

INTRODUCTION

In Australia, mental health is a National Health Priority Area in its own right and as a major theme across all other National Health Priority Areas, which include diabetes and vascular disease.

The aim of this article is to explore the evidence surrounding care of people with co-morbid diabetes and mental illness. Nurses working in the community have wanted to explore best practice when working with this client group. In order to guide practice, RDNS nurses have joined with the Research Unit to ask the question:

What is best practice when caring for people with co-morbid diabetes and mental illness?

This issue written by

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What is the issue?

Diabetes and mental illness are conditions that require the individual to undertake daily care, such as taking medications, monitoring blood glucose levels (BGLs), recognising and changing behaviours, and attending counselling. When people have two chronic conditions, incorporating strategies for effective self management can be complex. If both conditions occur together, each can influence management of the other; the medications and symptoms for each condition can affect the other; and just when clear thinking is critical for optimal symptom management, physical imbalances may result in either becoming unstable. In addition, RDNS nurses, GPs, psychiatrists, social workers, pharmacists, family members, and carers can participate in care, creating a complex web of intersecting individual needs, priorities, professions, and personalities. We define complex care as that which is complicated and consisting of interconnected parts. RDNS has a research study in progress that aims to understand the elements that constitute the complexity of caring when people have co-morbid diabetes and mental illness.

What is the prevalence of these conditions?

The prevalence of people with diabetes is increasing. In Australia, the prevalence of Type I (IDDM) and Type II (NIDDM) diabetes is approximately 940,000 people (Health Insite, 2006). Diabetes is recognised as a serious global health problem often resulting in substantial morbidity and mortality, primarily from cardiovascular complications, eye and kidney diseases, and limb amputations. It is estimated that there will be an estimated 1.23 million Australians with diabetes by the year 2010 (Health Insite, 2006). The estimated direct annual health care cost for diabetes in Australia is estimated to be \$1 billion and may reach \$2.3 billion by 2010.

People with schizophrenia may be predisposed to diabetes because of lifestyle factors or genetic destiny. Clinicians observe that people with bipolar disorder may be overweight or obese making them susceptible to developing diabetes. Medications prescribed in the treatment of severe mental illness (such as Clozapine and Risperdal) can interfere with glucose metabolism and therefore increase the likelihood of diabetes in people who are overweight and inactive.

The incidence of people with severe mental illnesses, such as major depression, bipolar disorder, and schizophrenia is considered relatively stable. The incidence of major depression is thought to be higher than previously acknowledged. It is only recently that we have begun to understand the prevalence of major depression, which has been estimated to affect between 20 to 25% of people at some time during their lives (Sokal et al 2004).

Up to 8% of the population are users of the mental health services at any one time. According to the Australian Bureau of Statistics, at any time three per cent of Australian adults are seriously affected by the following mental illnesses:

Schizophrenia - this disorder affects approximately one per cent of Australians at some point in their life.

Bipolar disorder - this condition affects up to two per cent of Australians at some time during their life.

Other forms of psychosis - for example, drug-induced psychosis.

Some chronic forms of depression.

Source: In AIHW (2000): 1997 National Survey of Mental Health and Wellbeing of Adults.

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We do not know how many people in Australia have both a serious mental illness and diabetes, but can estimate the frequency from knowing the prevalence of the more common condition (diabetes) and the percentage of people with mental illness. Since not all adults with both conditions ever access services, there is hidden morbidity in the population. Extrapolating from provided figures for South Australia, we have approximately 18% of the total population affected by a mental illness, i.e. 18% of 1.2 million which is 216,000 people. About 36,000 (3 %) have severe mental illness. Of these, approximately 13% have co-morbid diabetes (estimated using large samples in the USA by Sokal, 2004). Therefore, we estimate at least 1,080 South Australians have both diabetes and severe, disabling mental illness. When we explored RDNS records, 173 clients were found to have co-morbid diabetes and mental illness.

The impact of the conditions

Since co-morbid diabetes and mental illness require integrated care, this care matrix can become quite complex, involving multiple medications, treating clinicians and carers. When people live with both diabetes and mental illness, they may experience the management of each illness to be complex because one illness can exacerbate the other. Authorities know that people with serious mental health problems are more likely to suffer substantial physical health problems, or die younger, than those in the general population (Castle & Pantelis 2003). Nasrallah (2004) contends that *"Diabetes is a serious, life-threatening illness that can lead to heart failure, stroke, renal failure and blindness...Treating schizophrenia is complicated enough without adding diabetes to the equation."*

Research conducted in Western Australia revealed that people with severe mental illness have a life expectancy of between 50-60 years. Astoundingly, the report also revealed that once people with mental illness have a

physical illness, they might not receive the same standard of treatment as the rest of the population (Holman, 2001).

Obesity and diabetes often occur with depression. Piette et al (2004) reviewed the literature on the needs of people with co-morbid diabetes and depression. They emphasised that depression impacts on diabetes management by 1) directly affecting patients' health-related quality of life, 2) reducing physical activity levels, 3) limiting adherence to self-care regimens, and 4) impairing people's ability to communicate effectively with clinicians. Although they did not find a lot of support for the efficacy of any particular approach, they did say that trials of combined antidepressant medication and cognitive behavioural therapies (CBTs) or related approaches might improve not only DM/D patients' depressive symptoms, but their physical health as well. So integrating care of both disorders resulted in improved physical health. Piette summarised some of the most important findings from recent research on the link between depression and diabetes. Overall, evidence is mounting that these two chronic illnesses are interrelated on multiple levels, complicating people's care and leading to worse outcomes than those of individuals with one condition. Health systems and their case management programs however, may fail to consider explicitly 1) the ways in which diabetes and depression interact to affect a person's functioning, health, and service use; and 2) the ways in which treatment strategies might change when both conditions are present.

Like diabetes, major depressive disorder is a common and debilitating illness. Among patients in primary care, 4% to 15% meet criteria for major depression and another 9% to 16% meet criteria for other depressive disorders. Older people have particularly high rates of depression, and these groups are at greatest risk for diabetes and diabetes related complications. Depression is twice as common among people with diabetes as in the general population. Researchers estimate that from 15% to 30% of people

with diabetes meet criteria for depression.

Evidence is conflicting however, with regard to whether depression is an independent risk factor for diabetes. However, depression clearly is more common among people with diabetes, particularly those with other co-morbid conditions. After an initial episode of depression, people with diabetes relapse more frequently than other people. Depression is a risk factor for hypertension, hyperlipidemia, and heart failure; and each of these illnesses increases the rate of cardiovascular events among diabetes patients. Although the relationship is complex, depression among diabetes patients is associated with poor glycaemic control. Patients with diabetes and depression also have higher rates of retinopathy, and macro vascular complications such as stroke and myocardial infarction (MI), than do non-depressed people with diabetes. They also report more diabetes-related symptoms.

The evidence also reveals that the symptoms and treatments for both conditions may interact with, and can exacerbate the other. There is evidence to suggest that many antipsychotic drugs and antidepressants can adversely affect symptoms of diabetes, specifically metabolic rate and body weight. It is also the case that diabetes symptoms such as fluctuating blood glucose level can adversely affect mood and behaviour. Thus we have a constellation of issues that need both external management by RDNS and self-management by people who may have limited capacity.

What characteristics of mental illness can impact on diabetes management?

A mental illness diagnosis can imply difficulty maintaining communications and social relationships for the individual. This deficit makes communication with clinicians more complicated than that concerning primarily physical illnesses. People with mental illness may also have periods when symptoms cause a misinterpretation of signs of physical illness. Social withdrawal secondary to some mental illness can contribute to a reluctance to

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use health care services.

Mental illness needs to be acknowledged and managed by an individual before they can become fully self-sufficient in managing diabetes.

There is no system for ensuring that people with mental illness have the cognitive capacity, nor the resources for managing their mental illness optimally. Therefore, when community nursing is involved, nurses promote mental and physical health and may play an important monitoring role for the individual. Lifestyle and behavioural factors associated with mental illness also affect physical illness. Withdrawal from, and loss of interest in, the world around them, loss of ability and confidence to engage socially, side effects of medication (eg, weight gain, sedation), high smoking rates and low income all contribute to low levels of general health among these people. For example, smoking is common. According to ABS data, 43 per cent of people with mental illness are current smokers compared to 24 per cent of those without a mental disorder. In addition, limited exercise, poor diet- these can increase both morbidity and mortality. Mental illness and diabetes ideally require a high degree of individual responsibility for optimal management, so the role of community nurses is often to sensitively work with people to achieve an optimal level of self-care. Effective partnerships, not just with the person but also with family members and other key carers, can contribute to monitoring and treatment.

What research has been reported?

Most research papers discuss management of *either* diabetes or mental illness, few considering managing both together for optimal outcomes. Sigurdardottir (1999) suspected there was more to the role of the diabetic nurse specialist than realised by the medical community. She used a Heideggerian approach to explore nurse specialists' perceptions of their role in the care of adult diabetics on insulin. Results showed that diabetes nurses

perceived their role to be composed of six themes: educator; promoter of physical skill acquisition; psychological supporter; advocate of individualized care; promoter of self-care; and, 'safeguard' in assessing and ensuring patient safety. This was interpreted as the diabetes nurse specialist role being more complex than the previous descriptions offered in the nursing literature.

Some authorities suggest that patient education can solve many of the complexities of diabetes care for people with mental illness. People with serious mental illness have higher rates of diabetes than the general population, yet their knowledge of diabetes is generally deficient when compared with people without mental illness (Dickerson et al., 2005). It has been found that indications of diabetes knowledge may increase if people who also have serious mental illness are instructed specifically about diabetes. Well-structured and much focused educational efforts may improve their ability to self-care. Public health campaigns however, appear to have had little effect on people with mental illness (Lawrence & Coghlan, 2002).

A study where psychiatric trainees managed the primary health care needs of people with mental illness and diabetes clients for one year revealed good outcomes and high patient satisfaction levels (Dobscha & Ganzini, 2001). There may be a case for centering the care of RDNS clients with dual diagnosis with either RDNS or a local Mental Health Team, rather than trying to share the load. This is one possibility we may consider when examining the complexity of care experienced by clients and clinicians.

Communication issues in complex care

Healthcare requires communication amongst treating clinicians, and between the person and clinician, people need a clear system of communication in order for the illnesses to be managed optimally. There is no administration system for organising communication between people with mental

illness and diabetes concerning care and treatment. Various clinicians and researchers have written about their attempts to describe, understand, and improve team communications around these chronic health conditions. Often the professional roles adopted by doctors and nurses can be counterproductive from the clients' viewpoints, with medical paternalism prevailing in many settings (Stubblefield & Mutha, 2002). Research has confirmed that authoritarian and paternalistic approaches by clinicians are perceived negatively by clients. Other studies have found that people (even those with good glycaemic control) report that health professionals tend to undervalue their experiential knowledge in problem solving (Hernandez, 1995), even when initially inviting them to participate in problem solving (Paterson, 2001). Shojania et al. (2006) concluded that total case management by a nominated clinician improved most outcomes in diabetes.

Glasgow & Anderson (1999) reviewed doctors' approaches and found that expectations of compliance and adherence should be avoided because people are deprived of initiative. Instead, they suggested autonomy-supportive approaches conveying a belief in and respect of peoples' ability to take responsibility for their own lives have proved more reliable, facilitating empowerment, self-determination, and improving peoples' self-efficacy and glycaemic control (Anderson et al., 1995; Williams et al., 1998).

Wens et al (2005) found that GPs tended to express frustration with what they perceived as the patient's deficient knowledge when they minimised the consequences of living with diabetes. Thus, their efforts to influence people did not stimulate many therapeutic changes in life style or metabolic control. Doctors often resorted to other methods to achieve compliance such as shocking the patients, putting pressure on them, and threatening to refer them to hospital.

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Conclusion

People with mental illness are a marginalised and stigmatised group with extremely poor health outcomes. The RDNS research project will lead to an understanding of the complexity surrounding the care of RDNS clients with co morbid diabetes and mental illness. It will also identify patterns of complexity to reveal common facilitating or mitigating factors in optimally caring these clients, both in the present and for better longer term outcomes.

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