Mental Health and Patients Living with Diabetic Foot Complications

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For clinicians working alongside patients with diabetes, recognizing the links to mental health is an important aspect of delivering holistic treatment and support.

Understanding mental health and diabetes is challenging, as clinicians need to differentiate diabetes distress (see below), which manifests as anxiety, guilt, denial and burnout, from other mental health disorders. In addition, it is not always possible to know what came first, the distress or the diabetes.

Depression is often undiagnosed and therefore undertreated—especially as a comorbidity of diabetes.[1] Depression is present in about 20% of adults with type 2 diabetes, while diabetes distress impacts 30%.[2]

In addition, persons living with diagnosed mental health/comorbid conditions, such as bipolar disorder, schizophrenia spectrum disorders, and personality traits/disorders, may be at greater risk for developing diabetes.[3] This bi-directional relationship between mental health and diabetes requires ongoing research.[4]

Patients with diabetes and psychiatric disorders have an increased risk of all causes of mortality.[5] It is therefore incumbent on those supporting patients with diabetes to screen and initiate care for mental health issues and diabetes distress.

The Link Between Persons with Diabetic Foot Ulcers and Mental Health Issues

Persons living with diabetes and diabetic foot ulcers (DFU) often experience fear of amputation.[6] This may result in psychological stress that in turn leads to poorer diabetes self-management and reduced quality of life.[7] As the disease progresses, patients often struggle to maintain well-being, and they may undergo a shifting self-image.[8] As well, they may experience social isolation, loss of

independence, sleep changes and emotions that include guilt, frustration and anger.[9] These small and insidious changes affect independence, leading over time to more "stressful days."[8]

Economic stressors may include changes in job status (from full-time work to part-time or disability leave, for example), unplanned early retirement, and changes in work roles such as moving to a job requiring less physical activity.[10] As a result of these factors, people with DFUs are at risk for depression, anxiety, fear and perpetual negative states that may contribute to negative ways-of-being in the long term.[11]

Clinicians who ignore the relationship between diabetes and mental health issues will be hampered in delivering evidence-based, holistic care to their patients with diabetes.

This resource highlights some of the psychological issues and formal psychiatric diagnoses patients living with diabetes and foot complications may experience. As well, it outlines some of the screening tools and communication approaches that can be used by clinicians to support the team and make appropriate referrals.

Psychological Issues and Psychiatric Diagnoses

Diabetes Distress

Diabetes distress is a broad term used to describe psychological states that can occur in patients living with diabetes.[4,12] The distress can include feelings of anger, fear, fatigue and frustration regarding one's self-care regimen and responsibilities. The day-to-day management of diabetes is complex, and the associated distress may be experienced by both the patient and care partner but be invisible to the health-care professional.[13] Robinson et al. (2018) described four domains of diabetes distress as including:[3]

- Emotional burden of living with diabetes
- Distress that comes from the diabetes self-management regimen
- Stress associated with social relationships
- Stress inherent in the patient–provider relationship

Literature supports the notion that diabetes distress causes adverse outcomes for patients with diabetes.[14]

Risk factors for developing diabetes distress include:

- Being younger
- Being female
- Having less formal education
- Living alone
- Having a higher body mass index (BMI)
- Having lower perceived self-efficacy
- Receiving a lower perceived level of provider support
- Having a poorer quality diet
- Believing the impact of glycemic excursions are greater than they are
- Having a greater number of diabetes complications[15]

Health Anxiety

Health anxiety occurs in 3–10% of the general population and may occur when a patient is faced with a new complication, a change in diagnosis or worries about an existing condition.[16] In time, health anxiety may interfere with normal functioning and engagement in life.[17]

Generalized anxiety disorder (GAD) occurs in 5% of individuals at some time in their life. It happens when an individual finds it difficult to control their worry over a period of months and as a result experiences fatigue, irritability, restlessness, difficulty concentrating, muscle tension and changes in sleep patterns.[18]

Specifically, persons living with diabetes and diabetic foot ulcers often experience fear of amputation.[6] These experiences may also result in psychological stress that leads to poorer diabetes self-management.[7]

Patients with health anxiety benefit from cognitive-behavioural therapy and counselling. Those with diagnosed generalized anxiety disorder benefit from counselling, cognitive re-evaluation, mindfulness and problem-solving training.[18]

Depressive Disorders

Depressive disorders may include major depressive disorder, persistent depressive disorder (dysthymia), substance/medication-induced depressive disorder, and depressive disorder due to another medical condition or disease.[19] Each disorder has specific criteria, and it is important that a qualified practitioner make the diagnosis.[19] Other psychiatric diagnoses such as anxiety disorder, bipolar disorder, schizophrenic spectrum disorder, eating disorders and substance use should also be considered.

For people living with diabetes, depression is two to three times higher than in the general population.[20] The clinical practice guidelines from Diabetes Canada (2018) list the following risk factors for developing depression in individuals with diabetes:[3]

- Female
- Adolescent/young adults and older adults
- Poverty
- Few social supports
- Stressful life events
- Poor glycemic control
- Higher illness burden
- Longer duration of diabetes
- Presence of long-term complications

What can clinicians do?

Clinicians need to treat the whole individual, not just address the glucose management, ulcer or foot complication. Assessing psychological status can easily be overlooked while managing the complexities of infection, wound dressings, intravenous therapy/medications, nutritional care, offloading and ensuring effective communication within the integrated team.

In clinical settings, patients living with diabetes and foot complications should be screened for diabetes distress, depressive symptoms and anxiety using validated tools to help identify the impact of wounds on the patient's life and their coping mechanisms to improve their daily experience.[9] The goal is to find solutions that work for the individual before depression and stress spiral out of control. Clinicians should follow the steps below to provide mental health support to their patients with diabetes:

- Conduct screening.
- Communicate effectively.
- Recommend support programs.
- Initiate pharmacological management.
- Provide referrals.

1. CONDUCT SCREENING

Reflect on the following:

- What screening do you conduct in your present practice to assess the mental health of your patients living with diabetes and those living with foot complications?
- Audit your current clinical practice.
  - What issues and disorders do you currently screen for?
  - If you do screen, what happens with the results?
  - To whom do you refer patients?
- Think about next steps.
- What could you do to improve your practice?
- If you want to introduce a screening tool into your practice/clinic, what team members would you involve?

Assessment Tools for Diabetes Distress

Screening for depression and diabetes distress with a validated tool is recommended as part of the clinical interview process.[3] Assessment tools are available to screen for depression and diabetes distress (e.g., Problem Areas in Diabetes Scale, Diabetes Distress Scale; see Table 1).[13,21] Once the assessment is completed, responses to questions can be used to open conversations with the patient and/or care partner.

2. COMMUNICATE EFFECTIVELY

Use motivational interviewing to enhance communication. Motivational interviewing is a method that adds structure and purpose to communication with patients and families. In motivational interviewing, "you know where you want to go, you are not just following" along.[4]

For a deeper look into motivational interviewing, readers are encouraged to investigate the OARS model, a skill-based approach that guides clinicians. Steinberg and Miller (2015)

Table 1: Screening and Assessment Tools (examples only; list not comprehensive)

Anxiety	• Hamilton Anxiety Rating Scale • Generalized Anxiety Disorder 7-item scale • Beck Anxiety Scale

Diabetes Distress for Patients	• Problem Areas in Diabetes Scale (PAID)[22]
	• The Diabetes Distress Screening Scales
	  • Persons with Type 2 Diabetes Mellitus
	  • Persons with Type 1 Diabetes Mellitus
	  • French version
	  • Parents of Teens with Type 1 Diabetes

Diabetes Distress for Partners	• Diabetes Distress Scale for Partners of Adults with Type 1 Diabetes • French version
Depression	• Patient Health Questionnaire (PHQ-9) • Depression (Adults) (2-item Depression Screening Questionnaire) • Centre for Epidemiologic Studies Depression Scale (CESD-R) • Hospital Anxiety and Depression Scale (HADS)

Note: This list is not inclusive.

review the tenets of the mnemonic acronym **OARS** when working with patients with diabetes and related complications:[4]

- Asking **O**pen-ended questions
- Using **A**ffirmations
- **R**eflecting or active listening
- **S**ummarizing

3. RECOMMEND SUPPORT PROGRAMS

Provide referrals for well-being interventions to support optimism, positivity and improved health outcomes. Refer patients to programs that improve their lifestyle, enhance exercise and walking programs and provide positive reinforcement for their beneficial choices. The following are some areas to explore together:

Mindfulness

Mindfulness classes, guides and virtual (online) supports may be of benefit to patients and their families. Mindfulness has been shown to have an impact on a number of issues relating to diabetes.[21–23] Some of the recognized benefits include reduction of or improvement in comorbid conditions such as anxiety and depression as well as in lowering risk of addiction or abuse. The following guides from Diabetes UK may be of interest to patients:

- Mindfulness and Hypoglycemia
- Mindfulness, Blood Glucose Levels and Blood Pressure
- Mindfulness and Sleep
- Mindfulness and Back Pain

Tip:

Fisher, in a recent interview, suggested the following for clinicians using the Diabetes Distress Scale:

"Give all patients the scale at each visit. Even if they don't meet the pre-defined criteria for Diabetes Distress, the items in the scale can be a jumping-off point for beginning a brief conversation about how they are feeling about things. Often the patient will rate one or two items very highly, and that can become the beginning of a conversation. Again, it's asking very simple questions, like 'I noticed you indicated frustration about _____ [item or topic]. What might be going on?"[15]

Stress Management

The impact of diabetes as a chronic disease with long-term and complex complications on an individual's work, home, leisure and social life is a reality and can be significant. Coping mechanisms, including the implementation of stress management strategies, are important immediately upon diagnosis.[7] Not only do these provide the patient with tools to manage their mental health, but discussions about stressors and factors that contribute to stress build trust between the care provider and the patient.[24]

Life Management

For a person with diabetes to self-manage effectively over their lifetime, they need support with decision making in a number of areas, including nutrition, exercise and weight management.[3] Along with their care partners, the patient and clinician need to work together to identify challenges and to determine goals that are reasonable, specific, measurable, achievable and realistic. As the patient puts solutions into play, those solutions should be evaluated and discussed. Successes should be celebrated and challenges revisited with alternative solutions if necessary.

Spiritual Care

Spiritual care is a term for a range of activities that can support an individual's spiritual health

and wellness. Spirituality is "whatever or whoever gives ultimate meaning and purpose in one's life that invites particular ways of being in the world in relation to others, oneself, and the universe."[25]

Spiritual care can relieve stress and allow the individual to feel inner peace, hope and optimism when negative health issues occur. It may assist the patient in feeling more engaged when making care decisions.[26] In two recent studies, spiritual health, hope and religious connectedness were identified as important elements of maintaining personal health when living with foot ulcers.[27-28] Activities that create a space of peacefulness include prayer, faith-based activities and communication with spiritual leaders.

Peer Support Groups/Programs

Clinicians can help their patients find organizations and support groups/programs to help them reinforce positive self-management behaviours and decision-making. Wounds Canada's Diabetes, Healthy Feet and You is one such program. This patient-driven self-management program focuses on assisting individuals with diabetes to identify the risks factors of diabetic foot ulcers, understand the impact of diabetes on foot health, learn appropriate foot self-care techniques, interact with peers, navigate their health-care system, share and give support, find the links to available community resources and make a commitment to change behaviour.[29] In 2013, Woodbury et al. investigated the role of peer co-facilitators in programs for patients living with diabetic foot complications. It was believed that involvement of peer leaders in the program provided social modelling and support to the participants.[30-31] The peer leaders facilitating the program shared their experiences of living with diabetes and preventing DFUs, thus motivating the participants to change their foot self-care behaviour.

Virtual Health Communities

There is a growing role for the use of social media/online communities that support the mental well-being of patients living with diabetes and diabetes-related complications. Young (2013) defined online communities as groups of people

with shared interests who form relationships and interact online.[32] Participants may be motivated to learn from other community members who have similar lived experiences, encouraging strong relationships and providing emotional support.

4. INITIATE PHARMACOLOGICAL MANAGEMENT

Medication options are available for specific symptoms and psychiatric diagnoses. It is important to keep in mind that some drugs may have an effect on metabolic parameters such as weight, lipid profile and glycemic control. Drug interactions, too, need to be considered when patients with diabetes take multiple medications.

A comprehensive review of the effect of antidepressants on weight was done in 2010.[33] Prescribers should be aware of which drugs are more likely to cause weight gain. Examples of some psychiatric drugs that fall into the high-risk category for weight gain are mirtazapine, quetiapine, risperidone, valproate and nortriptyline. More weight-neutral medications include citalopram, escitalopram and fluoxetine.[3] Patients requiring medication using antidepressants or antipsychotics should have metabolic parameters monitored.

5. PROVIDE REFERRALS

Effective referrals are possible when resources and health-care professionals are available to support patients with diabetes. Clinicians should gather a list of resources available in their region or virtually. These include expert health-care professionals, community programs, disease self-management programs and other online resources as appropriate. If the resources are virtual, provide a quiet space where a patient can count on confidentiality when receiving care. As well, if finances are a challenge, refer the patient to a social worker or other appropriate professional.

Summary

People with diabetes are at risk of experiencing mental health challenges. Strong relationships exist between certain mental health conditions as risk factors for the development of diabetic foot complications, including ulcerations, delayed wound healing and higher recurrence of foot ulcers. Frontline clinicians treating patients with diabetes need to be mindful of the associations and incorporate mitigation strategies into any plan of care. This approach must be based on early screening, strong communication with the patient and care team, the use of support programs, medication as appropriate and timely referrals.

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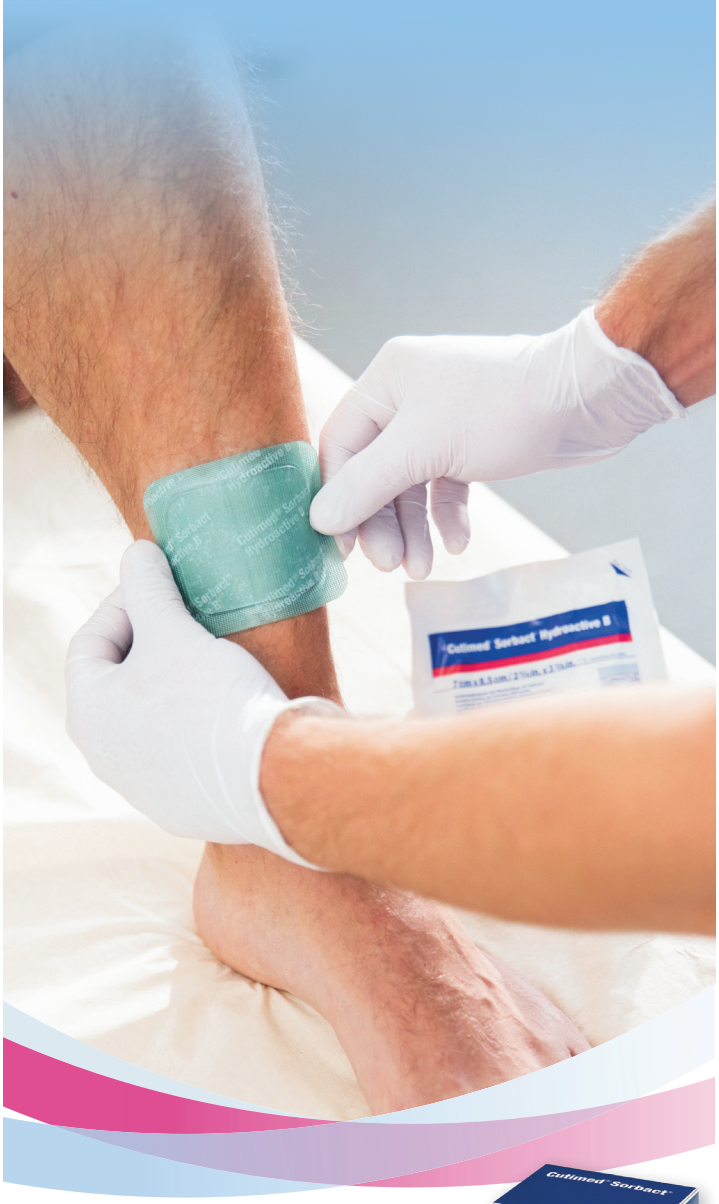

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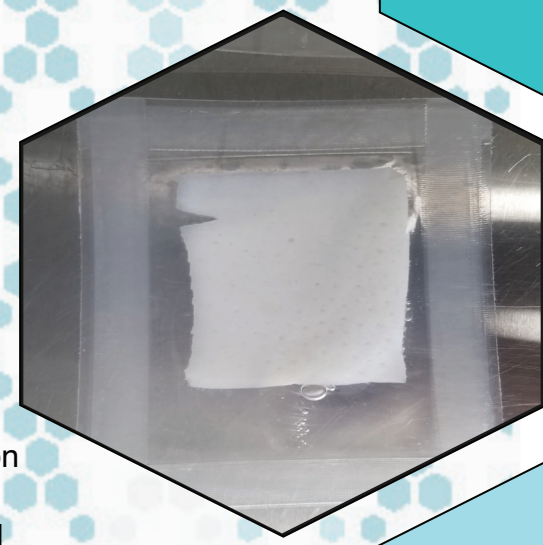

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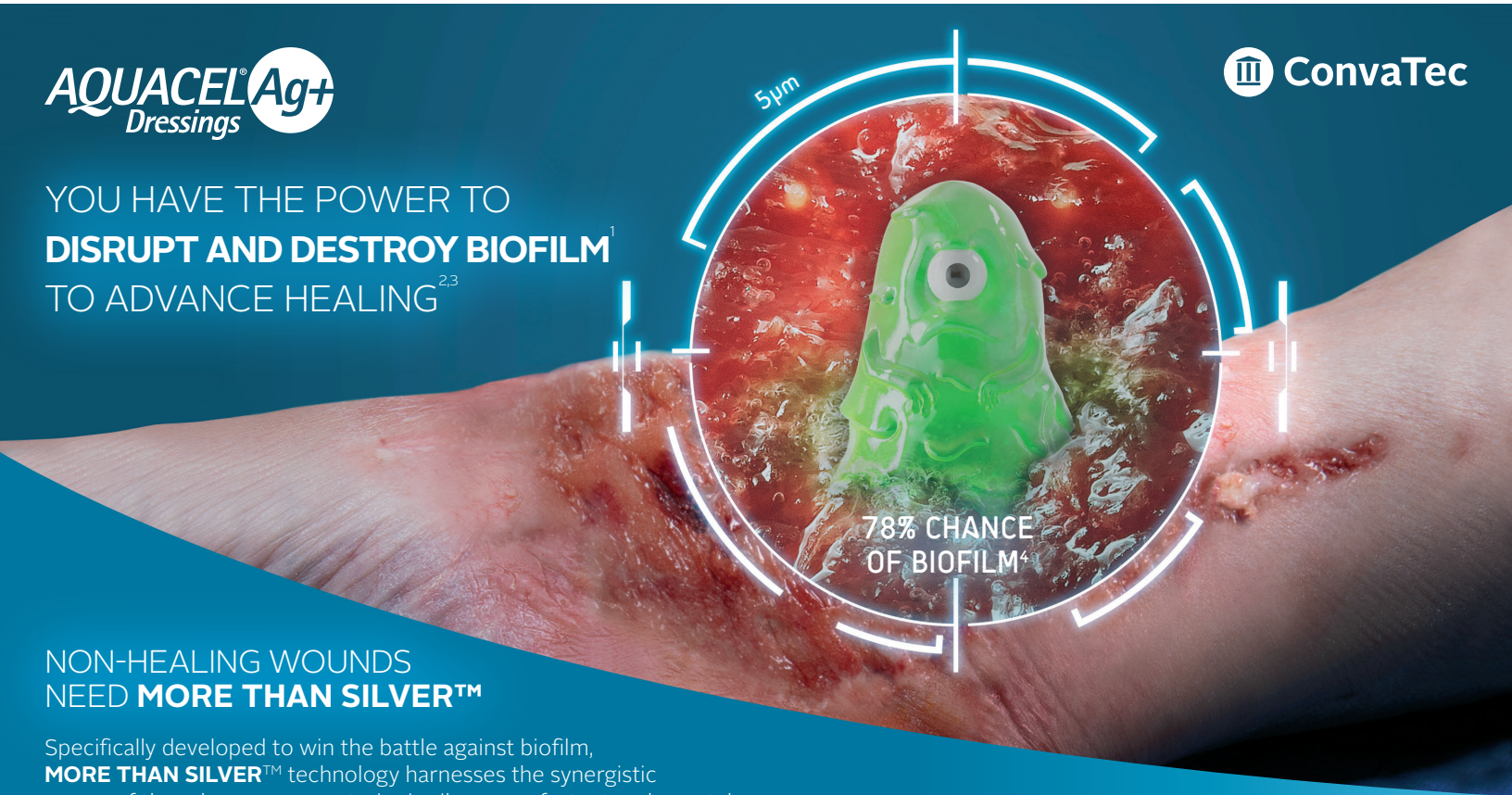

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