various domains (work, family, social, home management and private). Each domain is scored 0 (not affected at all) to 10 (very severely affected)</td>
<td>Baseline, 4 weeks</td>
</tr>
<tr>
<td>General Self-Efficacy Scale28</td>
<td>Self-efficacy</td>
<td>Ten-item scale to measure ability to cope and adaptation after stress. Gives overall score 1–4</td>
<td>Baseline, 4 weeks</td>
</tr>
<tr>
<td>Perceived control score</td>
<td>Confidence to make changes</td>
<td>Agreement with statement ‘I am confident that I can make the changes I want to make’ on a scale of 1–10 (1 = strongly disagree, 10 = strongly agree)</td>
<td>Baseline, 1, 2, 4 weeks</td>
</tr>
<tr>
<td>Perceived intention score</td>
<td>Intention to make changes</td>
<td>Agreement with statement ‘I fully intend to achieve my goals’ on a scale of 1–10 (1 = strongly disagree, 10 = strongly agree)</td>
<td>Baseline, 1, 2, 4 weeks</td>
</tr>
<tr>
<td>Session Rating Scale</td>
<td>Patient experience</td>
<td>Four-item Visual Analogue Scale to assess patient experience of/satisfaction with the session</td>
<td>After session 1</td>
</tr>
</tbody>
</table>
session. Secondary outcomes were achievement of goals and changes to standard of health, well-being, perceived control and perceived intention scores after 4 weeks.

**Statistical analysis**

Descriptive statistics were used to summarize socio-demographic, baseline health and lifestyle characteristics of people referred and attending for the intervention compared with national data where applicable. We calculated the proportion of attenders referred to community services, accessing community services and achieving personalized goals after 4 weeks. Paired t-tests were used to investigate differences in the mean perceived control, intention, standard of health and well-being scores over the intervention.

**Results**

**Number of referrals and numbers attending**

From 1 July 2013 until 31 October 2014, there were 686 referrals to Well at the Free. Of these, 437 (63.7%) made a first appointment, 338 (49.3%) attended the first appointment and 172 have completed 4-week follow-up to date (representing 25.1% of people referred or 50.9% of those who attended a first appointment).

**Baseline characteristics of people attending the programme**

Of 338 people who attended a first appointment, the median age was 55 years (IQR: 42–66 years) and 241 (71.3%) were female. Most reported their ethnic group as White British (36.3%) or White Other (17.9%) with Black British the third most frequently reported group (11%). An Index of Multiple Deprivation-2010 score was obtained for 324/338 people who attended. The deprivation quintiles, age, gender, ethnicity and IMD-2010 and 178 of these (54.9%) were in the two most deprived population quintiles. Age, gender, ethnicity and IMD-2010 scores were similar in people referred compared with those who attended, with 93 (32.3%) retired, 62 (21.5%) sick/disabled, 19 (6.6%) home makers, 8 (2.8%) long-term unemployed and 7 (2.4%) home carers. The rest were employed mainly in routine/manual occupations 48 (16.7%), with smaller numbers in intermediate occupations 25 (8.7%), managerial/professional occupations 22 (7.6%) and full-time education 4 (1.4%).

Baseline lifestyle and mental health characteristics are shown in Table 3. As the intervention was flexible based on need, not all attendees were required to complete all baseline scales. Physical activity levels were substantially lower in those attending Well at the Free compared with nationally whereas levels of fruit and vegetable consumption were similar to national figures. Well at the Free attenders, however, had lower levels of current tobacco use and hazardous alcohol use than the UK population. Sleep quality was described as ‘very bad’ or ‘fairly bad’ by the majority of patients (55.8%). Symptoms of anxiety and depression were very common, with 47% of Well at the Free attenders moderately anxious or depressed and 13.1% extremely anxious or depressed at baseline. Our patients also reported lower well-being scores than the general population.

**Onward referrals to community services**

For patients completing 4-week follow-up, 175 referrals (representing several per patient) were made to community behaviour change services: these were 57 for healthy eating/weight management, 91 for physical activity, 18 for smoking and 9 for alcohol. Of these, 102 referrals (58.3%) were taken up, with take up rates ranging from 53.8% for physical activity referrals to 67.7% for alcohol referrals. For the same group, 154 referrals were made for other community services including 71 to IAPT or other psychological therapies, 50 to Citizen’s Advice Bureau and small numbers each to transport, volunteering, learning, befriending, social, falls service, carers’ support, warmth, domestic violence and functional support, e.g. handyman services. Overall 122 other referrals were taken up (79.2%).

**Patient acceptability**

After the initial consultation anonymous patient experience forms were completed by 108 (32.0%) attenders. Of these, 83 (77%) were extremely likely, and 16 (15%) likely to recommend the service to friends and family, with 8 neither likely nor unlikely (7%) and only 1 person unlikely to recommend Well at the Free. Eighty (74.1%) were very satisfied, 27 (25.0%) satisfied with the service and only 1 person reported being very unsatisfied (0.9%).

**Achievement of goals after 4 weeks**

For patients completing 4-week follow-up, achievement of goals was assessed for 227 lifestyle goals, 54 health management goals, 69 coping goals, 24 social goals and 29 environment goals made during the programme. The proportion of goals fully achieved at 4 weeks was lowest for lifestyle goals with 143 (63.0%) of goals fully achieved, 50 goals (22.0%) partially achieved and 34 goals (15.0%) of goals not achieved. In contrast, 48 (88.9%) health management goals were fully
achieved, as were 49 (71.0%) of coping goals, 19 (79.2%) of social goals and 22 (75.9%) of environment goals.

Psychometric measures after 4 weeks
Mean well-being, perceived control, perceived intention and standard of health scores at baseline and 4-week follow-up are shown in Table 4. All group mean scores increased over time, although the change for those reported scores at both baseline and 4 weeks was only significant for perceived control scores ($P < 0.001$), standard of health scores ($P < 0.001$) and well-being scores ($P < 0.001$).

Discussion

Main findings of this study
We show that it was feasible to design and deliver an evidence-informed psychological intervention in a hospital setting. Good numbers of referrals were achieved with an uptake rate of around 50% (in line with other psychological interventions). The intervention reached a deprived target group with low levels of self-reported health and well-being who demonstrated various lifestyle risk behaviours at baseline. It was well-received by patients. Preliminary health gains were
shown by self-reported achievement of goals and take up of referrals to community behaviour change and other services. There were significant improvements to self-efficacy, standard of health and well-being scores after the intervention.

**What is already known on this topic**

Although hospitals are in theory a good place to deliver health promotion interventions, these tend not to be prioritized due to competing staff priorities, lack of time and lack of training. There are therefore few examples of similar psychological interventions aimed at addressing multiple lifestyle risk behaviours in hospital patients. Similar approaches have been successful in various community settings, including the Health Trainer programme, set up by the Department of Health in 2004. This aimed to train peer educators to seek proactive opportunities to improve clients’ health and reduce inequalities by using psychological techniques and offering support and onward referral to community services. The results showed excellent engagement with clients, especially in the lowest socio-economic quintile, and positive improvements in resilience and health behaviours. There are also some parallels with IAPT—a national programme of talking therapies for anxiety and depression—which has shown significant patient benefits. In contrast, a randomized controlled trial of a tailored behaviour change intervention for people with newly diagnosed diabetes in 34 English general practices failed to show improvements to health behaviours after 1 year. These patients, however, were already receiving intensive support in primary care, whereas our patients were receiving no other lifestyle interventions so potentially had more to gain from a health service-based intervention.

**What this study adds**

This study shows that offering lifestyle behaviour change services in a hospital setting is feasible for hospital staff and welcomed by patients with real potential to improve lives: addressing lifestyle risk behaviours such as smoking and poor diet represents the single most important opportunity to improve health and reduce premature deaths. We successfully reached deprived groups who had multiple factors impeding lifestyle behaviour change. We showed that it was possible to develop skills of resilience and coping that would be transferable to other life situations, including management of long-term conditions, which affected all our patients. Our intervention also addressed wider determinants of health including patients’ social environment, dealing with issues such as poor housing, debt and lack of social support that are intricately bound up with health. Our patients engaged successfully with community services and showed preliminary improvements to lifestyle and health.

**Limitations of this study**

There were some limitations to our study. Our hospital Trust serves a diverse population, some from very deprived areas and the intervention was targeted mainly at those with multiple vulnerabilities, so might not be transferable to other areas. Only 50% of patients took up the offer of intervention although this is line with other services. There was a natural attrition over the course of the intervention that resulted in missing follow-up data, although we showed no significant differences in socio-demographic characteristics between people remaining in the programme and those who did not complete. Nonetheless, it is likely that those remaining in the programme were more motivated, therefore more likely to achieve positive changes to lifestyle and well-being than those leaving. While our early results were promising, we did not have long-term follow-up for patients so it was difficult to establish whether lifestyle changes had been maintained (although many expressed the intention to do so). We measured positive lifestyle changes by achievement of personalized patient goals. Although this approach offers flexibility and a tailored approach to lifestyle behaviour change in line

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**Table 4** Mean psychometric scores at baseline and 4 weeks and $P$ values for significance of change among those with repeated measures

<table>
<thead>
<tr>
<th>Score</th>
<th>No. reporting score at baseline</th>
<th>Mean baseline score (SD)</th>
<th>No. reporting score at baseline and 4 weeks</th>
<th>Mean baseline score (SD)</th>
<th>Mean 4-week score (SD)</th>
<th>$P$-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived control</td>
<td>214</td>
<td>5.5 (2.3)</td>
<td>119</td>
<td>5.6 (2.2)</td>
<td>7.6 (2.1)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Perceived intention</td>
<td>217</td>
<td>7.9 (2.1)</td>
<td>129</td>
<td>8.1 (2.0)</td>
<td>8.4 (1.8)</td>
<td>0.128</td>
</tr>
<tr>
<td>Standard of health</td>
<td>250</td>
<td>52.4 (20.2)</td>
<td>117</td>
<td>54.3 (18.7)</td>
<td>63.2 (18.6)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Well-being</td>
<td>230</td>
<td>43.5 (12.2)</td>
<td>102</td>
<td>45.1 (11.9)</td>
<td>48.4 (12.3)</td>
<td>&lt;0.001</td>
</tr>
</tbody>
</table>
with that recommended by NICE, 5 goals could range from those with major impacts on health, such as quitting smoking, to those with more minor effects, such as cutting down from 20 to 10 cigarettes per day. Achievement of goals was also self-reported so potentially more prone to bias than other measures.

The intervention was time consuming and required dedicated psychologist support. It will be essential to evaluate its cost-effectiveness and acceptability to staff before considering replication of the model elsewhere within the health service or settings such as offender health. In future, we aim to increase capacity for lifestyle behaviour change support in hospital by training frontline staff to assess and refer patients onwards for lifestyle support. We recognize the need for a balance between delivering lifestyle behaviour change support at scale and provision of more intensive specialist support. Hospital settings are likely to require a combination of the two, especially for patients with complex needs.

Conclusions
We show that it is feasible to deliver a lifestyle behaviour change intervention in a hospital setting to vulnerable groups. Our holistic approach which addressed wider social determinants of health and developed psychological skills was welcomed by patients and showed health and well-being gains.

Supplementary data
Supplementary data are available at PUBMED online.

Acknowledgements
We thank the clinical teams from the Royal Free London NHS Foundation Trust, especially physiotherapy, ophthalmology and the diabetes team for their engagement with patients and referrals to the service. A special thank you to Laura Leadsford (head of therapies), Susanne Althauser (consultant ophthalmologist; clinical director) and Ruth Miller (lead nurse for diabetes) for their leadership and commitment to embedding behaviour change interventions in secondary care. Thank you to the community organizations for their devotion to collaborative working, especially the Improving Access to Psychological Therapies Service, the Alcohol Service and Citizens Advice Bureau who were co-located with the service to improve access.

Ethical statement
Ethical approval was not required as this work was classified as service development and evaluation.

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