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Evaluation of the computer-based CBT programme pilot at rural community pharmacies in Gwynedd

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Date: 8 July 2011 | **Version:** 1

Distribution:

- Rural Health Implementation Group
- Betsi Cadwaladr University Local Health Board
- Primary and Community Health Strategy Branch, Welsh Government
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Purpose and Summary of Document:

As one of the Rural Health Innovation Fund projects, Betsi Cadwaladr University Health Board has carried out a pilot of a computerised CBT programme at rural community pharmacies. The pilot took place at three rural community pharmacies in Gwynedd between January and April 2011 and was designed to integrate rural community pharmacies as part of a referral pathway for treatment of mild to moderate depression/anxiety.

This report is a retrospective evaluation of the pilot against its key aims and objectives, alongside the Rural Health plan themes of access, integration and community cohesion and engagement.

Contents

Background

Guidelines produced by the National Institute for Health and Clinical Excellence (NICE) for the treatment and management of depression in adults recommend consideration of computerised cognitive behavioural therapy (CCBT) as a treatment option for people with persistent sub-threshold depressive symptoms or mild to moderate depression (NICE, 2009).

Traditionally, access to this service in rural parts of Gwynedd has been limited, often involving travelling long distances to the weekly sessions. As a result prescribers have often resorted to medication as first line treatment, contrary to the NICE guidelines that antidepressant should not routinely be used for treatment of persistent sub-threshold depressive symptoms or mild depression (NICE, 2009).

As part of a successful rural pharmacy project application to the Rural Health Innovation fund, Betsi Cadwaladr University Local Health Board (LHB) proposed making computerised cognitive behavioural therapy (CCBT) accessible through three community pharmacies in rural Gwynedd.

Beating the Blues (BTB, 2011) is NICE approved cognitive behavioural therapy software involving 8 fifty minute sessions looking at mood and techniques of improving mood. Patients presenting to GPs and community mental health teams with symptoms of mild depression or sub-threshold depressive symptoms were referred to their community pharmacy for CCBT if they believe this to be a suitable treatment option. At the pharmacy, patients would be introduced to the programme by trained community pharmacists in the privacy of the consultation room. Patients would then complete the 50 minute session before seeing the pharmacist again at the end of the session. The BTB programme recommends tasks and encourages positive ways of thinking for the week ahead. Patients would proceed through the 8 week programme with the community pharmacist in close relation with the GP monitoring progress and evaluating outcomes. The BTB software allows the pharmacist to monitor responses after each session to evaluate how the patient is progressing and it was agreed that the content would only be reviewed from a remote location by the patient at the end of the 8 sessions to encourage patients to return to the pharmacy for their weekly sessions.

Access to CCBT through rural community pharmacies

As part of the Rural Health project, the main aim was to increase access to cognitive behavioural therapy (CBT) across Gwynedd locality by piloting delivery of computerised CBT from community pharmacies in rural areas. The key local objectives agreed at the start of the pilot were:

- To fill highlighted gap in service for delivering CBT
- To create and explore referral pathway between GP and pharmacist
- To integrate pharmacy service with Community Mental Health Teams (CMHT)
- To scope new ways for supporting continued reduction in use of antidepressants

Alongside these local objectives, the pharmacy pilot scheme gave full consideration to the three key themes of the Rural Health plan: access to services, integration and community cohesion and engagement close to patients' own homes.

Outcome measures

After discussion with local GPs and psychologists, the project intended to monitor outcomes using the patient questionnaire PHQ-9. This tool is a nine item depression scale widely used in mental health settings for diagnosing depression as well as selecting and monitoring treatment (Spitzer et al, 1999). The questionnaire would be completed prior to the treatment course, during treatment and after completion of the 8 sessions. There are two components of the PHQ-9:

- Assessing symptoms and functional impairment to make a tentative depression diagnosis.
- Deriving a severity score to help select and monitor treatment

The intention was for 18 patients to take part, 6 at each of the three pharmacy sites. Three key deliverable measures were agreed at the start of the pilot:

1. Number of patients accessing the service (up to agreed maximum) at each rural location
2. Number of patients completing their individual programmes.

3. Completion of patient questionnaire PHQ-9 prior to start, during and after completion of treatment programme.

The pilot lasted for 12 weeks and this paper forms the evaluation of the scheme against the stated objectives alongside the key themes of the Rural Health plan.

Evaluation

The evaluation measured the pilot's progress against the key objectives and outcome measures agreed at the planning stage. It also considered and analysed the data received from the PHQ-9 patient questionnaires that were issued and returned during the project.

Aim.

To produce a retrospective evaluation of the community pharmacist CCBT programme carried out as part of a referral pathway for depressive illness at three locations across Betsi Cadwaladr Health Board (LHB).

Objectives.

1. To identify the number of patients accessing the service at each rural pharmacy location
2. To review the process and outcome of the patients completing their individual programmes.
3. To evaluate completed patient questionnaire data collected via PHQ-9 prior to start, during and after completion of treatment programme.

Methods

Patients were referred to the pharmacies to access the Beating the Blues CCBT programme. The pharmacist then carried out initial introductions to the programme and set up future appointments. The evaluation used the data at the 12 week end point of the pilot to review the CCBT information collected at each pharmacy. Some patients were part way through their treatment plan and thus data will not be complete. The report also looked at accessibility and support for the pharmacist clinics and also reviewed individual feedback received from patients that used this service.

Activity

From the 16 places available in the pilot, 8 had been taken up at the time of this evaluation and were at different stages in the programme. Table 1 gives an overview of the 8 patients who have taken part in the project.

Table 1 : Summary of patient data received during CCBT pilot		
Total number of clients		8
Gender	Male	7
	Female	1
Ethnic group	White British	8
Age range	16-25	1
	26-35	1
	36-45	1
	46-55	4
	56-65	1
Indication for CCBT	Depression	5
	Depression and anxiety	2
	Other	1
Duration of illness	Less than 6 months	1
	6 months to 1 year	2
	1 to 3 years	1
	5 to 10 years	2
	20 to 40 years	2
Previous treatment	Prescribed medication	7
	NHS counselling/psychotherapy	1

Of the 8 patients that have accessed CCBT through the pharmacy, 2 have completed the full programme, 5 are part way through and 1 patient withdrew. Complete data is therefore only available for two patients and figures 1 and 2 track their levels of anxiety/depression and distress score for the 8 session programme.

Figure 1: Levels of Anxiety/Depression during CCBT programme

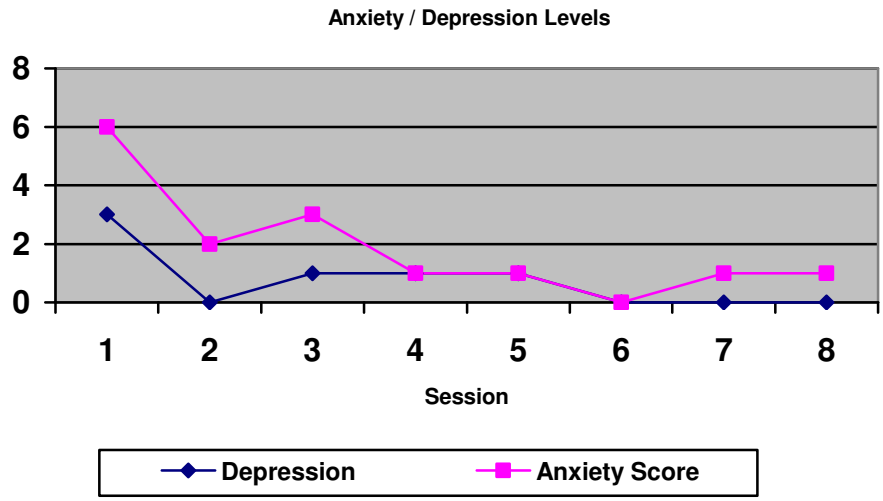
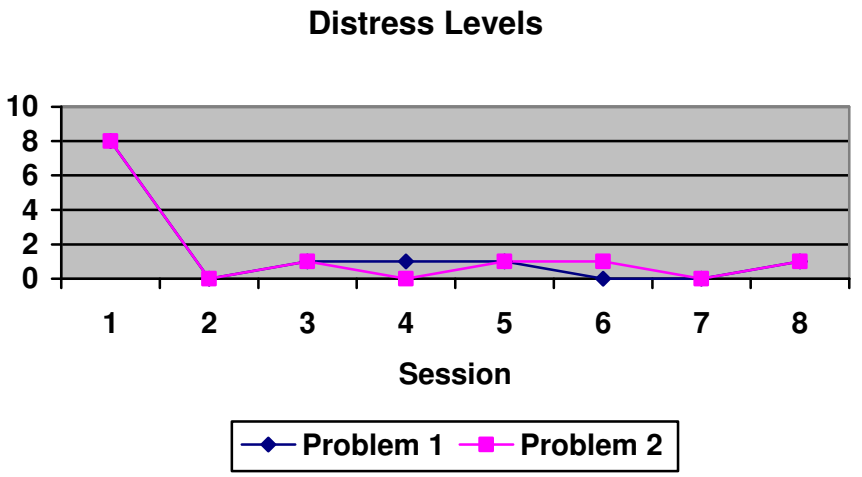


Figure 2: Levels of distress measure during CCBT programme



PHQ-9 and GAD-7 are widely used validated questionnaires used to measure depression scores. The early data from the pharmacy pilot is shown in table 2.

Table 2: Validated questionnaire scores from patients completing 8 session programme			
	Score at session 1	Score at session 4	Score at session 8
PHQ-9	7	n/a	3
GAD-7	6	2	4

Discussion

The rural health scheme in Gwynedd has piloted community pharmacy as part of a referral pathway of appropriate patients with depression or anxiety. Referral could be by the patient's own GP or from the Community Mental Health team (CMHT) and involved a set of eight CCBT sessions to take place at the community pharmacy. At this stage in the pilot, eight patients have been referred into the pharmacy scheme – seven male and one female. The age range profile for the patients accessing the scheme shows the largest numbers (4/8) are in the 46-55 years range with an even distribution across the other ages. Half of all patients seen (4/8) had suffered with their depression/anxiety condition for over 5 years (with 2/8 for over 20 years).

Access

The majority of patients (7/8) that accessed the pharmacy scheme were receiving prescribed medication and only one patient had received counselling or psychotherapy. Whilst the numbers are small and a reflection of some pharmacies being located in small rural communities, they do indicate an existing (and potential) client base utilising their community pharmacy happy to access the behavioural CCBT service this way. The pharmacy service could thus be starting to address an unmet need in these rural areas.

Recruitment of patients to take part in the programme proved more difficult than anticipated, especially at two of the three pharmacy sites involved in the pilot. At one community pharmacy location there was clear support from the GP practice and six patients have accessed the CCBT pharmacy programme. At another of the community pharmacy locations, the GPs were initially keen and supportive of the idea and committed to finding suitable patients and have just recently referred four patients for initial assessment. At the third location there were mixed feeling amongst the GPs about the benefits and advantages of the pilot and only one patient has been referred.

The two patients who completed the pharmacy CCBT programme clearly benefited from it. The depression and anxiety scores show an improvement that is maintained throughout the 8 weeks treatment. One patient reduced their PHQ-9 from 7 at session one down to 3 at session eight. Another patient moved their GAD-7 from 6

at session one to 2 at session four on to 4 at session eight. These are validated questionnaire results and show improvements in both patients scores.

Integration

The pharmacy scheme has started to show progress towards the Rural Health plan principle of integration between different healthcare providers improving health and service delivery in rural communities. Of the six patients accessing the one pharmacy, five of the patients were referred from the GP practice and one from the local community mental health team (CMHT). This project was wholly dependent on other healthcare providers referring to pharmacy services such as local GPs or CMHT lead workers. This is something that is new and has not traditionally happened - GPs have only recently started to refer to other pharmacy services such as for the provision of emergency hormonal contraception and smoking cessation services.

The ability to access CCBT so close to home was appreciated by patients and this is reflected in the fact that only one of the eight patients didn't complete their programme (there is a general average completion rate of 65% for Beating the Blues programmes).

Community engagement.

Whilst the numbers are small, eight patients have engaged fully in a new service from a community pharmacy. Mainly at one pharmacy, the CCBT role has been carried out by the community pharmacist as part of the referral pathway established within the rural community. Also the two patients that have completed the programme have shown overall improvement in their overall depression and anxiety scores as measured by the PHQ-9 and GAD-7 questionnaires. One pharmacy has recorded a patient being able to gradually stop their prescribed medication.

Patient stories

In addition to the process supporting data for this pilot scheme, there has also been positive feedback received from clients involved in the pilot. The following are some of the comments from patients that have attended the pharmacist sessions.

" This is much better than having to go all the way to Anglesey as I originally thought"

" You'll have to keep me away after next week – it become part of my routine"

" Seems to be keeping me OK even without the pills anyway"

" I feel that it gets me in the right frame of mind for the week"

Conclusion

There are numerous possible approaches to defining outcomes of health care or of a health services activity (Donaldson, p224) and this pharmacy programme has delivered improvements in mental illness by individuals within the rural communities of Betsi Cadwaladr who may have needed to travel to receive similar care before. There is no doubt that the success of the project was different at the three different sites. This has been achieved as part of a developing supportive referral process between the different healthcare providers involved in the care of the patient. Where there was active referral from healthcare partners, recruitment was much more successful and this is where the patients gained the most benefit. For future services it will be vital to look at where the service will be offered and who will select patients. More healthcare professionals would need to be brought onboard to ensure a wider access to the service and improved communications between providers. It is very likely that only certain individuals in the community mental health team were aware of the pilot and as a result there was only one referral from this source.

The pharmacy CCBT scheme has made real progress in one of its three locations and, even though it is a new service wholly dependent on referred patients, it has started (albeit in small numbers) to address the three key themes of the Rural Health Plan: access, integration and community cohesion and engagement.

The initial successes from the one pharmacy location and data from the overall pilot identified within this evaluation will contribute to the LHB making further considerations towards extending the service. As the project continues as a pilot, further analysis is recommended to review the reasons for the slower referrals at the other two pharmacy locations.

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