Identifying and managing anxiety and depression in diabetes: A need for training

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Article points

1. There is a high prevalence of psychological ill-health in people with diabetes, particularly for depression.
2. The accurate identification of depression is an essential first step in the treatment and care of people with the condition.
3. There has been little research into the possibility that people with diabetes may be suffering from anxiety either with or without depression.
4. Healthcare professional working in primary care need to be more aware of the psychological importance of diabetes and be adequately prepared to recognise and manage depression in these individuals holistically.

Key words

- Anxiety
- Depression
- Education
- Mental health

Author details can be found at the end of this article.

Mental health problems are commonplace in people with diabetes. Depression and anxiety in particular can have a significant impact on morbidity and quality of life in this population. This article explains how both depression and anxiety in people with diabetes can be more adequately identified and treated in primary care if training is provided to practice nurses. A short review of relevant literature is presented to equip the reader with previous research in this area.

It is well documented that there is a high prevalence of psychological ill-health in people with diabetes, particularly for depression (Anderson et al, 2001; Goldney et al, 2004). Since April 2006, screening people with diabetes and coronary heart disease annually for depression has become a facet of the Quality and Outcomes Framework (QOF; NHS Employers, 2010). Although other groups of people with long-term conditions are also at increased risk of depression, the evidence is strongest for people with diabetes and chronic heart disease (Cohen, 2006). Therefore, GP surgeries receive payment as an incentive to provide this service.

NICE guidance recommends that to protect against long-term vascular complications in diabetes, blood glucose levels should be kept as near to normal as possible – HbA_{1c} <7.5% [<58 mmol/mol] in people with type 1 diabetes and ≤6.5% (≤48 mmol/mol) in people with type 2 diabetes (NICE, 2004; National Collaborating Centre for Chronic Conditions, 2008) – and blood pressure and cholesterol levels should be kept lower than the target levels for the general population. To achieve this, and meet the demands of QOF (HbA_{1c} level ≤7% [53 mmol/mol]; NHS Employers, 2010), primary care healthcare professionals are counselled to encourage the individual to (Diabetes UK, 2008):

- Take regular exercise.
- Eat a well-balanced diet.
- Refrain from smoking.
- Drink no or moderate amounts of alcohol.
- Attend for regular check-ups and take medications as prescribed.

These requests have been identified as a source of distress and frustration by people with type 1 and type 2 diabetes (Clark, 2005), and, if not met or still do not stem the progression of the long-term effects of diabetes, can lead to decreased feelings of control, diminished self-worth and depression (Bailey, 1996; Clark, 2005).

Identification and screening

The accurate identification of depression is an essential first step in the treatment and care of people with the condition (NICE, 2009).

NICE guidance for depression in people with a chronic physical health problem advises that screening should be undertaken in primary care using at least two questions regarding mood and interest (NICE, 2009). The rationale behind the introduction of these questions is that it is perceived that GPs fail to notice 50–75% of depression cases (Arroll et al, 2005). An answer of "no" to these two questions indicates that the individual is unlikely to have depression; an answer of "yes" to any of the questions should trigger a more detailed assessment (*Box 1*).

So far, there has been little research into the possibility that people with diabetes may be suffering from anxiety either with or without depression. A systematic review by Grigsby et al (2002) illustrated that general anxiety disorder (GAD) is present in 14% and elevated symptoms of anxiety in 40% of people with diabetes who participate in clinical studies. Anxiety will only be recognised should the individual answer "yes" to these questions and proceed to a more detailed assessment. Should the person suffering from anxiety answer "no", the anxiety will not be recognised.

If a question enquiring about anxiousness were added, this would fit in with the first criteria of the DSM-IV for anxiety (American Psychiatric Association, 2000) and would ensure these individuals are not missed. Including a question inquiring if help is needed to the depression screening questions would improve the specificity of a GP diagnosis (*Box 1*; Arroll et al, 2005).

Management: The need for clear guidance

Historically, people have received management for their diabetes from a consultant diabetologist in a hospital department, but over the past 10 years this treatment has moved towards the primary care arena, often being undertaken by the practice nurse. Therefore, in reality, it will be the practice nurses who run the diabetes clinics who will be screening people with diabetes for depression to reach their QOF indicators.

The latest NICE (2009) guideline for the management of depression gives recommendations that healthcare professionals should be competent in mental health assessment to identify depression, but it does not define this competency. If these nurses are not deemed to be competent in assessing the individual's mental health, then NICE recommends referral to the GP (this assumes all GPs are competent in making a mental health assessment). This would mean that, unless training is made available to nurses, every person with diabetes attending for their annual review would also need to see the GP for a psychological assessment.

Integrated care in diabetes benefits both the people with diabetes and the healthcare professionals by providing a multidisciplinary approach to diabetes care. This collaborative working was given priority in one of the NHS guidelines (Department of Health [DH], 1997), yet is still not the norm in many diabetes clinics across the UK (Mitchell and Diad, 2006). In areas where this collaborative care is practiced, it would be wise to train all members of the team in the recognition and treatment of depression.

NICE (2009) also indicates who to refer to for particular treatment. This can be adapted to specifically fit diabetes. Unfortunately, the guidance does not give any assistance in the situations where there is a lack of available psychological therapies or structured education programmes. It advises active monitoring in primary care when individuals are unwilling to go elsewhere, but does not state by whom.

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3. Integrated care in diabetes benefits both the people with diabetes and the healthcare professionals by providing a multidisciplinary approach to diabetes care.

Box 1. Depression and anxiety screening questions.

- "During the last month have you often been bothered by feeling down, depressed, or hopeless?" Yes/No
- "During the last month have you often been bothered by having little interest or pleasure in doing things?" Yes/No
- "Do you tend to be an anxious or nervous person?" Yes/No

- It is recommended that a supplementary question be added:
  - "Is this something with which you like help? No/Yes, but not today/Yes

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- An answer of "No" to the first three questions indicates that the individual is unlikely to have depression or anxiety.
- An answer of "Yes" to any of the questions should trigger a more detailed assessment.

Page points

1. Structured training will facilitate nurses to provide a person-centred approach, enabling them to identify when they are able to deal with the depression or anxiety effectively themselves, and when they should refer to the GP or specialist services.
2. One example of a technique promoting hope is the recovery model. It is usually discussed in relation to the care of a person with severe mental illness but it is also appropriate for use with someone who has a physical long-term condition such as diabetes.
3. Empowerment is seen as a core dynamic in promoting recovery in mental health, and is viewed in diabetes education as preparing people to make informed decisions about their own diabetes care.
4. If the practice nurse worked in a recovery centred way and was skilled in using basic counselling and motivational interviewing skills and administering guided self-help materials, the person could then be offered holistic care encompassing both diabetes and depression in a familiar, non-stigmatised setting.

There is also a risk that once the depression is identified, the healthcare professional will be unaware of what to do next, particularly as there is lack of sufficient psychotherapeutic counselling in the UK (DH, 2004a). Even with the Government's new initiative on Improving Access to Psychological Therapies (IAPT; http://www.iapt.nhs.uk), there is still a long waiting list in most areas.

The nurses and people with diabetes will already have developed a relationship that carries no stigma. Structured training will facilitate these nurses to provide a person-centred approach, enabling them to identify when they are able to deal with the depression or anxiety effectively themselves, and when they should refer to the GP or specialist services. Not all people suffering from mild to moderate depression or anxiety will need referral to a specialist mental health worker to be treated at Step 2 in the NICE (2009) guideline. Those who do, can continue be seen in the GP surgery until an appointment becomes available.

The importance of choice in treatment

Living with diabetes is a difficult process whereby individuals attempt to find the balance between the self-management demands and their preferred lifestyle (Whittemore et al, 2005). Working with a person-centred approach provides the opportunity to give the individual hope (DH, 2004b).

One example of a technique promoting hope is the recovery model. It is usually discussed in relation to the care of a person with severe mental illness but it is also appropriate for use with someone who has a physical long-term condition such as diabetes. In this model, hope has been described as the individual's belief that recovery, or change, is possible, or as a determination to get better. It involves reordering priorities, focusing on strengths rather than weaknesses, looking forward and cultivating optimism and self-belief (Shrank and Slade, 2007).

Empowerment is seen as a core dynamic in promoting recovery in mental health (Repper and Perkins, 2003; Walker, 2006), and is viewed in diabetes education as preparing people to make informed decisions about their own diabetes care (Walker, 2000; Funnell and Anderson, 2004). This advocates the same healthcare professional teaching the individual, facilitating an environment whereby the person can become empowered to improve both his or her diabetes and depression. A further approach is motivational interviewing, the basic elements of which can be learned and successfully applied in brief, practical medical interventions (Welch et al, 2006). These processes empower the person with diabetes and their philosophy can be promoted to nurses as part of their training.

If the practice nurse worked in a recovery centred way and was skilled in using basic counselling and motivational interviewing skills (Brown, 1996) and administering guided self-help materials (Jones, 2002), the person could then be offered holistic care encompassing both diabetes and depression in a familiar, non-stigmatised setting.

A review of literature

A number of studies, carried out outside the UK (Lustman et al, 1998; Katon et al, 2003; Ciechanowski et al, 2006), involved measuring or observing a trial of services intervention that provide a choice of evidence-based depression treatment versus usual care (usual care is described as involving medication and follow-up by the GP). These studies identified that choice in treatment, involvement in care and interaction on the individual's terms are important for people with diabetes and depression for them to receive holistic care.

In the study by Ciechanowski et al (2006), participants completed the 4-item Relationship Questionnaire (RQ), which is an appropriate use of this tool to categorise participants into their best fitting attachment pattern (Griffin and Bartholomew, 1994). Using this model, they identified two simplified groups based on their tendency to rely on others. They found that collaborative care produces enhanced care for people with an independent relationship style by improving antidepressant adequacy, less depression severity, higher satisfaction with care and more therapy visits, but found no difference in outcome for those with an interactive relationship style. This suggests that usual care

for the latter group is sufficient and that if the primary healthcare professional was able to distinguish between the two types of person, resources could be focused on the former.

Although this is creditable in suggesting choice of treatment and involvement in care on the individual's terms, where appropriate, it fixes the person into a particular group. Using a recovery approach would encompass these principles without the healthcare professional requiring the knowledge of attachment theory. It would also avoid labelling the person and giving a successive healthcare professional a predisposed view of the individual.

The importance of using a recovery approach is supported by Badger and Nolan (2007), who discovered that practitioners who acknowledged and encouraged people's role in recovery and supported multifaceted care were perceived by users as caring and offering holistic, individualised care.

To measure the quality of depression care in people with diabetes, Katon et al (2004) defined adequate care as sufficient treatment with antidepressants or four or more psychotherapy visits. The authors identified that many people were not receiving the adequate dosage of antidepressants or attending the required amount of visits. This study also discovered that older people were less likely to receive psychotherapy. The reasons for this were unknown; it may have been that the physicians were less likely to refer these people, that they chose not to accept this therapy due to difficulty in paying, the stigma associated with receiving care for a mental illness, or difficulty in travelling to the appointment.

Lustman et al (1998) assert that a combination of cognitive behavioural therapy (CBT) and supportive diabetes education is an effective non-pharmacological treatment for major depression in people with type 2 diabetes. However, there is presently a shortage of therapists (DH, 2004a) and training in CBT takes a long time. One of the most important features of CBT is that it is intended to be collaborative; the individual is encouraged to share responsibility for the work, and to be an active co-participant in their therapy to see whether there are alternative perspectives and actions that could be more useful to them (Centre for Outcomes, Research and Effectiveness, 2008).

Education and training for nurses

The Knowledge and Skills Framework (KSF) advocates that practice nurses have a basic understanding of depression (Royal College of Nursing, 2006). However, a survey by Thomas and Corney (1993) showed that only 2% of practice nurses had formal training in mental health (DH, 2003) and would therefore need to develop new skills (DH, 2004a).

Richards et al (2003) advocate that a nurse without a mental health background and traditional therapeutic skills can be trained to deliver effective care for depression. If the healthcare professionals had adequate training, they would not only be able to identify depression and anxiety accurately, but also be able to use the screening tools usefully to explain their significance sensitively to the individual. This enhances the person's understanding and helps to develop a mutual approach to the condition.

Nurses more frequently provide psychological support than physicians (Peyrot et al, 2006), which suggests they will be open to further training to provide this support more adequately.

Gask et al (2006) conducted a study in which nurses without a mental health background were trained to treat people with diabetes and depression in the use of a problem-solving therapy manual for depression. They demonstrated an improvement in depressive outcomes but no improvement in diabetes due to the nurses' lack of knowledge of diabetes treatment. This implies that providing this training to nurses with knowledge of diabetes would improve outcomes both of diabetes and depression.

The lead author (SH) is trained in mental health and runs a diabetes clinic in practice. She has found from personal experience that people with diabetes benefit from having both their depression and diabetes managed in the same place, at the same time and by the same person (*Box 2* gives an example case study).

Page points

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In Northampton, two of the authors (SH and MS) are developing training for primary care professionals as they recognise that succinct, relevant training is unavailable. The training will include the recognition of depression and anxiety in people with diabetes, motivational interviewing and empowerment, and simple problem-solving. This will initially be delivered to all practice nurses in the county at the end of the year. Each nurse will be invited to attend one of the four planned 3-hour training sessions. Should the sessions prove successful, they will roll the programme out to other healthcare professionals. They are also planning to develop this as an e-learning package that will be available nationally.

Box 2. Case study.

Mrs M is 57 years old and was diagnosed with type 2 diabetes 8 years ago. Her HbA_{1c} level is 6.7% (50 mmol/mol) and her cholesterol level is 4 mmol/L. She takes metformin 500 mg three times a day and simvastatin 40 mg once daily. Her BMI is 34 kg/m^2.

Mrs M became quite tearful when asked the screening questions. She said she felt fed up and guilty about her size. Because of this she did not go out and was starting to feel lonely. Using the Hospital Anxiety and Depression (HAD) tool it was identified that Mrs M was experiencing mild to moderate depression and anxiety. This was explained to Mrs M, who appeared relieved to find there was a reason for the way she was feeling.

Medication is not usually of benefit at this level. Using a brief motivational interview approach enabled Mrs M to suggest herself that she would benefit from some form of exercise. At this point the healthcare professional proposed trying the local weekly health walk run by the council. Mrs M was a little reluctant but agreed to give it a go. The healthcare professional conveyed that many people felt as she did, explaining how anxiety can affect a person, and how exercise can help overcome anxiety. An appointment was made for her 2 weeks later to monitor her progress.

At her next appointment Mrs M described how she had been to two of the walks and thoroughly enjoyed them. Her son had become interested in her walking and suggested that they go out each evening together as he needed to lose weight. She was given positive reinforcement and a further appointment for 1 month.

At her next appointment Mrs M stated she was very happy. She was walking every day with her son and enjoying his company. She continued with her health walks and was starting to get to know people; one woman had invited her to a coffee morning and she was excited about attending this event. Her BMI was now 32.4 kg/m^2 and she said this made her feel more confident about herself. Using the HAD tool revealed that she was no longer suffering from anxiety or depression.

Recommendations

Primary care professionals need to be more aware of the psychological importance of diabetes and be adequately prepared to recognise and manage depression in these individuals holistically. For this to happen, there is a need for:

- NICE to incorporate specific recommendations for depression in their guidance for diabetes.
- Provider services to provide adequate training to all healthcare professionals in primary care to recognise depression and understand its importance in long-term conditions, such as diabetes, and the principles of the recovery approach.
- Provider services to offer training for practice nurses providing diabetes care; training should include motivational interviewing (Miller and Rollnick, 2002), delivering guided self-help and holistic care.
- Healthcare professionals in primary care to follow a clear pathway for depression care using evidence-based protocols.
- Qualitative and quantitative research to be carried out to discover the benefits of offering this holistic recovery approach.

Conclusion

NICE (2009) guidance for depression and chronic physical health problems provides excellent direction for healthcare practitioners in primary care who have received adequate training. Choice of treatment for depression is important to people with diabetes and depression. Training nurses who care for people with diabetes will improve the recognition of depression and anxiety and provide them with the skills to deliver a more holistic, person-centred package of care. ■

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American Psychiatric Association (2000) *Diagnostic and Statistical Manual of Mental Disorders (DSM-IV)*. 4th edn. APA, Arlington, VA

Anderson RJ, Freedland KE, Clouse RE, Lustman PJ (2001) The prevalence of comorbid depression in adults with diabetes: a meta-analysis. *Diabetes Care* **24**: 1069–78

Arroll B, Goodyear-Smith F, Kerse N et al (2005) Effect of the addition of a "help" question to two screening questions on specificity for diagnosis of depression in general practice: diagnostic validity study. *BMJ* **331**: 884

Badger F, Nolan P (2007) Attributing recovery from depression. Perceptions of people cared for in primary care. *J Clin Nurs* **16**: 25–34

Bailey BJ (1996) Mediators of depression in adults with diabetes. *Clin Nurs Res* **5**: 28–42

Brown FJ (1996) Counselling in practice. *Practical Diabetes International* **13**: 191–4

Centre for Outcomes, Research and Effectiveness (2008) The CBT competences framework for depression and anxiety disorders. CORE, London. Available at: http://tinyurl.com/378736e (accessed 14.05.2010)

Ciechanowski PS, Russo JE, Katon WJ et al (2006) The association of patient relationship style and outcomes in collaborative care treatment for depression in patients with diabetes. *Medical Care* **44**: 283–91

Clark M (2005) Managing psychosocial impacts of diabetes. *Practice Nursing* **16**: 334–9

Cohen A (2006) Best practice guidance for the depression indicators in QOF2. *Guidelines in Practice* **9**: 27–9

Department of Health (1997) *The New NHS: Modern, Dependable*. DH, London

Department of Health (2003) *Fast-forwarding Primary Care Mental Health: Graduate Primary Care Mental Health Workers – Best Practice Guidance*. DH, London

Department of Health (2004a) *Organising and Delivering Psychological Therapies*. DH, London

Department of Health (2004b) *The Ten Essential Shared Capabilities: A Framework for the Whole of the Mental Health Workforce*. DH, London

Diabetes UK (2008) Depression and diabetes. Diabetes UK, London. Available at: http://tinyurl.com/2edflno (accessed 14.05.2010)

Funnell M, Anderson R (2004) Empowerment and self-management of diabetes. *Clin Diabetes* **22**: 123–7

Gask L, Ludman E, Schaefer J (2006) Qualitative study of an intervention for depression among patients with diabetes: how can we optimize patient-professional interaction? *Chronic Illn* **2**: 231–42

Goldney RD, Phillips PJ, Fisher LJ, Wilson DH (2004) Diabetes, depression, and quality of life: a population study. *Diabetes Care* **27**: 1066–70

Griffin D, Bartholomew K (1994) Models of the self and other: Fundamental dimensions underlying measures of adult attachment. *J Pers Soc Psychol* **67**: 430–45

Grigsby A, Anderson R, Freedland K et al (2002) Prevalence of anxiety in adults with diabetes: a systematic review. *J Psychosom Res* **53**: 1053–60

Jones F (2002) The role of bibliotherapy in health anxiety: an experimental study. *Br J Community Nurs* **7**: 498–504

Katon W, Von Korff M, Lin E et al (2003) Improving primary care treatment of depression among patients with diabetes mellitus: the design of the Pathways Study. *Gen Hosp Psychiatry* **25**: 158–68

Katon WJ, Simon G, Russo J et al (2004) Quality of depression care in a population-based sample of patients with diabetes and major depression. *Med Care* **42:** 1222–9

Lustman P, Griffith L, Freedland K et al (1998) Cognitive behavior therapy for depression in type 2 diabetes mellitus. A randomized, controlled trial. *Ann Intern Med* **129**: 613–21

Miller W, Rollnick S (2002) *Motivational Interviewing: Preparing People to Change*. 2nd edn. Guilford Press, New York

Mitchell H, Diad J (2006) Making integrated diabetes care work in the real world. *Diabetes and Primary Care* **8**: 149–151

National Collaborating Centre for Chronic Conditions (2008) *Type 2 Diabetes: National Clinical Guideline for Management in Primary and Secondary Care (Update)*. NICE, London. Available at: http://tinyurl.com/2w4fyf3 (accessed 14.05.2010)

NHS Employers (2010) *Quality and Outcomes Framework Guidance for GMS Contract 2009/10: Delivering Investment in General Practice*. NHS Employers, London. Available at: http://tinyurl.com/2u87zpm (accessed 14.05.2010)

NICE (2004) *Type 1 Diabetes in Adults: National Clinical Guideline for Diagnosis and Management in Primary and Secondary Care*. NICE, London. Available from: http://tinyurl.com/38sm33d (accessed 14.05.2010)

NICE (2009) *Depression in Adults with a Chronic Physical Health Problem: Treatment and Management*. NICE, London. Available at: http://tinyurl.com/35n5jpx (accessed 14.05.2010)

Peyrot M, Rubin RR, Siminerio LM (2006) The use of psychosocial strategies in diabetes care: results of the cross-national Diabetes Attitudes, Wishes and Needs (DAWN) study. *Diabetes Care* **29**: 1256–62

Repper J, Perkins R (2003) *Social Inclusion and Recovery*. Baillière Tindall, London

Richards D, Lovell K, McEvoy P (2003) Access and effectiveness in psychological therapies: self-help as a routine health technology. *Health Soc Care Community* **11**: 175–82

Royal College of Nursing (2006) Compentences from a general practice nurse's perspective. RCN, London. Available at: http://tinyurl.com/2a58l2x (accessed 14.05.2010)

Schrank B, Slade M (2007) Recovery in psychiatry. *Psychiatr Bull* **31**: 321–5

Thomas R, Corney R (1993) The role of the practice nurse in mental health: A survey. *Journal of Mental Health* **2**: 65–72

Walker R (2000) The consultation in diabetes care: making the most of it. *Diabetes and Primary Care* **2**: 24–6

Walker M (2006) The social construction of mental illness and its implications for the recovery model. *International Journal of Psychosocial Rehabilitation* **10**: 71–87

Welch G, Rose G, Ernst D (2006) Motivational interviewing and diabetes: what is it, how is it used, and does it work? *Diabetes Spectrum* **19**: 5–11

Whittemore R, D'Eramo Melku G, Grey M (2005) Metabolic control, self-management and psychosocial adjustment in women with type 2 diabetes. *J Clin Nurs* **14**: 195–203

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