Quality Zone: Yoga for emotional wellbeing in diabetes and other long-term conditions

Judith Miller

Quality Zone is a nurse-led project developed in response to new Quality and Outcomes Framework targets that introduced depression screening as an integral element of long-term condition management. The author explored the possibility of offering yoga in a surgery-based group setting as a means of improving mood. The existing exercise referral scheme was not well accessed by those who found exercise challenging because of age or limited mobility. Funding and project oversight were secured via successful application to the Queen's Nursing Institute Developing Practice Award, 2006. The pilot ran between September 2006 and July 2007. One year after completion, a follow-on group still attracts 10–20 people a week, including new referrals, over two sessions at the local gym.

Article points

1. Quality Zone is a practice-based yoga exercise group set up as a nurse-led project to facilitate exercise-related health gain for people with diabetes and other long-term conditions.
2. Funding from the Queen's Nursing Institute enabled the project to go live.
3. Mental wellbeing and health gain were assessed by measuring mood, weight and waist circumference on the first and final meeting of each 6-session yoga-based exercise group.
4. Analysis of the data showed that Quality Zone was a well-accepted and effective intervention.

Key words

- Quality Zone
- Diabetes
- Mental wellbeing
- Yoga

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Diabetes is one of the most common endocrine diseases, affecting all age groups; more than 2 million people in the UK have the condition. Effective control can reduce mortality and morbidity.

Psychological wellbeing has long been identified as an important goal of diabetes management, and is enshrined in the St Vincent Declaration (International Diabetes Federation, 1989). Goldney et al (2004) suggested that the lifetime prevalence of comorbid depression in people with diabetes is 24% – three times higher than that in the general population.

Lustman et al (2000) and Lustman and Clouse (2005) showed that the treatment of depression can improve glycaemic control. Improved diabetes control and mental wellbeing following the introduction of exercise suited to a generally more sedentary population have been demonstrated by Kirk et al (2001), Penedo and Dahn (2005) and Young and Dinan (2005). Despite this, a Diabetes UK survey of primary care trusts (PCTs) in 2007 found that only 38% of PCTs provided psychological support for adults with diabetes, rising to 51% for children and young people (Diabetes UK, 2007).

Background to the project

At the Bungay Medical Practice in North Suffolk, innovative practice is fostered. Much of the face-to-face management and monitoring of people with diabetes, particularly type 2 diabetes, is undertaken by the nursing team. This includes a senior nurse implementing practice-based insulin conversion (of real benefit in this rural community where diabetes clinics are 15–20 miles apart and access is limited by suboptimal public transport).

The practice team adopts a partnership approach to long-term conditions management, and offers a holistic approach to patient care. Before the start of this project, this often included an informal recognition of low mood and referral as indicated, but there was no structured approach in use across the team.

The General Medical Services (GMS) contract and its associated Quality and Outcomes Framework acknowledged the link between mental wellbeing and effective management of people with diabetes and other long-term conditions by incorporating screening for depression in high-risk groups in 2006/7.

This additional screening had significant implications for workload and consultation timings at the author's practice, because of the nature of our practice population and prevalence of individuals eligible for screening (*Boxes 1* and *2*). Team members differed in their knowledge levels and confidence to address mental wellbeing issues identified by screening. Also, concerns were expressed regarding the potential for pathologising low mood identified by this means. It was felt that not all of the people identified would fit into, or benefit from, the pre-existing pathway of referral for medication or counselling.

These issues were addressed as a team by training and discussion. Follow-on assessment was triggered by one or more positive responses to the two screening questions, using the Hospital Anxiety and Depression Scale (HADS), a well-established and validated tool (Bjelland et al, 2002; Snaith, 2003). Depression and anxiety identified in this way were normally managed within the existing framework of services, which comprised "wait and see", counselling, medication or referral according to severity and patient agreement.

Young and Dinan's (2005) work demonstrates the advantages of promoting exercise in later life, and Jayasinghe's (2004) review cites the perceived cardiac benefit of yoga in promoting its usefulness for patients with type 2 diabetes. The author was interested in building on this by exploring the known benefits of exercise in improving mood. Locally, it was possible to refer people with diabetes to a 12-week exercise referral scheme; however, poor mobility coupled with inflexible rural transport provision and social isolation were among stated barriers preventing this particular patient group accessing the gym-based scheme.

Box 1. Bungay Medical Practice profile.

Bungay Medical Practice serves a population of around 10 500 people living in the town and surrounding villages within a 6-mile radius. It is a busy teaching practice with strong links to the medical school at the University of East Anglia. Salaried and GP partners and the nine-member nursing team adopt a proactive approach, sharing management of patients with long-term conditions. Practice-based commissioning is increasingly used as a springboard to improve the patient experience.

Box 2. Quality and Outcomes Framework (QOF) interpreted for Bungay Medical Practice 2006/7.

QOF Indicator for depression: diagnosis and initial management

- Code DEP1: The percentage of patients on the diabetes register and/or the coronary heart disease (CHD) register for whom case-finding for depression has been undertaken on one occasion during the previous 15 months using two standard screening questions.
- Patients (791) identified as included in DEP1 code, as a percentage (4.5%) of total practice population (10 500).
- In the first year of this standard being implemented, 82.8% of eligible patients (655 of 791) were screened. (www.gpcontract.co.uk/surgery.php?orgcode=D83034)

Box 3. Aims of the Quality Zone project.

- To offer a non-pharmaceutical option in response to depression case-finding arising from the Quality and Outcomes Framework.
- To promote exercise as a means of improving mood in identified patients.
- To offer a group exercise programme within the surgery.
- To provide exercise for non-mobile patients in residential care settings.

The "Quality Zone" project arose from the understanding that exercise is known to promote mental wellbeing and health gain, and the recognition that it would need to be delivered in an accessible manner and setting. The aims of the project are listed in *Box 3*. With these aims, an approach was made to the Queen's Nursing Institute (QNI) for funding.

Implementation of the project

As a QNI Developing Practice Award winner (2006), the author's project set out to facilitate

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1. Hatha yoga, which is devoted to the physical processes (as opposed to others that focus on wisdom, meditation, service, etc.) and involves breathing and physical exercises, was the approach chosen for this pilot.
2. A medium-sized public room on the ground floor of the community wing in the surgery was made available by the practice for the sessions.
3. Participating patients were aware that this was a pilot project and had consented to measurement of weight, waist circumference and mood, using the HADS questionnaire, on the first and final session, to provide comparative data.

access to yoga and chair-based exercise for people with diabetes or other long-term conditions. Six free sessions were piloted within the surgery environment, to see what effect this had on uptake and whether measurable benefit was recorded.

There are many different schools of yoga: hatha yoga, which is devoted to the physical processes (as opposed to others that focus on wisdom, meditation, service, etc.) and involves breathing and physical exercises, was the approach chosen for this pilot. Positive conversations regarding setting up these sessions with a local instructor (who was already employed within local services and therefore fully police checked and certified) had occurred in the preparatory stage, as had support for the idea by the Patient Participation Group.

The award secured project funding of £2495, with 2 days spent with QNI staff members at the start and finish of the project. Between these times, QNI Practice Development Manager, Anne Pearson, was responsible for overseeing the processes and accountability structure necessary for a successful project via email and an interim and final report.

Following confirmation of the award in September 2006, a special account was set up and held by the practice accounts manager to ensure creation of an auditable trail for the funds. The next few weeks were a flurry of policy writing, protocol, health and safety checks, purchase of equipment, patient recruitment (including creating an information leaflet and developing a consent form) and publicity, all of which had to be fitted in around the author's usual roles, responsibilities and hours at the practice. This resulted in the first group of six participants starting the first session of a 6-week Quality Zone yoga course in early November 2006.

A medium-sized public room on the ground floor of the community wing in the surgery was made available by the practice for the sessions. The first group comprised six people with reasonable mobility who were able to manage floor work; subsequently, groups of four or five were recruited as the space available suited this group size better. Following sessions were set up using a chair-based exercise (CBE) format for less mobile patients – these had groups of up to eight participants. In total, four floor and four CBE groups were organised during the project. Each group comprised one class or session per week for six consecutive weeks, with each class lasting 1 hour.

Participating patients were aware that this was

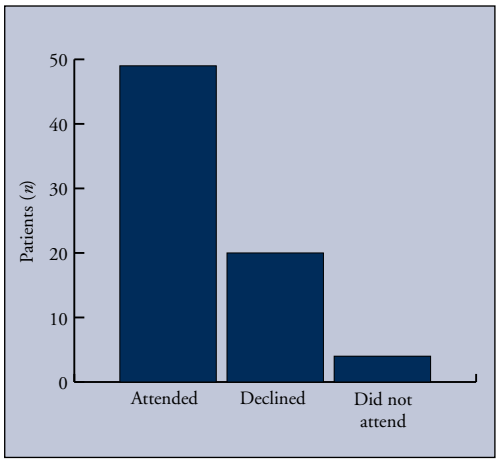

Figure 1. Invitation response (73 individuals).

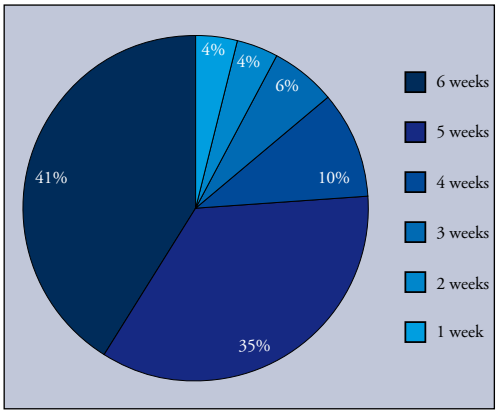

Figure 2. Session attendance, based on a 6-week course (49 participants).

Box 4. Summary of information gathering for Quality Zone.

- Analysis of invitation/uptake of places and attendance patterns (*Figures 1* and *2*).
- Analysis of before and after data (summarised in *Table 1*).
- Reflection on patient feedback: written, verbal, self-referral to scheme.
- Colleague feedback.
- Co-reflection with trainer on patient involvement.
- Observing the interest generated by the project in local and national agencies.

a pilot project and had consented to measurement of weight, waist circumference and mood, using the HADS questionnaire, on the first and final session, to provide comparative data. Additionally, at the final session, participants completed a feedback form, which was used to collate participant opinions

Monitoring formed an integral part of the project, primarily to ensure that it remained something that provided patient benefit and that patients were willing to access, but also to gather evidence to report back to the QNI on progress. Information gathering is summarised in *Box 4*.

Initially, the floor-based classes were intended for groups of six, but as a result of feedback this was adjusted to four or five. As time progressed, it became more difficult to recruit people for floor-based classes; suitable people were more likely to be working or have other commitments on Thursday afternoons, when the sessions were run. Although no men were willing to sign up for the floor-based sessions, one or two were prepared to join in the chair-based sessions.

The experience of being a Quality Zone project initiator and facilitator was most rewarding, despite all the hard work. The project seemed to tap into something that patients valued and gained benefit from. It also acted as a springboard to facilitate patient empowerment regarding access to exercise, particularly for the earlier floor-based groups who felt able to meet between sessions and restarted swimming and gym classes as a result of the kick-start the group gave them.

Results

Figure 1 displays the responses of the 73 people invited to participate in the Quality Zone project. Attendance analysis (*Figure 2*) demonstrates

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1. Monitoring was an integral part of the Quality Zone project.
2. Its purpose was primarily to ensure that it remained something that provided patient benefit and that patients were willing to access, but also to gather evidence to report back to the Queen's Nursing Institute on progress.

Table 1. Summary of results for 37 of the 49 participants (i.e. those attending five or more sessions).

Those attending all six sessions (total = 20)	**Comparative assessment pre- and post-participation using the Hospital Anxiety and Depression Scale (self-completed)**		
	Anxiety score	12 patients self-reported that symptoms improved (scores decreased by 1–7 points) 4 no change, 3 marginal increase (low score at outset) 1 large increase	
	Depression score	8 patients self-reported that symptoms improved (scores decreased by 1–4 points) 4 no change 8 scores increased by 1–3 points (all below "caseness" threshold)	
	Weight: 13 lost 0.5–4 kg 4 remained static 2 gained 0.5–2 kg 1 refused to be weighed but stated that it had increased	**Waist:** 8 reduced by 2–6 cm 8 static 4 increased by ≤4 cm	**Blood pressure:** Differences recorded for 10/20 9 showed improvement 1 referred to GP for further investigation
Those attending 5/6 sessions (total = 17)	**Comparative assessment pre- and post-participation using the Hospital Anxiety and Depression Scale (self-completed)**		
	Anxiety score	Data recorded for 15/17 11 patients self-reported that symptoms reduced (scores reduced by 1–8 points) 2 no change (low score at outset) 2 increased – moving from normal to borderline in subscale scoring	
	Depression score	13 patients self-reported that symptoms improved by 1–8 points 1 no change (low score at outset) 1 increased into "caseness"; review by GP (other health-related issues ongoing)	
	Weight: 11 lost 1–3.5 kg 3 static 2 gained ≤2 kg 1 not recorded	**Waist:** 6 reduced by ≤4.5 cm 5 static 5 gained ≤2.5 cm 1 not recorded	**Blood pressure:** Differences recorded for 11/17 9 showed improvement 2 referred to GP for further investigation

the excellent compliance levels achieved, with 86% of participants attending four or more sessions. *Table 1* summarises the baseline and post-intervention data regarding HADS scores, weight, waist circumference and blood pressure, for those participants completing five or more of the six sessions in a course.

Examples of qualitative participant and colleague feedback are shown below:

"Quality Zone has taught me 'yes, you can'. It was like replacing the minuses for pluses." (participant)

"Clients have joined me for sessions I run at the gym." (yoga teacher)

"She has gained benefit from improvement in mood." (carer of participant)

"The notes help me spend a few spare minutes exercising." (participant)

"I've learned to relax by doing breathing exercises." (participant)

The outcomes of the project are summarised in *Box 5*.

The extent to which the project aims were achieved may be summarised as follows:

- ***To offer a non-pharmaceutical option in response to depression case-finding arising from the QOF:*** The main group of patients remained those identified through the GMS

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1. Continuity of this service beyond the project period was achieved via the council representative responsible for the local exercise referral scheme, allowing this activity to be absorbed into the referral criteria.
2. Patients now have access to sessions at reduced cost (33% less), which continue to be led by the qualified yoga instructor with whom the project was started.
3. Quality Zone has been cited as an example of good practice in promoting emotional and psychological wellbeing in people with diabetes in the latest update of progress towards implementing the diabetes National Service Framework.

contract and its associated QOF process; however, as the project developed, other groups and individuals were identified and offered access to the group, with good effect.

- ***To promote exercise as a means of improving mood in identified patients:*** Participant feedback, both oral and written, showed that this was certainly achieved.
- ***To offer a group exercise programme within the surgery:*** The group size had to be tailored to the size of the facilities available, but being able to access the programme at the surgery was rated as an important aspect of the project by a number of participants.
- ***To provide exercise for non-mobile patients in the residential care setting:*** The target of delivering sessions in the residential care setting proved to be undeliverable within the time and financial constraints of the pilot. In some cases, it also proved to be unnecessary. The background analysis showed that many such settings were beginning to provide some form of movement classes, particularly in the day care setting (although funding for formal training appeared to be unavailable).

Conclusion

In July 2007, the pilot period came to an end. To celebrate its achievement and confirm continuation of the sessions, which are now offered at the local leisure centre, a Quality Zone tea party was held, attended by Anne Pearson, who presented the author's QNI award certificate. The party was a great success; more than 30 former participants attended, with a good representation from each of the groups formed.

Continuity of this service beyond the project period was achieved via a continuing conversation with the council representative responsible for the local exercise referral scheme, allowing this activity to be absorbed into the referral criteria. This has enabled patients to access sessions at reduced cost (33% less); these continue to be led by Joan, the qualified yoga instructor with whom the project was started. Patients seen at the surgery continue to be referred, via the nurse-led long-term condition clinic or by GP, to either mixed floor/chair or chair-based classes, each lasting 1 hour. At the time of writing, around 10–20 people attend these classes each week.

As a result of local and national journalistic reporting, Quality Zone has been cited as an example of good practice in promoting emotional and psychological wellbeing in people with diabetes in the latest update of progress towards implementing the diabetes National Service Framework (DH, 2008). ■

Box 5. Summary of the outcomes of the project.

- Of the 73 patients identified through the GMS process, 53 consented to attend sessions and four did not attend any sessions.
- Of the 49 remaining, 45 attended at least three of the six sessions offered.
- Participants were organised into eight groups of four to eight people.
- A total of four floor-based sessions for the more mobile and four chair-based sessions for the less mobile were organised.
- Measurable data, related to the intervention, were positive for the majority of participants.
- Communication of Quality Zone locally and nationally.
- Sought and attained options to make Quality Zone more widely available.
- Secured ongoing provision of Quality Zone via the local council gym.
- The author completed chair-based exercise training, making long-term surgery-based delivery viable (subject to further funding).

Acknowledgement

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