Depression is more common in patients with diabetes than in the general population so nurses should be aware of this and screen for it routinely.

Depression and diabetes: what should nurses do?

In this article...
- The impact of depression on a person with diabetes
- Course of depression
- Screening and management

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Depression is recognised as a major health problem for people with diabetes and is associated with morbidity, mortality and a poor quality of life. This article outlines how depression is diagnosed, its consequences and how to screen for and treat it. It also gives some practical tips that nurses can use to support patients with diabetes who have depression.

**Keywords:** Depression/Diabetes/Self-management

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**5 key points**

1. **It is thought that 5-30% of people with diabetes also have depression**
2. **Nurses are well placed to screen for depression and coordinate subsequent management**
3. **Low mood, loss of interest in everyday activities and fatigue are the three main symptoms of depression**
4. **People with depression may drastically increase or decrease their contact with health services**
5. **Patients with depression and diabetes need increased input into their diabetes treatment**

**Depression is more common in people with diabetes. It is thought that 5-30% of people with diabetes are affected – in general, double the number of people usually affected by depression who have no long-term illness (Anderson et al, 2001). These higher rates of depression have been found in studies using self-reporting measures, rather than the psychiatric interview techniques often used by mental health professionals.**

**Diagnosis of depression**

According to criteria from the 10th edition of the International Classification of Diseases depression has three main symptoms:
- Low mood;
- Loss of interest in everyday activities;
- Fatigue or low energy.

If one or more of these symptoms are present, it is important to find out if there are any additional symptoms to determine the severity of depression. These include:
- Disturbed sleep;
- Poor concentration;
- Indecisiveness;
- Low self-confidence;
- Poor or increased appetite;
- Ideas or acts of self-harm or suicide;
- Agitation;
- Slowing of movements;
- Guilt or self-blame (National Institute for Health and Clinical Excellence, 2009).

Severity of depression is assessed by determining the number and severity of the depressive symptoms outlined above, usually over a minimum of two weeks:
- <4 – no depression;
- ≥4 – mild depression;
- 6-7 – moderate depression;
- ≥8 – severe depression.

Categorising in this way may direct the type of treatment that is provided. As a rule of thumb, a depressive episode can be distinguished from a period of sadness by symptoms lasting longer than two weeks, occurring on most days of the week and there being a distinct loss of functioning.

**Risk factors for depression**

Risk factors for depression in people with diabetes are often similar to those for the general population. For example, depression is more common in women, younger people, those who have had stressful life events, people who live alone or have low levels of social support, those with lower socioeconomic status and those with additional health problems (usually affecting older people) (Winkley, 2008).

In addition to these common risk factors, particular factors are associated with depression in people with diabetes:
- Smoking;
- Obesity;
- Diabetes complications;
- Smoking;
2.3-fold increase in those with major
tality in those with minor depression and a
years found a 1.67-fold increase in mor-
with type 2 diabetes followed up for three
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loss of self-confidence
increased dependence on others
increased likelihood of engaging in
alcohol consumption and smoking
as a worsening of mood within a
recovery from their depression, and only around
20% recover fully (Lustman et al, 1997).
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Box 1. COMMON EFFECTS OF DEPRESSION
• Social isolation
• Being perceived negatively by others
• Increased ill health
• Inability to work/study
• Loss of self-confidence
• Increased dependence on others
• Increased likelihood of engaging in risky behaviour such as increased

Course of depression
Few studies have examined depression in
people with diabetes but the available evi-
dence suggests depression is more chronic
in people with diabetes than in general
population samples (Winkley, 2008). For
example, 64% of people with both depres-
sion and diabetes have depression with a
relapse-remitting course (relapse is
defined as a worsening of mood within a
nine-month period), 15% never recover
from their depression, and only around
20% recover fully (Lustman et al, 1997).

Adverse effects of depression
The effects of depression can be detri-
mental to health, quality of life and per-
sonal relationships. However, when people
also have diabetes, it is common for them
to increase their use of health service
resources and reduce their adherence to
their diabetes self-management pro-
gramme, such as eating less healthily,
reducing physical activity and not
adhering to oral medications. Cognitive
dysfunction can also be problematic and is
common with diabetes and depression.
It is not fully understood why risk of
mortality is higher for people with dia-
abetes and depression, but there is con-
sistent, international evidence suggesting
a link. In both the UK and US, studies con-
firm that affected patients are two to five
times more likely to die earlier when they
have both comorbid conditions (Ismail et
In the UK, a cohort of patients with their
first diabetic foot ulcer and with minor and
major depression were three times more
likely to die at 18-month follow-up and
these effects persisted at five years (Win-
kley et al, 2012; Ismail et al, 2007). In the US
Pathways study, a cohort of 4,385 people
with type 2 diabetes followed up for three
years found a 1.67-fold increase in mor-
tality in those with minor depression and a
2.3-fold increase in those with major
depression (Katon et al, 2005) compared
with those with no depression.
The US National Health and Nutrition
Examination Survey found that diabetes
patients with depression were 2.5 times
more likely to die from all-cause mortality
and 2.43 times more likely to die from cor-
onary heart disease than the general popu-
lation (Egede et al, 2005). Finally, a longitu-
dinal study of Mexican Americans with
type 2 diabetes aged 65 years and over were
found to be almost five times more likely
to die at a seven-year follow-
up and were significantly more likely to
develop an earlier onset of diabetes com-
plications than those without depression
(Black et al, 2003).

Having depression and diabetes has sig-
nificant costs to individuals and society but
the mechanisms that start to explain why
this is the case are complex and thought to
involve interactions between biological,
psychological and social processes.
Simple psychological explanations sug-
gest people with depression and diabetes
are less likely to look after themselves and
perform adequate self-management, evi-
dence of which is seen in the literature.
Social explanations might also add to
this, for example if people are depressed
they may be more likely to be socially iso-
lated, without social support and perhaps
at a disadvantage in maintaining good per-
sonal relationships. This can have far-
reaching consequences, limiting their
capacity for work and study, and increasing
their chances of experiencing poverty.
Biological explanations suggest depres-
sion influences cardiovascular health and
macrovascular complications through acti-
vation of the hypothalamic pituitary
adrenal axis or through immune system
dysfunction (McCaffery et al, 2006). In
depression, the hypothalamic pituitary
axis is overstimulated and the associated
sym-
pathetic response may increase cardiovas-
cular risk in several ways. For example,
more counter-regulatory stress hormones
that raise blood–glucose levels are released
leading to insulin resistance (Brotman et al,
2007); there is also increased platelet
activity and atherosclerosis (Musselman
et al, 1996), and altered autonomic tone
leading to decreased heart rate variability
(Carney et al, 1995).

Genetic and environmental interactions
may also play a role – obesity, insulin resist-
ance and hypertension tend to be grouped
together (Stunkard et al, 2003). Common
effects of depression are listed in Box 1.

Depression screening,
management and support
Depression in people with diabetes was
recognised by the NHS as a priority; depres-
sion screening was included in the UK dia-
betes review but has recently been removed
from the Quality and Outcomes Frame-
work assessment. NICE (2009) guidelines
suggest GPs and practice nurses play an
active role in assessment. Recommendations
for treating mild depression include:
» Watchful waiting by the primary care
health team;
» Guided self-help;
» Computerised cognitive behavioural
therapy;
» Brief psychological interventions and
exercise.

For moderate to severe depression,
more complex psychological interventions
and pharmacotherapy are recommended.

Many nurses will be familiar with the
two-item screen for depression, which
asks patients if they have low mood or have
lost interest in everyday activities. If the
patient answers “yes” to either question,
the degree of depressive symptoms is then
assessed with a validated questionnaire
such as the Patient Health Questionnaire
(Kroenke et al, 2001) or the Hospital Anx-
iety and Depression Scale (Zigmond and
Smith, 1983). A positive score on either
does not mean the patient has depression
but does indicate they should be assessed
by an experienced clinician.

Some patients with diabetes may not
realise they have depression; instead they
may report having difficulty managing
their diabetes, perhaps linked to increased
symptoms, and are at the point of giving
up on their self-management. Others may
report anxiety or eating problems, which
may be related to depression, such as emo-
tional eating, binging or purging.

Now routine screening in primary care
settings is no longer part of the QOF assess-
ment, some patients with diabetes and
depression will remain unidentified. Others
with depression may not be detected
because of stigma, language barriers,
cognitive problems and disengagement with health services. Some patients deny having depressive symptoms as it is not thought culturally acceptable; these may report increased somatisation (physical symptoms) instead. Screening may be difficult due to language barriers and cognitive problems; many patients simply stop attending their regular appointments.

Management and support
Depression treatment for people with diabetes is largely successful, be it through psychological therapy, drugs or both.

In Lambeth and Southwark, in London, a new initiative in service delivery has targeted people with psychological problems who have persistent, poorly controlled diabetes, as well as social problems, that prevent them from managing their diabetes effectively. The 3 Dimensions of Care for Diabetes, led by Professor Khalida Ismail, fully integrates medical, psychological and social care, and works with the Intermediate Diabetes Team in the community. The aim is to improve diabetes control and quality of life. This service is new and it is not yet clear whether it will be cost effective in the long term but, if so, it may provide another referral route for patients.

Mild depression
Once detected or suspected, depression should be treated quickly. For many people with a mild depressive episode, guided self-help is recommended. Several websites and self-help guides are routinely recommended to patients; examples are Beating the Blues (www.beatingtheblues.co.uk), an online CBT course, and Mood Gym (www.moodgym.anu.edu.au), which is free. Exercise is also excellent for treating mild depression as it helps people regain a sense of control over their lives and has additional health benefits for those with diabetes. “Watchful waiting” can also be helpful; this means keeping in touch with the patient, offering regular phone calls and follow-up.

Patients who prefer one-to-one or brief psychological therapy may be able to access direct help via the Improving Access to Psychological Therapy service. Patients may be able to self-refer or access treatment through their GP. Now rolled out across England; the IAPT service offers an online training course to health professionals via the Royal College of General Practitioners website (www.tinyurl.com/RCGP-IAPT).

Moderate to severe depression
With moderate to severe depressive episodes, patients may need specialist psychological intervention or medication, the availability of which may depend on where they live. Patients may benefit when services are provided by specialist diabetes mental health professionals. However, specialist psychological services are not widely available; a report commissioned by Diabetes UK (2008) found only 15% of diabetes services had access to these.

Antidepressants are readily available and successful but patients may not notice any improvement in their symptoms for at least two weeks; it may take longer than this for patients to receive a therapeutic dose.

Practical aspects of management
When patients are depressed it may seem the best and only thing to do is find treatment for their depression. However, good overall care is still necessary and nurses may be best placed to coordinate this. Practical tips are outlined in Box 2.

Conclusion
Depression is common for people with diabetes. However, screening for depression can detect most of these who are affected and treatment is usually successful. Nurses involved in the care of people with diabetes are well placed to screen for depression and coordinate subsequent treatment. Good overall care for both conditions will provide patients with the most benefit.

References